



The Global Language of Business

# GDSN Trade Item Module Library Business Message Standard

*Release 3.1.9.Issue 1.4.6, Apr 2019*

---

## Document Summary

| Document Item    | Current Value                                            |
|------------------|----------------------------------------------------------|
| Document Name    | GDSN Trade Item Module Library Business Message Standard |
| Document Date    | Apr 2019                                                 |
| Document Version | 3.1.9                                                    |
| Document Issue   | Issue 1.4.6                                              |
| Document Status  | Issue                                                    |

## Contributors

| Name                                               | Organisation                       |
|----------------------------------------------------|------------------------------------|
| Justin Childs (GSMP Process Lead)                  | GS1                                |
| Eric Kauz/Mark Van Eeghem (Standards Content Lead) | GS1                                |
| Ewa Iwicka (Technical Development Lead)            | GS1                                |
| Arseneau Craig                                     | Commport Communications Int'l Inc. |
| Atkins Mickey                                      | Ahold (USA)                        |
| Ausili Andrea                                      | GS1 Italy                          |
| Bellosta Carreras Santiago                         | EDICOM                             |
| Biffi Giovanni                                     | GS1 Colombia                       |
| Bohning Joseph                                     | Nestle Purina PetCare              |
| Brown Scott                                        | GS1 US                             |
| Cashman Stacy                                      | Johnson & Johnson                  |
| Colglazier Scott                                   | Procter & Gamble Co.               |
| Davies Tracey                                      | GXS (UK)                           |
| Depke Braden                                       | Abbott Laboratories Inc.           |
| Doering JoAnne                                     | Abbott Laboratories Inc.           |
| Feuerstein Véra                                    | Nestle                             |
| Fortier Mitch                                      | GS1 Australia                      |
| Fremont Frederique                                 | C.H.I Robert Ballanger             |
| Garbett Alasdair                                   | WDFG UK LTD                        |
| Gathmann Stefan                                    | GS1 Ireland                        |
| Ginsburg Eric                                      | HJ Heinz                           |
| Gray Neil                                          | GS1 UK                             |
| Gupta Sudu                                         | ITradeNetwork.com, Inc.            |
| Gyuris János                                       | GS1 Hungary                        |
| Hoffman Rob                                        | Hershey Company (The)              |
| Ichihara Hideki                                    | GS1 Japan                          |
| Jaworski Jan                                       | Wilton Industries, Inc.            |
| Jesus Ed                                           | Chep                               |
| Jönsson Peter                                      | GS1 Sweden                         |
| Kaerner Juliane                                    | GS1 Germany                        |

| Name                   | Organisation                                              |
|------------------------|-----------------------------------------------------------|
| Kasper Sascha          | 1WorldSync Holdings, Inc.                                 |
| Kernan Brendan         | GS1 Ireland                                               |
| Kidd Robin             | Nestle                                                    |
| Koch Phyllis           | The Schwan Food Company                                   |
| Kolb Werner            | Unilever N.V.                                             |
| Kolwane Leppie         | GS1 South Africa / Consumer Goods Council of South Africa |
| Lai Kristel            | GS1 Canada                                                |
| Laskero Nancy          | Sears, Roebuck and Co.                                    |
| Laur Rita              | GS1 Canada                                                |
| Lavik Jason            | Target Corporation                                        |
| Laxdal Jason           | GS1 Canada                                                |
| Leblond Jean-Luc       | GS1 France                                                |
| Lekwana Pedro          | GS1 South Africa / Consumer Goods Council of South Africa |
| Little Pebbles         | Charlotte Pipe and Foundry Company                        |
| Massimino Damián       | Eway S.A.                                                 |
| Middleton Justin       | GS1 Australia                                             |
| Mittersteiner Federico | GS1 Italy                                                 |
| Naal Doug              | Kraft Foods, Inc.                                         |
| Nunez Katrin           | Summa Technology Group                                    |
| Nye Christine          | Hershey Company (The)                                     |
| Olsson Staffan         | GS1 Sweden                                                |
| ONEILL Ted             | ITradeNetwork.com, Inc.                                   |
| Ovuc Selcuk            | 1WorldSync Holdings, Inc.                                 |
| Pelekies Andreas       | GS1 Germany                                               |
| Pujol Xavier           | GS1 Spain                                                 |
| Radomski Nadine        | Dean Foods Company                                        |
| Reichen Thanh          | GS1 Switzerland                                           |
| Reissmann Hajo         | Universitaetsklinikum Schleswig-Holstein                  |
| Richard Ryan           | Mondelez International, Inc.                              |
| Robba Steven           | 1WorldSync Holdings, Inc.                                 |
| Rubio Alegren Sylvia   | ICA AB                                                    |
| Santonja Francisco     | EDICOM                                                    |
| Sato Craig             | ITradeNetwork.com, Inc.                                   |
| Savatic Nada           | Abbott Laboratories Inc.                                  |
| Schins Armand          | Ahold (Europe)                                            |
| Schmidt Tom Eric       | August Storck KG                                          |
| Schneck Joy            | General Mills, Inc.                                       |
| Schneider Christian    | GS1 Switzerland                                           |
| Segovic Damir          | GS1 Croatia                                               |
| Siow Andy              | GS1 Singapore                                             |
| Sobrino Gabriel        | GS1 Netherlands                                           |
| Soegaard Erik          | GS1 Denmark                                               |

| Name              | Organisation                  |
|-------------------|-------------------------------|
| Stafeev Maxim     | SKB Kontur                    |
| Stewart Jo Anna   | GXS (US)                      |
| Strouse Owen      | FSE, Inc.                     |
| Tan Milton        | GS1 Malaysia                  |
| Thomsen Tanja     | GS1 Germany                   |
| Tomassi Gina      | PepsiCo, Inc.                 |
| Tyson Betty       | Knouse Foods Cooperative, Inc |
| Utkovic Mirna     | GS1 Australia                 |
| Vatai Krisztina   | GS1 Hungary                   |
| Wang Hua          | GS1 China                     |
| Welch Shan        | GS1 UK                        |
| Werthwine Thomas  | Johnson & Johnson             |
| Wiggins Audrey    | Wal-Mart Stores, Inc.         |
| Wijnker Stephan   | GS1 Australia                 |
| Windsperger Bekki | Best Buy Co., Inc.            |
| Wissel Maureen    | Best Buy Co., Inc.            |
| Zhang Tony        | FSE, Inc.                     |

## Log of Changes

| Release | Date of Change | Changed By      | Summary of Change                     |
|---------|----------------|-----------------|---------------------------------------|
| 1.0.4   | 30 Jun 2013    | Eric Kauz       | Comment Resolution                    |
| 1.0.4   | 30 Aug 2013    | Eric Kauz       | eBallot/Errata                        |
| 1.0.5   | 20 Jan 2013    | Eric Kauz       | eBallot/Errata                        |
| 1.0.6   | 20 Aug 2014    | Eric Kauz       | Round 3 Changes                       |
| 1.0.8   | 20 Nov 2014    | Eric Kauz       | Round 3 Changes                       |
| 1.0.9   | 20 Aug 2015    | Eric Kauz       | Errata                                |
| 1.1.0   | 05 Oct 2015    | Eric Kauz       | December 2015 ECL                     |
| 1.1.1   | 15 Feb 2015    | Eric Kauz       | Maintenance Release                   |
| 1.1.3   | 23 Aug 2016    | Eric Kauz       | Minor Errata (see change summary)     |
| 1.1.4   | 04 Jan 2017    | Eric Kauz       | LCL Release                           |
| 1.1.5   | 12 Jan 2017    | Eric Kauz       | 3.1.3 Release                         |
| 1.1.7   | 12 July 2017   | Eric Kauz       | 3.1.4 Release                         |
| 1.1.8   | 05 Sept 2017   | Eric Kauz       | Community Review (see change summary) |
| 1.1.11  | 06 Mar 2018    | Eric Kauz       | 3.1.6 Eballot                         |
| 1.1.12  | 07 Mar 2018    | Eric Kauz       | 3.1.7                                 |
| 1.1.14  | 20 Jul 2018    | Eric Kauz       | 3.1.7                                 |
| 1.2     | 25 Jul 2018    | Eric Kauz       | 3.1.8                                 |
| 1.3     | 24 Oct 2018    | Eric Kauz       | 3.1.8 Community Review                |
| 1.3.1   | 26 Nov 2018    | Eric Kauz       | 3.1.8 eBallot.                        |
| 1.4.0   | 6 Feb 2019     | Mark Van Eeghem | 3.1.9                                 |



| Release | Date of Change | Changed By      | Summary of Change      |
|---------|----------------|-----------------|------------------------|
| 1.4.1   | 8-Mar-2019     | Mark Van Eeghem | 3.1.9 Community Review |
| 1.4.2   | 12-Mar-2019    | Mark Van Eeghem | 3.1.9 Community Review |
| 1.4.3   | 29-Mar-2019    | Mark Van Eeghem | XML Developer Comments |
| 1.4.4   | 4-Apr-2019     | Mark Van Eeghem | eBallot Comments       |
| 1.4.6   | 11-Apr-2019    | Mark Van Eeghem | eBallot Comments       |

## Disclaimer

GS1®, under its IP Policy, seeks to avoid uncertainty regarding intellectual property claims by requiring the participants in the Work Group that developed this **GDSN Trade Item Module Library Business Message Standard** to agree to grant to GS1 members a royalty-free licence or a RAND licence to Necessary Claims, as that term is defined in the GS1 IP Policy. Furthermore, attention is drawn to the possibility that an implementation of one or more features of this Specification may be the subject of a patent or other intellectual property right that does not involve a Necessary Claim. Any such patent or other intellectual property right is not subject to the licencing obligations of GS1. Moreover, the agreement to grant licences provided under the GS1 IP Policy does not include IP rights and any claims of third parties who were not participants in the Work Group.

Accordingly, GS1 recommends that any organization developing an implementation designed to be in conformance with this Specification should determine whether there are any patents that may encompass a specific implementation that the organisation is developing in compliance with the Specification and whether a licence under a patent or other intellectual property right is needed. Such a determination of a need for licencing should be made in view of the details of the specific system designed by the organisation in consultation with their own patent counsel.

THIS DOCUMENT IS PROVIDED "AS IS" WITH NO WARRANTIES WHATSOEVER, INCLUDING ANY WARRANTY OF MERCHANTABILITY, NONINFRINGEMENT, FITNESS FOR PARTICULAR PURPOSE, OR ANY WARRANTY OTHERWISE ARISING OUT OF THIS SPECIFICATION. GS1 disclaims all liability for any damages arising from use or misuse of this Standard, whether special, indirect, consequential, or compensatory damages, and including liability for infringement of any intellectual property rights, relating to use of information in or reliance upon this document.

GS1 retains the right to make changes to this document at any time, without notice. GS1 makes no warranty for the use of this document and assumes no responsibility for any errors which may appear in the document, nor does it make a commitment to update the information contained herein.

GS1 and the GS1 logo are registered trademarks of GS1 AISBL.

# Table of Contents

|          |                                                |           |
|----------|------------------------------------------------|-----------|
| <b>1</b> | <b>Business Domain View .....</b>              | <b>10</b> |
| 1.1      | Objective .....                                | 10        |
| 1.2      | Audience .....                                 | 10        |
| 1.3      | References .....                               | 10        |
| 1.4      | Document Conventions .....                     | 10        |
| <b>2</b> | <b>Business Context .....</b>                  | <b>10</b> |
| <b>3</b> | <b>GDSN Common .....</b>                       | <b>11</b> |
| 3.1      | Enumeration .....                              | 11        |
| 3.2      | Code .....                                     | 12        |
| 3.3      | Compound Data Type .....                       | 13        |
| 3.3.1    | Formatted Description .....                    | 14        |
| 3.3.1    | Language Optional Description .....            | 15        |
| 3.4      | Additional Trade Item Dimensions .....         | 15        |
| 3.5      | Additive Information .....                     | 17        |
| 3.6      | Aspect Ratio Information .....                 | 17        |
| 3.7      | Catalogue Item Reference .....                 | 18        |
| 3.8      | Certification Information .....                | 19        |
| 3.9      | Country .....                                  | 21        |
| 3.10     | External Code Value Information .....          | 22        |
| 3.11     | Farming and Processing Information .....       | 23        |
| 3.12     | GS1 Attribute Value Pair List .....            | 24        |
| 3.13     | GDSN Trade Item Classification Attribute ..... | 27        |
| 3.14     | Hazardous Information Header .....             | 28        |
| 3.15     | Incoterm Information .....                     | 33        |
| 3.16     | Organic Information .....                      | 34        |
| 3.17     | Nonpackaged Size Dimension .....               | 36        |
| 3.18     | Party In Role .....                            | 37        |
| 3.19     | Place Of Product Activity .....                | 38        |
| 3.20     | Referenced File Information .....              | 40        |
| 3.21     | Registration Information .....                 | 42        |
| 3.22     | Structured Address .....                       | 43        |
| 3.23     | Trade Item Material .....                      | 44        |
| <b>4</b> | <b>Core Item .....</b>                         | <b>46</b> |
| 4.1      | Trade Item .....                               | 46        |
| 4.2      | GDSN Trade Item Classification .....           | 55        |
| 4.3      | Referenced Trade Item .....                    | 58        |
| 4.4      | Trade Item Contact Information .....           | 59        |
| 4.5      | Trade Item Synchronisation Dates .....         | 61        |
| <b>5</b> | <b>Trade Item Modules .....</b>                | <b>63</b> |
| 5.1      | Alcohol Information Module .....               | 63        |
| 5.2      | Allergen Information Module .....              | 65        |
| 5.3      | Animal Feeding Module .....                    | 67        |
| 5.4      | Apparel Information Module .....               | 71        |
| 5.5      | Audience Or Player Information Module .....    | 74        |

|      |                                                                |     |
|------|----------------------------------------------------------------|-----|
| 5.6  | Audio Visual Media Content Information Module.....             | 76  |
| 5.7  | Audio Visual Media Product Description Information Module..... | 80  |
| 5.8  | Audio Visual Media Production Information Module .....         | 83  |
| 5.9  | Award Prize Module .....                                       | 85  |
| 5.10 | Battery Information Module .....                               | 87  |
| 5.11 | Certification Information Module.....                          | 89  |
| 5.12 | Chemical Regulation Information Module .....                   | 91  |
| 5.13 | Child Nutrition Information Module.....                        | 95  |
| 5.14 | Consumer Instructions Module .....                             | 97  |
| 5.15 | Controlled Substances Module.....                              | 99  |
| 5.16 | Copyright Information Module .....                             | 101 |
| 5.17 | Dairy Fish Meat Poultry Item Module .....                      | 103 |
| 5.18 | Dangerous Substance Information Module .....                   | 108 |
| 5.19 | Delivery Purchasing Information Module .....                   | 112 |
| 5.20 | Diet Information Module.....                                   | 117 |
| 5.21 | Durable Goods Characteristics Module .....                     | 119 |
| 5.22 | Duty Fee Tax Information Module .....                          | 121 |
| 5.23 | Electronic Device Characteristics Information Module.....      | 124 |
| 5.24 | Farming And Processing Information Module .....                | 131 |
| 5.25 | Food And Beverage Ingredient Module .....                      | 133 |
| 5.26 | Food and Beverage Preparation Serving Module.....              | 136 |
| 5.27 | Food and Beverage Properties Information Module .....          | 140 |
| 5.28 | Health Related Information Module .....                        | 144 |
| 5.29 | Health Wellness Packaging Marking Module.....                  | 146 |
| 5.30 | Healthcare Item Information Module .....                       | 148 |
| 5.31 | Lighting Device Module .....                                   | 152 |
| 5.32 | Marketing Information Module.....                              | 155 |
| 5.33 | Medical Device Trade Item Module .....                         | 161 |
| 5.34 | Movie Revenue Information Module.....                          | 165 |
| 5.35 | Nonfood Ingredient Module .....                                | 167 |
| 5.36 | NonGTIN Logistics Unit Information Module.....                 | 170 |
| 5.37 | Nutritional Information Module .....                           | 172 |
| 5.38 | ONIX Publication File Information Module.....                  | 177 |
| 5.39 | Optics Device Information Module.....                          | 199 |
| 5.40 | Organism Classification Module .....                           | 201 |
| 5.41 | Packaging Information Module .....                             | 203 |
| 5.42 | Packaging Marking Module.....                                  | 215 |
| 5.43 | Packaging Sustainability Module .....                          | 220 |
| 5.44 | Pharmaceutical Item Information Module.....                    | 239 |
| 5.45 | Physical Resource Usage Information Module .....               | 241 |
| 5.46 | Place of Item Activity Module .....                            | 244 |
| 5.47 | Plumbing HVAC Pipe Information Module .....                    | 246 |
| 5.48 | Product Characteristics Module.....                            | 249 |
| 5.49 | Product Formulation Statement Module .....                     | 251 |
| 5.50 | Promotional Item Information Module .....                      | 256 |
| 5.51 | Propellant Information Module.....                             | 258 |
| 5.52 | Publication Title Rating Module .....                          | 259 |
| 5.53 | Referenced File Detail Information Module .....                | 261 |
| 5.54 | Regulated Trade Item Module .....                              | 267 |
| 5.55 | Safety Data Sheet Module .....                                 | 270 |

|          |                                                                     |            |
|----------|---------------------------------------------------------------------|------------|
| 5.56     | Sales Information Module .....                                      | 289        |
| 5.57     | Security Tag Information Module .....                               | 297        |
| 5.58     | Software System Requirements Module .....                           | 299        |
| 5.59     | Sustainability Module .....                                         | 301        |
| 5.60     | Textile Material Module .....                                       | 304        |
| 5.61     | Trade Item Data Carrier And Identification Module .....             | 306        |
| 5.62     | Trade Item Description Module.....                                  | 309        |
| 5.63     | Trade Item Disposal Information Module.....                         | 314        |
| 5.64     | Trade Item Handling Module .....                                    | 317        |
| 5.65     | Trade Item Hierarchy Module .....                                   | 319        |
| 5.66     | Trade Item Humidity Information Module.....                         | 321        |
| 5.67     | Trade Item Licensing Module.....                                    | 323        |
| 5.68     | Trade Item Lifespan Module .....                                    | 325        |
| 5.69     | Trade Item Measurements Module .....                                | 327        |
| 5.70     | Trade Item Size Module.....                                         | 333        |
| 5.71     | Trade Item Temperature Information Module .....                     | 334        |
| 5.72     | Transportation Hazardous Classification Module .....                | 337        |
| 5.73     | Variable Trade Item Information Module.....                         | 340        |
| 5.74     | Video Display Device Information Module.....                        | 342        |
| 5.75     | Warranty Information Module.....                                    | 347        |
| <b>6</b> | <b>Codes .....</b>                                                  | <b>349</b> |
| 6.1      | GS1 Managed Codes .....                                             | 349        |
| 6.2      | Attributes with Code Lists Not Specified in Models.....             | 349        |
| <b>7</b> | <b>Implementation Considerations .....</b>                          | <b>350</b> |
| 7.1      | Attribute Variations.....                                           | 350        |
| 7.2      | Measurement Rules (Music and Film Publishing Industries).....       | 382        |
| 7.3      | GTIN Allocation Rules for Ingredient and Allergen Information ..... | 383        |
| <b>8</b> | <b>Appendices .....</b>                                             | <b>385</b> |
| 8.1      | Understanding Data Type Class Diagrams .....                        | 385        |
| <b>9</b> | <b>Summary of Changes .....</b>                                     | <b>386</b> |

## 1 Business Domain View

### 1.1 Objective

To populate the GS1 Global Registry and report to data pools and their registered trading partners up to date data source party information.

### 1.2 Audience

The audience of this standard is any participant in the global supply chain. This includes retailers, manufacturers, service providers and other third parties.

### 1.3 References

| Reference Name         | Description |
|------------------------|-------------|
| BRAD For Major Release |             |

### 1.4 Document Conventions

Wherever in this document text is marked in red, it means this is a change compared to the previous version of the GDSN Release.

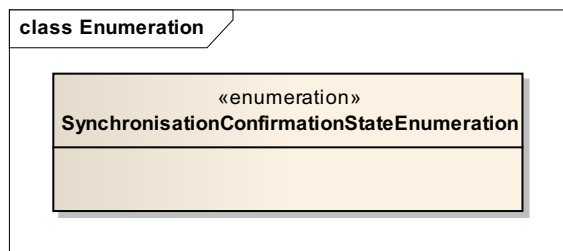
Wherever in this document text is marked in green, it means this is a document only change compared to as previous version of the document, but not impacting the GDSN Release.

## 2 Business Context

| Context Category     | Value(s)                       |
|----------------------|--------------------------------|
| Industry             | All                            |
| Geopolitical         | All                            |
| Product              | All                            |
| Process              | Distribute Product Information |
| System Capabilities  | GDSN                           |
| Official Constraints | None                           |

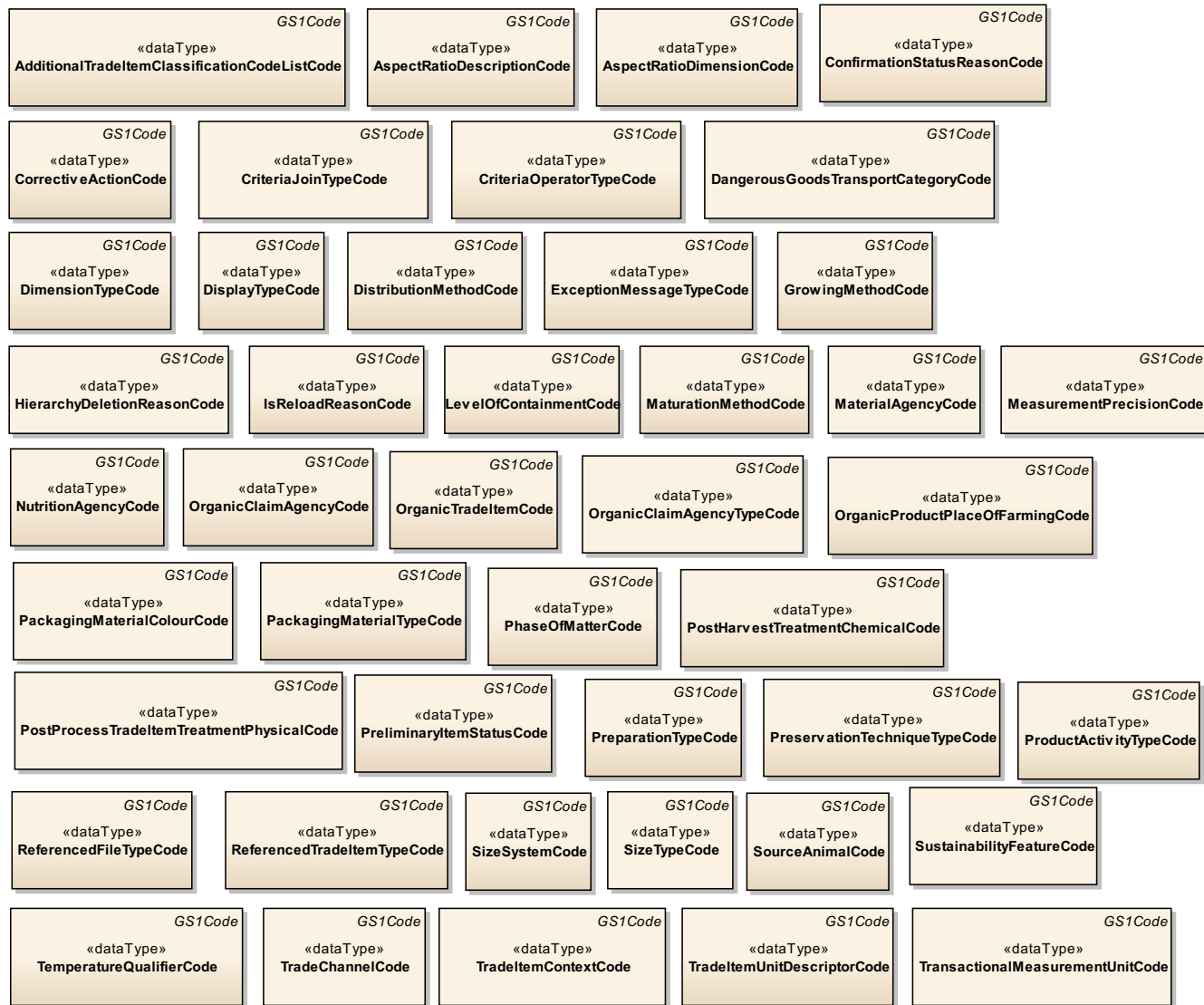
## 3 GDSN Common

### 3.1 Enumeration



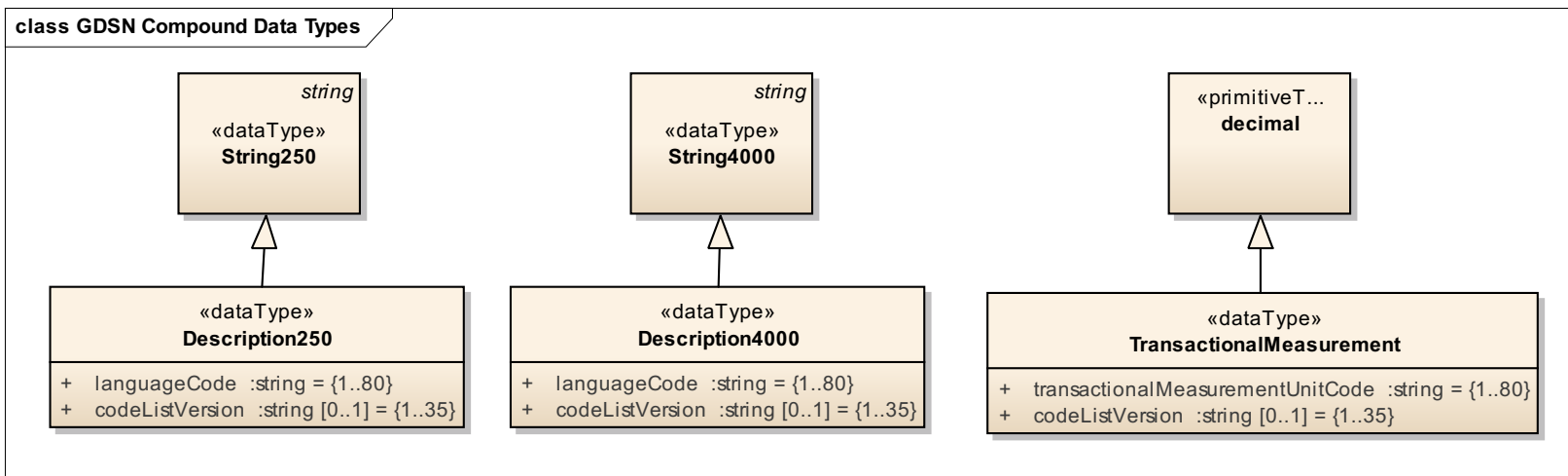
## 3.2 Code

class GDSN Common Codes

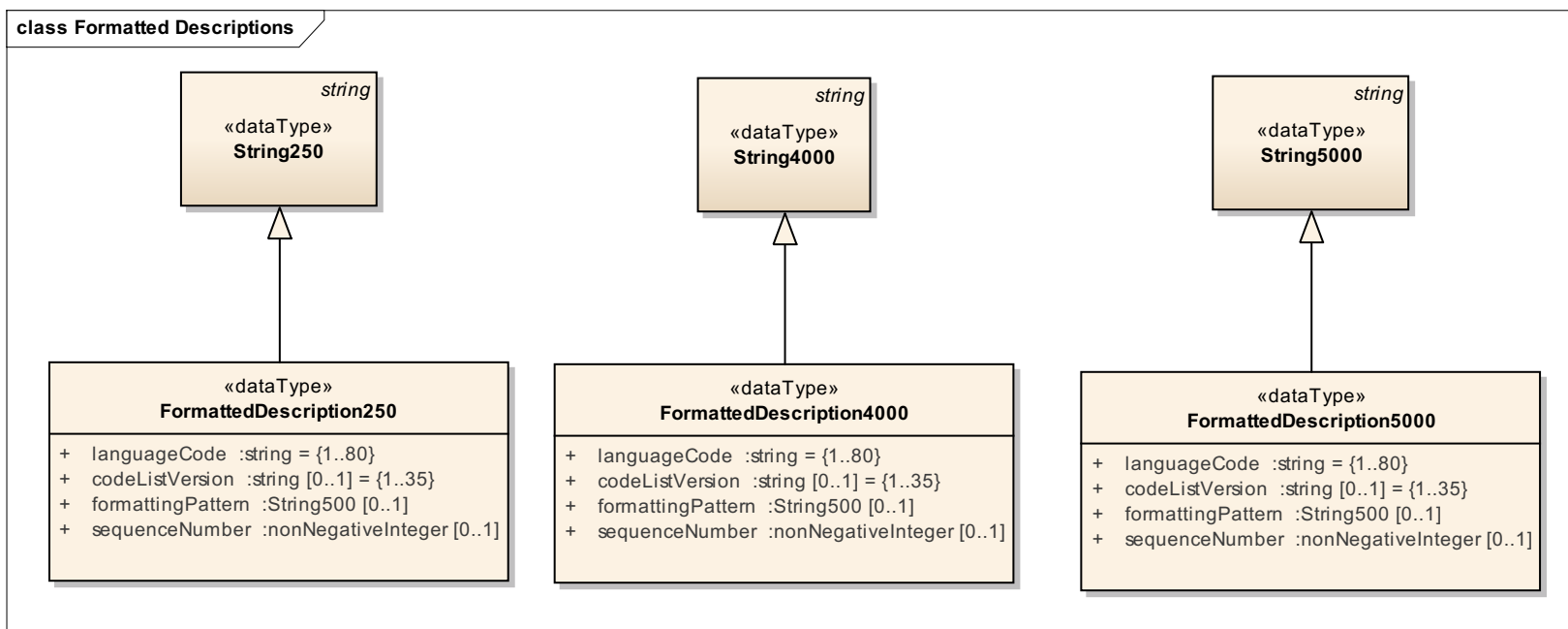




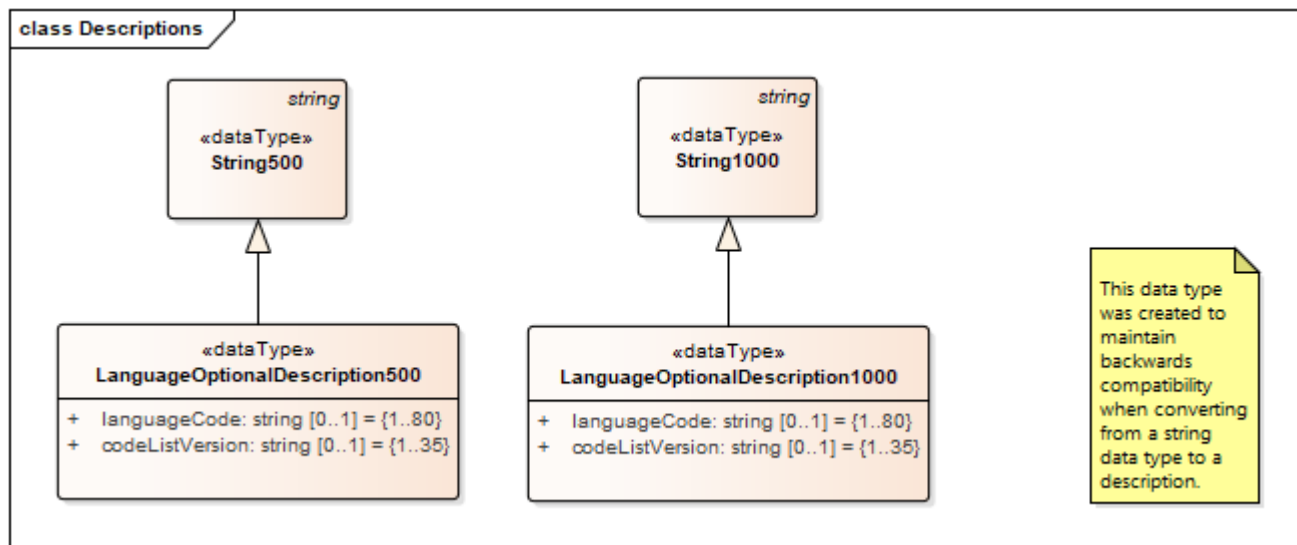
### 3.3 Compound Data Type



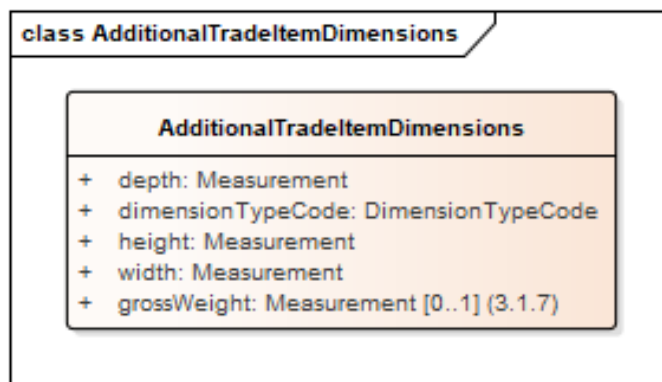
### 3.3.1 Formatted Description



### 3.3.1 Language Optional Description

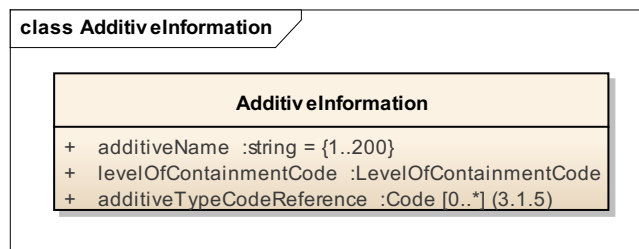


### 3.4 Additional Trade Item Dimensions



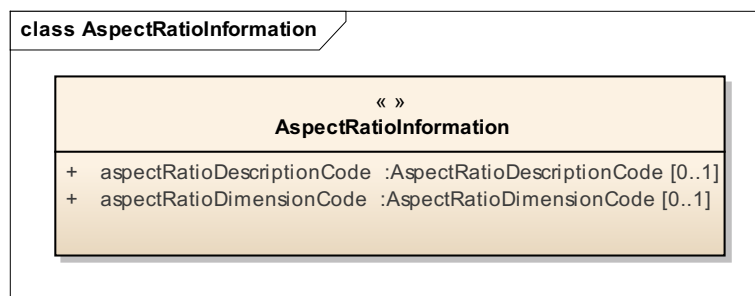
| content                       | attribute / role  | datatype /secondary class | multipl<br>city | definition                                                                                                                                                                                |
|-------------------------------|-------------------|---------------------------|-----------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| AdditionalTradeItemDimensions |                   |                           |                 | The dimensions (depth, height, width) for a trade item in a variety of conditions (in box, out of box, etc.).                                                                             |
| Attribute                     | depth             | Measurement               | 1..1            | The depth of the unit load, as measured according to the GDSN Package Measurement Rules, including the shipping platform unless it is excluded according to the Pallet Type Code chosen.  |
| Attribute                     | dimensionTypeCode | DimensionType Code        | 1..1            | Depicts certain measurement scenarios (e.g. Retail Display, Out of package) used for measurement.                                                                                         |
| Attribute                     | grossWeight       | Measurement               | 0..1            | Used to identify the gross weight of the trade item. The gross weight includes all packaging materials of the trade item. Has to be associated with a valid UOM.                          |
| Attribute                     | height            | Measurement               | 1..1            | The height of the unit load, as measured according to the GDSN Package Measurement Rules, including the shipping platform unless it is excluded according to the Pallet Type Code chosen. |
| Attribute                     | width             | Measurement               | 1..1            | The width of the unit load, as measured according to the GDSN Package Measurement Rules, including the shipping platform unless it is excluded according to the Pallet Type Code chosen.  |

### 3.5 Additive Information



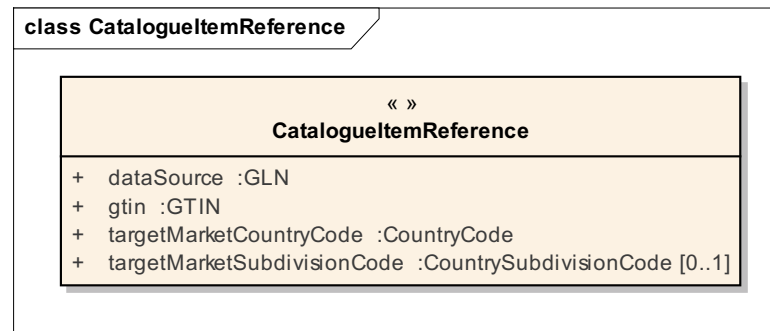
| Content             | Attribute / Role          | Datatype /Secondary class | Multiplicity | Definition                                                                                            |
|---------------------|---------------------------|---------------------------|--------------|-------------------------------------------------------------------------------------------------------|
| AdditiveInformation |                           |                           |              | Information on presence or absence of additives or genetic modifications contained in the trade item. |
| Attribute           | additiveName              | string                    | 1..1         | The name of any additive or genetic modification contained or not contained in the trade item.        |
| Attribute           | additiveTypeCodeReference | code                      | 0..*         | A code that specifies an additive type for example an EU E-number.                                    |
| Attribute           | levelOfContainmentCode    | LevelOfContainmentCode    | 1..1         | Code indicating the level of presence of the additive.                                                |

### 3.6 Aspect Ratio Information



| Content                | Attribute / Role           | Datatype /Secondary class  | Multiplicity | Definition                                                                 |
|------------------------|----------------------------|----------------------------|--------------|----------------------------------------------------------------------------|
| AspectRatioInformation |                            |                            |              | Logical grouping of attributes related to aspect ratio.                    |
| Attribute              | aspectRatioDescriptionCode | AspectRatioDescriptionCode | 0..1         | A code that indicates the aspect ratio description for example ANAMORPHIC. |
| Attribute              | aspectRatioDimensionCode   | AspectRatioDimensionCode   | 0..1         | A code that indicates the aspect ratio dimension.                          |

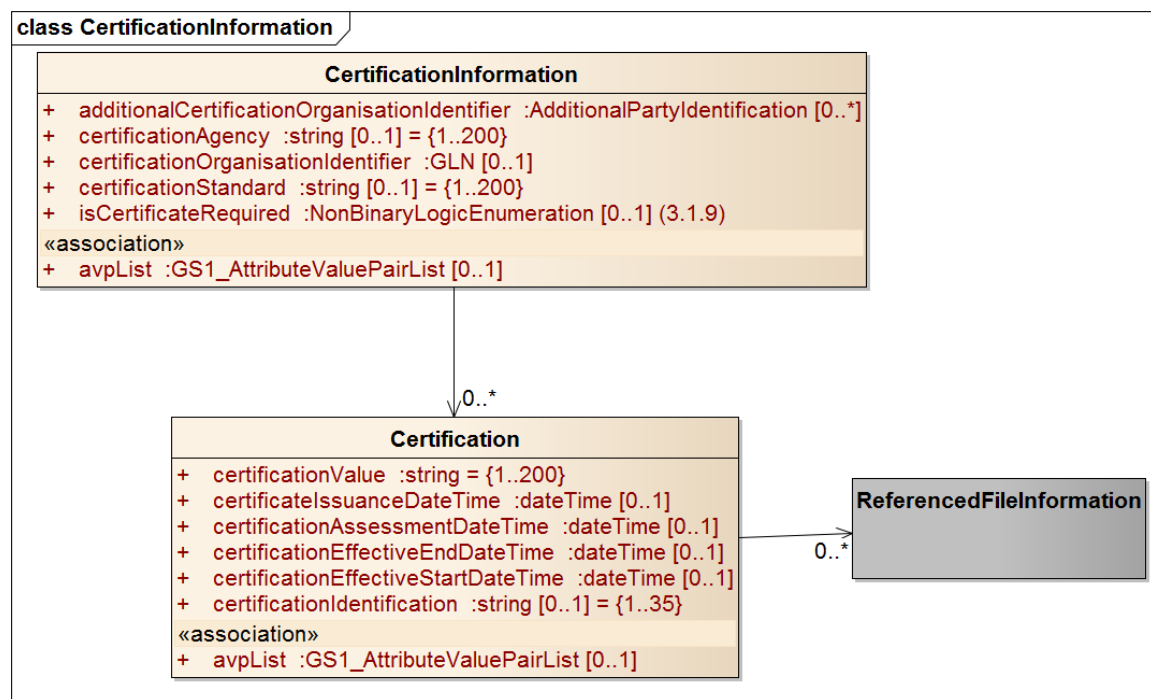
### 3.7 Catalogue Item Reference



| Content                  | Attribute / Role | Datatype /Secondary class | Multiplicity | Definition                                                                                                                                                                                                                                                                         |
|--------------------------|------------------|---------------------------|--------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Catalogue Item Reference |                  |                           |              | A class of information used to identify the key to the trade item information using the data source GLN, the GTIN, and the Target Market within the Global Data Synchronisation Network.                                                                                           |
| Attribute                | dataSource       | GLN                       | 1..1         | Entity that provides the global data synchronization network with Master Data. The Data Source is officially recognized as the owner of this data. For a given Item or Party, the source of data is responsible for permanent updates of the information under its responsibility. |

| Content   | Attribute / Role                   | Datatype /Secondary class | Multiplicity | Definition                                                                                                                                                                                                                                                                                                                   |
|-----------|------------------------------------|---------------------------|--------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Attribute | gtin                               | GTIN                      | 1..1         | A particular Global trade item Number, a numerical value used to uniquely identify a trade item. A trade item is any trade item (trade item or service) upon which there is a need to retrieve pre-defined information and that may be planned, priced, ordered, delivered and or invoiced at any point in any supply chain. |
| Attribute | targetMarketCountryCode            | CountryCode               | 1..1         | The code that identifies the target market. The target market is at country level or higher geographical definition and is where a trade-item is intended to be sold.                                                                                                                                                        |
| Attribute | targetMarketCountrySubdivisionCode | CountrySubdivisionCode    | 0..1         | The Code for country sub-division definition used to indicate the geo-political subdivision of the target market (=country).                                                                                                                                                                                                 |

### 3.8 Certification Information

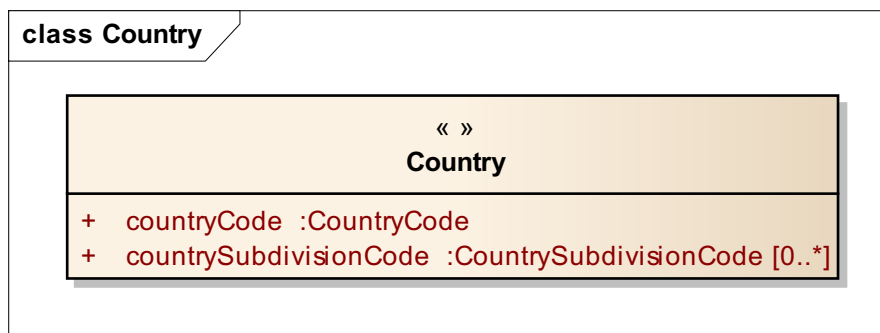


| content                  | attribute / role                              | datatype /secondary class     | multiplicity | definition                                                                                                                                      |
|--------------------------|-----------------------------------------------|-------------------------------|--------------|-------------------------------------------------------------------------------------------------------------------------------------------------|
| Certification            |                                               |                               |              | Information on certification to which the trade item complies.                                                                                  |
| Association              |                                               | ReferencedFileInformation     | 0..*         | Provides URL and other information on a referenced electronic file.                                                                             |
| Association              | avpList                                       | GS1_AttributeValuePairList    | 0..1         | The transmission of non-standard data done in a simple, flexible, and easy to use method.                                                       |
| Attribute                | certificationIssuanceDateTime                 | dateTime                      | 0..1         | The date and time that a certificate has been issued for a Trade Item.                                                                          |
| Attribute                | certificationAssessmentDateTime               | dateTime                      | 0..1         | The date and time that an assessment was performed on a Trade Item that led to a certification.                                                 |
| Attribute                | certificationEffectiveEndDateDateTime         | dateTime                      | 0..1         | The date and time upon which the certification is no longer effective.                                                                          |
| Attribute                | certificationEffectiveStartDateDateTime       | dateTime                      | 0..1         | The date and time upon which the certification is effective.                                                                                    |
| Attribute                | certificationIdentification                   | string                        | 0..1         | A reference issued to confirm that something has passed certification.                                                                          |
| Attribute                | certificationValue                            | string                        | 1..1         | The product's certification standard value. Example: 4                                                                                          |
| CertificationInformation |                                               |                               |              | Information on certification standards to which the trade item, or the process by which it is manufactured, sourced or supplied complies.       |
| Association              |                                               | Certification                 | 0..*         | Information on certification to which the trade item complies.                                                                                  |
| Association              | avpList                                       | GS1_AttributeValuePairList    | 0..1         | The transmission of non-standard data done in a simple, flexible, and easy to use method.                                                       |
| Attribute                | additionalCertificationOrganisationIdentifier | AdditionalPartyIdentification | 0..*         | Additional identification of the organization that issued the certificate number confirming that the Trade Item has gone through certification. |
| Attribute                | certificationAgency                           | String                        | 0..1         | Name of the organization issuing the certification standard or other requirement being met. Free text field. Example: European Union.           |
| Attribute                | certificationOrganisationIdentifier           | GLN                           | 0..1         | The identification of the organization that issued the certificate number confirming that the Trade Item has gone through certification.        |
| Attribute                | certificationStandard                         | string                        | 0..1         | Name of the certification standard. Free text. Example: Egg classification.                                                                     |



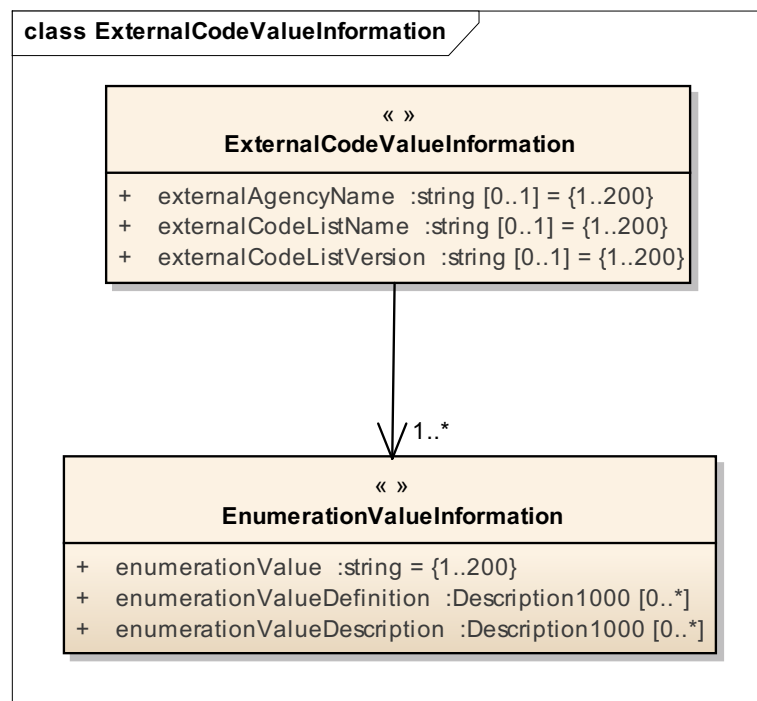
| content   | attribute / role      | datatype /secondary class | multiplicity | definition                                                                             |
|-----------|-----------------------|---------------------------|--------------|----------------------------------------------------------------------------------------|
| Attribute | isCertificateRequired | NonBinaryLogicEnumeration | 0..1         | Determines whether a specific certificate is required by regulation or legal property. |

### 3.9 Country



| Content   | Attribute / Role       | Datatype /Secondary class | Multiplicity | Definition                                             |
|-----------|------------------------|---------------------------|--------------|--------------------------------------------------------|
| Country   |                        |                           |              | Information on a country and any included subdivision. |
| Attribute | countryCode            | countryCode               | 1..1         | Code specifying a country.                             |
| Attribute | countrySubdivisionCode | countrySubdivisionCode    | 0..*         | Code specifying a country subdivision.                 |

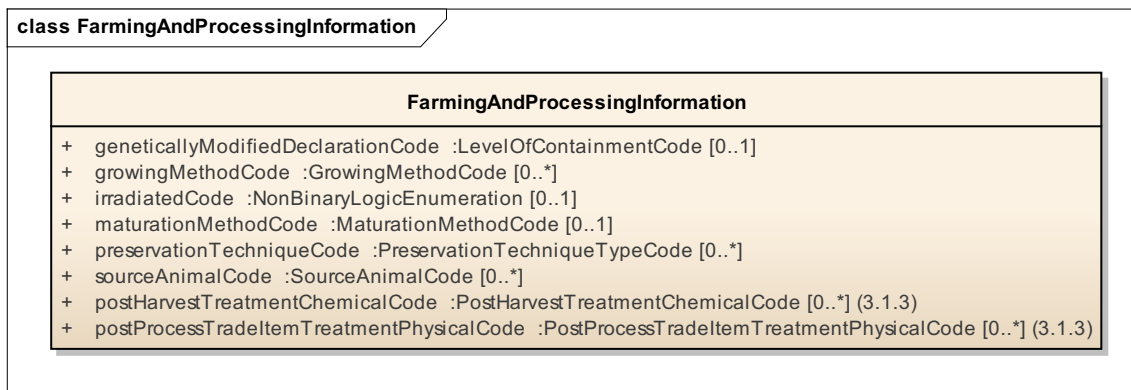
### 3.10 External Code Value Information



| Content                      | Attribute / Role            | Datatype /Secondary class | Multiplicity | Definition                                                                                                                                                     |
|------------------------------|-----------------------------|---------------------------|--------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Enumeration ValueInformation |                             |                           |              | A code list value that is maintained by an agency external to GS1.                                                                                             |
| Attribute                    | enumerationValue            | string                    | 1..1         | Code List Value maintained by an external code list agency.                                                                                                    |
| Attribute                    | enumerationValueDefinition  | Description1000           | 0..*         | Definition of the code list value maintained by an external code list agency                                                                                   |
| Attribute                    | enumerationValueDescription | Description1000           | 0..*         | Description of the value in a code list value maintained by an external code list agency. This is primarily used when code list values are sequential numbers. |

| Content                       | Attribute / Role        | Datatype /Secondary class   | Multiplicity | Definition                                                                                     |
|-------------------------------|-------------------------|-----------------------------|--------------|------------------------------------------------------------------------------------------------|
| ExternalCode ValueInformation |                         |                             |              | Class allowing for multiple code list values that are maintained by an agency external to GS1. |
| Association                   |                         | EnumerationValueInformation | 1..*         | A code value for an external code list.                                                        |
| Attribute                     | externalAgencyName      | string                      | 0..1         | The name of the agency that manages a code list external to GS1.                               |
| Attribute                     | externalCodeListName    | string                      | 0..1         | The name of the code list maintained by an agency external to GS1.                             |
| Attribute                     | externalCodeListVersion | string                      | 0..1         | The version of the code list maintained by an agency external to GS1.                          |

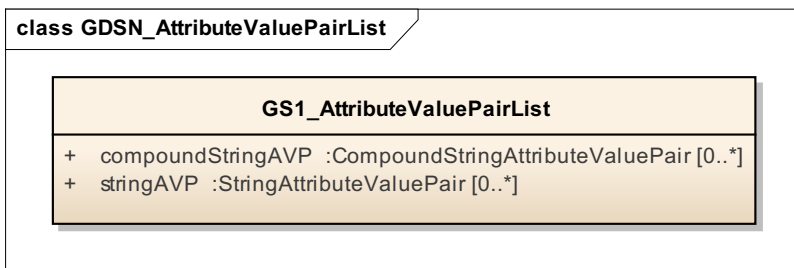
### 3.11 Farming and Processing Information

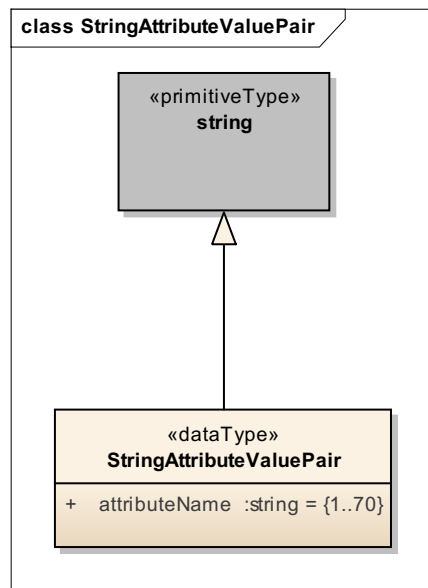
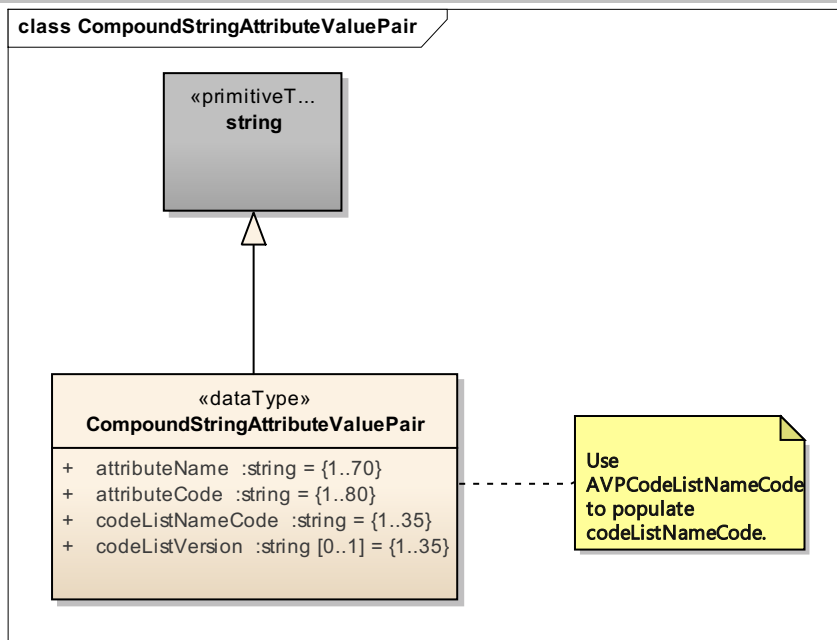


| content           | attribute / role | datatype /secondary class | multiplicity | definition                                                                                                                |
|-------------------|------------------|---------------------------|--------------|---------------------------------------------------------------------------------------------------------------------------|
| FarmingProcessing |                  |                           | 0..1         | Details on any methods and techniques used by a manufacturer or supplier to the trade item, ingredients or raw materials. |

| content   | attribute / role                                  | datatype /secondary class                         | multipl icity | definition                                                                                           |
|-----------|---------------------------------------------------|---------------------------------------------------|---------------|------------------------------------------------------------------------------------------------------|
| Attribute | geneticallyModifiedDe<br>clarationCode            | LevelOfContainmen<br>tCode                        | 0..1          | A statement of the presence or absence of genetically modified protein or DNA.                       |
| Attribute | growingMethodCode                                 | growingMethodCod<br>e                             | 0..*          | The process through which the item has been grown, cultivated, reared, and/or raised.                |
| Attribute | irradiatedCode                                    | NonBinaryLogicEnu<br>meration                     | 0..1          | Indicates if radiation has been applied.                                                             |
| Attribute | maturationMethodCo<br>de                          | MaturationMethodC<br>ode                          | 0..1          | The method of maturity for the item or ingredient for example tree ripened or jet fresh.             |
| Attribute | preservationTechniqu<br>eCode                     | PreservationTechni<br>queTypeCode                 | 0..*          | Code value indicating the preservation technique used to preserve the product from deterioration.    |
| Attribute | sourceAnimalCode                                  | sourceAnimalCode                                  | 0..*          | The source of raw material used to produce the food product for example a goat for milk.             |
| Attribute | postHarvestTreatmen<br>tChemicalCode              | PostHarvestTreatm<br>entChemicalCode              | 0..*          | Specifies if the fruit or vegetable has been treated or not post harvesting with a chemical or wax.  |
| Attribute | postProcessTradeIt<br>emTreatmentPhysicalC<br>ode | PostProcessTradeIt<br>emTreatmentPhysi<br>calCode | 0..*          | Produce has gone some physical process whether altered or other physical processes after harvesting. |

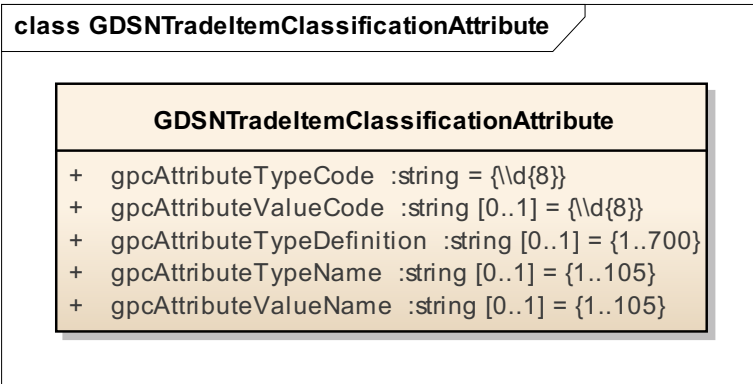
### 3.12 GS1 Attribute Value Pair List





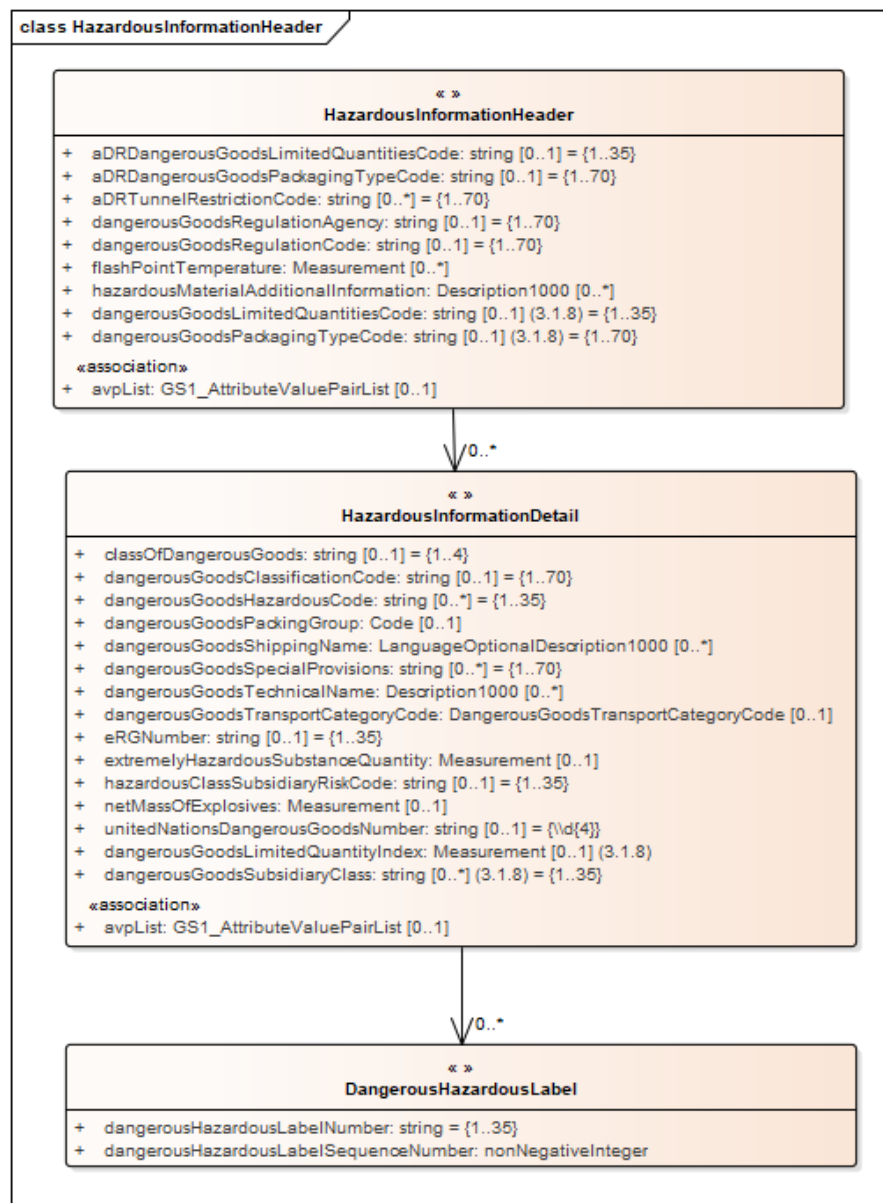
| Content                          | Attribute / Role  | Datatype /Secondary class        | Multiplicity | Definition                                                                                                                                                 |
|----------------------------------|-------------------|----------------------------------|--------------|------------------------------------------------------------------------------------------------------------------------------------------------------------|
| GS1_AttributeValuePairList       |                   |                                  |              | The transmission of non-standard data done in a simple, flexible, and easy to use method.                                                                  |
|                                  | compoundStringAVP | CompoundStringAttributeValuePair | 0..*         | An attribute value pair that allows for a string and an associated qualifier (e.g. Unit Of Measure).                                                       |
|                                  | stringAVP         | StringAttributeValuePair         | 0..*         | An attribute value pair that allows for string values.                                                                                                     |
| CompoundStringAttributeValuePair |                   |                                  |              | A data type that allows for temporary attributes along with associated qualifiers (e.g. unit of measure, currency code) introduced between minor versions. |
|                                  | attributeName     | String                           | 1..1         | The name of the temporary attribute being passed as an attribute value pair.                                                                               |
|                                  | attributeCode     | String                           | 1..1         | The value associated with the codeListName for example MLT for MEASUREMENT_CODE.                                                                           |
|                                  | codeListNameCode  | String                           | 1..1         | The code list qualifying the temporary attribute for example MEASUREMENT_CODE. Use AVPCodeListNameCode to populate codeListNameCode.                       |
|                                  | codeListVersion   | String                           | 0..1         | The version of the code list qualifying the temporary attribute.                                                                                           |
| StringAttributeValuePair         |                   |                                  |              | The transmission of non-standard data done in a simple, flexible, and easy to use method for simple text fields (no language).                             |
|                                  | attributeName     |                                  | 1..1         | The name of the temporary attribute being passed as an attribute value pair.                                                                               |

### 3.13 GDSN Trade Item Classification Attribute



| Content                              | Attribute / Role           | Datatype /Secondary class | Multiplicity | Definition                                                                                                           |
|--------------------------------------|----------------------------|---------------------------|--------------|----------------------------------------------------------------------------------------------------------------------|
| GDSNTradeItemClassificationAttribute |                            |                           |              | Information on the type and value of a Global Product Classification (GPC) attribute.                                |
| Attribute                            | gpcAttributeTypeCode       | string                    | 1..1         | Code specifying the type of the Global Product Classification (GPC) attribute, for example 20000081 - Grape Variety. |
| Attribute                            | gpcAttributeValueCode      | string                    | 0..1         | The GS1 provided code which identifies the Global Product Classification Attribute Value.                            |
| Attribute                            | gpcAttributeTypeDefinition | string                    | 0..1         | The GS1 provided definition of the Global Product Classification Attribute Code.                                     |
| Attribute                            | gpcAttributeTypeName       | string                    | 0..1         | The GS1 provided text equivalent of the Global Product Classification Attribute Code.                                |
| Attribute                            | gpcAttributeValueName      | string                    | 0..1         | The GS1 provided text equivalent of the Global Product Classification Attribute Value Code.                          |

### 3.14 Hazardous Information Header





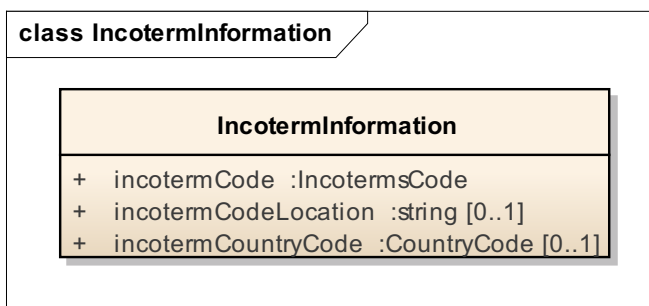
| Content                    | Attribute / Role                      | Datatype /Secondary class  | Multiplicity | Definition                                                                                                                                                                                                                                                         |
|----------------------------|---------------------------------------|----------------------------|--------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| DangerousHazardousLabel    |                                       |                            |              | Information on visible labels on packaging indicating specific risks and required precautions associated with a dangerous/hazardous good.                                                                                                                          |
| Attribute                  | dangerousHazardousLabelNumber         | string                     | 1..1         | A visible number indicating the specific risk and thus the required precautions associated with a dangerous or hazardous good for example, the indication of the hazardous label number according to chapter 3.2, table A of the ADR.                              |
| Attribute                  | dangerousHazardousLabelSequenceNumber | nonNegativeInteger         | 1..1         | A sequence number indicating the primacy of one dangerous/hazardous label number over another. For example, a value of 1 would indicate that the associated hazard label number is the primary, 2 = secondary, etc.                                                |
| HazardousInformationDetail |                                       |                            |              | Details on hazardous information for a trade item.                                                                                                                                                                                                                 |
| Association                | avpList                               | GS1_AttributeValuePairList | 0..1         | The transmission of non-standard data done in a simple, flexible, and easy to use method.                                                                                                                                                                          |
| Association                |                                       | DangerousHazardousLabel    | 0..*         | Information on visible labels on packaging indicating specific risks and required precautions associated with a dangerous good.                                                                                                                                    |
| Attribute                  | classOfDangerousGoods                 | string                     | 0..1         | The dangerous goods classification of the trade item. Dangerous classes explain in general terms the hazardous nature and properties of the goods and serves to classify them together in terms of their most significant risk.                                    |
| Attribute                  | dangerousGoodsClassificationCode      | string                     | 0..1         | A classification code of the trade item (dangerous goods) for transport by road and rail for example ADR/RID. It indicates the dangerous characteristics respectively the subsections of the trade item within a given classification.                             |
| Attribute                  | dangerousGoodsHazardousCode           | string                     | 0..*         | Dangerous goods hazard ID number, which must be applied to the vehicle, when transporting this trade item (dangerous good) by road or rail, to inform the police, the fire brigade and others in case of an accident about the kind of danger caused by the cargo. |
| Attribute                  | dangerousGoodsLimitedQuantityIndex    | Measurement                | 0..1         | The maximum quantity of dangerous goods that may be transported as a "limited quantity". This is the quantity per inner means of containment of each case. For example, 1234.1234 KGM.                                                                             |

| Content   | Attribute / Role                        | Datatype /Secondary class               | Multiplicity | Definition                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|-----------|-----------------------------------------|-----------------------------------------|--------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Attribute | dangerousGoodsPacki<br>ngGroup          | Code                                    | 0..1         | Identifies the degree of risk these dangerous goods present during transport according to IATA/IMDG/ADR/RID regulations.                                                                                                                                                                                                                                                                                                                                  |
| Attribute | dangerousGoodsShipp<br>ingName          | LanguageOptionalDesc<br>ription1000     | 0..*         | Shipping name of the trade item (dangerous goods). The recognized agencies (see dangerousGoodsRegulationsCodes), in their regulations, provide a list of all acceptable proper shipping names.                                                                                                                                                                                                                                                            |
| Attribute | dangerousGoodsSpeci<br>alProvisions     | string                                  | 0..*         | A numeric code of special regulations to be met regarding a Dangerous Goods Classification Regulation. For example ADR 2005 provides additional information for identifying the substances or items (s. 3.2.1 ADR 2005). Special provisions can include transport restrictions, exemptions from regulation, explanations on the classifying of certain forms of the dangerous goods in question as well as additional marking and labelling requirements. |
| Attribute | dangerousGoodsSubsi<br>diaryClass       | string                                  | 0..*         | Local dangerous goods regulations may allow for a subsidiary or secondary dangerous goods class number to be associated with the first or primary dangerous goods class number. Depending on local regulations, a subsidiary class number may be shown in parentheses immediately after the first or primary dangerous goods class number.                                                                                                                |
| Attribute | dangerousGoodsTech<br>nicalName         | Description1000                         | 0..*         | Provides the dangerous goods technical information.                                                                                                                                                                                                                                                                                                                                                                                                       |
| Attribute | dangerousGoodsTrans<br>portCategoryCode | DangerousGoodsTrans<br>portCategoryCode | 0..1         | Trade items classified as dangerous goods are divided into transport categories for the purpose of calculating what quantity of dangerous goods is allowed to be transported on the same transport unit under specific exemption rules.                                                                                                                                                                                                                   |
| Attribute | ERGNumber                               | string                                  | 0..1         | A number used to find the correct section within the Emergency Response Guide. The ERG is a guide to first responders to quickly identify the material involved in an incident for example a fire or spill. It is derivative from the UN Number.<br><br>Note: The ERG number is only required in the United States.                                                                                                                                       |

| Content                    | Attribute / Role                       | Datatype /Secondary class             | Multiplicity    | Definition                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|----------------------------|----------------------------------------|---------------------------------------|-----------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Attribute                  | extremelyHazardousSubstanceQuantity    | Measurement                           | 0..1            | The quantity of substance that is considered to be extremely hazardous under a regulatory threshold.<br>For SARA, this is the threshold planning quantity in pounds per 40 Code of Federal Regulations (CFR) under section 302 of SARA Title 3.                                                                                                                                                                                                                         |
| Attribute                  | hazardousClassSubsidiaryRiskCode       | string                                | 0..1            | A code determining a Secondary or Tertiary hazard related to a hazardous class for example corrosive.                                                                                                                                                                                                                                                                                                                                                                   |
| Attribute                  | netMassOfExplosives                    | Measurement                           | 0..1            | The measurement of the net explosive mass of the trade item (dangerous goods) for transport by road and rail according to a dangerous goods classification regulation.                                                                                                                                                                                                                                                                                                  |
| Attribute                  | unitedNationsDangerousGoodsNumber      | string                                | 0..1            | The four-digit number assigned by the United Nations Committee of Experts on the Transport of Dangerous Goods to classify a substance or a particular groups of substances. Abbreviation: UNDG Number. Recommend to use codes listed in the 16th edition of the UN Recommendations on the Transport of Dangerous Goods was published in 2009.                                                                                                                           |
| Association                | avpList                                | <del>GS1_AttributeValuePairList</del> | <del>0..1</del> | <del>The transmission of non-standard data done in a simple, flexible, and easy to use method.</del>                                                                                                                                                                                                                                                                                                                                                                    |
| HazardousInformationHeader |                                        |                                       |                 | Hazardous Information for a trade item.                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Association                |                                        | HazardousInformationDetail            | 0..*            | Hazardous detail for a trade item.                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Association                | avpList                                | GS1_AttributeValuePairList            | 0..1            | The transmission of non-standard data done in a simple, flexible, and easy to use method.                                                                                                                                                                                                                                                                                                                                                                               |
| Attribute                  | aDRDangerousGoodsLimitedQuantitiesCode | string                                | 0..1            | A code defined by RID (Regulations concerning the International Carriage of Dangerous Goods by Rail) and ADR (Accord Européen Relatif au Transport International des Marchandises Dangereuses par Route) specifying whether a dangerous good can be packaged in small quantities providing they are packaged and labelled in accordance with certain requirements. Note: this attribute is being deprecated for release 3.1.8. Use dangerousGoodsLimitedQuantitiesCode. |

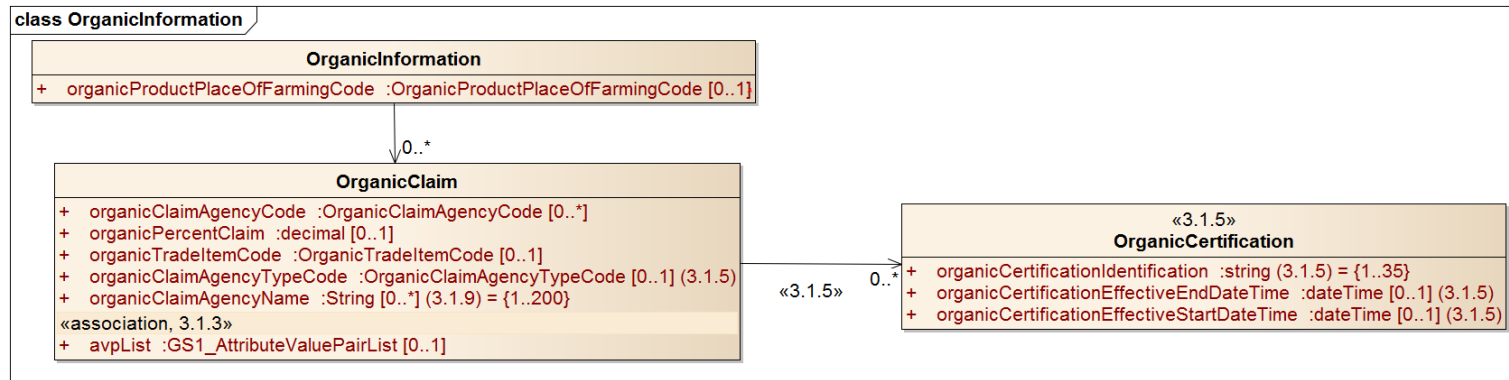
| Content   | Attribute / Role                       | Datatype /Secondary class | Multiplicity | Definition                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|-----------|----------------------------------------|---------------------------|--------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Attribute | aDRDangerousGoodsPackagingTypeCode     | string                    | 0..1         | Approved packaging for ADR regulation. ADR regulations include packaging regulations, packaging types and requirements and testing regulations concerning packaging. Dangerous goods should be packed in a way that they remain in the package during transport. If a package or container meant for transportation of dangerous goods is damaged, it is forbidden to carry out the transport. Note: this attribute is being deprecated for release 3.1.8. Use dangerousGoodsPackagingTypeCode. |
| Attribute | aDRTunnelRestrictionCode               | string                    | 0..*         | The ADR Tunnel Restriction Code is a code defined in ADR Chapter 8.6, which categorizes road tunnels into categories A to E. Adequate traffic signs regulate the transit of vehicles with dangerous goods. The tunnel restriction code (e.g. E) has to be stated within the transport papers. Trading Partners should look to the specific ADR documentation for current applicable code list values.                                                                                           |
| Attribute | dangerousGoodsLimitedQuantitiesCode    | string                    | 0..1         | A code defined by an agency specifying whether a dangerous good can be packaged in small quantities providing they are packaged and labelled in accordance with certain requirements. Note: for 3.1.8, this attribute replaces aDRDangerousGoodsLimitedQuantityCode.                                                                                                                                                                                                                            |
| Attribute | dangerousGoodsPackagingTypeCode        | string                    | 0..1         | Approved packaging for regulation. The regulations include packaging regulations, packaging types and requirements and testing regulations concerning packaging. Dangerous goods should be packed in a way that they remain in the package during transport. If a package or container meant for transportation of dangerous goods is damaged, it is forbidden to carry out the transport. Note:For Release 3.1.8, this replaces aDRDangerousGoodsPackagingTypeCode.                            |
| Attribute | dangerousGoodsRegulationAgency         | string                    | 0..1         | An indication of the agency responsible for a classification system(s) of dangerous goods.                                                                                                                                                                                                                                                                                                                                                                                                      |
| Attribute | dangerousGoodsRegulationCode           | string                    | 0..1         | An indication of the classification system(s) of dangerous goods and/or the Agency(ies) responsible for it.                                                                                                                                                                                                                                                                                                                                                                                     |
| Attribute | flashPointTemperature                  | Measurement               | 0..*         | The minimum temperature at which a liquid gives off a vapour within a vessel in sufficient concentration to form an ignitable mixture with air near the surface of a liquid.                                                                                                                                                                                                                                                                                                                    |
| Attribute | hazardousMaterialAdditionalInformation | Description1000           | 0..*         | Any regulatory information required that is not specifically identified by another field.                                                                                                                                                                                                                                                                                                                                                                                                       |

### 3.15 Incoterm Information



| Content             | Attribute / Role     | Datatype /Secondary class | Multiplicity | Definition                                                                                                                                                                                                                                 |
|---------------------|----------------------|---------------------------|--------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| IncotermInformation |                      |                           |              | Incoterms is an abbreviation for International Commercial Terms. The International Chamber of Commerce created and manages the Incoterms and their definitions. There are 13 available for use in the buyer-seller contractual agreements. |
| Attribute           | incotermCode         | IncotermsCode             | 1..1         | Incoterms is an abbreviation for International Commercial Terms. The International Chamber of Commerce created and manages the Incoterms and their definitions. There are 13 available for use in the buyer-seller contractual agreements. |
| Attribute           | incotermCodeLocation | string                    | 0..1         | A description of the location required by an Incoterm.                                                                                                                                                                                     |
| Attribute           | incotermCountryCode  | CountryCode               | 0..1         | The location country code where the incoterm event (e.g. DDP Delivered Duty Paid) has occurred.                                                                                                                                            |

### 3.16 Organic Information



| content                  | attribute / role                               | datatype / secondary class     | multipl<br>city | definition                                                                                                             |
|--------------------------|------------------------------------------------|--------------------------------|-----------------|------------------------------------------------------------------------------------------------------------------------|
| OrganicCertificatio<br>n |                                                |                                |                 | A certification in relation to a specific organic claim.                                                               |
| Attribute                | organicCertificationId<br>entification         | string                         | 1..1            | A number issued to confirm that something has passed organic certification.                                            |
| Attribute                | organicCertificationEf<br>fectiveEndDateTime   | dateTime                       | 0..1            | The date and time upon which the organic certification is no longer effective.                                         |
| Attribute                | organicCertificationEf<br>fectiveStartDateTime | dateTime                       | 0..1            | The date and time upon which the organic certification is effective.                                                   |
| OrganicClaim             |                                                |                                |                 | Any claim to indicate the organic status of a trade item or of one or more of its components.                          |
| Attribute                | organicClaimAgencyC<br>ode                     | OrganicClaimAgenc<br>yCode     | 0..*            | A governing body that creates and maintains standards related to organic products.                                     |
| Attribute                | organicClaimAgencyT<br>ypeCode                 | OrganicClaimAgenc<br>yTypeCode | 0..1            | A code depicting whether an organic agency manages organic standards or issues certifications.                         |
| Attribute                | organicPercentClaim                            | decimal                        | 0..1            | The percent of actual organic materials per weight of the trade item. This is usually claimed on the product.          |
| Attribute                | organicTradeItemCod<br>e                       | OrganicTradeItemC<br>ode       | 0..1            | Used to indicate the organic status of a trade item or of one or more of its components.                               |
| Attribute                | organicClaimAgencyN<br>ame                     | String                         | 0..*            | Organization that issued the organic certificate number confirming that the Trade Item has gone through certification. |

| content                | attribute / role                     | datatype /secondary class            | multipl<br>city | definition                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|------------------------|--------------------------------------|--------------------------------------|-----------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Association            |                                      | OrganicCertificatio<br>n             | 0..*            | A certification in relation to an organic claim.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Association            | avpList                              | GS1_AttributeValu<br>ePairList       | 0..1            | The transmission of non-standard data done in a simple, flexible, and easy to use method.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| OrganicInformatio<br>n |                                      |                                      |                 | Information on the organic nature of trade items.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Association            |                                      | OrganicClaim                         | 0..*            | Any claim to indicate the organic status of a trade item or of one or more of its components.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Attribute              | organicProductPlaceO<br>fFarmingCode | OrganicProductPlac<br>eOfFarmingCode | 0..1            | <p>Indication of the place where the agricultural raw materials of which the product is composed have been farmed, acc. To Council Regulation (EC) No 834/2007. It applies only to the trade item, not ingredient by ingredient. Where the Community logo is used, an indication of the place where the agricultural raw materials of which the product is composed have been farmed, shall also appear in the same visual field as the logo and shall take one of the code list forms, as appropriate. For EU or NON-EU indication, small quantities by weight of ingredients may be disregarded provided, that the total quantity of the disregarded ingredients does not exceed 2 % of the total quantity by weight of raw materials of agricultural origin. This Regulation shall apply to the following products originating from agriculture, including aquaculture, where such products are placed on the market or are intended to be placed on the market:</p> <ul style="list-style-type: none"> <li>a) Live or unprocessed agricultural products;</li> <li>b) Processed agricultural products for use as food;</li> <li>c) Feed;</li> <li>d) Vegetative propagating material and seeds for cultivation.</li> </ul> <p>The products of hunting and fishing of wild animals shall not be considered as organic production.</p> <p>This Regulation shall also apply to yeasts used as food or feed.</p> |

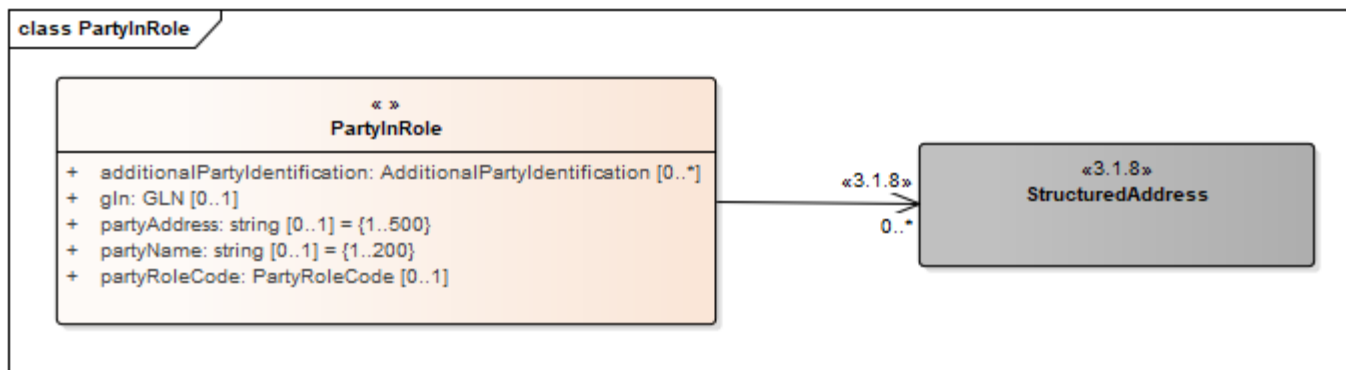
### 3.17 Nonpackaged Size Dimension

| class NonPackagedSizeDimension |                                                             |
|--------------------------------|-------------------------------------------------------------|
| « »                            |                                                             |
| NonPackagedSizeDimension       |                                                             |
| +                              | descriptiveSizeDimension :Description70 [0..*]              |
| +                              | sizeDimension :Measurement [0..1]                           |
| +                              | sizeSystemCode :SizeSystemCode [0..1]                       |
| +                              | sizeTypeCode :SizeTypeCode [0..1]                           |
| +                              | sizeTermDescription :Description500 [0..*] (3.1.2)          |
| +                              | isSizeTypeVariant :NonBinaryLogicEnumeration [0..1] (3.1.9) |

| content                   | attribute / role          | datatype /secondary class  | multipli city | definition                                                                                                                              |
|---------------------------|---------------------------|----------------------------|---------------|-----------------------------------------------------------------------------------------------------------------------------------------|
| NonPackagedSize Dimension |                           |                            |               | Size information related to apparel trade items.                                                                                        |
| Attribute                 | descriptiveSizeDimen sion | Description70              | 0..*          | The textual representation of the size dimension specified by the size type.                                                            |
| Attribute                 | sizeDimension             | Measurement                | 0..1          | The numerical size measurement of the size dimension specified by the size type.                                                        |
| Attribute                 | sizeSystemCode            | SizeSystemCode             | 0..1          | The system that is used to define the size. It is used in conjunction with size group to completely define the size dimension.          |
| Attribute                 | sizeTermDescription       | Description500             | 0..*          | The textual size specified by the size type expressed as a free-form text field for example 10 Medium or for diamonds a clarity of G-H. |
| Attribute                 | sizeTypeCode              | SizeTypeCode               | 0..1          | The type of size dimension being specified by the size measurement.                                                                     |
| Attribute                 | isSizeTypeVariant         | NonBinaryLogicEnu meration | 0..1          | Identifies whether a specific size type (sizeTypeCode) is considered a product variant for a trade item.                                |

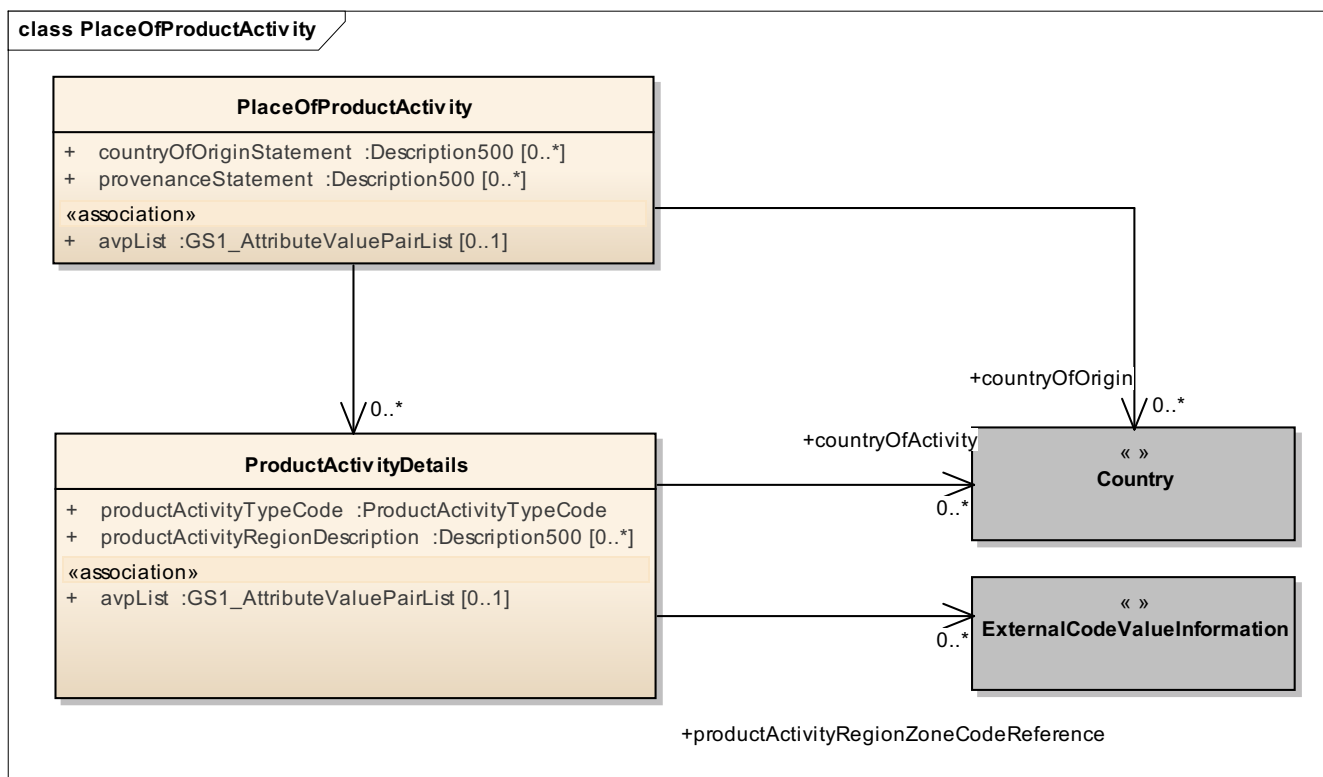


### 3.18 Party In Role



| Content     | Attribute / Role              | Datatype /Secondary class     | Multiplicity | Definition                                                                                                                                                                                                                                                                    |
|-------------|-------------------------------|-------------------------------|--------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| PartyInRole |                               |                               |              | The identification of a party, by GLN, in a specific party role.                                                                                                                                                                                                              |
| Attribute   | additionalPartyIdentification | AdditionalPartyIdentification | 0..*         | Identification of a party by use of a code other than the Global Location Number.                                                                                                                                                                                             |
| Attribute   | gln                           | GLN                           | 0..1         | The Global Location Number (GLN) is a structured Identification of a physical location, legal or functional entity within an enterprise. The GLN is the primary party identifier. Each party identified in the trading relationship must have a primary party Identification. |
| Attribute   | partyAddress                  | String                        | 0..1         | The address associated with the party. This could be the full company address.                                                                                                                                                                                                |
| Attribute   | partyName                     | string                        | 0..1         | The name of the party expressed in text.                                                                                                                                                                                                                                      |
| Attribute   | partyRoleCode                 | PartyRoleCode                 | 0..1         | A code that identifies the role of a party in a business transaction.                                                                                                                                                                                                         |
| Association |                               | StructuredAddress             | 0..*         | An address in a structured format for a specific party.                                                                                                                                                                                                                       |

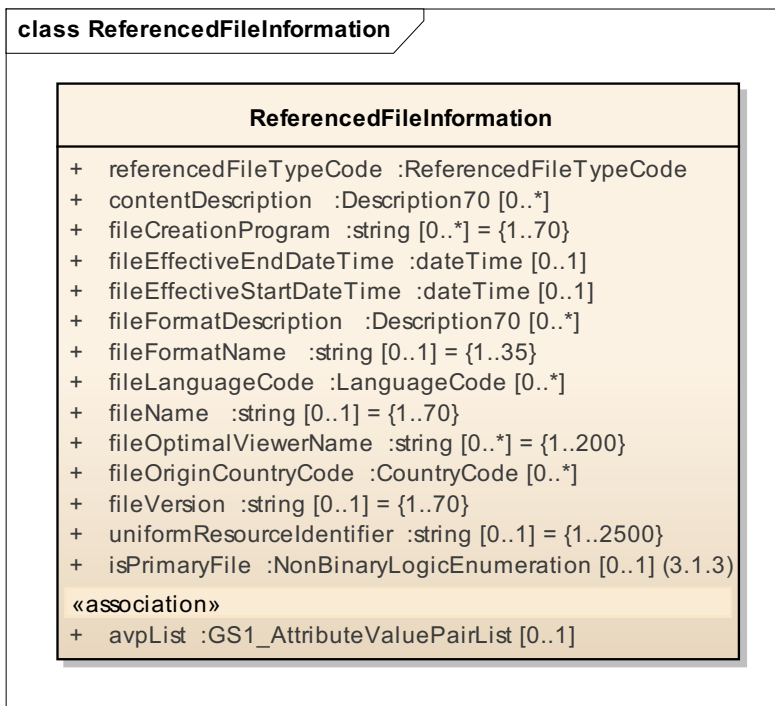
### 3.19 Place Of Product Activity



| content                 | attribute / role          | datatype /secondary class | multi plicity | definition                                                                                                                                                                                                             |
|-------------------------|---------------------------|---------------------------|---------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| PlaceOfProduct Activity |                           |                           |               | Information on the activity (e.g. bottling) taken place for a trade item as well as the associated geographic area.                                                                                                    |
| Attribute               | countryOfOriginSt atement | Description500            | 0..*          | A description of the country the item may have originated from or has been processed for example "Made in Germany".                                                                                                    |
| Attribute               | provenanceState ment      | Description500            | 0..*          | The place a trade item originates from. Text that corresponds to the claim of provenance as formulated on the packaging of the trade item. Examples: Made in Thüringen Mountains, Made in Paris, From the Napa Valley. |

| content                    | attribute /<br>role                            | datatype<br>/secondary<br>class  | multi<br>plicity | definition                                                                                                                                                                                                  |
|----------------------------|------------------------------------------------|----------------------------------|------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Association                | avpList                                        | GS1_AttributeV<br>aluePairList   | 0..1             | The transmission of non-standard data done in a simple, flexible, and easy to use method.                                                                                                                   |
| Association                | countryOfOrigin                                | Country                          | 0..*             | The ISO code of the country, and optionally subdivision, the item may have originated from or has been processed. Example : 276 (for Germany).                                                              |
| Association                |                                                | productActivity<br>Details       | 0..*             | Details on the activity (e.g. bottling) taken place for a trade item as well as the associated geographic area.                                                                                             |
| ProductActivity<br>Details |                                                |                                  |                  | Details on the activity (e.g. bottling) taken place for a trade item as well as the associated geographic area.                                                                                             |
| Attribute                  | productActivityTy<br>peCode                    | ProductActivityT<br>ypeCode      | 1..1             | A code depicting the type of activity being performed on a trade item for example ASSEMBLY, BOTTLING, LAST_PROCESSING.                                                                                      |
| Attribute                  | productActivityRe<br>gionDescription           | Description500                   | 0..*             | The region in which a processing or other activity has been performed for example bottling, farming, last processing.                                                                                       |
| Association                | countryOfActivity                              | Country                          | 0..*             | The geographic area where an activity has taken place.                                                                                                                                                      |
| Association                | productActivityRe<br>gionZoneCodeRef<br>erence | ExternalCodeVal<br>ueInformation | 0..*             | An external code value (code list managed outside of GS1) that depicts a specific zone or region for example an FAO Catch Zone. Use GS1 Code List CatchAreaCode when productActivityType equals CATCH_ZONE. |
| Association                | avpList                                        | GS1_AttributeV<br>aluePairList   | 0..1             | The transmission of non-standard data done in a simple, flexible, and easy to use method.                                                                                                                   |

## 3.20 Referenced File Information



| Content                   | Attribute / Role           | Datatype /Secondary class | Multiplicity | Definition                                                                                |
|---------------------------|----------------------------|---------------------------|--------------|-------------------------------------------------------------------------------------------|
| ReferencedFileInformation |                            |                           |              | Provides URL and other information on a referenced electronic file.                       |
| Attribute                 | referencedFileTypeCode     | ReferencedFileTypeCode    | 1..1         | The type of file that is being referenced for example Safety Data Sheet or Product Image. |
| Attribute                 | contentDescription         | Description70             | 0..*         | Free form description of the content of the file                                          |
| Attribute                 | fileCreationProgram        | string                    | 0..*         | The program used in the creation of the digital asset.                                    |
| Attribute                 | fileEffectiveEndDateTime   | dateTime                  | 0..1         | The date upon which the target of this external link ceases to be effective for use.      |
| Attribute                 | fileEffectiveStartDateTime | dateTime                  | 0..1         | The date upon which the target of this external link begins to be effective for use.      |

| Content     | Attribute / Role          | Datatype /Secondary class  | Multiplicity | Definition                                                                                                         |
|-------------|---------------------------|----------------------------|--------------|--------------------------------------------------------------------------------------------------------------------|
| Attribute   | fileFormatDescription     | Description70              | 0..*         | Free form description of the format of the file.                                                                   |
| Attribute   | fileFormatName            | string                     | 0..1         | The name of the file format. Examples: PDF; JPEG; BMP                                                              |
| Attribute   | fileLanguageCode          | LanguageCode               | 0..*         | The specified language to which the digital asset is targeted.                                                     |
| Attribute   | fileName                  | string                     | 0..1         | The name of the file that contains the external information.                                                       |
| Attribute   | fileOptimalViewerName     | string                     | 0..*         | The software to which this file was targeted.                                                                      |
| Attribute   | fileOriginCountryCode     | CountryCode                | 0..*         | The country where the digital asset originated.                                                                    |
| Attribute   | fileVersion               | string                     | 0..1         | A description of the terms used by the manufacturer to denote the version of the digital asset.                    |
| Attribute   | uniformResourceIdentifier | string                     | 0..1         | Simple text string that refers to a resource on the internet, URLs may refer to documents, resources, people, etc. |
| Attribute   | isPrimaryFile             | NonBinaryLogicEnumeration  | 0..1         | Indicates whether a URL for the specified referenced file type links to the primary file that should be used.      |
| Association | avpList                   | GS1_AttributeValuePairList | 0..1         | The transmission of non-standard data done in a simple, flexible, and easy to use method.                          |

### 3.21 Registration Information

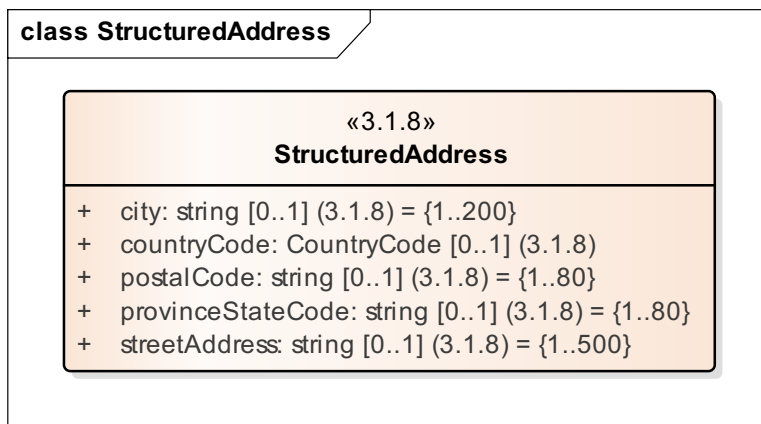
**class RegistrationInformation**

#### RegistrationInformation

```
+ registrationAgency :string [0..1] = {1..200}
+ registrationEndDateTime :dateTime [0..1]
+ registrationNumber :string [0..*] = {1..70}
+ restrictionDescription :Description1000 [0..*]
```

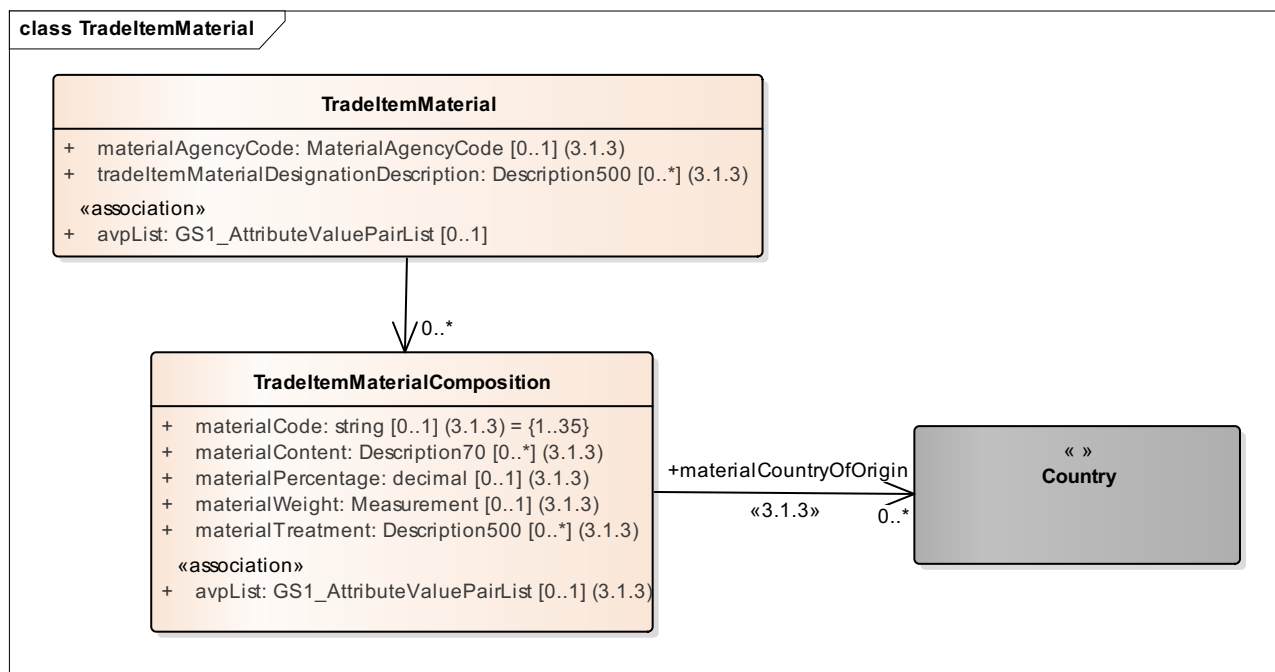
| content                 | attribute / role        | datatype /secondary class | multiplcity | definition                                                                                                                        |
|-------------------------|-------------------------|---------------------------|-------------|-----------------------------------------------------------------------------------------------------------------------------------|
| RegistrationInformation |                         |                           |             | Information on any registration numbers issued for the trade item.                                                                |
| Attribute               | registrationAgency      | string                    | 0..1        | An agency that issues registration numbers for any item or substance for example a chemical that is contained within the product. |
| Attribute               | registrationEndDateTime | dateTime                  | 0..1        | The last date that the registration number is valid.                                                                              |
| Attribute               | registrationNumber      | string                    | 0..*        | A registration number for any item or its constituents.                                                                           |
| Attribute               | restrictionDescription  | Description1000           | 0..*        | A description on any restrictions on usage for example locations where a pesticide cannot be sold.                                |

## 3.22 Structured Address



| content           | attribute /<br>role | datatype<br>/secondary<br>class | multi<br>plicity | definition                                                                                                                                                                                                            |
|-------------------|---------------------|---------------------------------|------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| StructuredAddress |                     |                                 |                  | A simple address in a structured format.                                                                                                                                                                              |
| Attribute         | city                | string                          | 0..1             | Text specifying the name of the city.                                                                                                                                                                                 |
| Attribute         | countryCode         | CountryCode                     | 0..1             | Code specifying the country for the address.                                                                                                                                                                          |
| Attribute         | postalCode          | string                          | 0..1             | Text specifying the postal code for an address.                                                                                                                                                                       |
| Attribute         | provinceStateCode   | string                          | 0..1             | A code specifying a province or state in abbreviated format for example NJ.                                                                                                                                           |
| Attribute         | streetAddress       | string                          | 0..1             | The street address expressed as free form text. The street address is printed on paper as the first lines below the name. For example, the name of the street and the number in the street or the name of a building. |

### 3.23 Trade Item Material



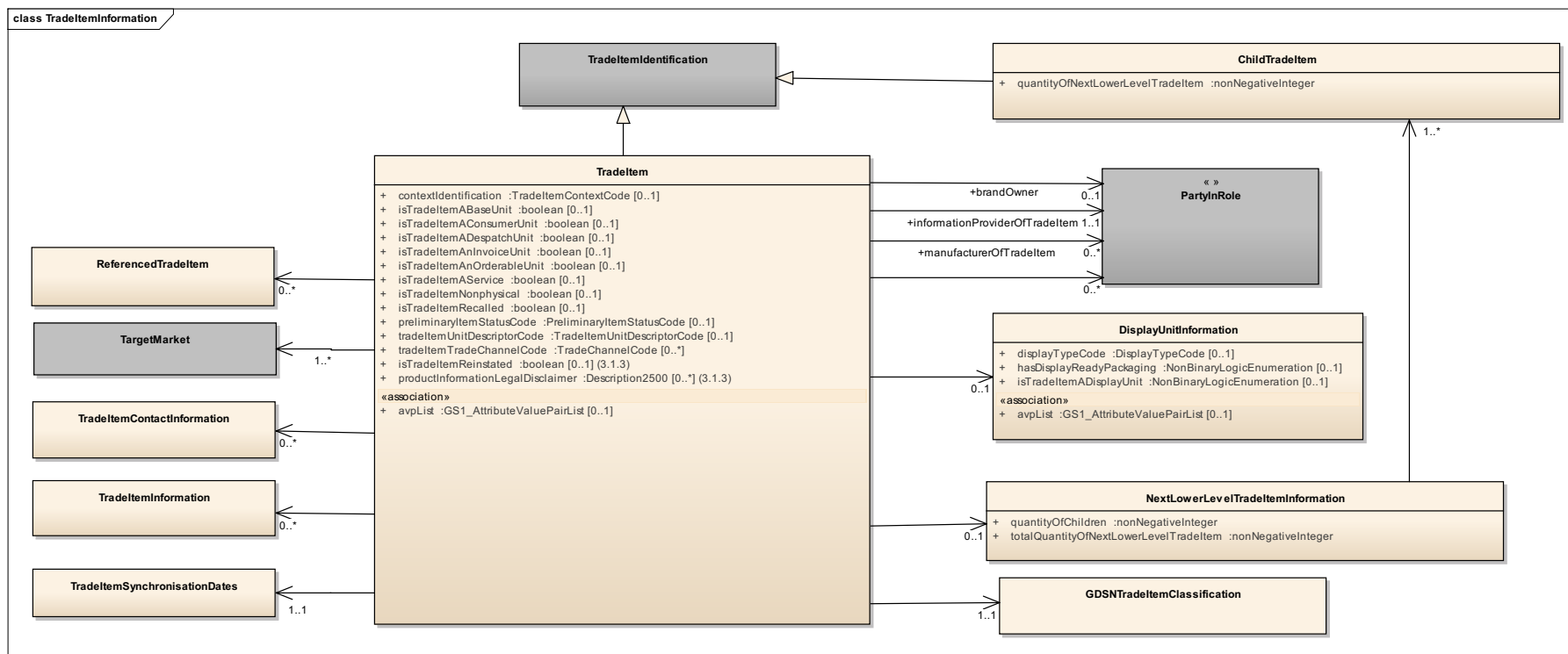
| content           | attribute / role                        | datatype /secondary class    | multi plicity | definition                                                                                                                                           |
|-------------------|-----------------------------------------|------------------------------|---------------|------------------------------------------------------------------------------------------------------------------------------------------------------|
| TradeItemMaterial |                                         |                              |               | Details on the composition of any materials used to make a trade item.                                                                               |
| Association       | avpList                                 | GS1_AttributeValuePairList   | 0..1          | Attribute value pair information.                                                                                                                    |
| Association       |                                         | TradeItemMaterialComposition | 0..*          | Details on the composition of any materials used to make a trade item.                                                                               |
| Attribute         | materialAgencyCode                      | MaterialAgencyCode           | 0..1          | This element indicates the agency that is maintaining the Trade Item Material codes. This may include a specific code list.                          |
| Attribute         | tradeItemMaterialDesignationDescription | Description500               | 0..*          | The description of the element or place on the trade item, that the material information is being described for example: filling, outer, eyes, trim. |



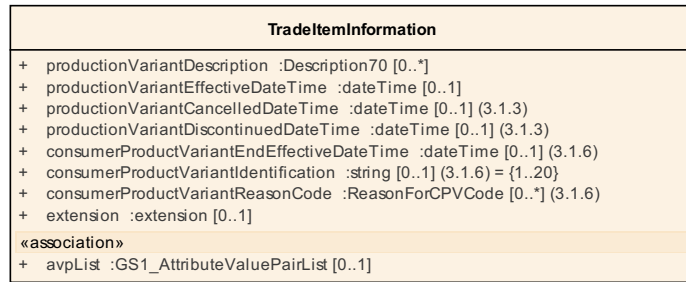
| content                      | attribute /<br>role     | datatype<br>/secondary<br>class | multi<br>plicity | definition                                                                                                                                                                                                                |
|------------------------------|-------------------------|---------------------------------|------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| TradeItemMaterialComposition |                         |                                 |                  | Details on the composition of any materials used to make the trade item.                                                                                                                                                  |
| Association                  | avpList                 | GS1_AttributeValuePairList      | 0..1             | Attribute value pair information.                                                                                                                                                                                         |
| Association                  | materialCountryOfOrigin | Country                         | 0..*             | The country from which the material was sourced for production purposes.                                                                                                                                                  |
| Attribute                    | materialCode            | string                          | 0..1             | This element indicates the product material code that gives the composition of the trade item's first main material up to six material short codes that can be given in descending order of their respective percentages. |
| Attribute                    | materialContent         | Description70                   | 0..*             | This element is used to indicate the material composition. This element is used in conjunction with the percentage.                                                                                                       |
| Attribute                    | materialPercentage      | Decimal                         | 0..1             | Net weight percentage of a product material of the first main material. The percentages must add up to 100.                                                                                                               |
| Attribute                    | materialWeight          | Measurement                     | 0..1             | The measured weight of the material expressed in ounces per square yard or grams per square meter.                                                                                                                        |
| Attribute                    | materialTreatment       | Description500                  | 0..*             | Indicates how the material is treated for example natural (un-treated), painted, dyed, bleach, coloured, etc.                                                                                                             |

## 4 Core Item

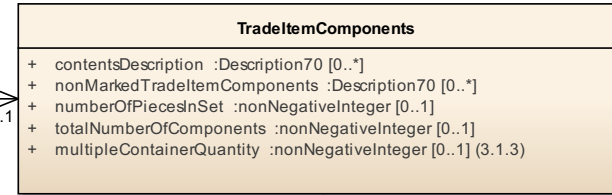
### 4.1 Trade Item



class TradeltemInformation



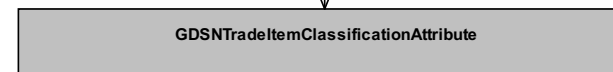
0..1

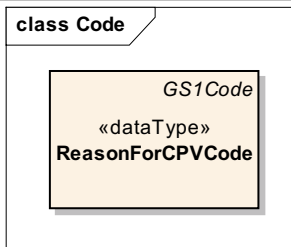


0..\*



«3.1.3» 0..\*


**Note:** Trade Item is associated directly to the CIN.



| Content                | Attribute / Role                  | Datatype /Secondary class | Multiplicity | Definition                                                                                                                                                                                                                                                                                                                                                                                         |
|------------------------|-----------------------------------|---------------------------|--------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ChildTradeItem         |                                   |                           |              | A trade item in the item hierarchy level immediately below the parent trade item.                                                                                                                                                                                                                                                                                                                  |
| Generalization         |                                   | TradeItemIdentification   |              | A trade item in the item hierarchy level immediately below the parent trade item. Note: The generalization from TradeItemIdentification brings into the ChildTradeItem class all of the attributes from TradeItemIdentification including GTIN.                                                                                                                                                    |
| Attribute              | quantityOfNextLowerLevelTradeItem | nonNegativeInteger        | 1..1         | The number of one child trade item (as identified by the association of ChildTradeItem class to TradeItemIdentification class) contained by the parent trade item. The child trade item must be in the hierarchy level immediately below the parent trade item.                                                                                                                                    |
| DisplayUnitInformation |                                   |                           |              | Information on whether the item is shipped in a display unit and the type of display unit it is.                                                                                                                                                                                                                                                                                                   |
| Attribute              | displayTypeCode                   | DisplayTypeCode           | 0..1         | A code determining the type of display a trade item is, for example Shelf Display Ready Packaging.                                                                                                                                                                                                                                                                                                 |
| Attribute              | hasDisplayReadyPackaging          | NonBinaryLogicEnumeration | 0..1         | Indicates that the Trade Item has display ready packaging (also referred to as Shelf Ready Packaging or Retail Ready Packaging). Display ready packaging can be exhibited on the floor, a shelf or other location. It may or may not require some modification e.g. to raise a flap. If modifications are necessary, the measurements would be advised for the trade item as prepared for display. |
| Attribute              | isTradeItemADisplayUnit           | NonBinaryLogicEnumeration | 0..1         | An indicator whether or not a trade item is or could be used as a display unit. A display unit is intended to be shipped to a store without being split at a distribution centre or similar party and is intended to be displayed in a retail store either on a shelf or on the shop floor.                                                                                                        |

| Content                             | Attribute / Role                       | Datatype /Secondary class  | Multiplicity | Definition                                                                                                                                                                                                                                                                                                                                                  |
|-------------------------------------|----------------------------------------|----------------------------|--------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Association                         | avpList                                | GS1_AttributeValuePairList | 0..1         | The transmission of non-standard data done in a simple, flexible, and easy to use method.                                                                                                                                                                                                                                                                   |
| NextLowerLevelTradeItem Information |                                        |                            |              | Information on the next lower level trade items in the trade item hierarchy.                                                                                                                                                                                                                                                                                |
| Attribute                           | quantityOfChildren                     | nonNegativeInteger         | 1..1         | Value indicates the number of unique next lower level trade items contained in a complex trade item. A complex trade item can contain at least 2 different GTINs.                                                                                                                                                                                           |
| Attribute                           | totalQuantityOfNextLowerLevelTradeItem | nonNegativeInteger         | 1..1         | This represents the Total quantity of next lower level trade items that this trade item contains.                                                                                                                                                                                                                                                           |
| Association                         |                                        | ChildTradeItem             | 1..*         | A trade item in the item hierarchy level immediately below the parent trade item.                                                                                                                                                                                                                                                                           |
| TradeItemInformation                |                                        |                            |              | Detailed information on the trade item.                                                                                                                                                                                                                                                                                                                     |
| Association                         |                                        | TradeItemComponents        | 0..1         | A constituent part of a trade item that is packaged separately.                                                                                                                                                                                                                                                                                             |
| Association                         | avpList                                | GS1_AttributeValuePairList | 0..1         | The transmission of non-standard data done in a simple, flexible, and easy to use method.                                                                                                                                                                                                                                                                   |
| Attribute                           | productionVariantDescription           | Description70              | 0..*         | Free text field describing the Consumer Product Variant change/difference. Note: The name of this attribute will change to consumerProductVariantDescription in a future release.                                                                                                                                                                           |
| Attribute                           | productionVariantEffectiveDateTime     | dateTime                   | 0..1         | The Start Effective date and time for Consumer Product Variants which the supplier determines. Can apply to products having a date mark (a best before date or expiration date) on the package that comes on or after the effective date. Note: The name of this attribute will change to consumerProductVariantStartEffectiveDateTime in a future release. |
| Attribute                           | productionVariantCancelledDateTime     | DateTime                   | 0..1         | The date on which the cancellation of the consumer product variant launch of a trade item what was never and will never be manufactured is done. Note: The name of this attribute will change to consumerProductVariantCancelledDateTime in a future release.                                                                                               |
| Attribute                           | productionVariantDiscontinuedDateTime  | DateTime                   | 0..1         | Date on which the consumer product variant of the trade item, which has been manufactured, is no longer being manufactured. Note: The name of this attribute will                                                                                                                                                                                           |

| Content     | Attribute / Role                           | Datatype /Secondary class  | Multiplicity | Definition                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|-------------|--------------------------------------------|----------------------------|--------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|             |                                            |                            |              | change to consumerProductVariantDiscontinuedDateTime in a future release.                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Attribute   | consumerProductVariantEndEffectiveDateTime | DateTime                   | 0..1         | The end effective date and time for Consumer Product Variants which the supplier determines.                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Attribute   | consumerProductVariantIdentification       | String                     | 0..1         | The identification for a particular Consumer Product Variant. This identification is based upon guidelines and assignment to the General Specifications.                                                                                                                                                                                                                                                                                                                                                                                |
| Attribute   | consumerProductVariantReasonCode           | ReasonForCPVCode           | 0..*         | A code describing the impacted change (packaging change, graphics change, minor formulation, etc) for a Consumer Product Variant.                                                                                                                                                                                                                                                                                                                                                                                                       |
| Attribute   | extension                                  | extension                  | 0..1         | An extension point for the trade item.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| TradeItem   |                                            |                            |              | A Trade Item is any product or service upon which there is a need to retrieve pre-defined information and that may be priced, ordered or invoiced at any point in any supply chain. The term "trade item" is not to be confused with the legacy term "traded item" (now referred to within the GS1 General Specifications as 'standard trade item group' which can mean a specific product containment level, which is also called case. "Trade item" can represent any level of product containment, and also can represent a service. |
| Association | avpList                                    | GS1_AttributeValuePairList | 0..1         | The transmission of non-standard data done in a simple, flexible, and easy to use method.                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Association | brandOwner                                 | PartyInRole                | 0..1         | Party name and identification information for the brand owner. May or may not be the same entity as the information provider, which actually enters and maintains data in data pools.                                                                                                                                                                                                                                                                                                                                                   |
| Association | informationProviderOfTradeItem             | PartyInRole                | 1..1         | The party providing the information about the trade item.                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Association | manufacturerOfTradeItem                    | PartyInRole                | 0..*         | Party name and identification information for the manufacturer of the trade item.                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Association |                                            | PartyInRole                | 0..*         | Party name and identification information for a party relevant to the trade item for example Information Provider.                                                                                                                                                                                                                                                                                                                                                                                                                      |

| Content        | Attribute / Role         | Datatype /Secondary class          | Multiplicity | Definition                                                                                                                                                                                                                                                                                                                                                                       |
|----------------|--------------------------|------------------------------------|--------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Association    |                          | DisplayUnitInformation             | 0..1         | Information on whether the item is shipped in a display unit and the type of display unit it is.                                                                                                                                                                                                                                                                                 |
| Association    |                          | NextLowerLevelTradeItemInformation | 0..1         | Information on the next lower level trade items in the trade item hierarchy.                                                                                                                                                                                                                                                                                                     |
| Association    |                          | TargetMarket                       | 1..*         | Target Market associated with a Trade Item.                                                                                                                                                                                                                                                                                                                                      |
| Association    |                          | GDSNTradeItemClassification        | 1..1         | Identifies a category in the GPC and other product classifications.                                                                                                                                                                                                                                                                                                              |
| Association    |                          | ReferencedTradeItem                | 0..*         | A trade item referenced by this trade item for example replaced or replaced by.                                                                                                                                                                                                                                                                                                  |
| Association    |                          | TradeItemInformation               | 0..*         | Information on the trade item that can vary by context.                                                                                                                                                                                                                                                                                                                          |
| Association    |                          | TradeItemSynchronisationDates      | 1..1         | Dates relevant to the process of trade item synchronisation for example publication date.                                                                                                                                                                                                                                                                                        |
| Association    |                          | TradeItemContactInformation        | 0..*         | Contact details for a Trade Item.                                                                                                                                                                                                                                                                                                                                                |
| Generalization |                          | TradeItemIdentification            |              | Trade Item Identification for a TradeItem.                                                                                                                                                                                                                                                                                                                                       |
| Attribute      | contextIdentification    | TradeItemContextCode               | 0..1         | The unique identifier established for the context managed by GS1.                                                                                                                                                                                                                                                                                                                |
| Attribute      | isTradeItemABaseUnit     | boolean                            | 0..1         | An indicator identifying the trade item as the base unit level of the trade item hierarchy.                                                                                                                                                                                                                                                                                      |
| Attribute      | isTradeItemAConsumerUnit | boolean                            | 0..1         | Identifies whether the trade item to be taken possession of ,or to be consumed or used by an end user or both, as determined by the manufacturer. The end user could be, but is not limited to, a consumer as in items sold at retail, or a patient/clinician/technician in a healthcare setting, or an operator for foodservice such as restaurants, airlines, cafeterias, etc. |
| Attribute      | isTradeItemADespatchUnit | boolean                            | 0..1         | An indicator identifying that the information provider considers the trade item as a despatch (shipping) unit. This may be relationship dependent based on channel of trade or other point to point agreement.                                                                                                                                                                   |
| Attribute      | isTradeItemAnInvoiceUnit | boolean                            | 0..1         | An indicator identifying that the information provider will include this trade item on their billing or invoice. This may                                                                                                                                                                                                                                                        |

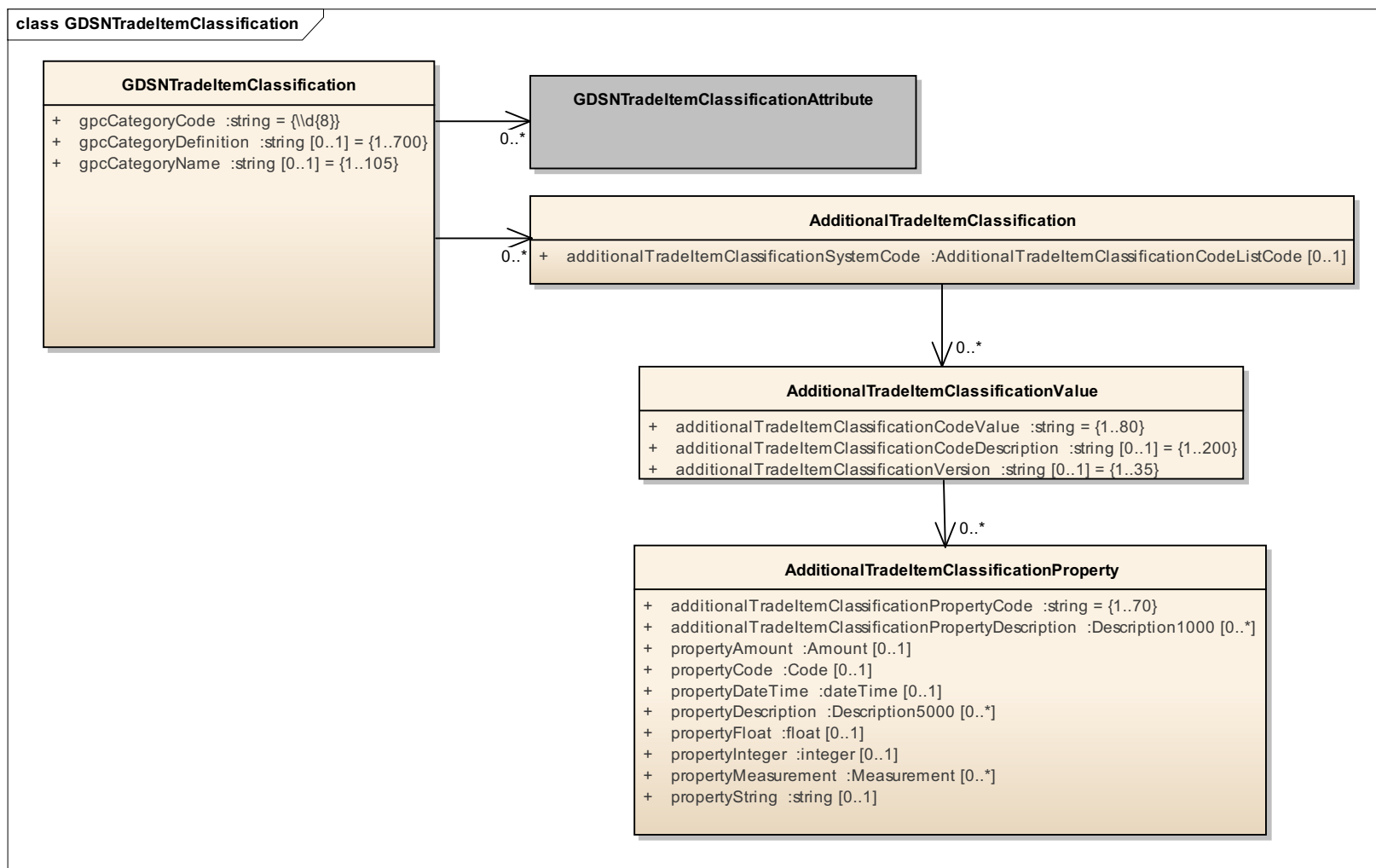
| Content   | Attribute / Role                  | Datatype /Secondary class   | Multiplicity | Definition                                                                                                                                                                                                                                                                                                                                         |
|-----------|-----------------------------------|-----------------------------|--------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|           |                                   |                             |              | be relationship dependent based on channel of trade or other point to point agreement.                                                                                                                                                                                                                                                             |
| Attribute | isTradeItemAnOrderableUnit        | boolean                     | 0..1         | An indicator identifying that the information provider considers this trade item to be at a hierarchy level where they will accept orders from customers. This may be different from what the information provider identifies as a despatch unit. This may be a relationship dependent based on channel of trade or other point to point agreement |
| Attribute | isTradeItemAService               | boolean                     | 0..1         | An indicator that the trade item is a service for example a receipt that can be used for upgrading a pre-paid phone balance, an entrance ticket to an amusement park, sporting event, theatre, service maintenance, installation service, repairs.                                                                                                 |
| Attribute | isTradeItemNonphysical            | boolean                     | 0..1         | An indicator that the trade item is not a physical item and as such has no dimensional manifestation. For example a computer download of software, movies or music, a service agreement, or prepaid cellular time.                                                                                                                                 |
| Attribute | isTradeItemRecalled               | boolean                     | 0..1         | An indicator for the Trade Item to determine if the Manufacturer or Supplier has recalled the product.                                                                                                                                                                                                                                             |
| Attribute | preliminaryItemStatusCode         | PreliminaryItemStatusCode   | 0..1         | A code designating whether the trade item has data that the information provider intends to correct or add values to due to pre-production unknowns (PRELIMINARY) or whether the item has attribute values that reflect go to market state (FINAL).                                                                                                |
| Attribute | tradeItemUnitDescriptorCode       | TradeItemUnitDescriptorCode | 0..1         | Describes the hierarchical level of the trade item. The attribute tradeItemUnitDescriptorCode is mandatory. Examples: "CASE" , "PALLET".                                                                                                                                                                                                           |
| Attribute | tradeItemTradeChannelCode         | TradeChannelCode            | 0..*         | A grouping of entities by common business model concentration used to define the distribution or marketing segmentation of products, customers and geographic areas into common groups that are supplied, serviced and measured in similar ways.                                                                                                   |
| Attribute | isTradeItemReinstated             | Boolean                     | 0..1         | Indicator stating the Trade Item is being reinstated and will no longer be cancelled or discontinued. The canceledDate or discontinuedDate has been altered to reflect the reinstatement.                                                                                                                                                          |
| Attribute | productInformationLegalDisclaimer | Description2500             | 0..*         | A legal disclaimer from the information provider about the data being published in the item message.                                                                                                                                                                                                                                               |



| Content              | Attribute / Role                | Datatype /Secondary class            | Multiplicity | Definition                                                                                                                                                                                                                                                                                                                                                                                                                         |
|----------------------|---------------------------------|--------------------------------------|--------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ComponentInformation |                                 |                                      |              | A constituent part of a trade item that is packaged separately.                                                                                                                                                                                                                                                                                                                                                                    |
| Association          | avpList                         | GS1_AttributeValuePairList           | 0..1         | The transmission of non-standard data done in a simple, flexible, and easy to use method.                                                                                                                                                                                                                                                                                                                                          |
| Association          |                                 | GDSNTradeItemClassificationAttribute | 0..*         | GPC attribute information related to a component of a trade item.                                                                                                                                                                                                                                                                                                                                                                  |
| Attribute            | componentNumber                 | nonNegativeInteger                   | 1..1         | Indicate a sequence number of a component of a trade item.                                                                                                                                                                                                                                                                                                                                                                         |
| Attribute            | componentDescription            | Description1000                      | 0..*         | A description of the component.                                                                                                                                                                                                                                                                                                                                                                                                    |
| Attribute            | componentIdentification         | Identifier                           | 0..1         | An identifier for a component.                                                                                                                                                                                                                                                                                                                                                                                                     |
| Attribute            | contextIdentification           | TradeItemContextCode                 | 0..1         | The unique identifier established for the context managed by GS1.                                                                                                                                                                                                                                                                                                                                                                  |
| Attribute            | gpcCategoryCode                 | String                               | 0..1         | Code specifying a product category according to the GS1 Global Product Classification (GPC) standard.                                                                                                                                                                                                                                                                                                                              |
| Attribute            | componentQuantity               | nonNegativeInteger                   | 0..1         | An attribute used to describe the quantity of components described in either the componentIdentification or componentDescription.                                                                                                                                                                                                                                                                                                  |
| Attribute            | componentMultiplePackedQuantity | nonNegativeInteger                   | 0..1         | The quantity of containers when this component of the trade item is packed in multiple containers. If all quantity of this component is packed together into one item this attribute is not used. Example: 3 boxes = 1st box has 2 tables in it, 2 more boxes contain 2 chairs each for a total of 4. For the table component this value is 1 representing 1 box, for the chair the component value is 2 representing the 2 boxes. |
| Attribute            | extension                       | Extension                            | 0..1         | An extension point for a component.                                                                                                                                                                                                                                                                                                                                                                                                |
| TradeItemComponents  |                                 |                                      |              | A constituent part of a trade item that is packaged separately.                                                                                                                                                                                                                                                                                                                                                                    |
| Association          |                                 | ComponentInformation                 | 0..*         | Component information for a trade item.                                                                                                                                                                                                                                                                                                                                                                                            |
| Attribute            | contentsDescription             | Description70                        | 0..*         | Describes the contents of the the components of the trade item when an item is shipped in multiple containers. Note:                                                                                                                                                                                                                                                                                                               |

| Content   | Attribute / Role              | Datatype /Secondary class | Multiplicity | Definition                                                                                                                                                                                                                                                                                                                   |
|-----------|-------------------------------|---------------------------|--------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|           |                               |                           |              | This attribute will be deleted in a future release and should not be used.                                                                                                                                                                                                                                                   |
| Attribute | nonMarkedTradeItem Components | Description70             | 0..*         | This attribute indicates a non-saleable part of the trade item. It is used to specify components of a trade item that cannot be sold separately. Note: This attribute will be deleted in a future release and should not be used.                                                                                            |
| Attribute | numberOfPiecesInSet           | nonNegativeInteger        | 0..1         | The total quantity of components included in this trade item: E.g: for a 12 pack of yogurt (Vanilla, Chocolate and Strawberry), this would be 12.                                                                                                                                                                            |
| Attribute | totalNumberOfComponents       | nonNegativeInteger        | 0..1         | The number of different types of components included in this trade item. Eg. for a 12 pack of yogurt (Vanilla, Chocolate and Strawberry) this would be 3.                                                                                                                                                                    |
| Attribute | multipleContainerQuantity     | nonNegativeInteger        | 0..1         | The quantity of containers when the complete trade item is packed in multiple containers. If all components are packed together into one item this attribute is not used. For example: 3 boxes = 1st box has 1 table, 2 more boxes with 2 chairs each, this attribute would contain the value 3, representing 3 boxes total. |

## 4.2 GDSN Trade Item Classification

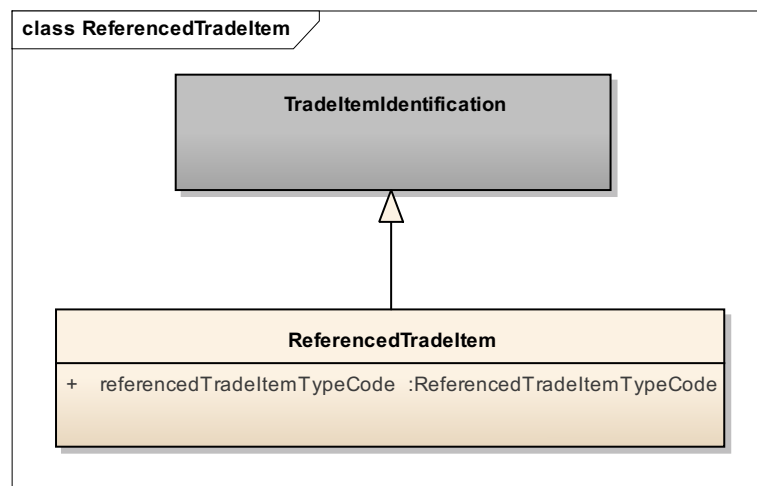


| Content                     | Attribute / Role | Datatype /Secondary class | Multiplicity | Definition                                                                                                          |
|-----------------------------|------------------|---------------------------|--------------|---------------------------------------------------------------------------------------------------------------------|
| GDSNTradeItemClassification |                  |                           |              | Information specifying the product class to which a trade item belongs and the classification system being applied. |

| Content                                   | Attribute / Role                                 | Datatype /Secondary class                     | Multiplicity | Definition                                                                                                                              |
|-------------------------------------------|--------------------------------------------------|-----------------------------------------------|--------------|-----------------------------------------------------------------------------------------------------------------------------------------|
| Association                               |                                                  | AdditionalTradeItemClassification             | 0..*         | Information on category code based on an alternate classification schema chosen in addition to the Global Product Classification (GPC). |
| Association                               |                                                  | GDSNTradeItemClassificationAttribute          | 0..*         | Contains information, which identifies the GPC classification attribute for a trade item.                                               |
| Attribute                                 | gpcCategoryCode                                  | string                                        | 1..1         | Code specifying a product category according to the GS1 Global Product Classification (GPC) standard.                                   |
| Attribute                                 | gpcCategoryDefinition                            | string                                        | 0..1         | A GS1 supplied definition associated with the specified Global Product Classification (GPC) category code.                              |
| Attribute                                 | gpcCategoryName                                  | string                                        | 0..1         | Name associated with the specified Global Product Classification (GPC) category code.                                                   |
| AdditionalTradeItemClassification         |                                                  |                                               |              | Category code based on alternate classification schema chosen in addition to the Global Product Classification (GPC).                   |
| Association                               |                                                  | AdditionalTradeItemClassificationValue        | 0..*         | Code list values for an Additional Trade Item Classification Type.                                                                      |
| Attribute                                 | additionalTradeItemClassificationSystemCode      | AdditionalTradeItemClassificationCodeListCode | 0..1         | The Classification System for the Additional Trade Item Classification.                                                                 |
| AdditionalTradeItemClassificationValue    |                                                  |                                               |              | A code list value for an Additional Trade Item Classification Type.                                                                     |
| Association                               |                                                  | AdditionalTradeItemClassificationProperty     | 0..*         | Characteristics that are associated with a class of trade items according to a taxonomy.                                                |
| Attribute                                 | additionalTradeItemClassificationCodeValue       | string                                        | 1..1         | Category code based on alternate classification schema chosen in addition to GS1 classification schema.                                 |
| Attribute                                 | additionalTradeItemClassificationCodeDescription | string                                        | 0..1         | Description of the additional classification bundle (code/agency + description).                                                        |
| Attribute                                 | additionalTradeItemClassificationVersion         | string                                        | 0..1         | The identification of a release of a particular product classification.                                                                 |
| AdditionalTradeItemClassificationProperty |                                                  |                                               |              | Characteristics that are associated with a class of trade items according to a taxonomy.                                                |

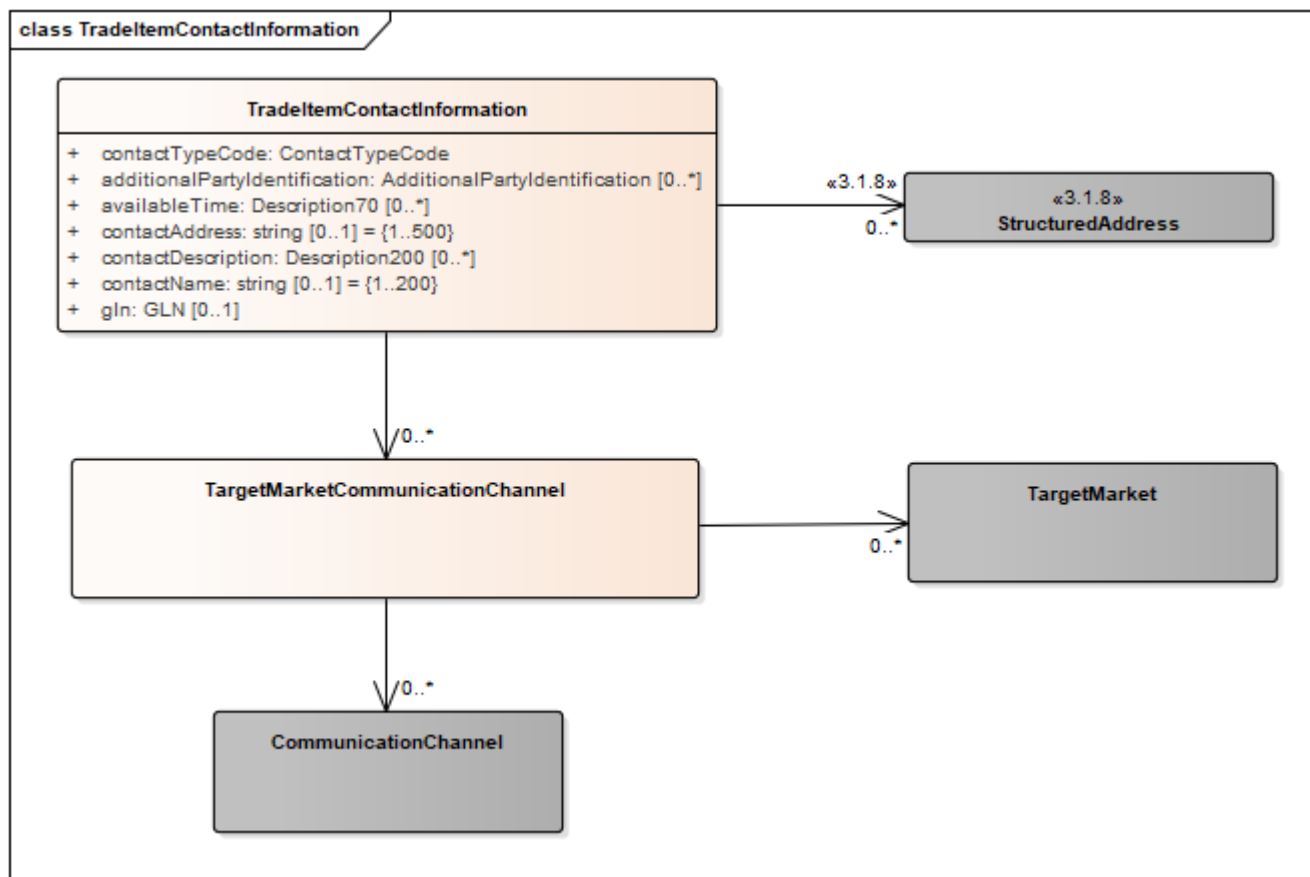
| Content   | Attribute / Role                                     | Datatype /Secondary class | Multiplicity | Definition                                                                                    |
|-----------|------------------------------------------------------|---------------------------|--------------|-----------------------------------------------------------------------------------------------|
| Attribute | additionalTradeItemClassificationPropertyCode        | string                    | 1..1         | Code assigned to a property of product for a classification.                                  |
| Attribute | additionalTradeItemClassificationPropertyDescription | Description1000           | 0..*         | A description of a property of product for a specific classification. for example Waterproof. |
| Attribute | propertyAmount                                       | Amount                    | 0..1         | A property of a classification of an item expressed as an amount (value and currency).        |
| Attribute | propertyCode                                         | Code                      | 0..1         | A property of a classification of an item expressed as a code.                                |
| Attribute | propertyDateTime                                     | dateTime                  | 0..1         | A property of a classification of an item expressed as a date and time.                       |
| Attribute | propertyDescription                                  | Description5000           | 0..*         | A property of a classification of an item expressed as a description.                         |
| Attribute | propertyFloat                                        | float                     | 0..1         | A property of a classification of an item expressed as a float for example 0.00.              |
| Attribute | propertyInteger                                      | integer                   | 0..1         | A property of a classification of an item expressed as an integer.                            |
| Attribute | propertyMeasurement                                  | Measurement               | 0..*         | A property of a classification of an item expressed as a measurement.                         |
| Attribute | propertyString                                       | string                    | 0..1         | A property of a classification of an item expressed as text.                                  |

## 4.3 Referenced Trade Item



| Content             | Attribute / Role            | Datatype /Secondary class   | Multiplicity | Definition                                                                                                                                          |
|---------------------|-----------------------------|-----------------------------|--------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|
| ReferencedTradeItem |                             |                             |              | A trade item not in the trade item hierarchy that is referenced for a specific purpose for example substitute, replaced by, equivalent trade items. |
| Generalization      |                             | TradeItemIdentification     |              | The identification of the referenced trade item.                                                                                                    |
| Attribute           | referencedTradeItemTypeCode | ReferencedTradeItemTypeCode | 1..1         | A code depicting the type of trade item that is referenced for a specific purpose for example substitute, replaced by, equivalent trade items.      |

## 4.4 Trade Item Contact Information

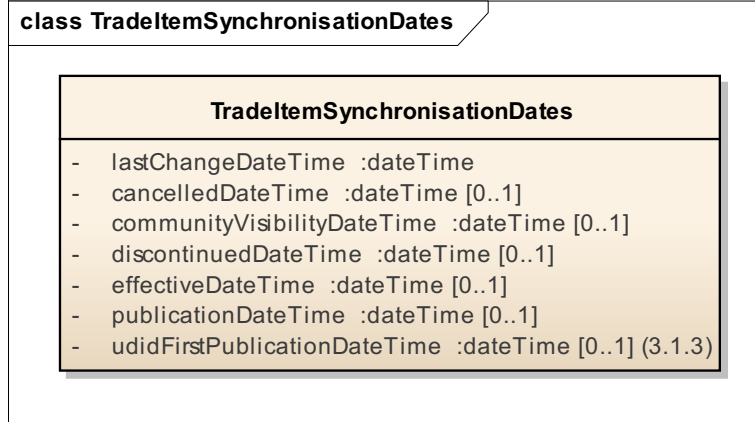


| content                     | attribute / role              | datatype /secondary class        | multiplcity | definition                                                                               |
|-----------------------------|-------------------------------|----------------------------------|-------------|------------------------------------------------------------------------------------------|
| TradeItemContactInformation |                               |                                  |             | Contact details for a Trade Item.                                                        |
| Association                 |                               | TargetMarketCommunicationchannel | 0..*        | The communication channel for example phone number for a target market for a Trade Item. |
| Attribute                   | additionalPartyIdentification | AdditionalPartyIdentification    | 0..*        | Identification of a party by use of a code other than the Global Location Number         |

| content                                  | attribute / role       | datatype /secondary class | multipl<br>city | definition                                                                                                                                                                                                                                                                    |
|------------------------------------------|------------------------|---------------------------|-----------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Attribute                                | availableTime          | Description70             | 0..*            | The time that a specific contact for a Trade Item is available for contact.                                                                                                                                                                                                   |
| Attribute                                | contactAddress         | string                    | 0..1            | The address associated with the contact type. For example, in case of a contact type of consumer support, this could be the full company address as expressed on the trade item packaging or label.                                                                           |
| Attribute                                | contactDescriptio<br>n | Description200            | 0..*            | A description of the contact for the trade item.                                                                                                                                                                                                                              |
| Attribute                                | contactName            | string                    | 0..1            | The name of the company or person associated with the contact type. For example, in case of a contact type of consumer support, this could be the company name as expressed on the trade item packaging or label.                                                             |
| Attribute                                | contactTypeCode        | ContactTypeCo<br>de       | 1..1            | The general category of the contact party for a trade item for example Purchasing.                                                                                                                                                                                            |
| Attribute                                | gln                    | GLN                       | 0..1            | The Global Location Number (GLN) is a structured Identification of a physical location, legal or functional entity within an enterprise. The GLN is the primary party identifier. Each party identified in the trading relationship must have a primary party Identification. |
| TargetMarketC<br>ommunication<br>channel |                        |                           |                 | The communication channel for example phone number for a target market for a Trade Item.                                                                                                                                                                                      |
| Association                              |                        | StructuredAddr<br>ess     | 0..*            | An address in a structured format for a contact.                                                                                                                                                                                                                              |
| Association                              |                        | TargetMarket              | 0..*            | A target market associated with a communication channel for example Canada.                                                                                                                                                                                                   |
| Association                              |                        | Communication<br>Channel  | 0..*            | A communication channel for a target market for example telephone.                                                                                                                                                                                                            |



## 4.5 Trade Item Synchronisation Dates

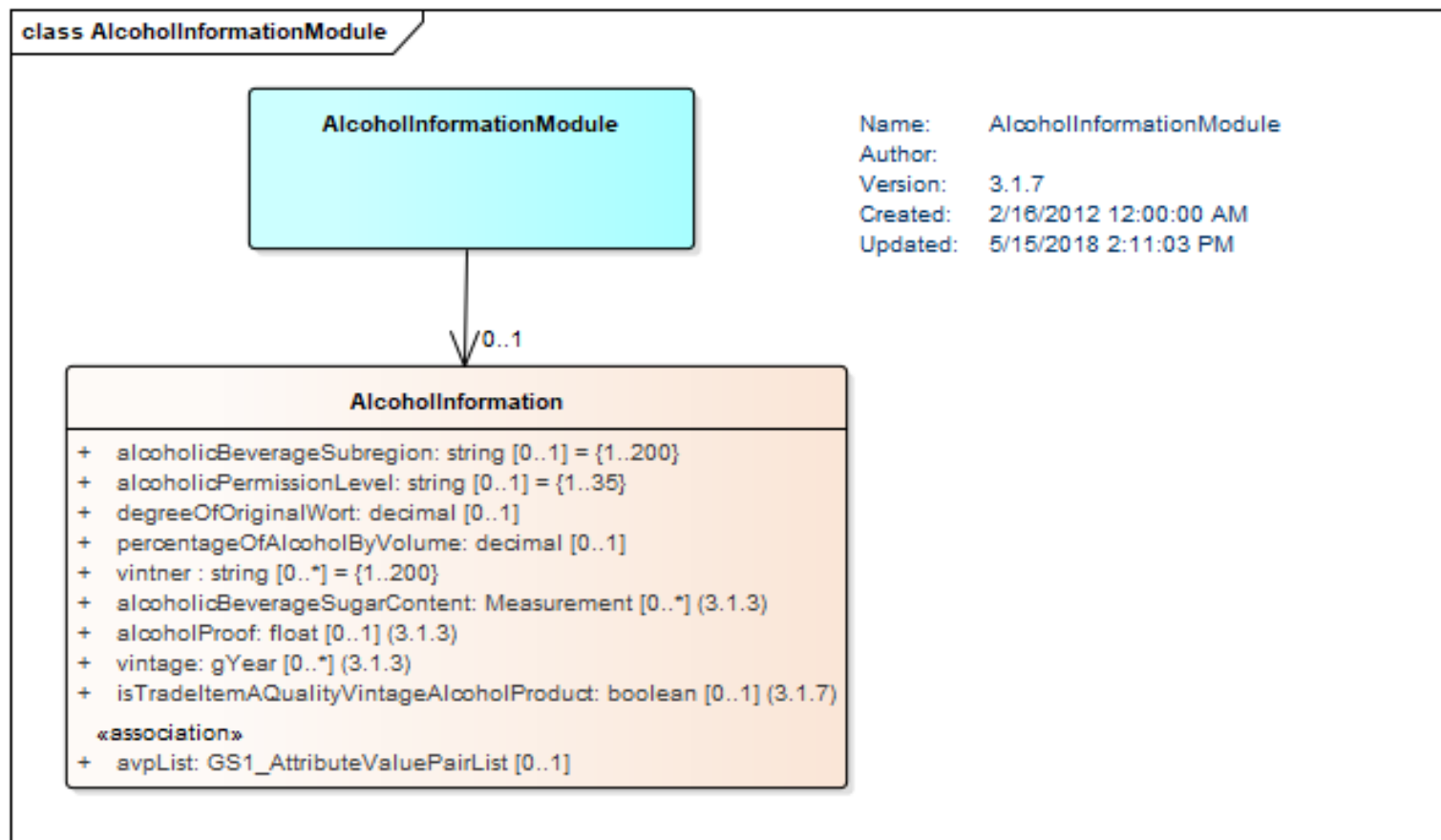


| Content                       | Attribute / Role            | Datatype /Secondary class | Multiplicity | Definition                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|-------------------------------|-----------------------------|---------------------------|--------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| TradeItemSynchronisationDates |                             |                           |              | Dates related to the synchronisation of a trade item within the GDS Network.                                                                                                                                                                                                                                                                                                                                                                                |
| Attribute                     | lastChangeDateTime          | dateTime                  | 1..1         | Indicates the point in time where the last modification on a Trade Item was made.                                                                                                                                                                                                                                                                                                                                                                           |
| Attribute                     | cancelledDateTime           | dateTime                  | 0..1         | Date on which the cancellation of the launch of a trade item what was never and will never be manufactured is made.                                                                                                                                                                                                                                                                                                                                         |
| Attribute                     | communityVisibilityDateTime | dateTime                  | 0..1         | The date from which the neutral trade item information (i.e. not the private information, not relationship-dependent data and not price data) is available to all members of the target data pool, without restriction. Until this date only the data recipients to whom the data source has explicitly published the data can have access to the data. By setting this date a data source gives permission for wider publication of the generic item data. |
| Attribute                     | discontinuedDateTime        | dateTime                  | 0..1         | Communicates the date on which the trade item is no longer to be manufactured.                                                                                                                                                                                                                                                                                                                                                                              |

| Content   | Attribute / Role             | Datatype /Secondary class | Multiplicity | Definition                                                                                                                                                                                                                                                                                                                                                                |
|-----------|------------------------------|---------------------------|--------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Attribute | effectiveDateTime            | dateTime                  | 0..1         | The date on which the information contents of the master data version are valid. Valid = correct or true. This effective date can be used for initial trade item offering, or to mark a change in the information related to an existing trade item. This date would mark when these changes take effect.                                                                 |
| Attribute | publicationDateTime          | dateTime                  | 0..1         | A date on which all static data associated with the trade item becomes available for viewing and synchronisation.                                                                                                                                                                                                                                                         |
| Attribute | udidFirstPublicationDateTime | dateTime                  | 0..1         | The date upon which a Unique Device Identification Database (UDID) can publish the Trade Item Information into their public facing systems. The value can be different for each UDID GLN based on when it should be published by each UDID. Each UDID needs a single non-changeable date upon which to derive when to publish information to their public facing systems. |

## 5 Trade Item Modules

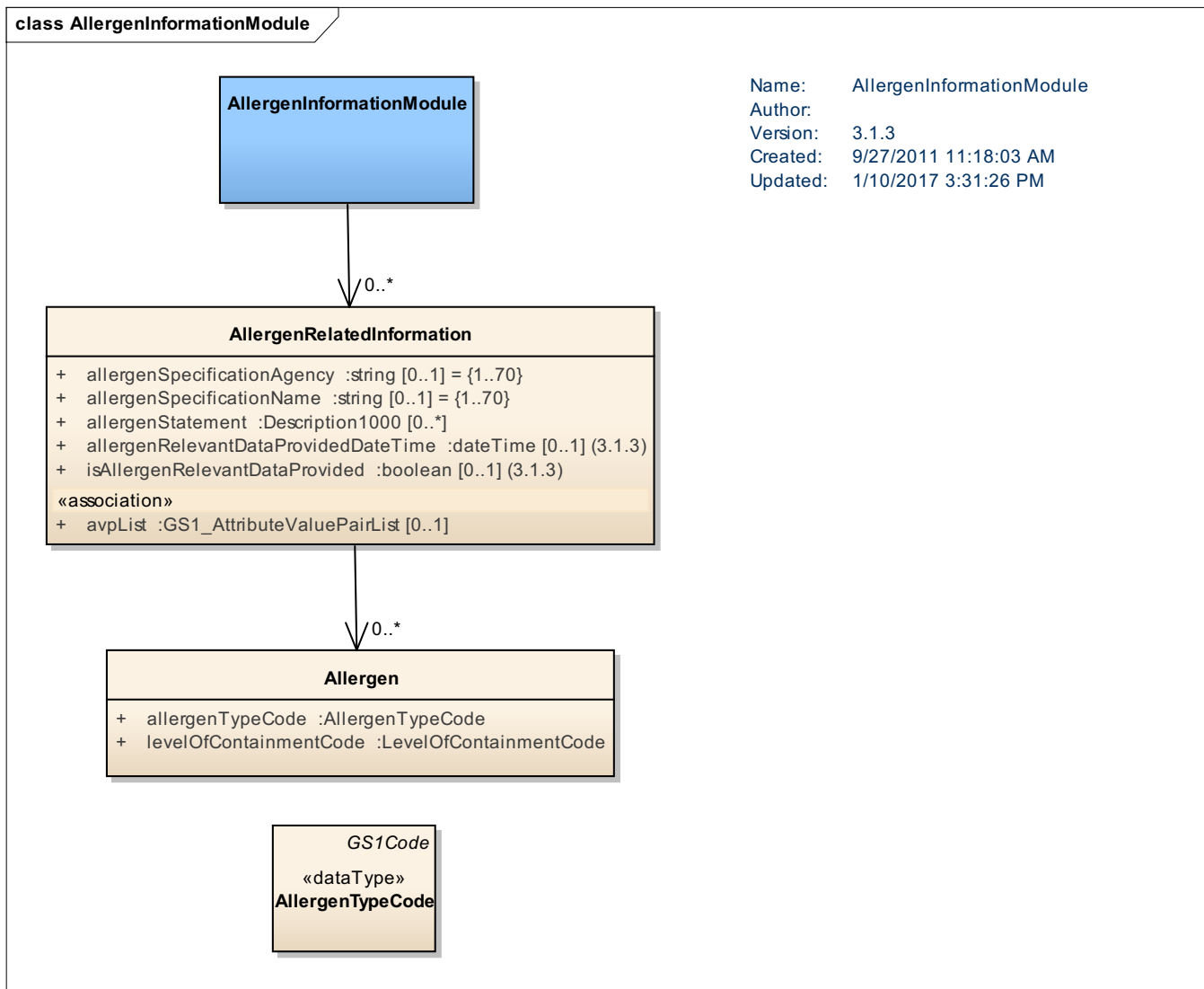
### 5.1 Alcohol Information Module



| content                      | attribute / role | datatype / secondary class | multipl<br>city | definition                                                                |
|------------------------------|------------------|----------------------------|-----------------|---------------------------------------------------------------------------|
| AlcoholInformatio<br>nModule |                  |                            |                 | A module containing details on products traditionally containing alcohol. |

| content                | attribute / role                             | datatype / secondary class     | multipl<br>city | definition                                                                                                                                                                                                                                           |
|------------------------|----------------------------------------------|--------------------------------|-----------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Association            |                                              | AlcoholInformatio<br>n         | 0..1            | Details on products traditionally containing alcohol.                                                                                                                                                                                                |
| AlcoholInformatio<br>n |                                              |                                |                 | Details on products traditionally containing alcohol.                                                                                                                                                                                                |
| Association            | avpList                                      | GS1_AttributeValu<br>ePairList | 0..1            | The transmission of non-standard data done in a simple, flexible, and easy to use method.                                                                                                                                                            |
| Attribute              | alcoholicBeverageSub<br>region               | string                         | 0..1            | A legally defined geographical region where the grapes for a wine were grown also known as an appellation.                                                                                                                                           |
| Attribute              | alcoholicPermissionLe<br>vel                 | string                         | 0..1            | Indication of a permission level for alcoholic products dependent on the product classification. The permission level codes should reflect those of the target market.                                                                               |
| Attribute              | degreeOfOriginalWort                         | decimal                        | 0..1            | Specification of the degrees of original wort.                                                                                                                                                                                                       |
| Attribute              | isTradeItemAQualityVi<br>ntageAlcoholProduct | boolean                        | 0..1            | An indicator on an alcoholic beverage trade item whether the supplier has a "declared statement of quality (in French Millésime)" or not. This "declared statement of quality" requires the "Vintage" year of harvest of the grapes to be completed. |
| Attribute              | percentageOfAlcoholB<br>yVolume              | decimal                        | 0..1            | Percentage of alcohol contained in the base unit trade item.                                                                                                                                                                                         |
| Attribute              | vintner                                      | string                         | 0..*            | The person hired by a winery or wine company who is responsible for many of the processes in the preparation, taste and quality of the wine produced. The science of wine making is referred to as oenology. The vintner is the oenologist.          |
| Attribute              | alcoholProof                                 | float                          | 0..1            | Alcohol proof is a measure of how much ethanol (alcohol) is contained in an alcoholic beverage.                                                                                                                                                      |
| Attribute              | alcoholicBeverageSug<br>arContent            | measurement                    | 0..*            | Indication of the amount of sugar contained in the beverage for example if sugar remaining equals 6.5 g/l then enter 6.5 GL.                                                                                                                         |
| Attribute              | vintage                                      | gYear                          | 0..*            | The year in which the majority of ingredients are harvested and/or the alcoholic beverage is produced. Determination as to whether the vintage year is the harvest date or production date is according to requirements in the Target Market.        |

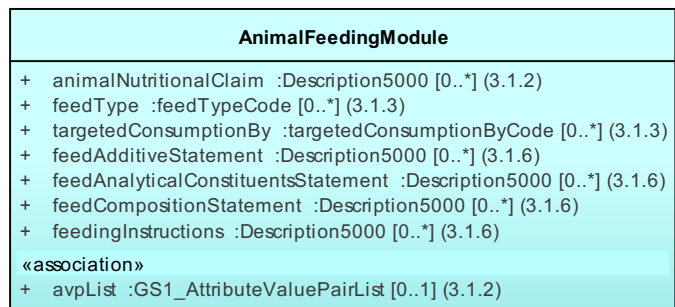
## 5.2 Allergen Information Module



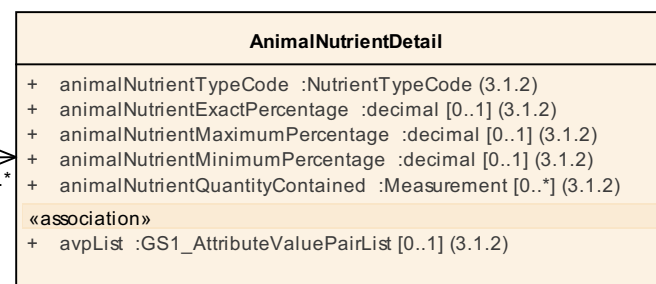
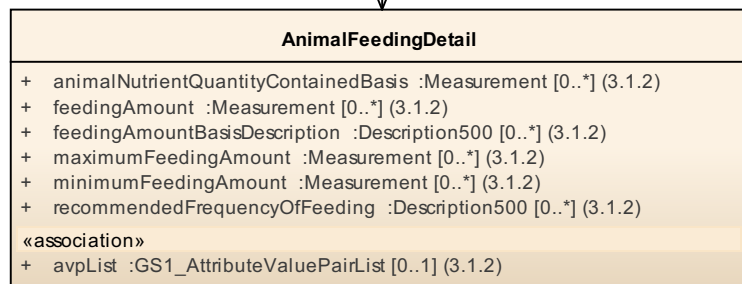
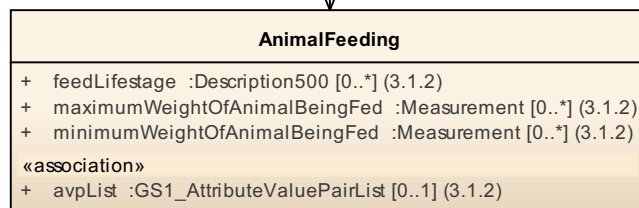
| content                    | attribute / role                     | datatype /secondary class  | multiplicity | definition                                                                                                                                                                                                                                                                          |
|----------------------------|--------------------------------------|----------------------------|--------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Allergen                   |                                      |                            |              | Description of the presence or absence of allergens as governed by local rules and regulations, specified per allergen.                                                                                                                                                             |
| Attribute                  | allergenTypeCode                     | AllergenTypeCode           | 1..1         | Code indicating the type of allergen.                                                                                                                                                                                                                                               |
| Attribute                  | levelOfContainmentCode               | LevelOfContainmentCode     | 1..1         | Code indicating the level of presence of the allergen.                                                                                                                                                                                                                              |
| AllergenInformationModule  |                                      |                            |              | A module containing information on allergens for a trade item.                                                                                                                                                                                                                      |
| Association                |                                      | AllergenRelatedInformation | 0..*         | Details of allergens for a trade item.                                                                                                                                                                                                                                              |
| AllergenRelatedInformation |                                      |                            |              | Information on substances that might cause allergic reactions and substances subject to intolerance when consumed.<br><br>The allergy information refers to specified regulations that apply to the target market to which the item information is published.                       |
| Association                |                                      | Allergen                   | 0..*         | Details of the allergen and the associated containment.                                                                                                                                                                                                                             |
| Association                | avpList                              | GS1_AttributeValuePairList | 0..1         | The transmission of non-standard data done in a simple, flexible, and easy to use method.                                                                                                                                                                                           |
| Attribute                  | allergenSpecificationAgency          | string                     | 0..1         | Agency that controls the allergen definition.                                                                                                                                                                                                                                       |
| Attribute                  | allergenSpecificationName            | string                     | 0..1         | Free text field containing the name and version of the regulation or standard that contains the definition of the allergen.                                                                                                                                                         |
| Attribute                  | allergenStatement                    | Description1000            | 0..*         | Textual description of the presence or absence of allergens as governed by local rules and regulations, specified as one string.                                                                                                                                                    |
| Attribute                  | allergenRelevantDataProvidedDateTime | dateTime                   | 0..1         | The date upon which the isAllergenRelevantDataProvided indicator was last updated.                                                                                                                                                                                                  |
| Attribute                  | isAllergenRelevantDataProvided       | boolean                    | 0..1         | Determines whether allergen Information is populated for those values which are relevant or required to be populated on the product label or label equivalent. All values not populated are not relevant or not required to be populated on the product label by local regulations. |

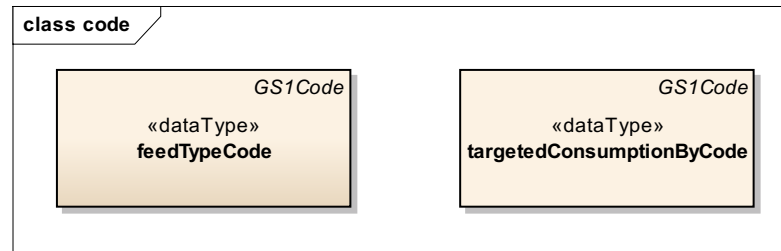
### 5.3 Animal Feeding Module

class AnimalFeedingModule



Name: AnimalFeedingModule  
 Author: eric.kauz  
 Version: 3.1.6  
 Created: 1/29/2016 12:48:50 PM  
 Updated: 12/20/2017 2:23:58 PM





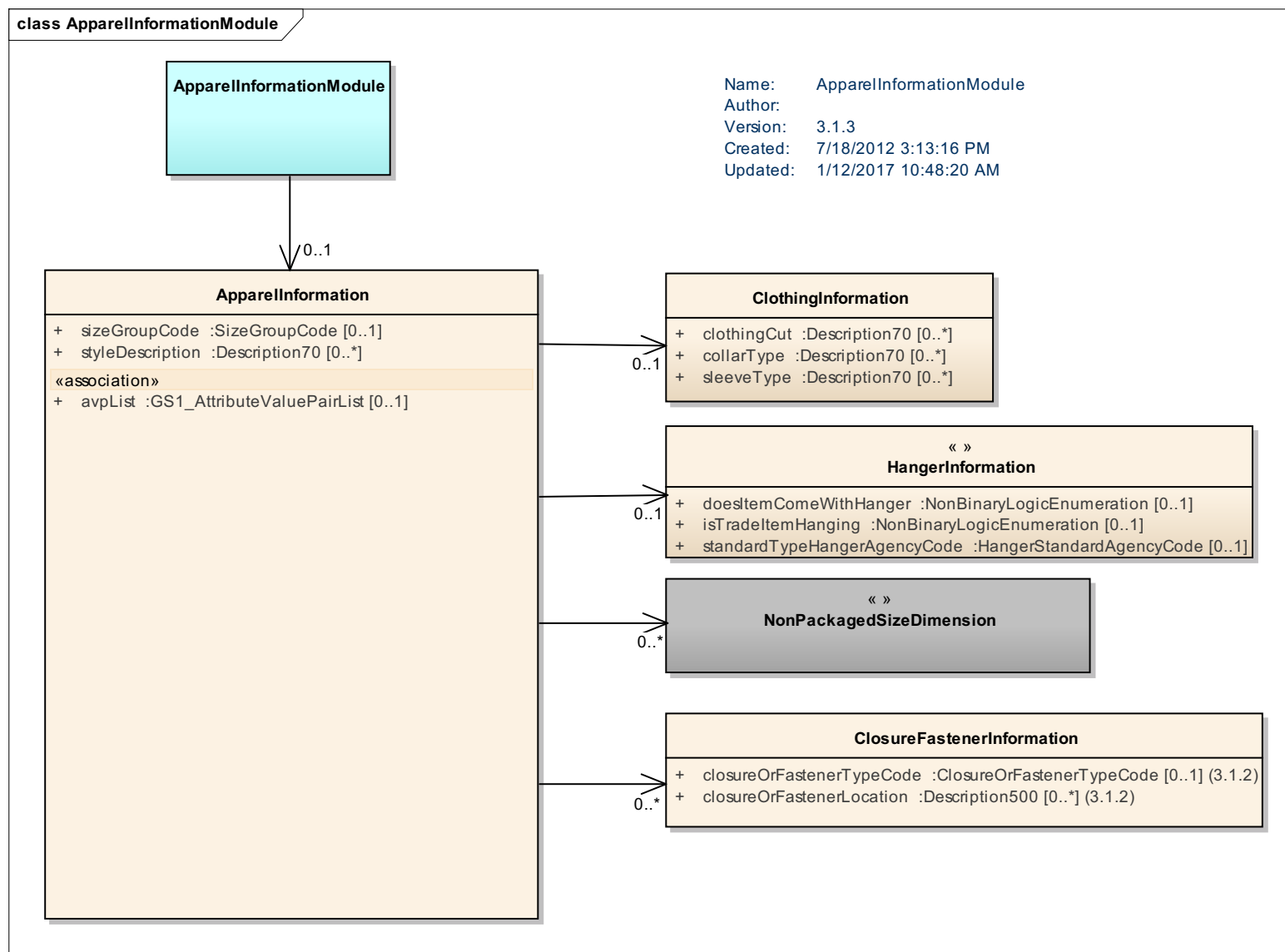
| content             | attribute / role                     | datatype /secondary class  | multiplicity | definition                                                                                                                                                                                                     |
|---------------------|--------------------------------------|----------------------------|--------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| AnimalFeeding       |                                      |                            |              | Feeding directions for the trade item as it relates to different lifestages of the animal to be fed.                                                                                                           |
| attribute           | feedLifestage                        | Description500             | 0..*         | Identifies the life-stage of the animal for which a trade item has been designed for example Adult.                                                                                                            |
| attribute           | maximumWeightOfAnimalBeingFed        | Measurement                | 0..*         | The highest weight (in a weight range) of the animal to be fed by the trade item. This value qualifies the quantity of feed for the feed life-stage.                                                           |
| attribute           | minimumWeightOfAnimalBeingFed        | Measurement                | 0..*         | The lowest weight (in a weight range) of the animal to be fed by the trade item. This value qualifies the quantity of feed for the feed lifestage.                                                             |
| Association         |                                      | AnimalFeedingDetail        | 0..*         | Detail on animal feeding for a trade item.                                                                                                                                                                     |
| attribute           | avpList                              | GS1_AttributeValuePairList | 0..1         | The transmission of non-standard data done in a simple, flexible, and easy to use method.                                                                                                                      |
| AnimalFeedingDetail |                                      |                            |              | Detail directions for feeding amount of the trade item as it relates to different life stages of the animal to be fed.                                                                                         |
| attribute           | animalNutrientQuantityContainedBasis | Measurement                | 0..*         | The basis amount that the animal nutrient quantity contained is measured against for example, 12 Kilograms in the case of 3 grams per 12 kilogram.                                                             |
| attribute           | feedingAmount                        | Measurement                | 0..*         | The amount of feed which is specified for the feed life-stage and qualified by the weight of animal being fed.                                                                                                 |
| attribute           | feedingAmountBasisDescription        | Description500             | 0..*         | The basis code to qualify the feeding amounts being specified. For example, per day.                                                                                                                           |
| attribute           | maximumFeedingAmount                 | Measurement                | 0..*         | The maximum amount of feed which is specified for the feed life-stage and qualified by the weight of animal being fed.                                                                                         |
| attribute           | minimumFeedingAmount                 | Measurement                | 0..*         | The minimum amount of feed which is specified for the feed life-stage and qualified by the weight of animal being fed.                                                                                         |
| attribute           | recommendedFrequencyOfFeeding        | Description500             | 0..*         | How frequently it is recommended to feed an animal the quantity of feed within a time period for the specified feed life-stage. Examples: 2 feedings per day, maximum 2 chew sticks and/or 2 portions per day. |

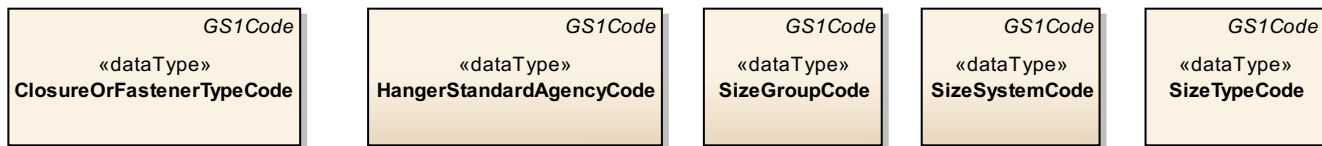


| content              | attribute / role                    | datatype /secondary class  | multiplicity | definition                                                                                                                                                                                                                                  |
|----------------------|-------------------------------------|----------------------------|--------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| association          |                                     | AnimalNutrientDetail       | 0..*         | Nutrient information for animal feed products.                                                                                                                                                                                              |
| association          | avpList                             | GS1_AttributeValuePairList | 0..1         | The transmission of non-standard data done in a simple, flexible, and easy to use method.                                                                                                                                                   |
| AnimalFeedingModule  |                                     |                            |              | A module detailing instructions on feeding animals in relation to different stages of their life.                                                                                                                                           |
| attribute            | animalNutritionalClaim              | Description5000            | 0..*         | Free text field for any additional nutritional claims in relations to animal feed.                                                                                                                                                          |
| Attribute            | feedAnalyticalConstituentsStatement | Description5000            | 0..*         | List of the analytical constituents or guaranteed analysis of the feed, based on the nutrient analysis of the finished product, as governed by local rules and regulations.                                                                 |
| Attribute            | feedAdditiveStatement               | Description5000            | 0..*         | List of the substances added to feed during processing, as for preservation, coloring, or stabilization as governed by local rules and regulations.                                                                                         |
| Attribute            | feedCompositionStatement            | Description5000            | 0..*         | List of the animal feed composition data, based on the ingredients contained in the feed, as governed by local rules and regulations.                                                                                                       |
| Attribute            | feedingInstructions                 | Description5000            | 0..*         | All instructions describing how (e.g. in which amounts or how often) the animal should be fed based on the age, weight, diet or other variables, expressed as a free text. Information provided shall be identical as on the label or pack. |
| attribute            | feedType                            | FeedTypeCode               | 0..*         | The type of pet food or feed given to wild or domestic animals in the course of animal husbandry, e.g. feed material, complete feed, complementary feed.                                                                                    |
| attribute            | targetedConsumptionBy               | TargetedConsumptionByCode  | 0..*         | The type of animal this food is intended to be consumed by for example RABBIT.                                                                                                                                                              |
| association          |                                     | AnimalFeeding              | 0..*         | Animal feeding directions for an animal.                                                                                                                                                                                                    |
| Association          | avpList                             | GS1_AttributeValuePairList | 0..1         | The transmission of non-standard data done in a simple, flexible, and easy to use method.                                                                                                                                                   |
| AnimalNutrientDetail |                                     |                            |              | Nutrient information for animal feed products.                                                                                                                                                                                              |
| attribute            | animalNutrientExactPercentage       | decimal                    | 0..1         | The guaranteed percentage of the specified nutrient contained in the trade item.                                                                                                                                                            |
| attribute            | animalNutrientMaximumPercentage     | decimal                    | 0..1         | Maximum guaranteed percentage of the specified nutrient contained in the trade item.                                                                                                                                                        |
| attribute            | animalNutrientMinimumPercentage     | decimal                    | 0..1         | Minimum guaranteed percentage of the specified nutrient contained in the trade item.                                                                                                                                                        |

| content     | attribute /<br>role                     | datatype<br>/secondary<br>class | multiplicity | definition                                                                                                                                                                                                                                                                                                                                                           |
|-------------|-----------------------------------------|---------------------------------|--------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| attribute   | animalNutrient<br>QuantityContain<br>ed | Measurement                     | 0..*         | Measurement value indicating the amount of the nutrient contained in the animal food or nutrition product. It is expressed relative to the animal nutrient quantity contained basis measurement. For example, 3 grams in the case of 3 grams per 12 kilogram. Allows for the representation of the same value in different units of measure but not multiple values. |
| attribute   | animalNutrientT<br>ypeCode              | NutrientTypeCo<br>de            | 1..1         | A code identifying nutrients contained in the animal food or nutrition product.                                                                                                                                                                                                                                                                                      |
| association | avpList                                 | GS1_AttributeV<br>aluePairList  | 0..1         | The transmission of non-standard data done in a simple, flexible, and easy to use method.                                                                                                                                                                                                                                                                            |

## 5.4 Apparel Information Module

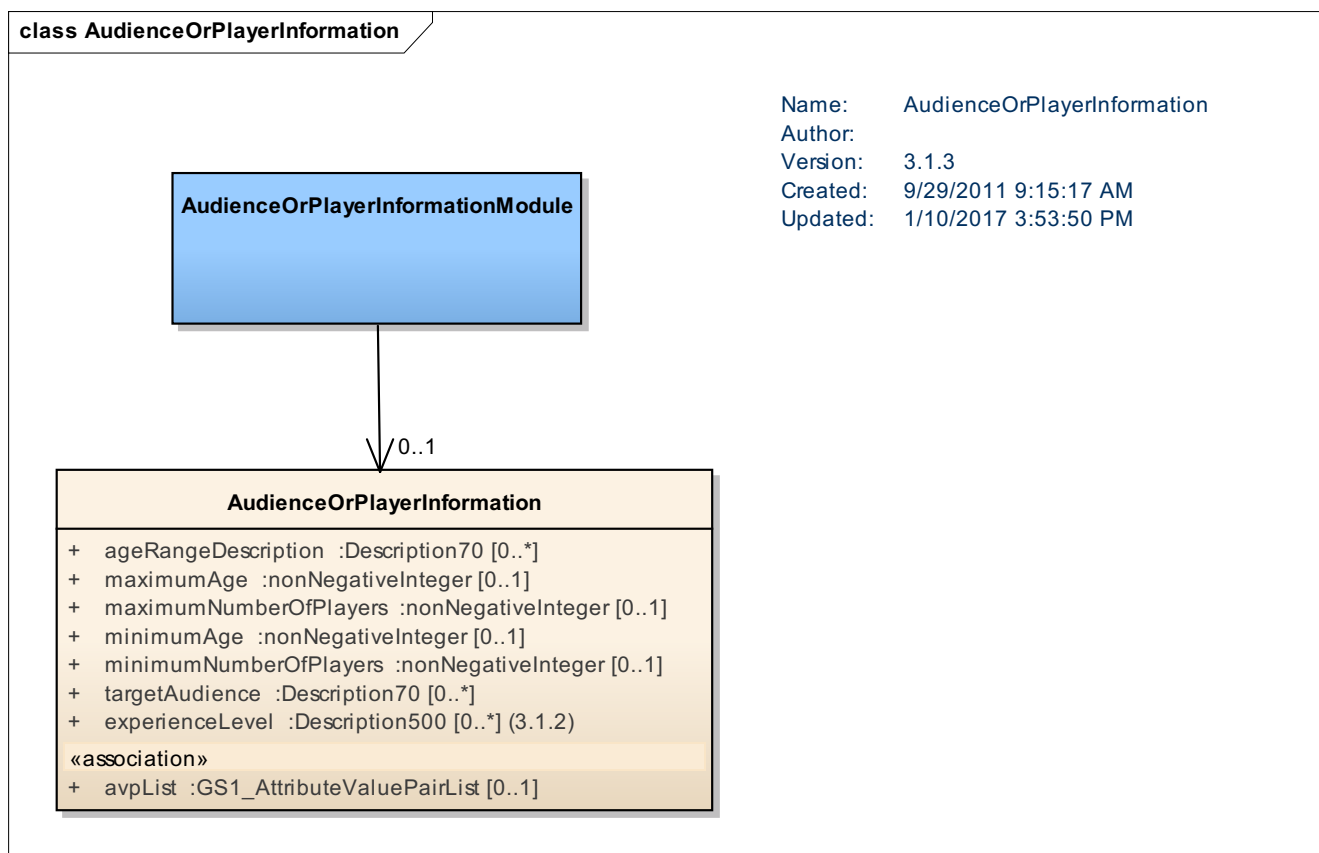


**class ApparelInformationModule**


| content                    | attribute / role          | datatype /secondary class  | multipl<br>city | definition                                                                                                                                                                                  |
|----------------------------|---------------------------|----------------------------|-----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ApparelInformation         |                           |                            |                 | Details specific to apparel trade items.                                                                                                                                                    |
| Association                | avpList                   | GS1_AttributeValuePairList | 0..1            | The transmission of non-standard data done in a simple, flexible, and easy to use method.                                                                                                   |
| Association                |                           | ClothingInformation        | 0..1            | Information related to clothing.                                                                                                                                                            |
| Association                |                           | HangerInformation          | 0..1            | Information on hangers for the apparel item.                                                                                                                                                |
| Association                |                           | NonPackagedSizeDimension   | 0..*            | Size information related to apparel trade items.                                                                                                                                            |
| Association                |                           | ClosureFastenerInformation | 0..*            | Details on the closure or fastener in or on the trade item.                                                                                                                                 |
| Attribute                  | sizeGroupCode             | SizeGroupCode              | 0..1            | A description of the variable size that is necessary to uniquely specify the size of the item in conjunction with the non-packaged size dimension.                                          |
| Attribute                  | styleDescription          | Description70              | 0..*            | A description of the style of GTINs that share many of the similar characteristics and are recognizable types of products by the consumer.                                                  |
| ApparelInformationModule   |                           |                            |                 | A module containing details specific to apparel trade items.                                                                                                                                |
| Association                |                           | ApparelInformation         | 0..1            | Details specific to apparel trade items.                                                                                                                                                    |
| ClosureFastenerInformation |                           |                            |                 | Details on the closure or fastener in or on the trade item.                                                                                                                                 |
| attribute                  | closureOrFastenerTypeCode | ClosureOrFastenerTypeCode  | 0..1            | A code to identify the type(s) of closure or fastener in or on the trade item. For example: zipper, hook and loop, button, etc..                                                            |
| attribute                  | closureOrFastenerLocation | Description500             | 0..*            | The location on the trade item of the zipper, snap, button, etc..                                                                                                                           |
| ClothingInformation        |                           |                            |                 | Information related to clothing.                                                                                                                                                            |
| Attribute                  | clothingCut               | Description70              | 0..*            | Supplemental information to indicate the clothing cut or silhouette make of the garment. For example: silhouette details for a pair of jeans such as boot cut, or loose fit, "Comfort Fit". |
| Attribute                  | collarType                | Description70              | 0..*            | A free text description that identifies the type of collar on the garment.                                                                                                                  |
| Attribute                  | sleeveType                | Description70              | 0..*            | A free text description of the garment sleeve type.                                                                                                                                         |

| content           | attribute / role             | datatype /secondary class | multipl<br>city | definition                                                                                                                         |
|-------------------|------------------------------|---------------------------|-----------------|------------------------------------------------------------------------------------------------------------------------------------|
| HangerInformation |                              |                           |                 | Contains information regarding any hanger included with product.                                                                   |
| Attribute         | doesItemComeWithHanger       | boolean                   | 0..1            | A boolean value that indicates whether or not the trade item comes with a hanger.                                                  |
| Attribute         | isTradeItemHanging           | NonBinaryLogicEnumeration | 0..1            | An indicator whether or not the trade Item is shipped hanging, as opposed to being shipped with a hanger but not actually hanging. |
| Attribute         | standardTypeHangerAgencyCode | HangerStandardAgencyCode  | 0..1            | A code that identifies the agency that specifies industry standards for hangers.                                                   |

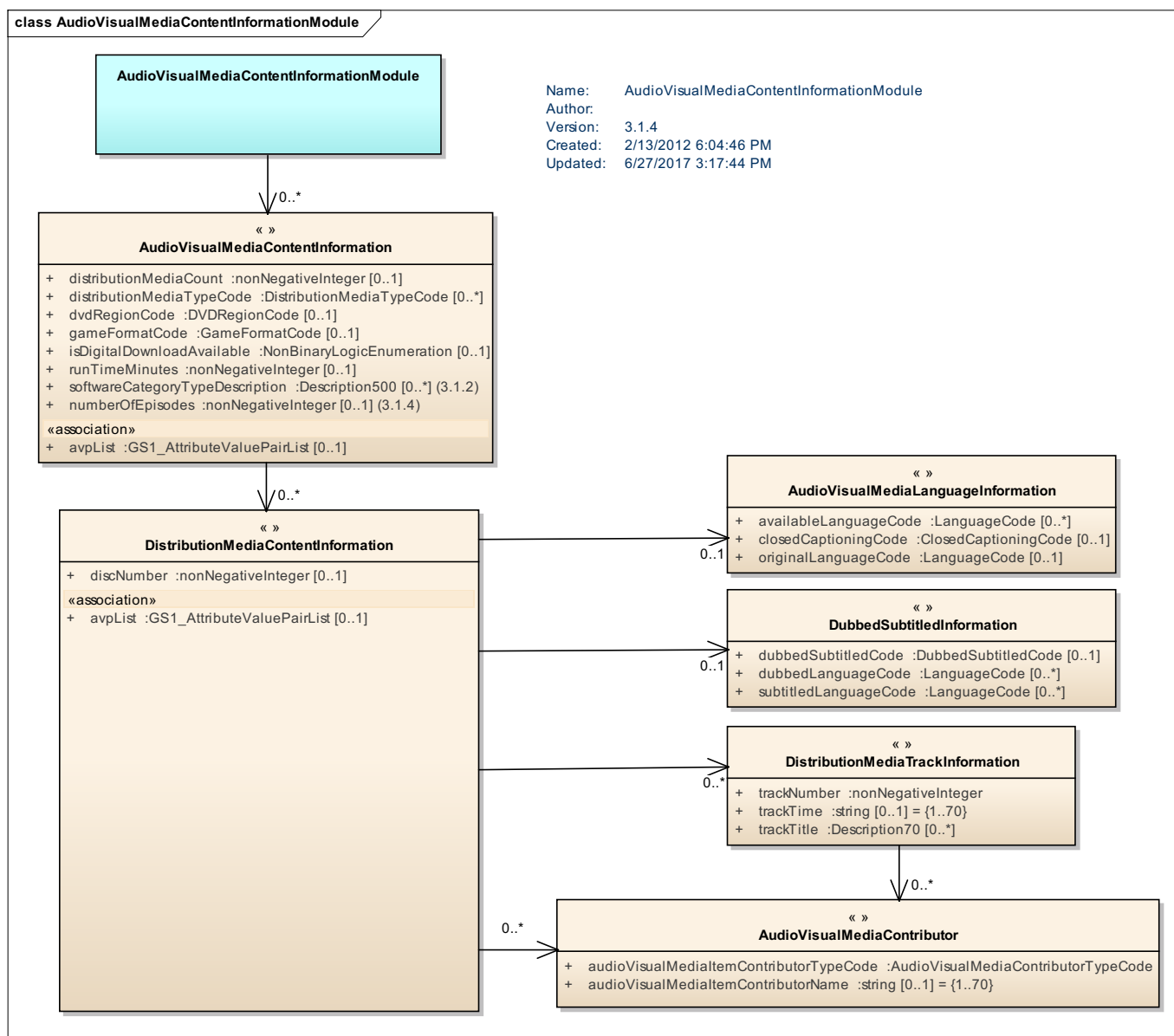
## 5.5 Audience Or Player Information Module



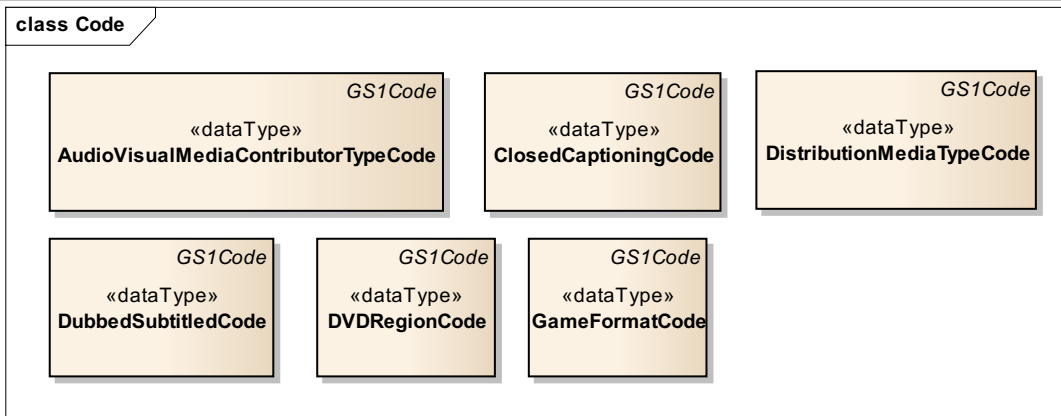
| Content                               | Attribute / Role | Datatype /Secondary class       | Multipl<br>icity | Definition                                                                                |
|---------------------------------------|------------------|---------------------------------|------------------|-------------------------------------------------------------------------------------------|
| AudienceOrPlayerInformatio<br>nModule |                  |                                 |                  | Logical grouping of information regarding audience or player information.                 |
| Association                           |                  | AudienceOrPlayerI<br>nformation | 0..1             | Logical grouping of information regarding audience or player information.                 |
| AudienceOrPlayerInformatio<br>n       |                  |                                 |                  | Logical grouping of information regarding audience or player information.                 |
| Association                           | avpList          | GS1_AttributeValu<br>ePairList  | 0..1             | The transmission of non-standard data done in a simple, flexible, and easy to use method. |

| Content   | Attribute / Role       | Datatype /Secondary class | Multipl<br>icity | Definition                                                                                                                  |
|-----------|------------------------|---------------------------|------------------|-----------------------------------------------------------------------------------------------------------------------------|
| Attribute | ageRangeDescription    | Description70             | 0..*             | Description of the recommended age range of participating players.                                                          |
| Attribute | experienceLevel        | Description500            | 0..*             | The level of experience or expertise required to use the equipment or device for example: Beginner, Intermediate, Advanced. |
| Attribute | maximumAge             | nonNegativeInteger        | 0..1             | Recommended oldest age for a game or publication.                                                                           |
| Attribute | maximumNumberOfPlayers | nonNegativeInteger        | 0..1             | Maximum number of players that can participate in the game.                                                                 |
| Attribute | minimumAge             | nonNegativeInteger        | 0..1             | Recommended youngest age for a the game or publication.                                                                     |
| Attribute | minimumNumberOfPlayers | nonNegativeInteger        | 0..1             | Minimum number of players that can participate in the game.                                                                 |
| Attribute | targetAudience         | Description70             | 0..*             | A description of the recommended audience of the music publication.                                                         |

## 5.6 Audio Visual Media Content Information Module





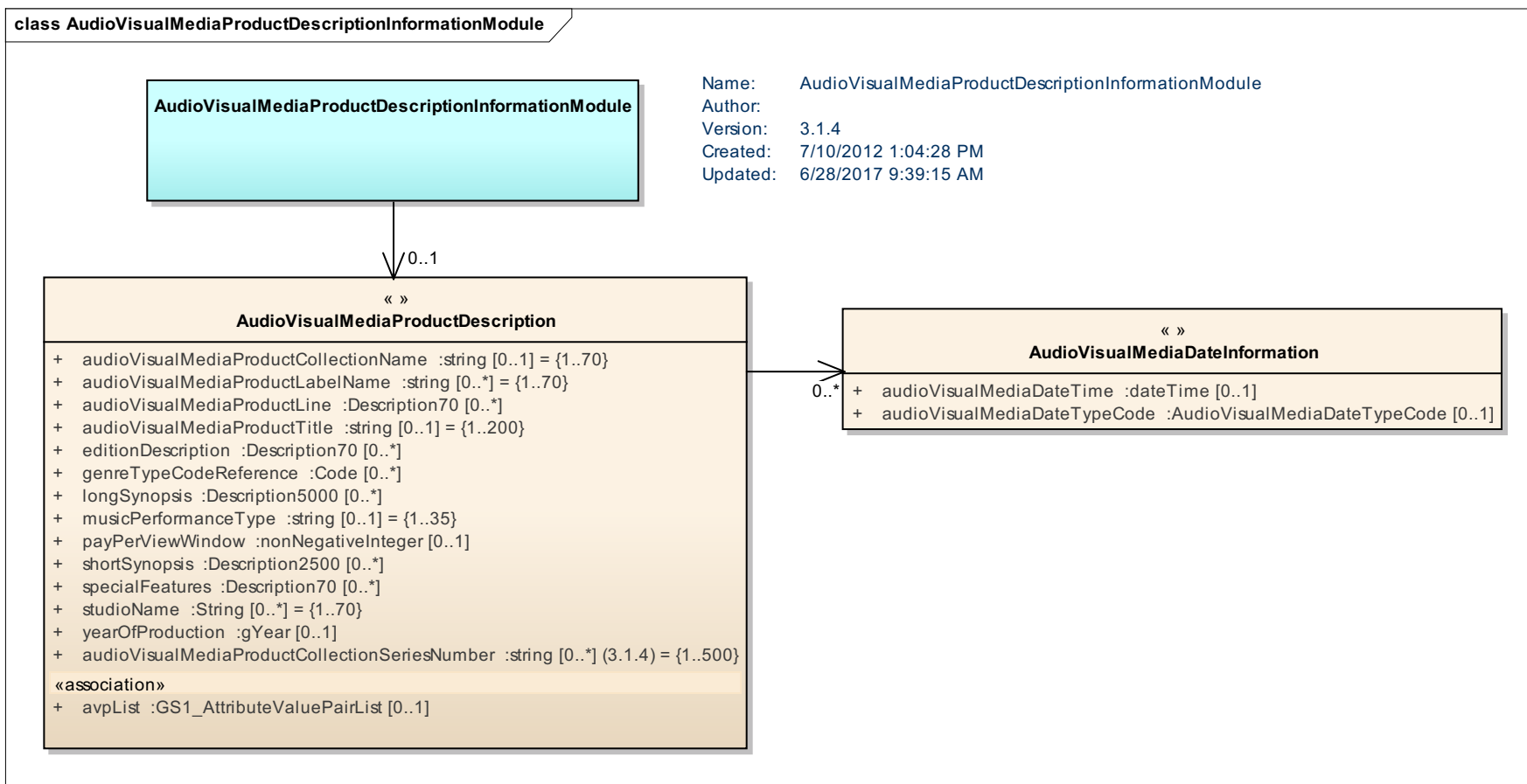


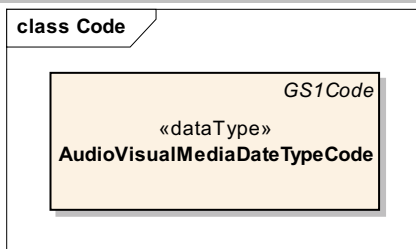
| Content                                  | Attribute / Role          | Datatype /Secondary class           | Multiplicity | Definition                                                                                                                                                          |
|------------------------------------------|---------------------------|-------------------------------------|--------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| AudioVisualMediaContentInformationModule |                           |                                     |              | Information on the media included in the package for the purposes of storing the software, games, music, films.                                                     |
| Association                              |                           | AudioVisualMediaContentInformation  | 0..*         | Information on the media included in the package for the purposes of storing the software, games, music, films.                                                     |
| AudioVisualMediaContentInformation       |                           |                                     |              | Information on the media included in the package for the purposes of storing the software, games, music, films.                                                     |
| Association                              | avpList                   | GS1_AttributeValuePairList          | 0..1         | The transmission of non-standard data done in a simple, flexible, and easy to use method.                                                                           |
| Association                              |                           | DistributionMediaContentInformation | 0..*         | Information on the content of the distribution media.                                                                                                               |
| Attribute                                | distributionMediaCount    | nonNegativeInteger                  | 0..1         | The quantity of media storage devices that are included in the package for the purposes of storing the software.                                                    |
| Attribute                                | distributionMediaTypeCode | DistributionMediaTypeCode           | 0..*         | The type of media storage devices that are included in the package for the purposes of storing the software for example memory sticks, discs, cartridges.           |
| Attribute                                | dvdRegionCode             | DVDRegionCode                       | 0..1         | A code that identifies the region in which the DVD will be sold. Only DVDs and DVD players with matching codes will work unless the DVD player has been "de-zoned". |

| Content                             | Attribute / Role                        | Datatype /Secondary class           | Multiplicity | Definition                                                                                                                     |
|-------------------------------------|-----------------------------------------|-------------------------------------|--------------|--------------------------------------------------------------------------------------------------------------------------------|
| Attribute                           | gameFormatCode                          | GameFormatCode                      | 0..1         | Code that identifies the electronic environment or system needed to use the electronic game. For example X-Box, Game Cube, PS2 |
| Attribute                           | isDigitalDownloadAvailable              | NonbinaryLogicEnumeration           | 0..1         | Indicates if the title is available in the digital download format.                                                            |
| Attribute                           | runTimeMinutes                          | nonNegativeInteger                  | 0..1         | The length of a media item expressed in minutes.                                                                               |
| Attribute                           | softwareCategoryTypeDescription         | Description500                      | 0..*         | The general category of software by which the item is most closely associated, computers, mobile, GPS, gaming, marine etc..    |
| Attribute                           | numberOfEpisodes                        | nonNegativeInteger                  | 0..1         | The number of episodes in the season or set for example 2, 3 or 4.                                                             |
| AudioVisualMediaContributor         |                                         |                                     |              | Information on the contributor to the audio, visual media item for example artist or producer.                                 |
| Attribute                           | audioVisualMediaItemContributorTypeCode | AudioVisualMediaContributorTypeCode | 1..1         | A code identifying the type of contributor to media content for example artist, producer, director.                            |
| Attribute                           | audioVisualMediaItemContributorName     | string                              | 0..1         | The name of the contributor of the media content for example artist, producer, director.                                       |
| AudioVisualMediaLanguageInformation |                                         |                                     |              | Logical Grouping of Information relating to the language of an audio, visual or media related trade item..                     |
| Attribute                           | availableLanguageCode                   | LanguageCode                        | 0..*         | The available languages used to interface with the consumer.                                                                   |
| Attribute                           | closedCaptioningCode                    | ClosedCaptioningCode                | 0..1         | A code that indicates if the film has closed captions, no closed captions or if this information is unknown.                   |
| Attribute                           | originalLanguageCode                    | LanguageCode                        | 0..1         | The code of the language in which the film is released. It is the language spoken on the screen.                               |
| DubbedSubtitledInformation          |                                         |                                     |              | Logical grouping of subtitle information.                                                                                      |

| Content                             | Attribute / Role      | Datatype / Secondary class          | Multiplicity | Definition                                                                                                                                                                                                                                                                                                |
|-------------------------------------|-----------------------|-------------------------------------|--------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Attribute                           | dubbedSubtitledCode   | DubbedSubtitledCode                 | 0..1         | A code that indicates if the film is dubbed, subtitled or dubbed and subtitled.<br>Subtitled = the film has caption translating dialogue.<br>Dubbed = The film has a translated alternative soundtrack.<br>Dubbed and subtitled = the film has caption to translate dialogue and a translated soundtrack. |
| Attribute                           | dubbedLanguageCode    | LanguageCode                        | 0..*         | A code that identifies the dubbed language of a film.                                                                                                                                                                                                                                                     |
| Attribute                           | subtitledLanguageCode | LanguageCode                        | 0..*         | A code that identifies the language used in a trade item's subtitles.                                                                                                                                                                                                                                     |
| DistributionMediaContentInformation |                       |                                     |              | Logical grouping of information relating to the content of a particular distribution media.                                                                                                                                                                                                               |
| Association                         | avpList               | GS1_AttributeValuePairList          | 0..1         | The transmission of non-standard data done in a simple, flexible, and easy to use method.                                                                                                                                                                                                                 |
| Association                         |                       | DubbedSubtitledInformation          | 0..1         | Logical grouping of subtitle information.                                                                                                                                                                                                                                                                 |
| Association                         |                       | DistributionMediaTrackInformation   | 0..*         | Logical grouping of information relating to the content of a particular distribution media                                                                                                                                                                                                                |
| Association                         |                       | AudioVisualMediaLanguageInformation | 0..1         | Language information for the audio visual media product.                                                                                                                                                                                                                                                  |
| Association                         |                       | AudioVisualMediaContributor         | 0..*         | Information on any contributors to the audio visual media item for example producer.                                                                                                                                                                                                                      |
| Attribute                           | discNumber            | nonNegativeInteger                  | 0..1         | The number allocated to a disc, beginning with 1                                                                                                                                                                                                                                                          |
| DistributionMediaTrackInformation   |                       |                                     |              | Logical grouping of information relating to the content of a particular distribution media                                                                                                                                                                                                                |
| Association                         |                       | AudioVisualMediaContributor         | 0..*         | Information on any contributors to the audio visual media item for example producer.                                                                                                                                                                                                                      |
| Attribute                           | trackNumber           | nonNegativeInteger                  | 1..1         | The number allocated to a disc, beginning with 1                                                                                                                                                                                                                                                          |
| Attribute                           | trackTime             | string                              | 0..1         | The length of the track expressed in hours and minutes and seconds.                                                                                                                                                                                                                                       |
| Attribute                           | trackTitle            | Description70                       | 0..*         | The name of the the track or section of the audio visual media trade item.                                                                                                                                                                                                                                |

## 5.7 Audio Visual Media Product Description Information Module

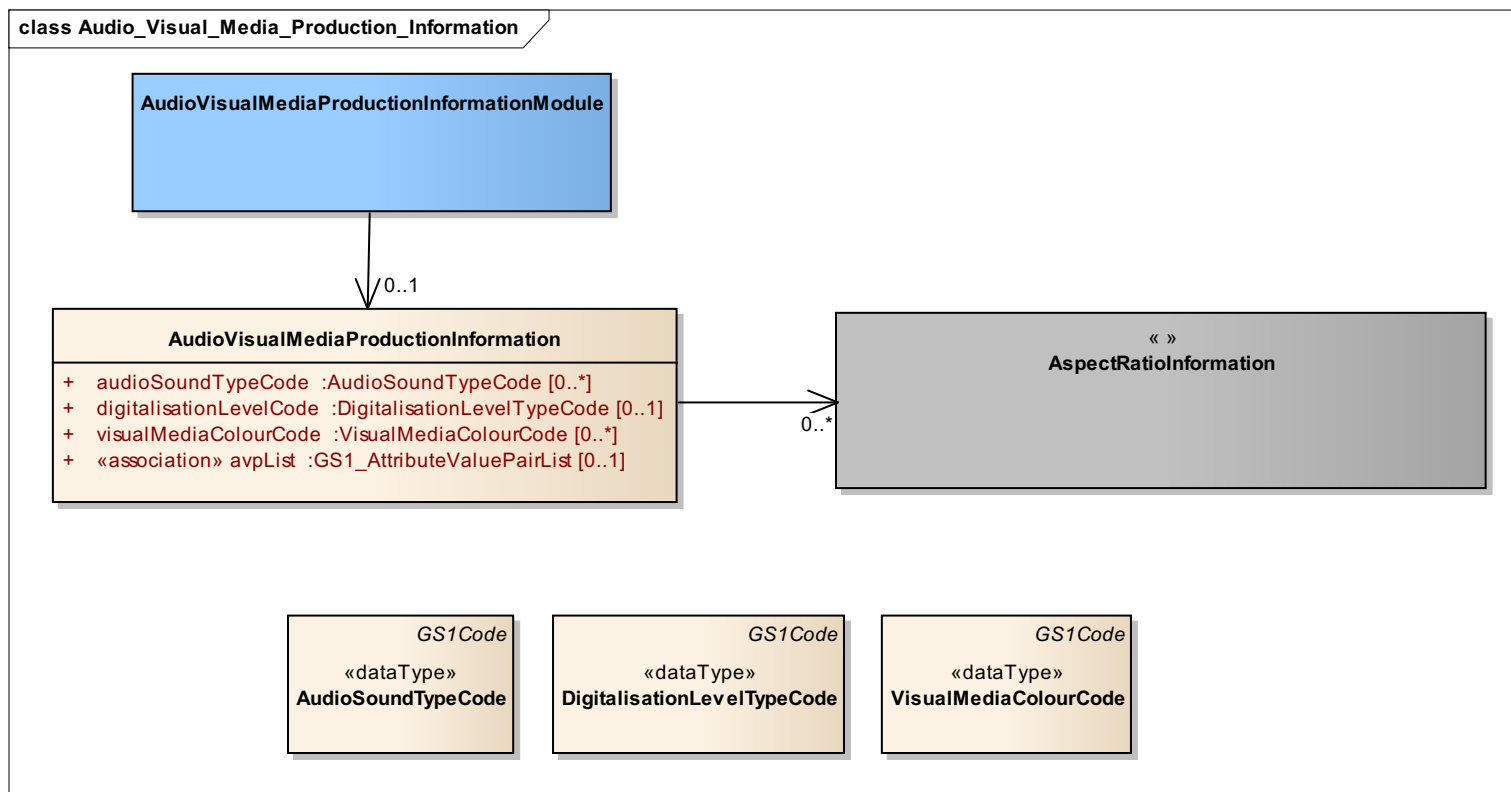




| Content                                             | Attribute / Role                      | Datatype /Secondary class          | Multiplicity | Definition                                                                                                                                       |
|-----------------------------------------------------|---------------------------------------|------------------------------------|--------------|--------------------------------------------------------------------------------------------------------------------------------------------------|
| AudioVisualMediaDateInformation                     |                                       |                                    |              | Information on dates that are specific to audio visual media products for example release date.                                                  |
| Attribute                                           | audioVisualMediaDateTime              | dateTime                           | 0..1         | The date for audio or visual media products for example release date.                                                                            |
| Attribute                                           | audioVisualMediaDataTypeCode          | AudioVisualMediaDataTypeCode       | 0..1         | A code specifying the type of date for audio or visual media products for example release date.                                                  |
| AudioVisualMediaProductDescriptionInformationModule |                                       |                                    |              | A module containing information on the genre and content of an entertainment related product (eg. movies, music) including format and genre.     |
| Association                                         |                                       | AudioVisualMediaProductDescription | 0..1         | Information on the genre and content of an entertainment related product (eg. movies, music) including format and genre.                         |
| AudioVisualMediaProductDescription                  |                                       |                                    |              | Information on the genre and content of an entertainment related product (eg. movies, music) including format and genre.                         |
| Association                                         | avpList                               | GS1_AttributeValuePairList         | 0..1         | The transmission of non-standard data done in a simple, flexible, and easy to use method.                                                        |
| Association                                         |                                       | AudioVisualMediaDateInformation    | 0..*         | Date information for an audio or visual media product.                                                                                           |
| Attribute                                           | audioVisualMediaProductCollectionName | string                             | 0..1         | The name of a series of music publications grouped under a common theme. The name of the collection is printed on the package of the trade item. |
| Attribute                                           | audioVisualMediaProductLabelName      | string                             | 0..*         | The name of the company (called label in the music industry) that made the music publication.                                                    |

| Content   | Attribute / Role                                | Datatype /Secondary class | Multiplicity | Definition                                                                                                                                                                                                                                                                                                                                                                                                                  |
|-----------|-------------------------------------------------|---------------------------|--------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Attribute | audioVisualMedia ProductLine                    | Description70             | 0..*         | The name of the product line that the trade item belongs to. A product line is a price grouping.                                                                                                                                                                                                                                                                                                                            |
| Attribute | audioVisualMedia ProductTitle                   | string                    | 0..1         | Title of the audio visual media product.                                                                                                                                                                                                                                                                                                                                                                                    |
| Attribute | editionDescription                              | Description70             | 0..*         | A text that describes the edition of the audio or visual media product.                                                                                                                                                                                                                                                                                                                                                     |
| Attribute | genreTypeCodeReference                          | Code                      | 0..*         | <p>The code of the genre of media item. The genre is a categorization of the trade item based upon the content and is maintained for marketing and merchandising purposes.</p> <p>The GS1 Code List used differs based on product:</p> <ul style="list-style-type: none"> <li>• Product Genre Type Code (Electronic Games)</li> <li>• Product Genre Type Code (Film)</li> <li>• Product Genre Type Code (Music).</li> </ul> |
| Attribute | longSynopsis                                    | Description5000           | 0..*         | An extended text that describes the plot of a film.                                                                                                                                                                                                                                                                                                                                                                         |
| Attribute | musicPerformanceType                            | string                    | 0..1         | A text description that indicates the conditions in which the recording took place.                                                                                                                                                                                                                                                                                                                                         |
| Attribute | payPerViewWindow                                | nonnegativeinteger        | 0..1         | The number of days of the pay per view window. The pay per view window is the timeframe when a film is available as pay per view on a cable TV channel.                                                                                                                                                                                                                                                                     |
| Attribute | shortSynopsis                                   | Description2500           | 0..*         | A short text that describes the plot of a film.                                                                                                                                                                                                                                                                                                                                                                             |
| Attribute | specialFeatures                                 | Description70             | 0..*         | A text that describes the contents of the trade item in terms of special features. This is not related to a specific disk.                                                                                                                                                                                                                                                                                                  |
| Attribute | studioName                                      | string                    | 0..*         | The name of the company (called studio in the film industry) that made the publication.                                                                                                                                                                                                                                                                                                                                     |
| Attribute | yearOfProduction                                | gYear                     | 0..1         | The year during which the film was produced.                                                                                                                                                                                                                                                                                                                                                                                |
| Attribute | audioVisualMedia ProductCollection SeriesNumber | string                    | 0..*         | Denotes which part of the series the media is part of for example Halloween II, Law & Order 7, South Park Season 12, Terminator 3, Star Wars II.                                                                                                                                                                                                                                                                            |

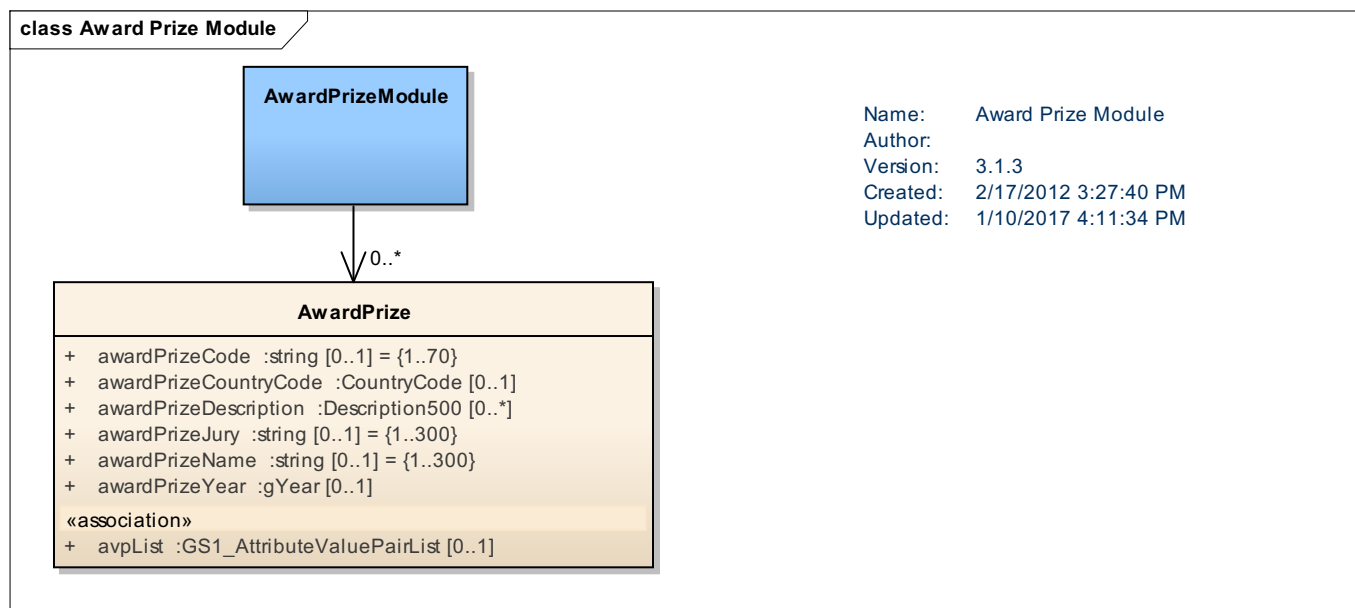
## 5.8 Audio Visual Media Production Information Module



| Content                                       | Attribute / Role         | Datatype / Secondary class             | Multipli city | Definition                                                                                                                                                                                                                                                                                                                                                         |
|-----------------------------------------------|--------------------------|----------------------------------------|---------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| AudioVisualMediaProd uctionInformation        |                          |                                        |               | Information on the production of the audio, visual or media publication.                                                                                                                                                                                                                                                                                           |
| Association                                   | avpList                  | GS1_AttributeValuePairL ist            | 0..1          | The transmission of non-standard data done in a simple, flexible, and easy to use method.                                                                                                                                                                                                                                                                          |
| Association                                   |                          | AspectRatioInformation                 | 0..*          | Aspect Ratio information for an audio visual media product.                                                                                                                                                                                                                                                                                                        |
| Attribute                                     | audioSoundTypeCod e      | AudioSoundTypeCode                     | 0..*          | A code that indicates the type of audio sound available on the trade item.                                                                                                                                                                                                                                                                                         |
| Attribute                                     | digitalisationLevelCo de | DigitalisationLevelTypeC ode           | 0..1          | A code that indicates the way a record was produced. Three stages are involved in production: recording, editing/mixing and dubbing/transfer. Recording and editing/mixing stages can be analogue or digital. If digital, the stage is coded D. If analogue, the stage is coded A. "ADD" means that the recording was analogue and the editing/mixing was digital. |
| Attribute                                     | visualMediaColourC ode   | VisualMediaColourCode                  | 0..*          | A code that indicates the colour system used in a film publication.                                                                                                                                                                                                                                                                                                |
| AudioVisualMediaProd uctionInformationMod ule |                          |                                        |               | Information on the production of the audio.                                                                                                                                                                                                                                                                                                                        |
| Association                                   |                          | AudioVisualMediaProduct ionInformation | 0..1          | Information on the production of the audio.                                                                                                                                                                                                                                                                                                                        |



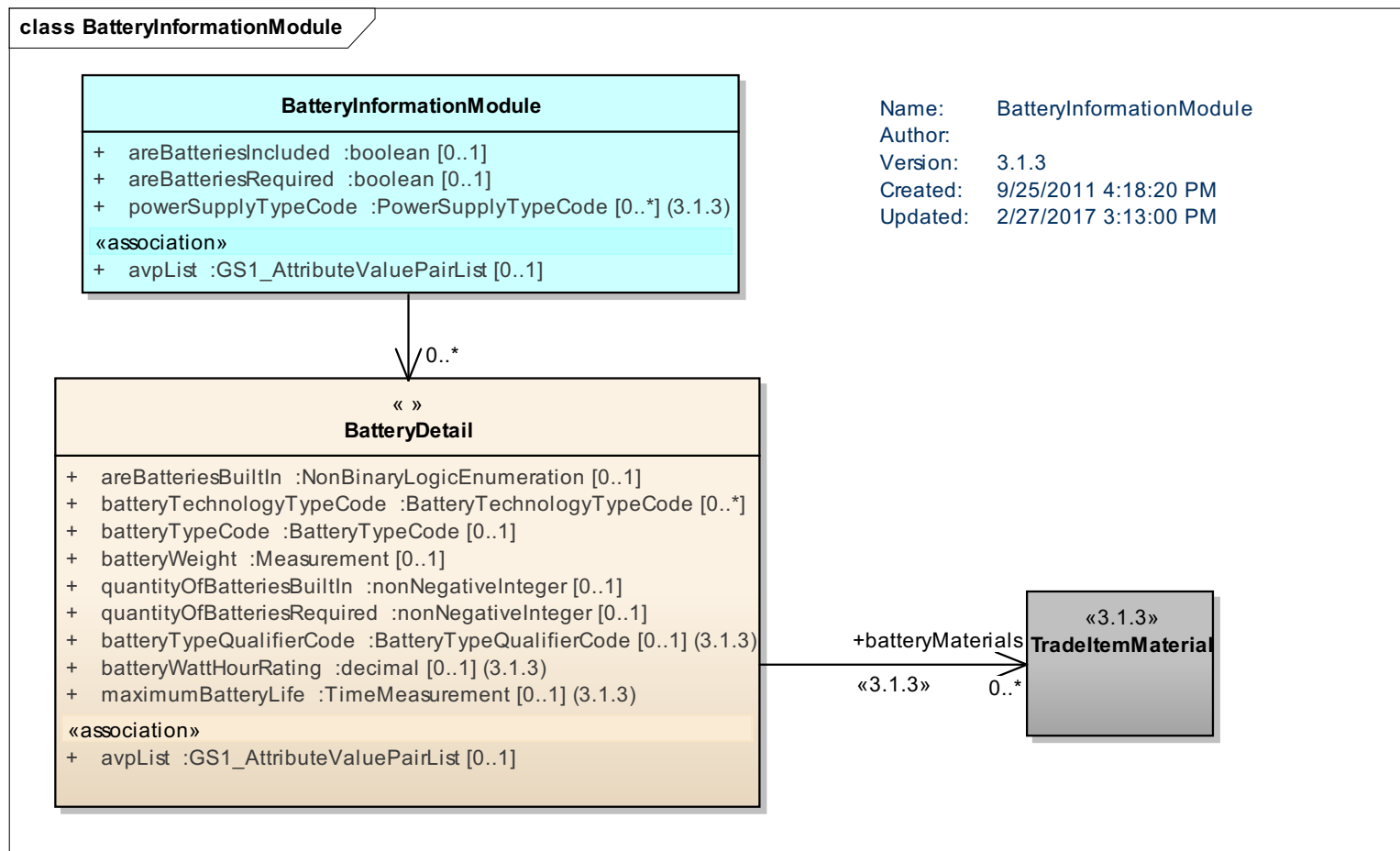
## 5.9 Award Prize Module

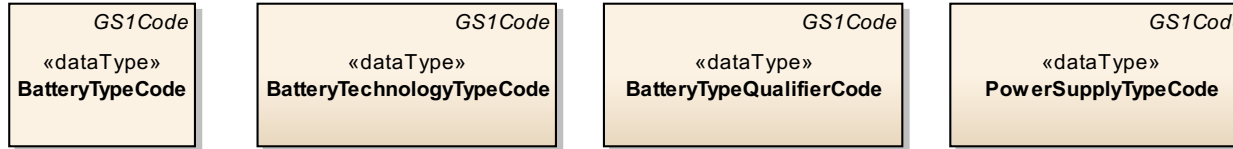


| content     | attribute / role          | datatype /secondary class      | multipl<br>icity | definition                                                                                                                               |
|-------------|---------------------------|--------------------------------|------------------|------------------------------------------------------------------------------------------------------------------------------------------|
| AwardPrize  |                           |                                |                  | Describes a prize or award won by the product.                                                                                           |
| Association | avpList                   | GS1_AttributeValue<br>PairList | 0..1             | The transmission of non-standard data done in a simple, flexible, and easy to use method.                                                |
| Attribute   | awardPrizeC<br>ode        | string                         | 0..1             | Indicates the achievement of the product in relation to a prize or award, eg winner, runner-up, shortlisted. Optional and non-repeating. |
| Attribute   | awardPrizeC<br>ountryCode | CountryCode                    | 0..1             | An ISO standard code identifying the country in which a prize or award is given                                                          |
| Attribute   | awardPrizeD<br>escription | Description500                 | 0..*             | A text that describes the awards a film won.                                                                                             |
| Attribute   | awardPrizeJu<br>ry        | string                         | 0..1             | Free text listing members of the jury that awarded the prize.                                                                            |
| Attribute   | awardPrizeN<br>ame        | string                         | 0..1             | The name of a prize or award which the product has received.                                                                             |

| content          | attribute /<br>role | datatype<br>/secondary class | multi-<br>plicity | definition                                               |
|------------------|---------------------|------------------------------|-------------------|----------------------------------------------------------|
| Attribute        | awardPrizeYear      | gYear                        | 0..1              | The year in which a prize or award was given.            |
| AwardPrizeModule |                     |                              |                   | A module describing a prize or award won by the product. |
| Association      |                     | AwardPrize                   | 0..*              | Describes a prize or award won by the product.           |

## 5.10 Battery Information Module

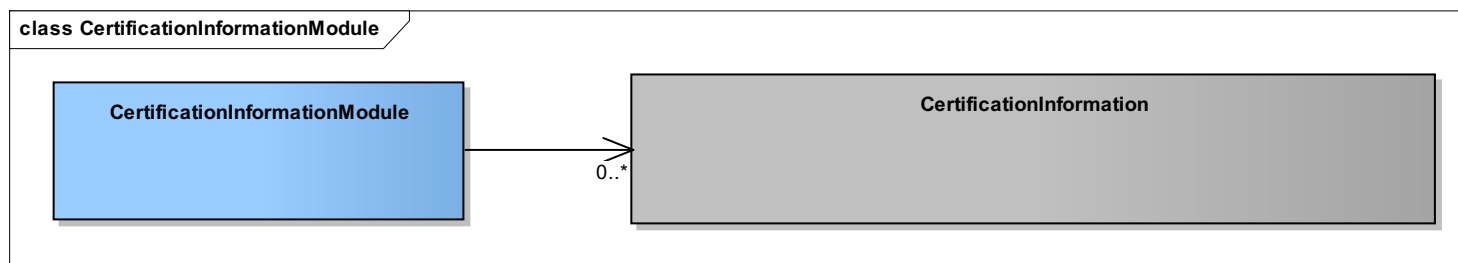


**class BatteryInformationModule**


| content                  | attribute / role          | datatype /secondary class  | multiplcity | definition                                                                                                                                                                                     |
|--------------------------|---------------------------|----------------------------|-------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| BatteryInformationModule |                           |                            |             | Battery information for a trade item.                                                                                                                                                          |
| Association              | avpList                   | GS1_AttributeValuePairList | 0..1        | The transmission of non-standard data done in a simple, flexible, and easy to use method.                                                                                                      |
| Association              |                           | BatteryDetail              | 0..*        | Battery details for a trade item.                                                                                                                                                              |
| Attribute                | areBatteriesIncluded      | boolean                    | 0..1        | Indicates if batteries are either included or not included with the trade item.                                                                                                                |
| Attribute                | areBatteriesRequired      | boolean                    | 0..1        | Indicates if batteries are required to operate the trade item.                                                                                                                                 |
| Attribute                | powerSupplyTypeCode       | PowerSupplyTypeCode        | 0..*        | Indicate the type of power supply the trade item is provided with for example a USB power supply or mains. A power supply is a hardware component that supplies power to an electrical device. |
| BatteryDetail            |                           |                            |             | Logical grouping of information related to the type of battery required for a trade item.                                                                                                      |
| Association              | avpList                   | GS1_AttributeValuePairList | 0..1        | The transmission of non-standard data done in a simple, flexible, and easy to use method.                                                                                                      |
| Association              | batteryMaterials          | TradeItemMaterial          | 0..*        | Battery material information for the item.                                                                                                                                                     |
| Attribute                | areBatteriesBuiltIn       | NonBinaryLogicEnumeration  | 0..1        | This code is defined as an indicator whether or not any batteries included with the trade item are built into the trade item during manufacturing. and cannot be changed or removed.           |
| Attribute                | batteryTechnologyTypeCode | BatteryTechnologyTypeCode  | 0..*        | The type of battery family (e.g. Lithium, NiMH) of batteries used by the product.                                                                                                              |

| content   | attribute / role                | datatype /secondary class    | multipl<br>city | definition                                                                                                                                                                                                                                                                          |
|-----------|---------------------------------|------------------------------|-----------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Attribute | batteryTypeCode                 | BatteryTypeCod<br>e          | 0..1            | The type of battery required to utilize the trade item. For example If "Are Batteries Required" or if "Quantity of Batteries" is populated or if "Are Batteries Included = "Yes" this attribute is recommended so the consumer understands the battery type used in the trade item. |
| Attribute | batteryWeight                   | Measurement                  | 0..1            | The weight of each battery included with or built into the trade item.                                                                                                                                                                                                              |
| Attribute | quantityOfBatteriesB<br>uiltIn  | nonNegativeInt<br>eger       | 0..1            | The quantity of batteries built into the trade item during manufacturing. This includes batteries that can or cannot be changed or removed.                                                                                                                                         |
| Attribute | quantityOfBatteriesRe<br>quired | nonNegativeInt<br>eger       | 0..1            | The number of batteries required to operate the trade item.                                                                                                                                                                                                                         |
| Attribute | batteryTypeQualifierC<br>ode    | BatteryTypeQua<br>lifierCode | 0..1            | Qualifier to denote the rating and material information are in reference to a battery or cell.                                                                                                                                                                                      |
| Attribute | batteryWattHourRatin<br>g       | decimal                      | 0..1            | The watt rating for the specified battery material qualifier as specified by the manufacturer of the item.                                                                                                                                                                          |
| Attribute | maximumBatteryLife              | TimeMeasurem<br>ent          | 0..1            | The maximum capacity of the battery, before it decreases with time and usage. It should be associated to the Battery Type in case a trade item has 2 different types of batteries. The different batteries could have different battery life.                                       |

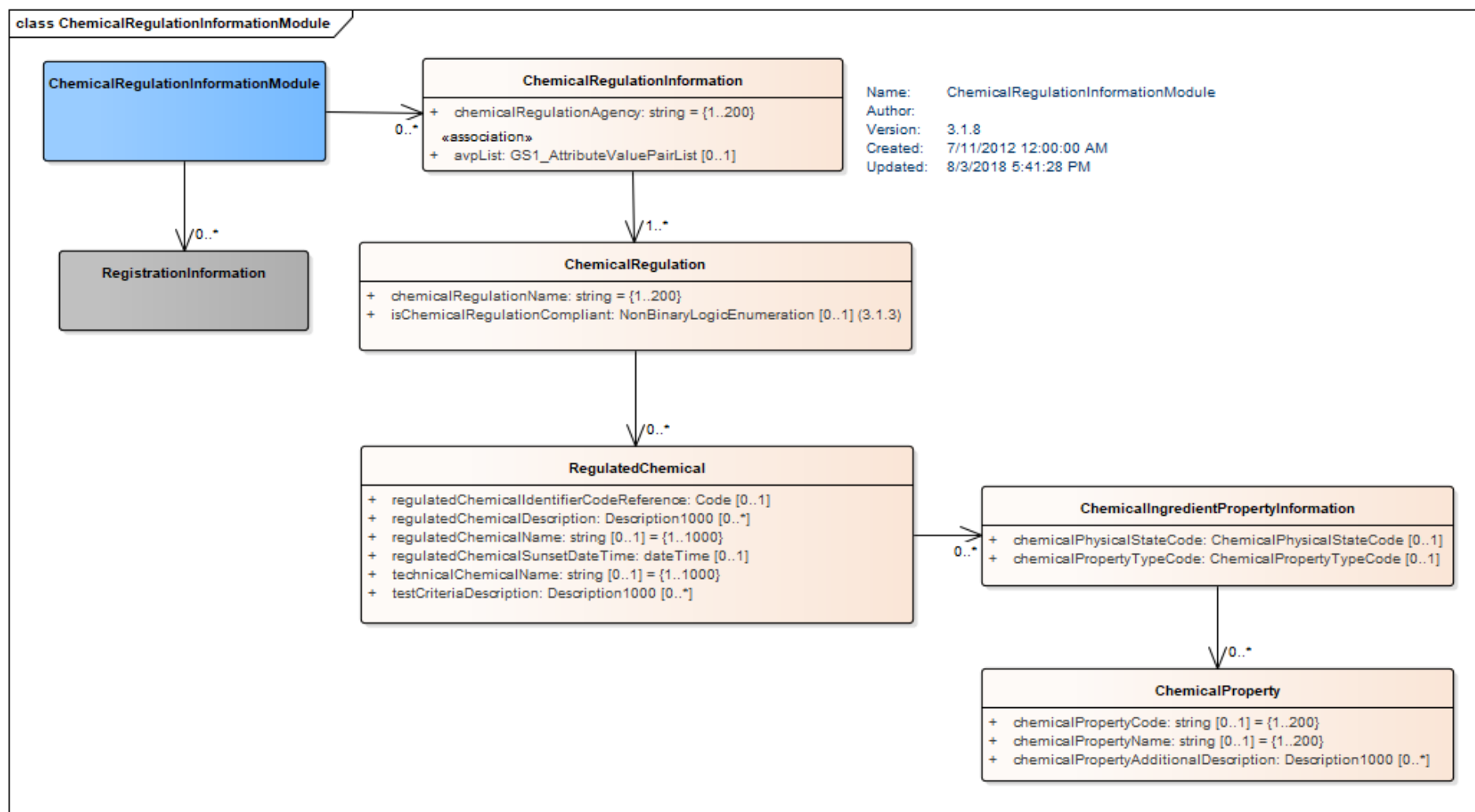
## 5.11 Certification Information Module

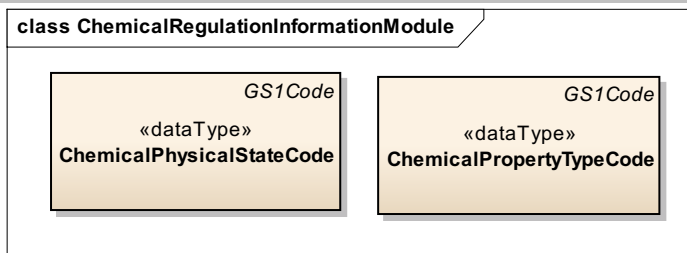


**Note:** Common class (in grey) is located in the GDSN Common Library.

| content                        | attribute / role | datatype /secondary class | multipli city | definition                                                                                                                                                    |
|--------------------------------|------------------|---------------------------|---------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------|
| CertificationInformationModule |                  |                           |               | A module containing information on certification standards to which the trade item, or the process by which it is manufactured, sourced or supplied complies. |
| Association                    |                  | CertificationInformation  | 0..*          | Information on certification standards to which the trade item, or the process by which it is manufactured, sourced or supplied complies.                     |

## 5.12 Chemical Regulation Information Module





**Note:** Common class (in grey) is located in the GDSN Common Library.

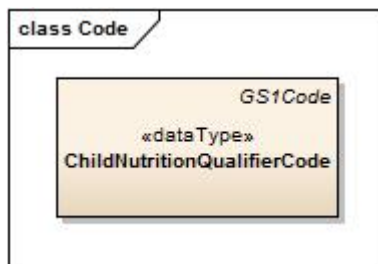
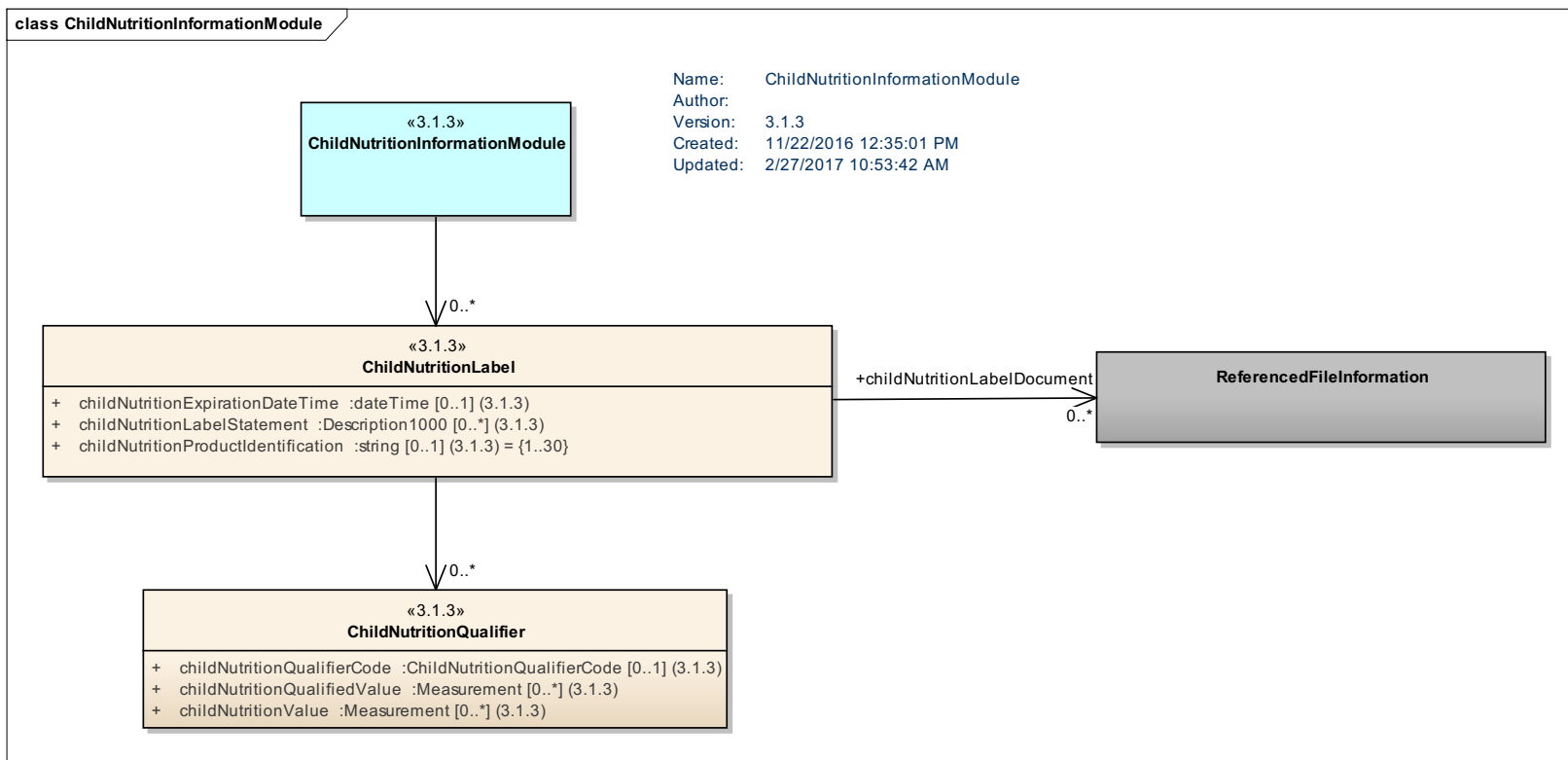
| Content                               | Attribute / Role                      | Datatype /Secondary class | Multiplicity | Definition                                                                                                                                                   |
|---------------------------------------|---------------------------------------|---------------------------|--------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ChemicalIngredientPropertyInformation |                                       |                           |              | Information on any chemical properties a chemical may have according to a specific regulation for example carcinogen.                                        |
| Association                           |                                       | ChemicalProperty          | 0..*         | Chemical property information for a regulated chemical.                                                                                                      |
| Attribute                             | chemicalPhysicalStateCode             | ChemicalPhysicalStateCode | 0..1         | The state of matter of the trade item, for example LIQUID.                                                                                                   |
| Attribute                             | chemicalPropertyTypeCode              | ChemicalPropertyTypeCode  | 0..1         | The type of chemical property being described expressed as a code such as TOXICITY.                                                                          |
| ChemicalProperty                      |                                       |                           |              | A characteristic of a chemical substance for example radionuclide .                                                                                          |
| Attribute                             | chemicalPropertyCode                  | string                    | 0..1         | A characteristic of a chemical substance expressed as a code.                                                                                                |
| Attribute                             | chemicalPropertyName                  | string                    | 0..1         | A characteristic of a chemical substance expressed as a name for example radionuclide.                                                                       |
| Attribute                             | chemicalPropertyAdditionalDescription | Description1000           | 0..*         | A description of any conditions regarding a toxicity property for example a route of exposure and a target organ (e.g. inhalation and lungs).                |
| ChemicalRegulation                    |                                       |                           |              | A regulation managed by a regulatory agency to designed to restrict the handling, use, disposal of chemical ingredients for example Right to Know or CERCLA. |
| Association                           |                                       | RegulatedChemical         | 0..*         | A chemical regulated by a chemical regulation.                                                                                                               |



| Content                       | Attribute / Role                         | Datatype /Secondary class             | Multiplicity | Definition                                                                                                                                                            |
|-------------------------------|------------------------------------------|---------------------------------------|--------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Attribute                     | chemicalRegulationName                   | string                                | 1..1         | The name of a regulation managed by a regulatory agency designed to restrict the handling, use, disposal of chemical ingredients for example Right to Know or CERCLA. |
| Attribute                     | isChemicalRegulationCompliant            | NonBinaryLogicEnumeration             | 0..1         | Determines whether or not a chemical is compliant with a specific regulation (driven by chemicalRegulationName).                                                      |
| ChemicalRegulationInformation |                                          |                                       |              | Provides information on any chemical lists that pertain to the trade item for example CERCLA Priority List.                                                           |
| Association                   | avpList                                  | GS1_AttributeValuePairList            | 0..1         | The transmission of non-standard data done in a simple, flexible, and easy to use method.                                                                             |
| Association                   |                                          | ChemicalRegulation                    | 1..*         | A regulation managed by a regulatory agency to designed to restrict the handling, use, disposal of chemical ingredients for example Right to Know or CERCLA.          |
| Attribute                     | chemicalRegulationAgency                 | string                                | 1..1         | An agency that regulates chemicals for example the US Environmental Protection Agency.                                                                                |
| RegulatedChemical             |                                          |                                       |              | Provides details on any chemical regulated by a chemical regulation.                                                                                                  |
| Association                   |                                          | ChemicalIngredientPropertyInformation | 0..*         | Provides any required chemical property for example Toxicity.                                                                                                         |
| Attribute                     | regulatedChemicalIdentifierCodeReference | Code                                  | 0..1         | An identifier for a regulated chemical for example a CAS number.                                                                                                      |
| Attribute                     | regulatedChemicalDescription             | Description1000                       | 0..*         | A text description of the regulated chemical or formula.                                                                                                              |
| Attribute                     | regulatedChemicalName                    | string                                | 0..1         | The name of a chemical regulated by a chemical regulation for example Chlorobenzene.                                                                                  |
| Attribute                     | regulatedChemicalSunsetDateTime          | dateTime                              | 0..1         | As the date from which the placing on the market and the use of a substance is prohibited or restricted.                                                              |
| Attribute                     | technicalChemicalName                    | string                                | 0..1         | The official technical name for a chemical as required by a managing agency for example mercuric chloride.                                                            |
| Attribute                     | testCriteriaDescription                  | Description1000                       | 0..*         | A description of any the criteria or test data being used to determine if a regulated chemical for example "Subject to Acute toxicity tests".                         |

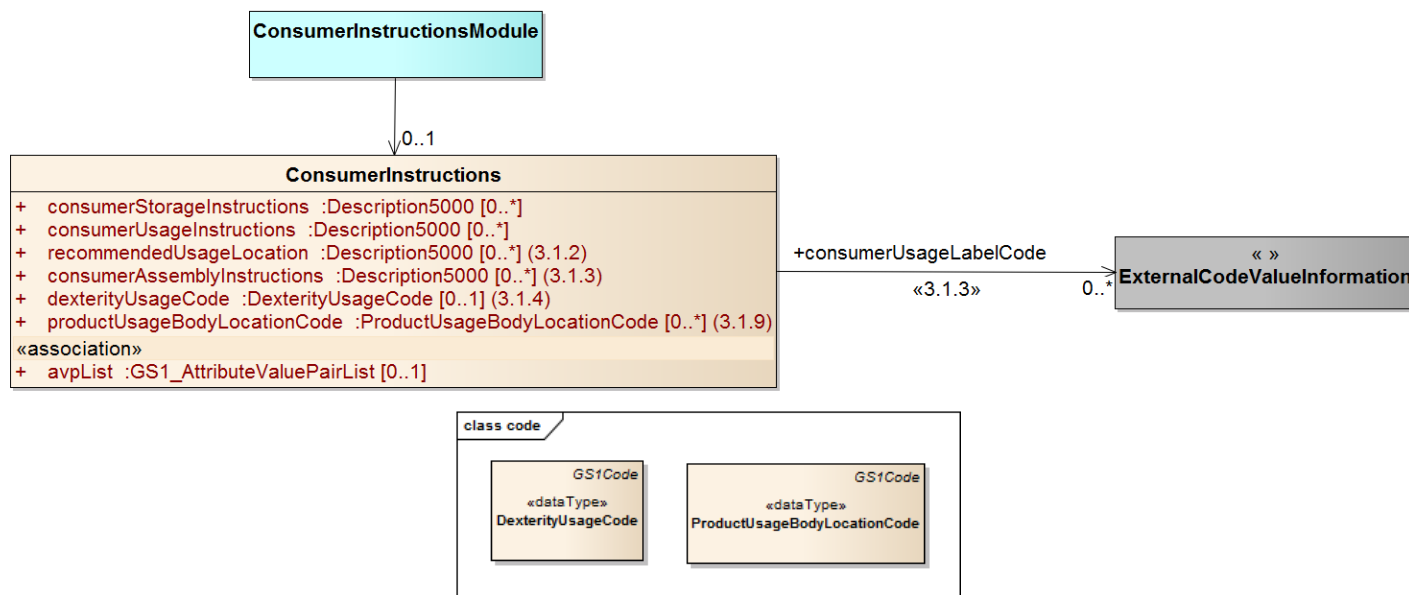
| Content                             | Attribute / Role | Datatype /Secondary class     | Multiplicity | Definition                                                                                                                                |
|-------------------------------------|------------------|-------------------------------|--------------|-------------------------------------------------------------------------------------------------------------------------------------------|
| ChemicalRegulationInformationModule |                  |                               |              | A module containing information on any chemical properties a chemical may have according to a specific regulation for example carcinogen. |
| Association                         |                  | RegistrationInformation       | 0..*         | Registration information for a chemical or substance for example a pesticide.                                                             |
| Association                         |                  | ChemicalRegulationInformation | 0..*         | Information on any chemical properties a chemical may have according to a specific regulation for example carcinogen.                     |

## 5.13 Child Nutrition Information Module



| content                         | attribute / role                    | datatype /secondary class   | multiplicity | definition                                                                                                                                                                                                                                    |
|---------------------------------|-------------------------------------|-----------------------------|--------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ChildNutritionInformationModule |                                     |                             |              | A module providing details on child nutrition.                                                                                                                                                                                                |
| Association                     |                                     | ChildNutritionLabel         | 0..*         | Child nutrition label information for a trade item.                                                                                                                                                                                           |
| ChildNutritionLabel             |                                     |                             |              | Information provided about the item based on target market regulations and rules to provide specific nutrition equivalent values for child nutrition.                                                                                         |
| attribute                       | childNutritionExpirationDateTime    | dateTime                    | 0..1         | The date upon which the child nutrition statement or label expires.                                                                                                                                                                           |
| attribute                       | childNutritionLabelStatement        | Description1000             | 0..*         | The text of the Child Nutrition Label as specified by the child nutrition product identification agency.                                                                                                                                      |
| attribute                       | childNutritionProductIdentification | string                      | 0..1         | A child nutrition identification number of the child nutrition statement or label as provided by or through the authority of the child nutrition product identification agency.                                                               |
| Association                     | childNutritionLabelDocument         | ReferencedFileInformation   | 0..*         | A link to a copy of the Child Nutrition Label.                                                                                                                                                                                                |
| Association                     |                                     | ChildNutritionQualifier     | 0..*         | Nutritional qualifiers for a child nutrition label.                                                                                                                                                                                           |
| ChildNutritionQualifier         |                                     |                             |              | A class of attributes which provide definition of the child nutrition types and values represented in the child nutrition label for the item.                                                                                                 |
| attribute                       | childNutritionQualifierCode         | ChildNutritionQualifierCode | 0..1         | A qualifier to specify the type of equivalent measurement that is applicable to the item as specified in the child nutrition statement or label. Example: FRUIT_VEGETABLE_OR_FRUIT_VEGETABLE_ALTERNATIVE.                                     |
| attribute                       | childNutritionQualifiedValue        | Measurement                 | 0..*         | Reference or qualified value for the child nutrition value as specified in the child nutrition statement or label. For example, if a 4.5 ounce serving provides 1/8 cup red-orange vegetable, the childNutritionQualifiedValue is 4.5 ounces. |
| attribute                       | childNutritionValue                 | Measurement                 | 0..*         | Actual value for the child nutrition qualifier as specified in the child nutrition statement or label. For example, if a 4.5 ounce serving provides 1/8 cup red-orange vegetable, the childNutritionValue is 1/8 cup.                         |

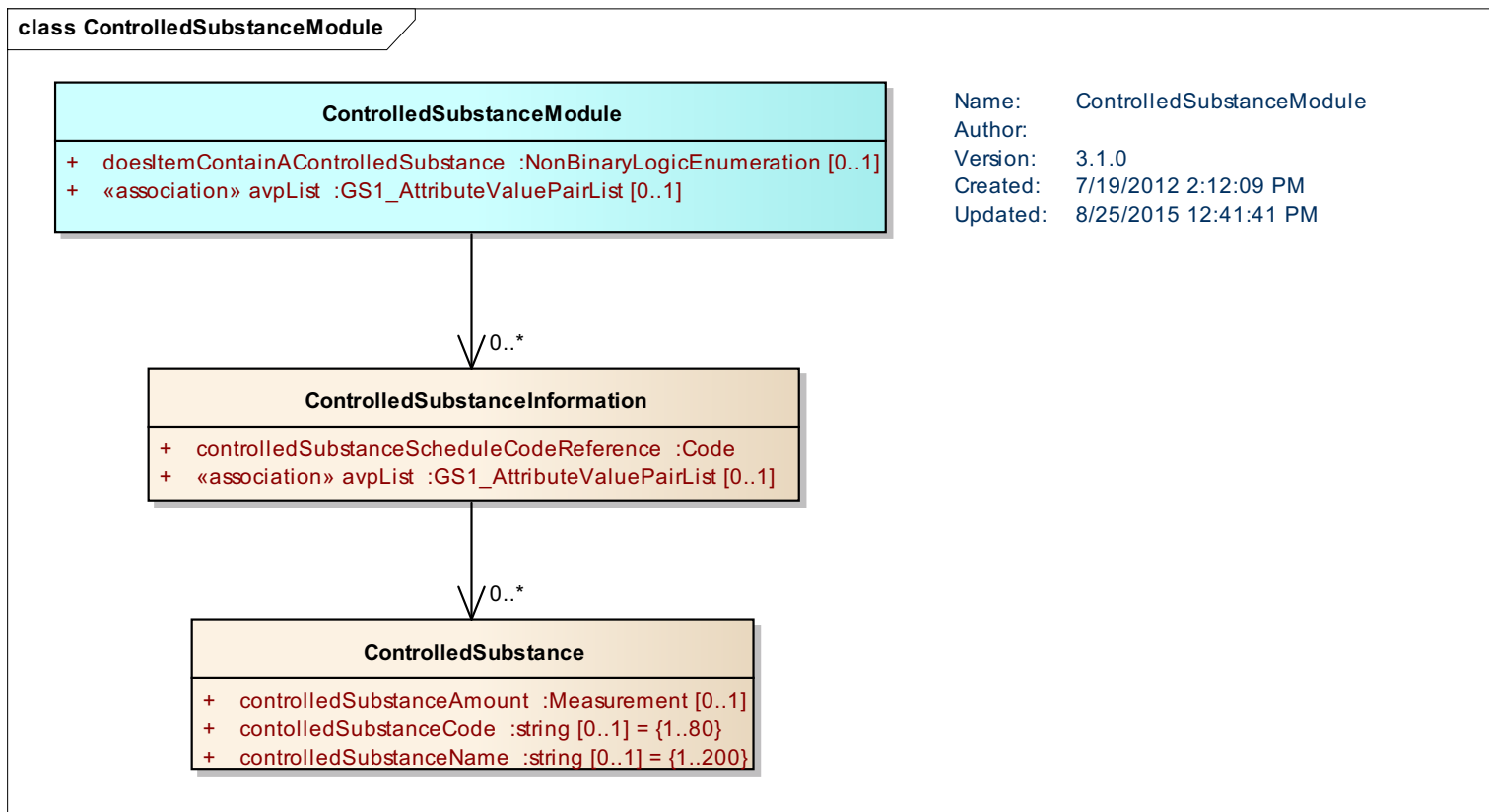
## 5.14 Consumer Instructions Module



| content                        | attribute / role                | datatype /secondary class | multipl<br>city | definition                                                                                                                                                                                                                                                                            |
|--------------------------------|---------------------------------|---------------------------|-----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ConsumerInstruct<br>ionsModule |                                 |                           |                 | A module contain instructions on how the consumer is to use or store a trade item.                                                                                                                                                                                                    |
| Association                    |                                 | ConsumerInstructi<br>ons  | 0..1            | Instructions on how the consumer is to use or store a trade item.                                                                                                                                                                                                                     |
| ConsumerInstruct<br>ions       |                                 |                           |                 | Instructions on how the consumer is to use or store a trade item.                                                                                                                                                                                                                     |
| Attribute                      | consumerStorageInst<br>ructions | Description5000           | 0..*            | Expresses in text the consumer storage instructions of a product which are normally held on the label or accompanying the product. This information may or may not be labeled on the pack. Instructions may refer to a suggested storage temperature, a specific storage requirement. |

| content     | attribute / role                 | datatype /secondary class        | multipl<br>city | definition                                                                                                                                                                                                                                                                                                                                                       |
|-------------|----------------------------------|----------------------------------|-----------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Attribute   | consumerUsageInstr<br>uctions    | Description5000                  | 0..*            | Expresses in text the consumer usage instructions of a product which are normally held on the label or accompanying the product. This information may or may not be labeled on the pack. Instructions may refer to a the how the consumer is to use the product, This does not include storage, food preparations, and drug dosage and preparation instructions. |
| attribute   | recommendedUsageL<br>ocation     | Description5000                  | 0..*            | The primary location recommended for the item's use for example indoor, outdoor, indoor/outdoor, vehicle, kitchen, etc.                                                                                                                                                                                                                                          |
| Attribute   | consumerAssemblyIn<br>structions | Description5000                  | 0..*            | The instructions on how to assemble the trade item.                                                                                                                                                                                                                                                                                                              |
| Association | consumerUsageLabel<br>Code       | ExternalCodeValue<br>Information | 0..*            | A code representation of the consumer usage information represented via a label.                                                                                                                                                                                                                                                                                 |
| Attribute   | dexterityUsageCode               | DexterityUsageCod<br>e           | 0..1            | A code describing the type of handedness the trade item is designed to be used for example LEFT_HANDED, RIGHT_HANDED, etc.                                                                                                                                                                                                                                       |
| Attribute   | productUsageBodyLo<br>cationCode | ProductUsageBody<br>LocationCode | 0..*            | Indicates the body location for which the product is intended to be used for example HAND.                                                                                                                                                                                                                                                                       |
| Association | avpList                          | GS1_AttributeValu<br>ePairList   | 0..1            | The transmission of non-standard data done in a simple, flexible, and easy to use method.                                                                                                                                                                                                                                                                        |

## 5.15 Controlled Substances Module

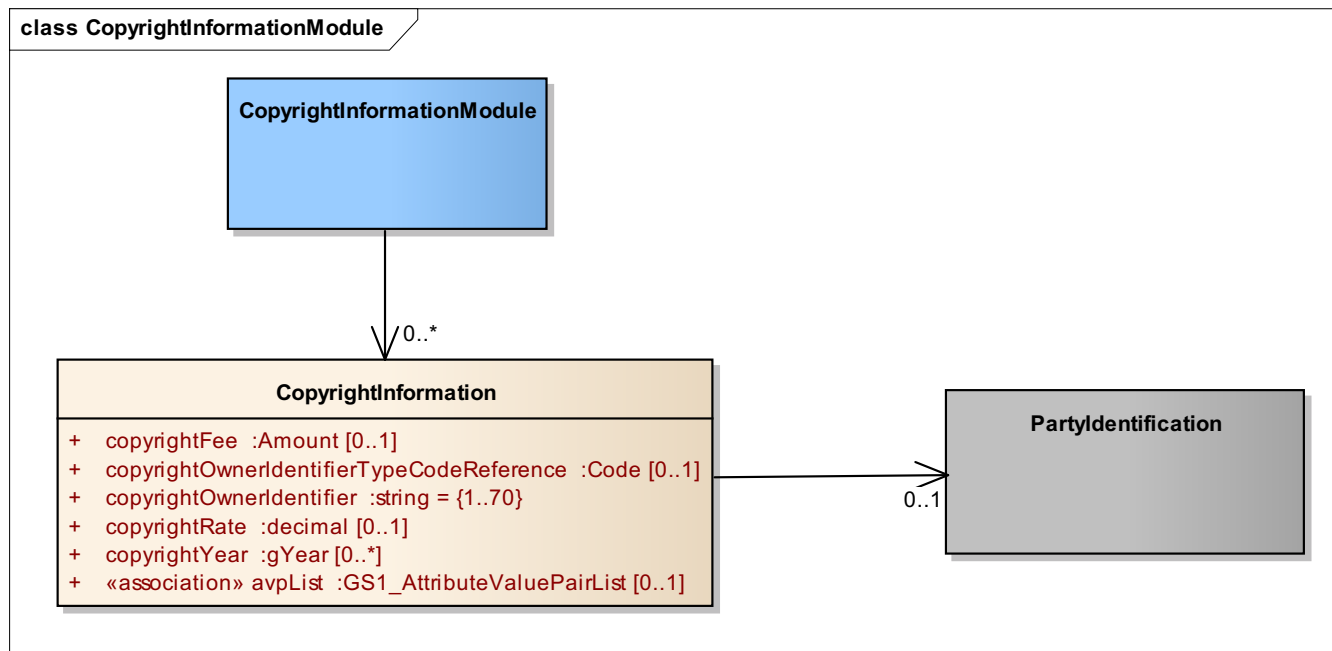


| Content             | Attribute / Role | Datatype /Secondary class      | Multipli city | Definition                                                                                |
|---------------------|------------------|--------------------------------|---------------|-------------------------------------------------------------------------------------------|
| ControlledSubstance |                  |                                |               | Information on the containment of controlled substances                                   |
| Association         | avpList          | GS1_AttributeValueP<br>airList | 0..1          | The transmission of non-standard data done in a simple, flexible, and easy to use method. |

| Content                         | Attribute / Role                         | Datatype /Secondary class       | Multipli city | Definition                                                                                                                                                                                                                              |
|---------------------------------|------------------------------------------|---------------------------------|---------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Attribute                       | controlledSubstanceAmount                | Measurement                     | 0..1          | The numeric amount of a specific substance the item contains that is regulated under law as narcotics, stimulants, depressants, hallucinogens, anabolic steroids, and chemicals used in the illicit production of controlled substances |
| Attribute                       | controlledSubstanceCode                  | string                          | 0..1          | A code identifying the specific substance the item contains that is regulated under law as narcotics, stimulants, depressants, hallucinogens, anabolic steroids, and chemicals used in the illicit production of controlled substances  |
| Attribute                       | controlledSubstanceName                  | string                          | 0..1          | The name of a specific substance the item contains that is regulated under law as narcotics, stimulants, depressants, hallucinogens, anabolic steroids, and chemicals used in the illicit production of controlled substances           |
| ControlledSubstance Information |                                          |                                 |               | Information on controlled substances based upon the degree of the substance's medicinal value, harmfulness, and potential for abuse or addiction.                                                                                       |
| Association                     |                                          | ControlledSubstance             | 0..*          | Information on the containment of controlled substances.                                                                                                                                                                                |
| Attribute                       | controlledSubstanceScheduleCodeReference | Code                            | 1..1          | A code that rates a controlled substance based upon the degree of the substance's medicinal value, harmfulness, and potential for abuse or addiction                                                                                    |
| Association                     | avpList                                  | GS1_AttributeValuePairList      | 0..1          | The transmission of non-standard data done in a simple, flexible, and easy to use method.                                                                                                                                               |
| ControlledSubstance Module      |                                          |                                 |               | Information on the containment of controlled substances.                                                                                                                                                                                |
| Association                     | avpList                                  | GS1_AttributeValuePairList      | 0..1          | The transmission of non-standard data done in a simple, flexible, and easy to use method.                                                                                                                                               |
| Association                     |                                          | ControlledSubstance Information | 0..*          | Controlled Substance Information for a trade item.□                                                                                                                                                                                     |
| Attribute                       | doesItemContainAControlledSubstance      | NonBinaryLogicEnumeration       | 0..1          | Indicates whether the item contains substances that are regulated under law as narcotics, stimulants, depressants, hallucinogens, anabolic steroids, and chemicals used in the illicit production of controlled substances              |



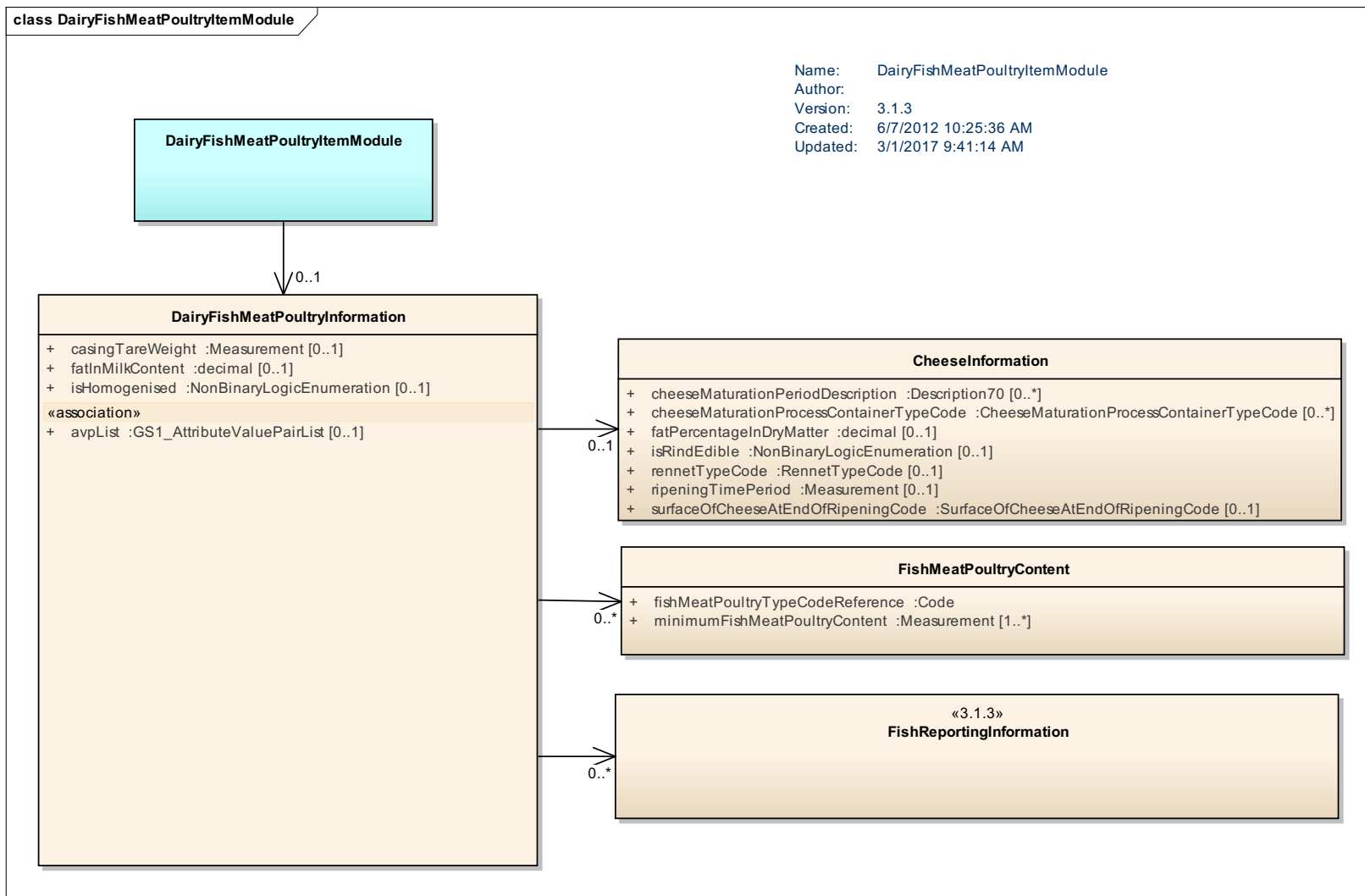
## 5.16 Copyright Information Module

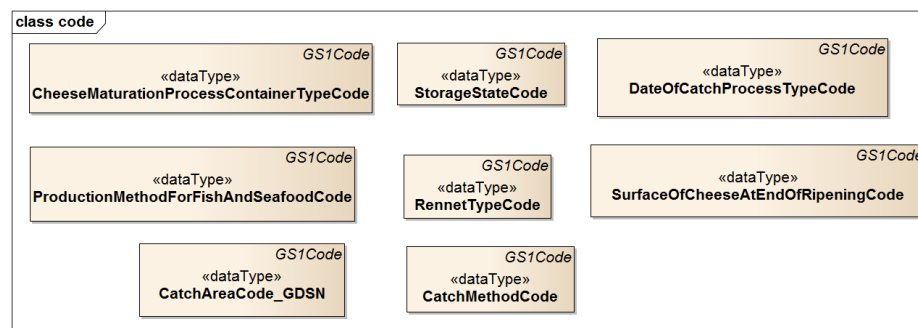
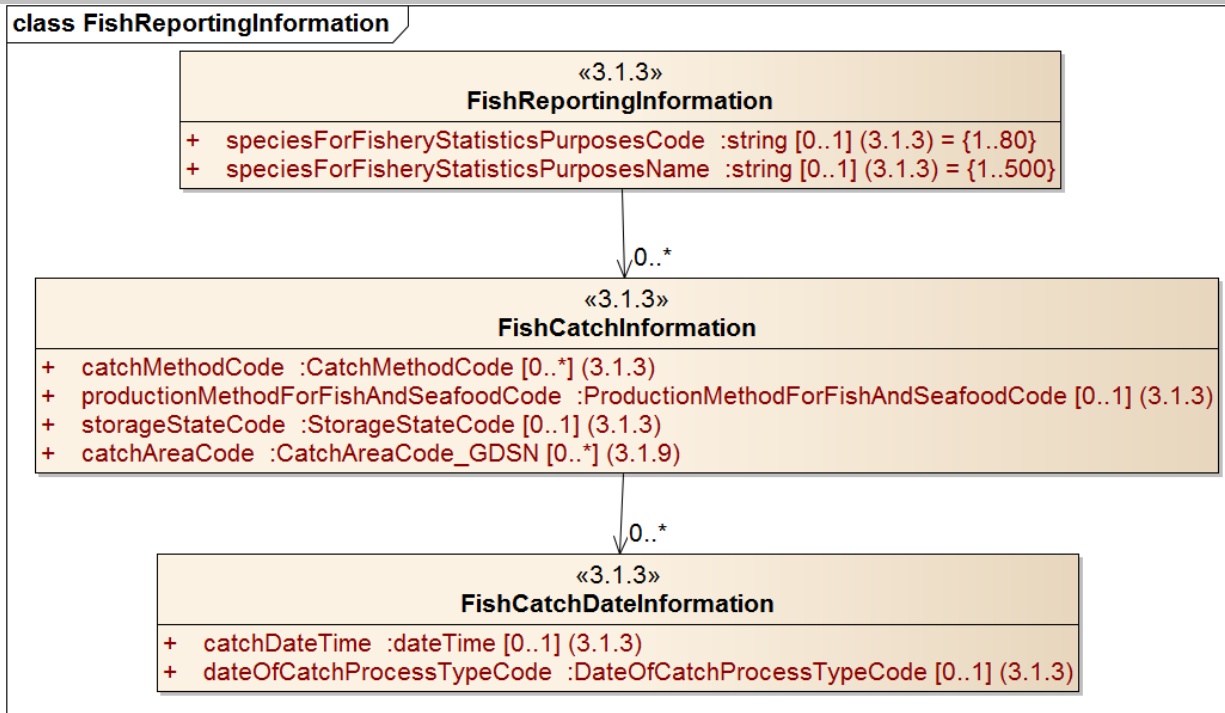


| Content              | Attribute / Role                          | Datatype / Secondary class | Multiplicity | Definition                                                                                         |
|----------------------|-------------------------------------------|----------------------------|--------------|----------------------------------------------------------------------------------------------------|
| CopyrightInformation |                                           |                            |              | A group of data elements which together represent a copyright statement for the product.           |
| Association          | avpList                                   | GS1_AttributeValuePairList | 0..1         | The transmission of non-standard data done in a simple, flexible, and easy to use method.          |
| Association          |                                           | PartyIdentification        | 0..1         | GS1 Party Identification for a Publication Copyright                                               |
| Attribute            | copyrightFee                              | Amount                     | 0..1         | A fee paid to the content owner for use of the Trade Item or an associated part of the Trade Item. |
| Attribute            | copyrightOwnerIdentifierTypeCodeReference | Code                       | 0..1         | Identifies the scheme from which the value in the copyrightOwnerIdentifier attribute is taken.     |

| Content                    | Attribute / Role         | Datatype / Secondary class | Multipl<br>icity | Definition                                                                                                                                                                             |
|----------------------------|--------------------------|----------------------------|------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Attribute                  | copyrightOwnerIdentifier | string                     | 1..1             | An identifier of the owner of the copyright on a trade item. This could be the person who creates a piece of work though it may also be a company that pays a person to create a work. |
| Attribute                  | copyrightRate            | decimal                    | 0..1             | A rate paid to the content owner for use of the trade item or an associated part of the trade item.                                                                                    |
| Attribute                  | copyrightYear            | gYear                      | 0..*             | The copyright year as it appears in a copyright statement on the product.                                                                                                              |
| CopyrightInformationModule |                          |                            |                  | A group of data elements which together represent a copyright statement for the product.                                                                                               |
| Association                |                          | CopyrightInformation       | 0..*             | A group of data elements which together represent a copyright statement for the product.                                                                                               |

## 5.17 Dairy Fish Meat Poultry Item Module





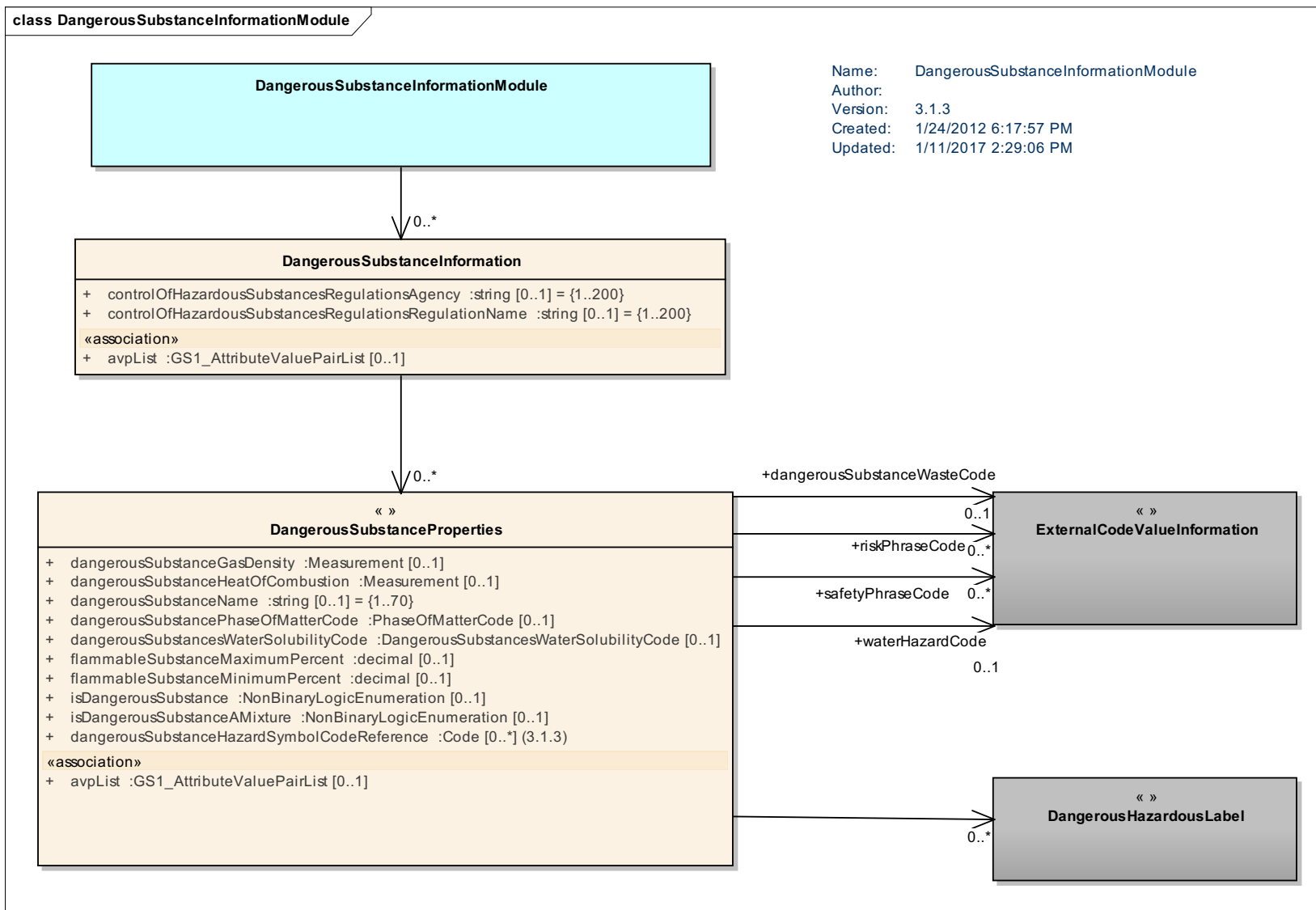
| Content                        | Attribute / Role | Datatype /Secondary class | Multiplicity | Definition                                                                                     |
|--------------------------------|------------------|---------------------------|--------------|------------------------------------------------------------------------------------------------|
| DairyFishMeatPoultryItemModule |                  |                           |              | Content and processing related information specific to dairy, fish, meat and poultry products. |

| Content                         | Attribute / Role                         | Datatype /Secondary class                 | Multiplicity | Definition                                                                                                                                                                                                                                                                                               |
|---------------------------------|------------------------------------------|-------------------------------------------|--------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Association                     |                                          | DairyFishMeatPoultryInformation           | 0..1         | Content and processing related information specific to dairy, fish, meat and poultry products.                                                                                                                                                                                                           |
| CheeseInformation               |                                          |                                           |              | Trade Item information related to Cheese                                                                                                                                                                                                                                                                 |
| Attribute                       | cheeseMaturationPeriodDescription        | Description70                             | 0..*         | A descriptive way to specify a date range as some cheeses are matured over a period of time, but not an exact period. For example 3 to 4 weeks, over 1 year etc. The term maturation is also known in other markets as Aged.                                                                             |
| Attribute                       | cheeseMaturationProcessContainerTypeCode | CheeseMaturationProcessContainerTypeCode, | 0..*         | The type of container that the process of maturation cheese occurs in. The container directly influences the flavour of the cheese. The term maturation is also know in other markets as Aged.                                                                                                           |
| Attribute                       | fatPercentageInDryMatter                 | Decimal                                   | 0..1         | The amount of fat contained in the base product expressed in percentage.                                                                                                                                                                                                                                 |
| Attribute                       | isRindEdible                             | NonBinaryLogicEnumeration                 | 0..1         | An indicator whether or not the cheese rind is edible. Some cheeses are coated in plastic or their surface is treated with other traditional substances to increase their shelf life. This can result in the rind no longer being edible.                                                                |
| Attribute                       | rennetTypeCode                           | RennetTypeCode                            | 0..1         | The type of rennet used for coagulation. The enzyme rennet is used for the coagulation of the cheese mass. Rennet and respectively similar enzymes can be gained through various processes.                                                                                                              |
| Attribute                       | ripeningTimePeriod                       | Measurement                               | 0..1         | The period of time for ripening the cheese. During ripening the aroma and consistency of a cheese constantly changes. The character of a cheese is thus strongly determined by the period of ripening. Depending on personal preference, the end consumer prefers either a "young" or a "mature" cheese. |
| Attribute                       | surfaceOfCheeseAtEndOfRipeningCode       | surfaceOfCheeseAtEndOfRipeningCode        | 0..1         | The representation of whether or not a cheese contains a rind at the end of the maturing process. A Rind is the outside shell of cheese that forms during the cheese making process. Rinds are natural and usually edible, as opposed to other coverings, such as wax and cloth, that are inedible.      |
| DairyFishMeatPoultryInformation |                                          |                                           |              | Content and processing related information specific to dairy, fish, meat and poultry products.                                                                                                                                                                                                           |
| Attribute                       | fatInMilkContent                         | Decimal                                   | 0..1         | The percentage of fat contained in milk content of the product.                                                                                                                                                                                                                                          |
| Attribute                       | isHomogenised                            | NonBinaryLogicEnumeration                 | 0..1         | The indication whether or not the milk used was actively homogenised. The homogenisation of milk is a technical process in                                                                                                                                                                               |

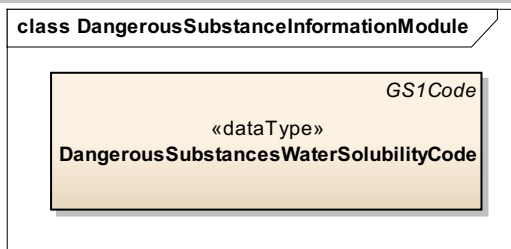
| Content                | Attribute / Role                      | Datatype /Secondary class             | Multiplicity | Definition                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|------------------------|---------------------------------------|---------------------------------------|--------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                        |                                       |                                       |              | the dairy. The milk fat is milled to such an extent that further creaming is prevented.                                                                                                                                                                                                                                                                                                                                                               |
| Attribute              | casingTareWeight                      | Measurement                           | 0..1         | The weight measurement of the "food casing". A casing for food products is a flexible tubing into which foods are stuffed to provide a skin-tight covering. Used in packaging prepared meats, poultry, cheese, and other food products. Casings may be made of animal intestines or synthetic materials such as regenerated cellulose, various plastics, fibrous compounds, and rubber film. "Tare Weight – food casing" applies to the "each" level. |
| Association            |                                       | CheeseInformation                     | 0..1         | Information specific to cheese trade items.                                                                                                                                                                                                                                                                                                                                                                                                           |
| Association            |                                       | FishMeatPoultryContent                | 0..*         | Content and processing related information specific to fish, meat and poultry products.                                                                                                                                                                                                                                                                                                                                                               |
| Association            |                                       | FishReportingInformation              | 0..*         | Fish reporting information for a trade item.                                                                                                                                                                                                                                                                                                                                                                                                          |
| Association            | avpList                               | GS1_AttributeValuePairList            | 0..1         | The transmission of non-standard data done in a simple, flexible, and easy to use method.                                                                                                                                                                                                                                                                                                                                                             |
| FishMeatPoultryContent |                                       |                                       |              | Fish, meat and poultry content of a food and beverage trade item.                                                                                                                                                                                                                                                                                                                                                                                     |
| Attribute              | fishMeatPoultryTypeCodeReference      | Code                                  | 1..1         | The fish, meat, or poultry type for this food and beverage item.                                                                                                                                                                                                                                                                                                                                                                                      |
| Attribute              | minimumFishMeatPoultryContent         | Measurement                           | 1..*         | The minimum amount of fish, meat or poultry contained in a food and beverage trade item expressed as a measurement.                                                                                                                                                                                                                                                                                                                                   |
| FishCatchInformation   |                                       |                                       |              | Details on the catch of a fish.                                                                                                                                                                                                                                                                                                                                                                                                                       |
| attribute              | catchMethodCode                       | CatchMethodCode                       | 0..*         | The catch method for fish and seafood as specified by FAO, Fisheries and Aquaculture Department of the Food and Agriculture Organization of the United Nations. This required attribute will help the global retail industry to fulfil the EU requirements for a common fisheries policy.                                                                                                                                                             |
| attribute              | productionMethodForFishAndSeafoodCode | ProductionMethodForFishAndSeafoodCode | 0..1         | The production method for fish and seafood is specified by FAO, Fisheries and Aquaculture Department of the Food and Agriculture Organization of the United Nations. This required attribute will help the global retail industry to fulfill the EU requirements for a common fisheries policy.                                                                                                                                                       |
| attribute              | storageStateCode                      | StorageStateCode                      | 0..1         | A code depicting that the referred product was previously frozen or not.                                                                                                                                                                                                                                                                                                                                                                              |
| Attribute              | catchAreaCode                         | CatchAreaCode_GDSN                    | 0..*         | The sea zone in which the seafood in the trade item was caught.                                                                                                                                                                                                                                                                                                                                                                                       |

| Content                  | Attribute / Role                        | Datatype /Secondary class  | Multiplicity | Definition                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|--------------------------|-----------------------------------------|----------------------------|--------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| association              |                                         | FishCatchDateInformation   | 0..*         | Information in regards to the catch date for a fish or seafood product.                                                                                                                                                                                                                                                                                                                                                                                                                |
| FishCatchDateInformation |                                         |                            |              | Information in regards to the catch date for a fish or seafood product.                                                                                                                                                                                                                                                                                                                                                                                                                |
| attribute                | catchDateTime                           | dateTime                   | 0..1         | The date of the catch within the EDI and/or Information at the label distributed with the product for information of any single lot of fresh fish and seafood product. Format (YYYYMMDD) as a specification with time stamp is not required in the current EU Regulation. This required attribute will help the global retail industry to fulfill the EU requirements for a common fisheries policy. The data is required by the supply chain participant from source to end consumer. |
| attribute                | dateOfCatchProcessTypeCode              | DateOfCatchProcessTypeCode | 0..1         | The process of how the fish is dated, for example REAL_TIME as fish are caught they are dated and time stamped like tuna, ONE_TIME_CATCH on a date for fish farming, or PERIODIC_CATCH meaning the catch date reflective of seasonal catch like lobster trapping.                                                                                                                                                                                                                      |
| FishReportingInformation |                                         |                            |              | Information related to FAO reporting for fish.                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Association              |                                         | FishCatchInformation       | 0..*         | Details related to a fish catch for a trade item.                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| attribute                | speciesForFisheryStatisticsPurposesCode | string                     | 0..1         | The FAO 3 Alpha code of the species of fish for fish and seafood.                                                                                                                                                                                                                                                                                                                                                                                                                      |
| attribute                | speciesForFisheryStatisticsPurposesName | string                     | 0..1         | The scientific name associated with the speciesforFisheryStatisticsPurposesCode.                                                                                                                                                                                                                                                                                                                                                                                                       |

## 5.18 Dangerous Substance Information Module







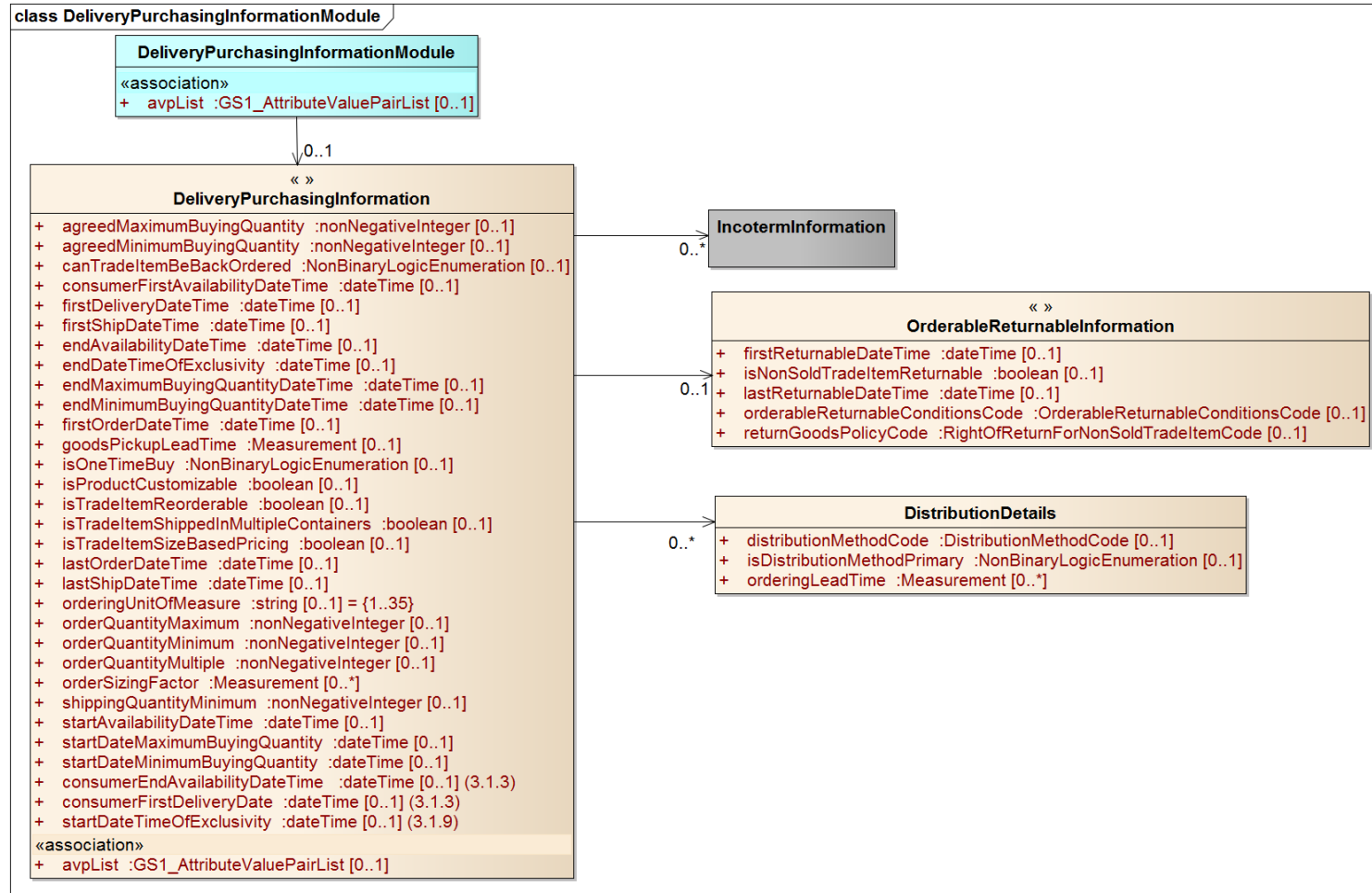
**Note:** Common class (in grey) is located in the GDSN Common Library.

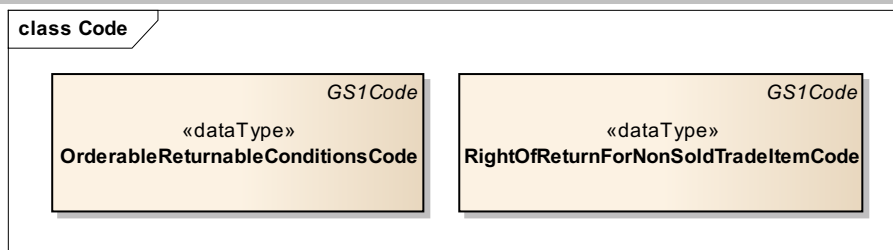
| Content                              | Attribute / Role                                        | Datatype / Secondary class     | Multipli city | Definition                                                                                                                                |
|--------------------------------------|---------------------------------------------------------|--------------------------------|---------------|-------------------------------------------------------------------------------------------------------------------------------------------|
| DangerousSubstanc eInformationModule |                                                         |                                |               | A module detailing substances that can harm people, other living organisms, property, or the environment.                                 |
| Association                          |                                                         | DangerousSubstance Information | 0..*          | Details on substances that can harm people, other living organisms, property, or the environment.                                         |
| DangerousSubstanc eInformation       |                                                         |                                |               | Details on substances that can harm people, other living organisms, property, or the environment.                                         |
| Association                          |                                                         | DangerousSubstance Properties  | 0..*          | Properties of a dangerous substance.                                                                                                      |
| Association                          | avpList                                                 | GS1_AttributeValueP airList    | 0..1          | <del>The transmission of non-standard data done in a simple, flexible, and easy-to-use method.</del>                                      |
| Attribute                            | controlOfHazardousS ubstancesRegulations Agency         | string                         | 0..1          | The government or agency that owns regulation controlling hazard substances that may apply to the product.                                |
| Attribute                            | controlOfHazardousS ubstancesRegulations RegulationName | string                         | 0..1          | The name of the regulation controlling hazard substances that may apply to the product.                                                   |
| DangerousSubstanc eProperties        |                                                         |                                |               | Details on substances that can harm people, other living organisms, property, or the environment.                                         |
| Association                          |                                                         | GS1_AttributeValueP airList    | 0..1          | Attribute value pair information.                                                                                                         |
| Association                          |                                                         | DangerousHazardou sLabel       | 0..*          | Information on visible labels on packaging indicating specific risks and required precautions associated with a dangerous/hazardous good. |

| Content     | Attribute / Role                       | Datatype / Secondary class             | Multiplicity | Definition                                                                                                                                                                                                                                                                                           |
|-------------|----------------------------------------|----------------------------------------|--------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Association | dangerousSubstanceWasteCode            | ExternalCodeValueInformation           | 0..1         | The dangerous substances waste code used to identify the substance's dangerous waste for example the European Waste Catalogue.                                                                                                                                                                       |
| Association | riskPhraseCode                         | ExternalCodeValueInformation           | 0..*         | The abbreviation codes for labelling obligations and special risks (health risks of skin, respiratory organs, swallow, eyes, reproduction) for handling of the substance.                                                                                                                            |
| Association | safetyPhraseCode                       | ExternalCodeValueInformation           | 0..*         | Safety phrases are defined as safety advice concerning dangerous substances and preparations defined in Annex 3 for example (S1): Keep locked up or S12: Do not keep the container sealed.                                                                                                           |
| Association | waterHazardCode                        | ExternalCodeValueInformation           | 0..1         | A code determining the degree to which the product would pose an environmental hazard to water.                                                                                                                                                                                                      |
| Attribute   | dangerousSubstanceGasDensity           | Measurement                            | 0..1         | The density of gas contained within the trade item. This can be used by the data receiver to determine the total stored amounts of gas within a storage facility in accordance with dangerous substance regulations. Use appropriate measurement for example in Europe (grams per Cubic Centimetre). |
| Attribute   | dangerousSubstanceHeatOfCombustion     | Measurement                            | 0..1         | The amount of heat generated by the item should it catch on fire expressed as amount of energy per pound for example BTU's (British Thermal Units) per pound.                                                                                                                                        |
| Attribute   | dangerousSubstanceName                 | string                                 | 0..1         | The name of the type of dangerous substance contained in the trade item for example Butane.                                                                                                                                                                                                          |
| Attribute   | dangerousSubstancePhaseOfMatterCode    | PhaseOfMatterCode                      | 0..1         | A set of qualitatively different states, depending on temperature and pressure related physical properties. They are divided into solid, liquid,gaseous and mixed forms of the substance.                                                                                                            |
| Attribute   | dangerousSubstancesWaterSolubilityCode | DangerousSubstancesWaterSolubilityCode | 0..1         | A code indicating the solubility or miscibility in respect with water. Solubility is the ability of a given substance to dissolve in a solvent. Miscibility is the property of liquids to mix in all proportions, forming a homogeneous solution.                                                    |
| Attribute   | flammableSubstanceMaximumPercent       | decimal                                | 0..1         | The maximum percentage of the flammable substance contained in the trade item. This can be used by the data receiver to support determining total stored amounts within a storage facility in accordance with dangerous substance regulations.                                                       |

| Content     | Attribute / Role                            | Datatype / Secondary class | Multiplicity | Definition                                                                                                                                                                                                                                     |
|-------------|---------------------------------------------|----------------------------|--------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Attribute   | flammableSubstanceMinimumPercent            | decimal                    | 0..1         | The minimum percentage of the flammable substance contained in the trade item. This can be used by the data receiver to support determining total stored amounts within a storage facility in accordance with dangerous substance regulations. |
| Attribute   | isDangerousSubstance                        | NonBinaryLogicEnumeration  | 0..1         | An indicator whether or not a trade item is classified and labelled as containing a dangerous substance.                                                                                                                                       |
| Attribute   | isDangerousSubstanceAMixture                | NonBinaryLogicEnumeration  | 0..1         | An indicator whether or not the dangerous substance is a mixture of several substances.                                                                                                                                                        |
| Attribute   | dangerousSubstanceHazardSymbolCodeReference | Code                       | 0..*         | A code representation of the dangerous or hazardous symbol contained on a trade item.                                                                                                                                                          |
| Association | avpList                                     | GS1_AttributeValuePairList | 0..1         | The transmission of non-standard data done in a simple, flexible, and easy to use method.                                                                                                                                                      |

## 5.19 Delivery Purchasing Information Module





**Note:** Common class (in grey) is located in the GDSN Common Library.

| content                        | attribute / role                  | datatype /secondary class            | multiplicity | definition                                                                                                                                                                                                                                                                                          |
|--------------------------------|-----------------------------------|--------------------------------------|--------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| OrderableReturnableInformation |                                   |                                      |              | Logical Grouping of Orderable Returnable Information                                                                                                                                                                                                                                                |
| Attribute                      | firstReturnableDate               | dateTime                             | 0..1         | The first date on or after which non-sold trade items can be returned. This information provides the retailer with any conditions required by the information provider as to the date on or after which non-sold trade items may be returned in order to receive credit from the appropriate party. |
| Attribute                      | isNonSoldTradeItemReturnable      | boolean                              | 0..1         | Indicates that the buyer can return the articles that are not sold. Used, for example; with magazines and bread. This is a y/n (Boolean) where y equals right of return. This is at least relevant to General Merchandise, Publishing industries and for some FMCG trade item.                      |
| Attribute                      | lastReturnableDate                | dateTime                             | 0..1         | The last date and time when a non sold trade item must be received by the manufacturer to receive credit.                                                                                                                                                                                           |
| Attribute                      | orderableReturnableConditionsCode | OrderableReturnableConditionsCode    | 0..1         | A code that indicates if the trade item can be ordered and returned if non-sold.                                                                                                                                                                                                                    |
| Attribute                      | returnGoodsPolicyCode             | RightofReturnForNonSoldTradeItemCode | 0..1         | A code that describes the policy for defective, damaged or non-salable goods.                                                                                                                                                                                                                       |
| DistributionDetails            |                                   |                                      |              | Delivery details for a trade item.                                                                                                                                                                                                                                                                  |
| Attribute                      | distributionMethodCode            | DistributionMethodCode               | 0..1         | The code value that indicates the method of delivery for the trade item.                                                                                                                                                                                                                            |
| Attribute                      | isDistributionMethodPrimary       | NonbinaryLogicEnumeration            | 0..1         | Indicates if the delivery method for the trade item is the primary one.                                                                                                                                                                                                                             |

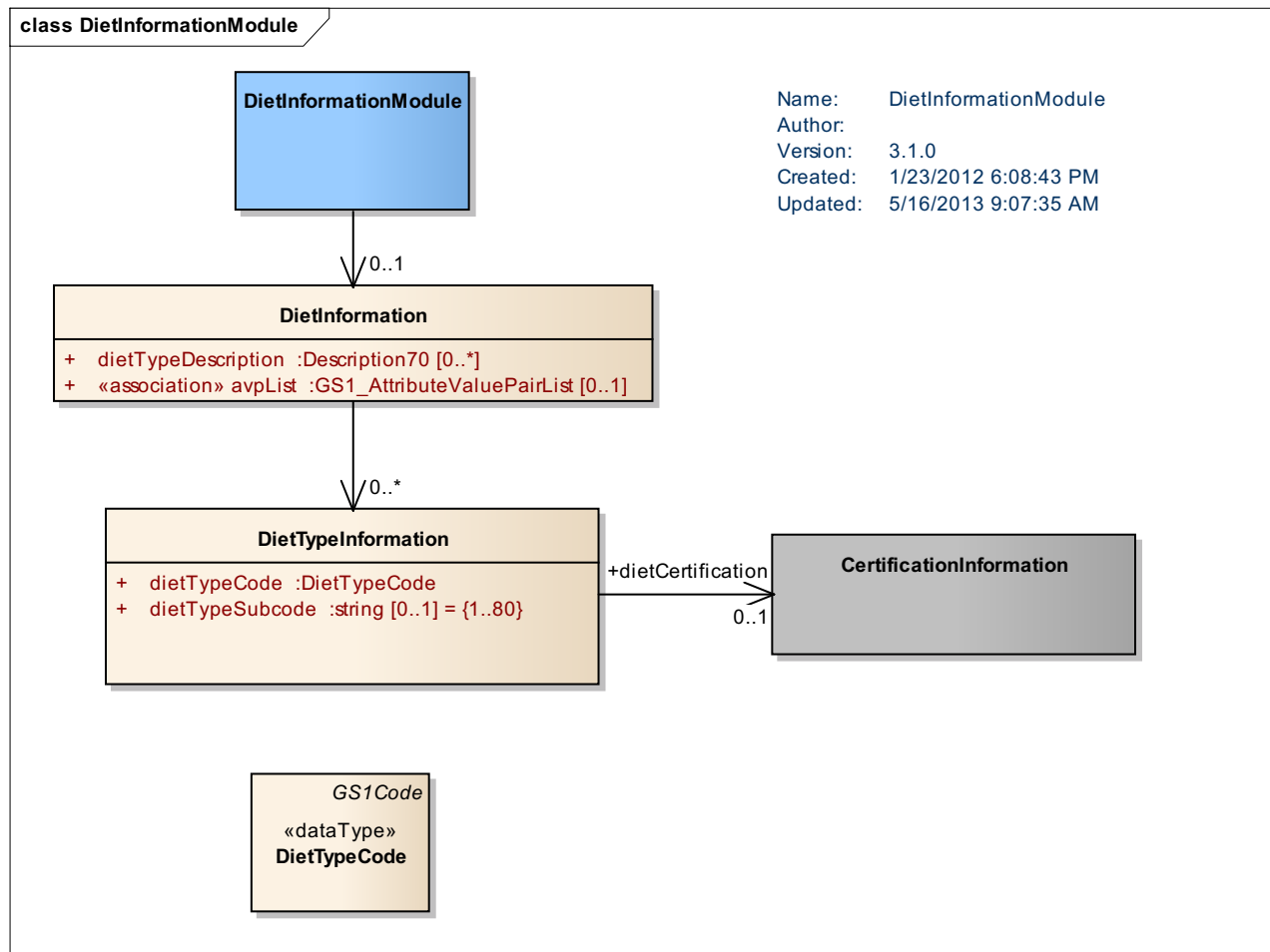
| content                        | attribute / role                  | datatype /secondary class      | multiplicity | definition                                                                                                                                                            |
|--------------------------------|-----------------------------------|--------------------------------|--------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Attribute                      | orderingLeadTime                  | Measurement                    | 0..*         | Lead time required for orders expressed in days.                                                                                                                      |
| DeliveryPurchasing Information |                                   |                                |              | Purchasing and delivery information for a trade item.                                                                                                                 |
| Association                    |                                   | DistributionDetails            | 0..*         | Delivery details for a trade item.                                                                                                                                    |
| Association                    |                                   | OrderableReturnableInformation | 0..1         | Orderable and returnable information.                                                                                                                                 |
| Association                    |                                   | IncotermInformation            | 0..*         | Information on any incoterms that are applicable to the trade item.                                                                                                   |
| Attribute                      | agreedMaximumBuyingQuantity       | nonNegativeInteger             | 0..1         | The maximum quantity of the product available to the retailer.                                                                                                        |
| Attribute                      | agreedMinimumBuyingQuantity       | nonNegativeInteger             | 0..1         | Minimum buying quantity agreed between trading partners.                                                                                                              |
| Attribute                      | canTradeItemBeBack Ordered        | NonBinaryLogicEnumeration      | 0..1         | An indicator whether or not a customer's order will be processed or will remain valid when it cannot be filled due to insufficient stock.                             |
| Attribute                      | consumerFirstAvailabilityDateTime | dateTime                       | 0..1         | The first date/time that the buyer is allowed to sell the trade item to consumers. Usually related to a specific geography. ISO 8601 date format CCYY-MM-DDTHH:MM:SS. |
| Attribute                      | firstDeliveryDateTime             | dateTime                       | 0..1         | The earliest date at which the supplier can deliver the product to the trading partner.                                                                               |
| Attribute                      | firstShipDateTime                 | dateTime                       | 0..1         | Indicates the earliest date that the trade item can be shipped. This is independent of any specific ship-from location.                                               |
| Attribute                      | endAvailabilityDateTime           | dateTime                       | 0..1         | The date from which the trade item is no longer available from the information provider, including seasonal or temporary trade item and services.                     |
| Attribute                      | endDateTimeOfExclusivity          | dateTime                       | 0..1         | The date and time at which a product is no longer exclusive to that trading partner.                                                                                  |
| Attribute                      | endMaximumBuyingQuantityDateTime  | dateTime                       | 0..1         | The end date for when the maximum buying quantity is no longer available to the trading partner.                                                                      |
| Attribute                      | endMinimumBuyingQuantityDateTime  | dateTime                       | 0..1         | The end date for when the minimum buying quantity is no longer available to the trading partner.                                                                      |
| Attribute                      | firstOrderDateTime                | dateTime                       | 0..1         | Indicates the earliest date that an order can be placed for the trade item.                                                                                           |

| content   | attribute / role                       | datatype /secondary class | multiplicity | definition                                                                                                                                                                                                                                                                                              |
|-----------|----------------------------------------|---------------------------|--------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Attribute | goodsPickupLeadTime                    | Measurement               | 0..1         | Time (in weeks, days, hours ...) required between order entry and the earliest goods release (use for pick-up, not use for delivery). Remark about ordering lead-time : Geographic distance from manufacturing / distribution point to delivery point impacts this value (relationship dependant data). |
| Attribute | isOneTimeBuy                           | NonBinaryLogicEnumeration | 0..1         | An indicator whether or not the item will only be available for order once then discontinued.                                                                                                                                                                                                           |
| Attribute | isProductCustomizable                  | boolean                   | 0..1         | Indicates whether the Items that the Retailer markets are customizable to meet the end consumer's requirements.                                                                                                                                                                                         |
| Attribute | isTradeItemReorderable                 | boolean                   | 0..1         | This element is an indicator that selected styles or trade items may or may not be re-ordered. It does not imply any information on current availability.                                                                                                                                               |
| Attribute | isTradeItemShippedInMultipleContainers | boolean                   | 0..1         | Indicates that more than one box is to be delivered when the trade item is ordered.                                                                                                                                                                                                                     |
| Attribute | isTradeItemSizeBasedPricing            | boolean                   | 0..1         | This is an indicator that an item may be at a different price point than other similar SKUs (GTIN's price within a Style may differ).                                                                                                                                                                   |
| Attribute | lastOrderDateTime                      | dateTime                  | 0..1         | Indicates the latest date that an order can be placed for the trade item.                                                                                                                                                                                                                               |
| Attribute | lastShipDateTime                       | dateTime                  | 0..1         | Indicates the latest date that the trade item can be shipped. This is independent of any specific ship-from location.                                                                                                                                                                                   |
| Attribute | orderingUnitOfMeasure                  | string                    | 0..1         | The alternate Unit of Measure of how Trade Items are ordered by the Retailer under one Unit of Measure, but sold under another Unit of Measure.                                                                                                                                                         |
| Attribute | orderQuantityMaximum                   | nonNegativeinteger        | 0..1         | The maximum quantity of the trade item that can be ordered. A number or a count. This value can represent the total number of units ordered over a set period of time with multiple orders.                                                                                                             |
| Attribute | orderQuantityMinimum                   | nonNegativeinteger        | 0..1         | Represent an agreed to minimum quantity of the trade item that can be ordered. A number or a count. This applies to each individual order. Can be a fixed amount for all customers in a target market.                                                                                                  |
| Attribute | orderQuantityMultiple                  | nonNegativeinteger        | 0..1         | The order quantity multiples in which the trade item may be ordered. If the Order Quantity Minimum is 100, and the Order Quantity Multiple is 20, then the trade item can only be ordered in quantities which are divisible by the Order Quantity Multiple of 20.                                       |

| content                              | attribute / role                | datatype /secondary class     | multiplicity | definition                                                                                                                                                                                                                                                               |
|--------------------------------------|---------------------------------|-------------------------------|--------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Attribute                            | orderSizingFactor               | Measurement                   | 0..*         | A trade item specification other than gross, net weight, or cubic feet for a line trade item or a transaction, used for order sizing and pricing purposes. For example, factors may be used to cube a truck, reflecting different weights, and dimensions of trade item. |
| Attribute                            | shippingQuantityMinimum         | nonNegativeInteger            | 0..1         | The minimum total quantity of this trade item that can be shipped.                                                                                                                                                                                                       |
| Attribute                            | startAvailabilityDateTime       | dateTime                      | 0..1         | The date (CCYY-MM-DDTHH:MM:SS) from which the trade item becomes available from the supplier, including seasonal or temporary trade item and services.                                                                                                                   |
| Attribute                            | startDateMaximumBuyingQuantity  | dateTime                      | 0..1         | The start date for when the maximum buying quantity is available to the trading partner.                                                                                                                                                                                 |
| Attribute                            | startDateMinimumBuyingQuantity  | dateTime                      | 0..1         | The start date for when the minimum buying quantity is available to the trading partner.                                                                                                                                                                                 |
| Attribute                            | consumerEndAvailabilityDateTime | dateTime                      | 0..1         | The last date/time that the trading partner is allowed to sell the trade item to consumers. Usually related to a specific geography. ISO 8601 date format CCYY-MM-DDTHH:MM:SS.                                                                                           |
| Attribute                            | consumerFirstDeliveryDate       | dateTime                      | 0..1         | The first date/time that the buyer is allowed to deliver or ship the trade item to consumers. Usually related to a specific geography.                                                                                                                                   |
| Attribute                            | startDateTimeOfExclusivity      | dateTime                      | 0..1         | The date and time at which a product starts to be exclusive to a trading partner.                                                                                                                                                                                        |
| Association                          | avpList                         | GS1_AttributeValuePairList    | 0..1         | The transmission of non-standard data done in a simple, flexible, and easy to use method.                                                                                                                                                                                |
| DeliveryPurchasing InformationModule |                                 |                               |              | A module containing purchasing and delivery information for a trade item.                                                                                                                                                                                                |
| Association                          |                                 | DeliveryPurchasingInformation | 0..1         | Purchasing and delivery information for a trade item.                                                                                                                                                                                                                    |
| Association                          |                                 | GS1_AttributeValuePairList    | 0..1         | Attribute value pair information for a trade item.                                                                                                                                                                                                                       |



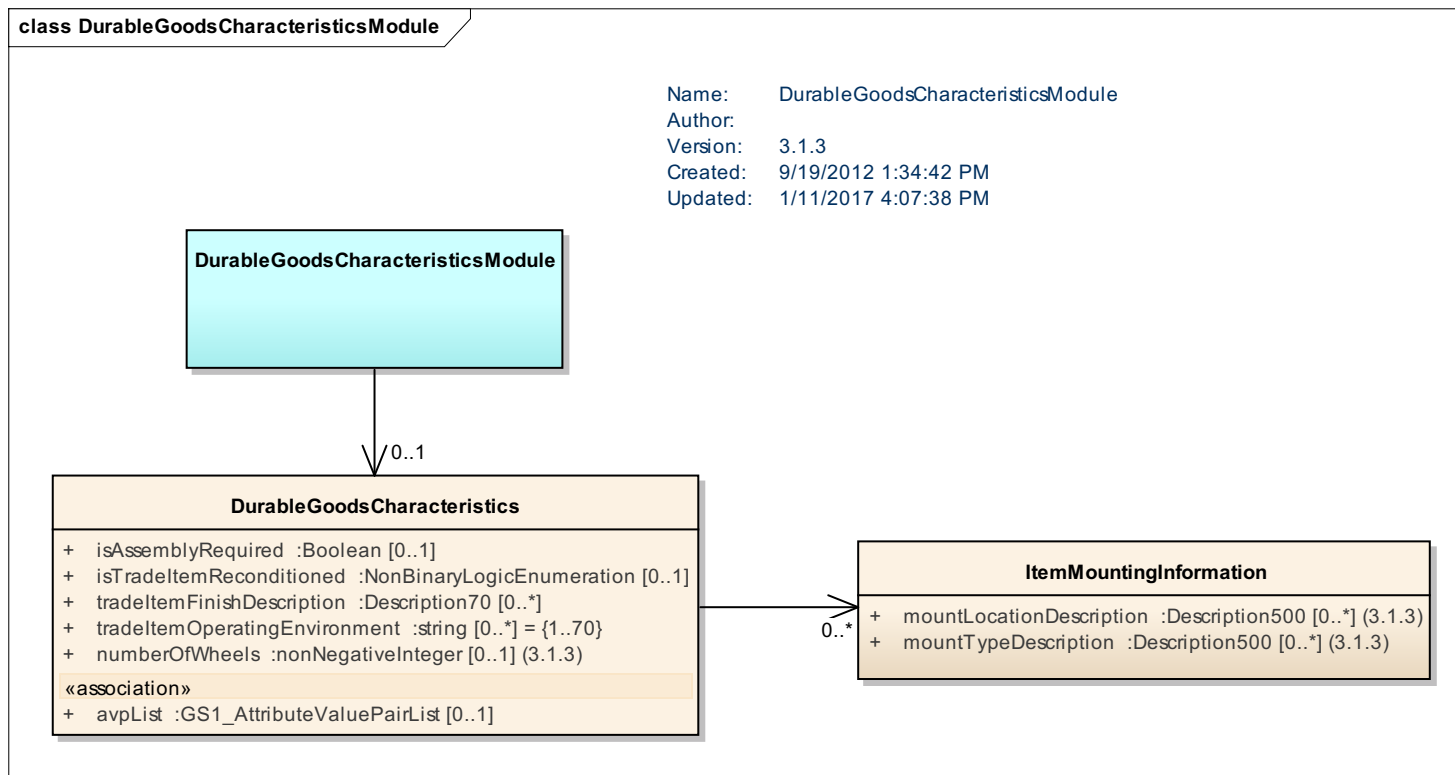
## 5.20 Diet Information Module



**Note:** Common class (in grey) is located in the GDSN Common Library.

| Content               | Attribute / Role    | Datatype / Secondary class | Multiplicity | Definition                                                                                                                                                                                                                                                                                                    |
|-----------------------|---------------------|----------------------------|--------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| DietInformationModule |                     |                            |              | Information on whether the product meets the criteria to be classified as suitable for a specific targeted group. Certain groups of consumers are limited in consuming products, depending on the ingredients or preparation style. This can be i.e. due to religious reasons or restriction of diet reasons. |
| Association           |                     | DietInformation            | 0..1         | Information on whether the product meets the criteria to be classified as suitable for a specific targeted group. Certain groups of consumers are limited in consuming products, depending on the ingredients or preparation style. This can be i.e. due to religious reasons or restriction of diet reasons. |
| DietInformation       |                     |                            |              | Information on whether the product meets the criteria to be classified as suitable for a specific targeted group. Certain groups of consumers are limited in consuming products, depending on the ingredients or preparation style. This can be i.e. due to religious reasons or restriction of diet reasons. |
| Attribute             | dietTypeDescription | Description70              | 0..*         | Free text for indication of diet not stated in the list of diets.                                                                                                                                                                                                                                             |
| Association           |                     | DietTypeInfo               | 0..*         | Information on the type of diet.                                                                                                                                                                                                                                                                              |
| Association           | avpList             | GS1_AttributeValuePairList | 0..1         | The transmission of non-standard data done in a simple, flexible, and easy to use method.                                                                                                                                                                                                                     |
| DietTypeInfo          |                     |                            |              | Information on the type of diet.                                                                                                                                                                                                                                                                              |
| Attribute             | dietTypeCode        | DietTypeCode               | 1..1         | Code indicating the diet the product is suitable for.                                                                                                                                                                                                                                                         |
| Attribute             | dietTypeSubcode     | string                     | 0..1         | Indicates a set of agreements or a certificate name that guarantees the product is permitted in a particular diet.                                                                                                                                                                                            |
| Association           | avpList             | GS1_AttributeValuePairList | 0..1         | The transmission of non-standard data done in a simple, flexible, and easy to use method.                                                                                                                                                                                                                     |
| Association           | dietCertification   | CertificationInformation   | 0..1         | A certification associated with a specific diet.                                                                                                                                                                                                                                                              |

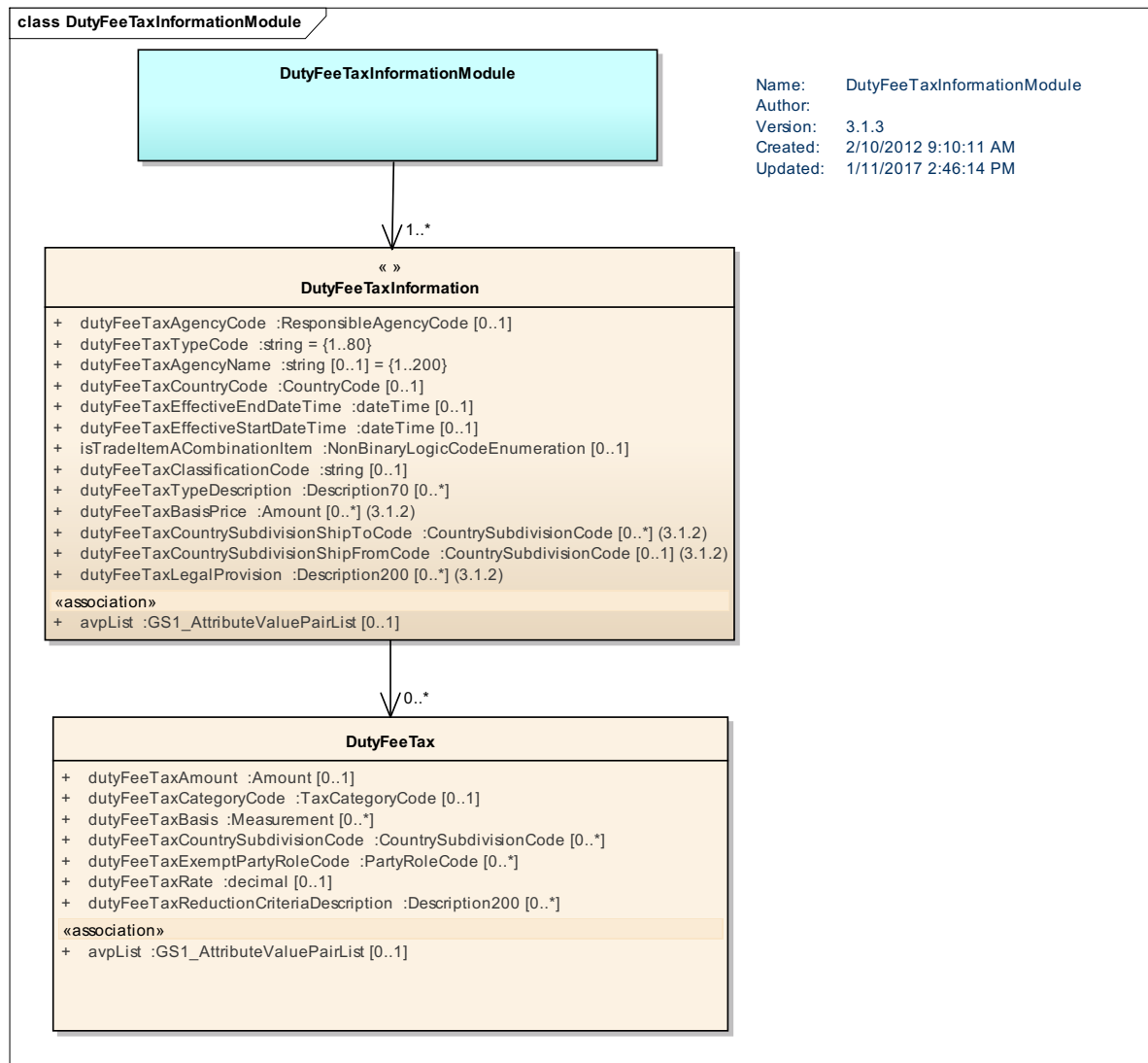
## 5.21 Durable Goods Characteristics Module



| Content                            | Attribute / Role | Datatype / Secondary class   | Multipli city | Definition                                                                   |
|------------------------------------|------------------|------------------------------|---------------|------------------------------------------------------------------------------|
| DurableGoodsChara cteristicsModule |                  | DurableGoodsCharac teristics |               | A module containing attributes applicable to a broad range of durable goods. |

| Content                     | Attribute / Role              | Datatype / Secondary class  | Multiplicity | Definition                                                                                                                                                 |
|-----------------------------|-------------------------------|-----------------------------|--------------|------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Association                 |                               | DurableGoodsCharacteristics | 0..1         | Attributes applicable to a broad range of durable goods.                                                                                                   |
| DurableGoodsCharacteristics |                               |                             |              | Attributes applicable to a broad range of durable goods.                                                                                                   |
| Association                 | avpList                       | GS1_AttributeValuePairList  | 0..1         | The transmission of non-standard data done in a simple, flexible, and easy to use method.                                                                  |
| Attribute                   | isAssemblyRequired            | Boolean                     | 0..1         | Indicates that the Items in the package need to be assembled for use.                                                                                      |
| Attribute                   | isTradeItemReconditioned      | NonBinaryLogicEnumeration   | 0..1         | An indicator whether or not this item is a remanufactured (or rebuilt) or reconditioned part.                                                              |
| Attribute                   | tradeItemFinishDescription    | Description                 | 0..*         | An attribute which defines the outer surface/appearance of the product.                                                                                    |
| Attribute                   | tradeItemOperatingEnvironment | String                      | 0..*         | The physical area(s) in which the manufacturer has designed the unit to be operated or installed for example underground, underwater, inside, outside etc. |
| Attribute                   | numberOfWheels                | nonNegativeInteger          | 0..1         | The number of wheels that the trade item has.                                                                                                              |
| Association                 |                               | ItemMountingInformation     | 0..*         | Details on how an item can be mounted for example to a wall or a surface.                                                                                  |
| ItemMountingInformation     |                               |                             |              | Details on how an item can be mounted for example to a wall or a surface.                                                                                  |
| Attribute                   | mountLocationDescription      | Description500              | 0..*         | A description of how the item is mounted for use especially with shelves for example on the wall, ceiling or floor.                                        |
| Attribute                   | mountTypeDescription          | Description500              | 0..*         | Describes the type of mount for the light bulb for example swivel, bracket, tilt, articulating.                                                            |

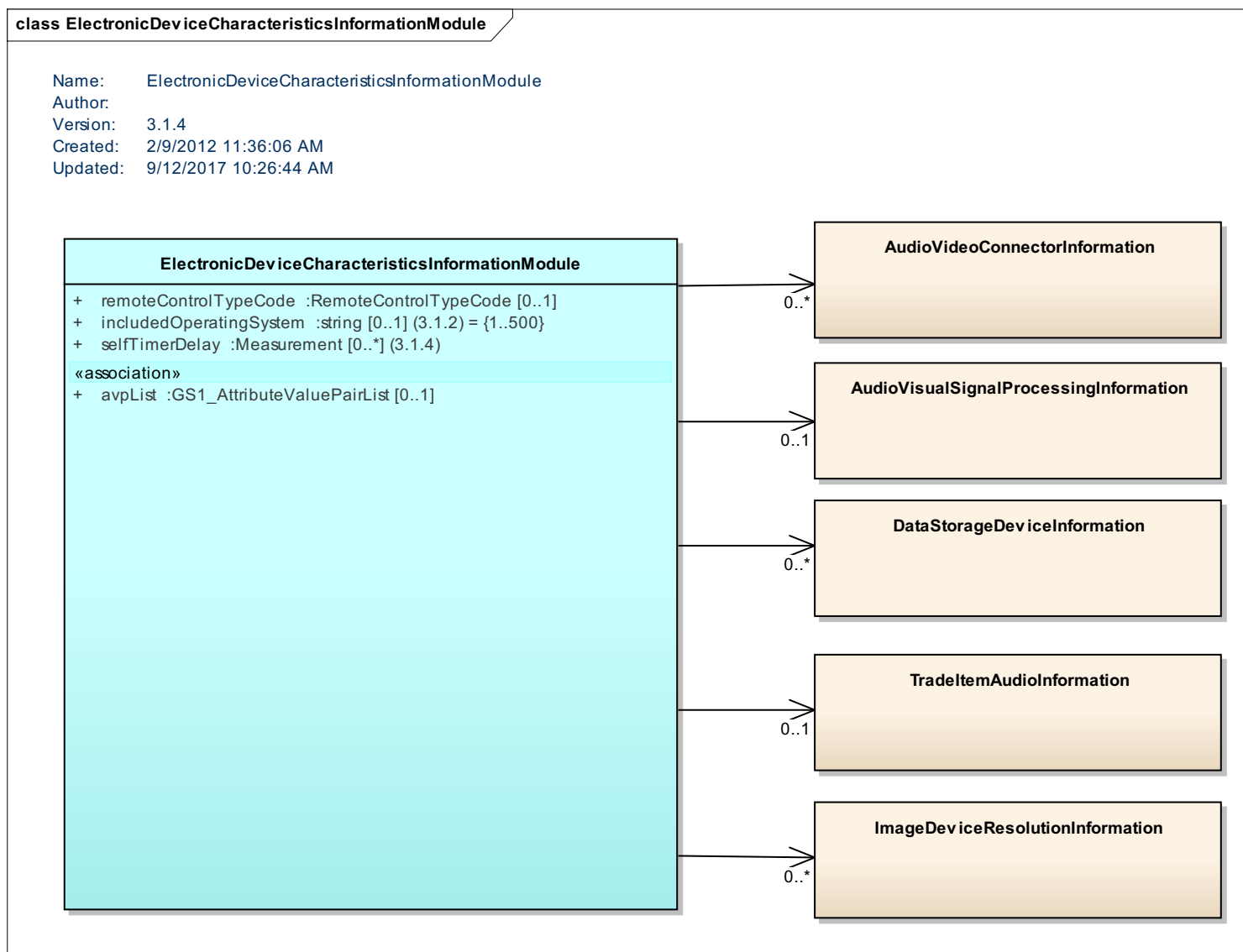
## 5.22 Duty Fee Tax Information Module



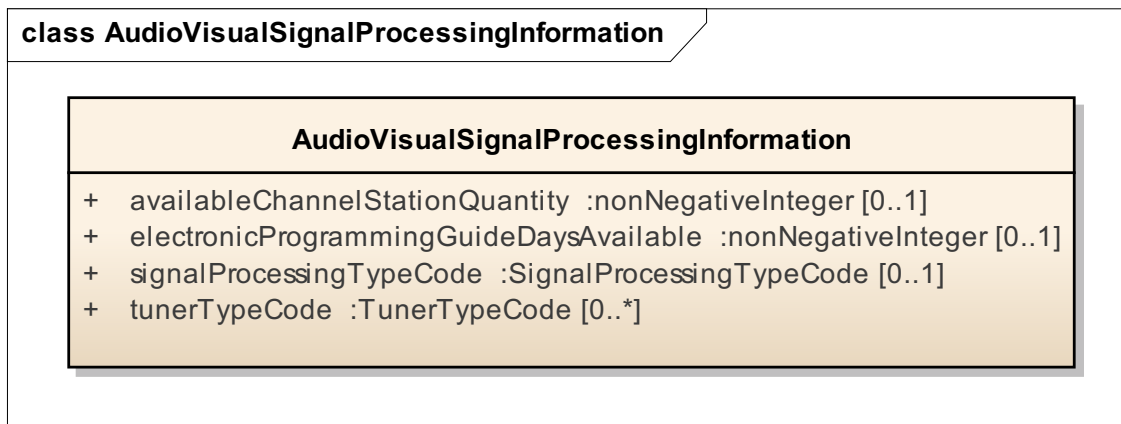
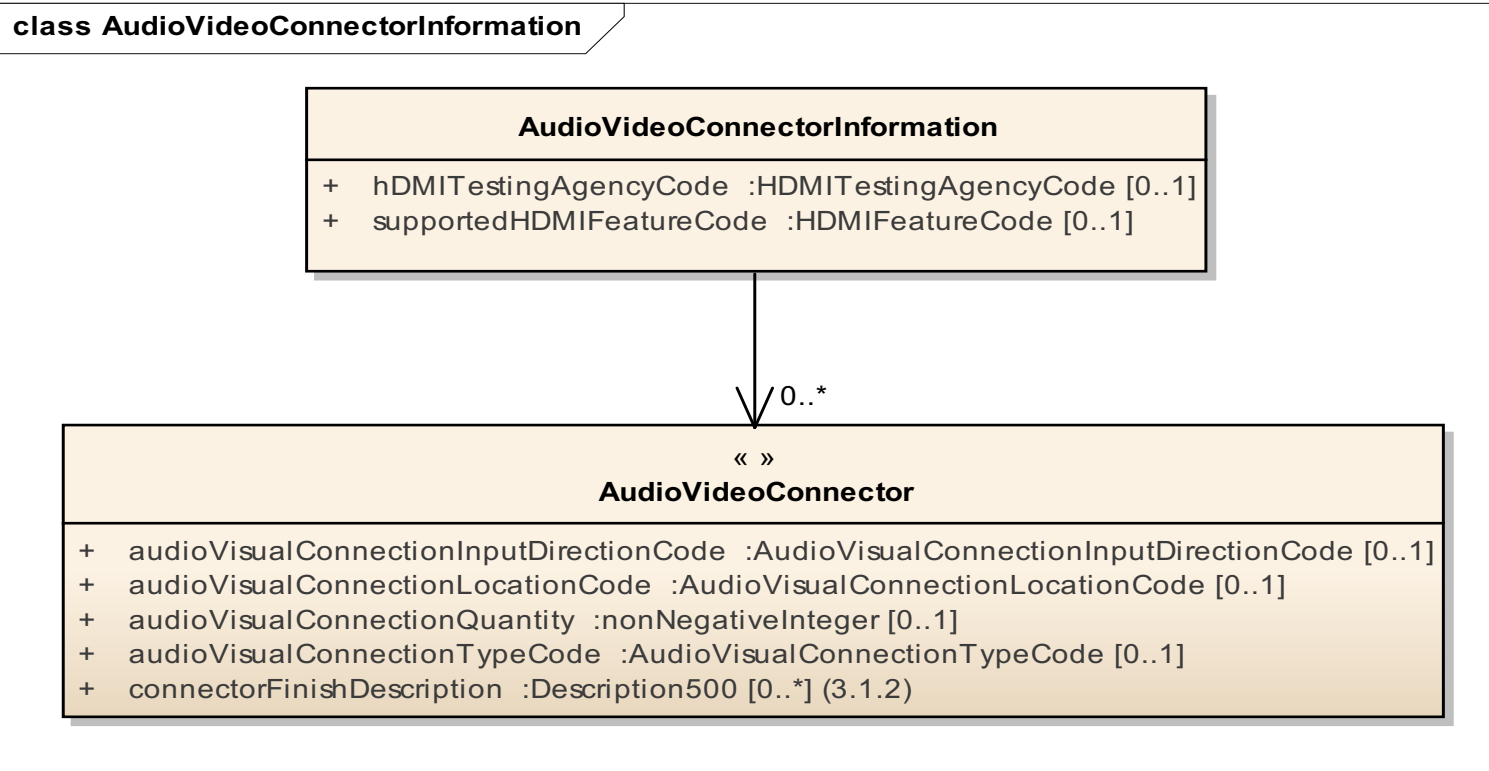
| content               | Attribute / role                       | datatype /secondary class  | multiplicity | definition                                                                                                                                                                                                 |
|-----------------------|----------------------------------------|----------------------------|--------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| DutyFeeTax            |                                        |                            |              | Details on a duty, fee or tax which may be applicable to a trade item including applicability, rate and amount.                                                                                            |
| Attribute             | dutyFeeTaxAmount                       | Amount                     | 0..1         | The current tax or duty or fee amount applicable to the trade item.                                                                                                                                        |
| Attribute             | dutyFeeTaxCategoryCode                 | TaxCategoryCode            | 0..1         | Depicts the applicability of the tax rate or amount for a trade item, for example, zero low or exempt.                                                                                                     |
| Attribute             | dutyFeeTaxBasis                        | Measurement                | 0..*         | This is defined as a taxation basis for a corresponding levying type and class, for example, for a steel tax on an item with a screw cap weighing "3" grams the tax basis would be 3 grams.                |
| Attribute             | dutyFeeTaxCountrySubdivisionCode       | CountrySubdivisionCode     | 0..*         | The political subdivision (e.g. province or state) where a specific tax or tax rate\value are applicable.                                                                                                  |
| Attribute             | dutyFeeTaxExemptPartyRoleCode          | PartyRoleCode              | 0..*         | The party role (e.g. Consumer) that is exempt from a specific tax duty or fee.                                                                                                                             |
| Attribute             | dutyFeeTaxRate                         | decimal                    | 0..1         | The current tax or duty rate percentage applicable to the trade item.                                                                                                                                      |
| Attribute             | dutyFeeTaxReductionCriteriaDescription | Description200             | 0..*         | The conditions under which a supplier is entitled to a particular tax reduction.                                                                                                                           |
| Association           | avpList                                | GS1_AttributeValuePairList | 0..1         | The transmission of non-standard data done in a simple, flexible, and easy to use method.                                                                                                                  |
| DutyFeeTaxInformation |                                        |                            |              | A duty, fee or tax which may be applicable to a trade item.                                                                                                                                                |
| Association           |                                        | DutyFeeTax                 | 0..*         | Contains information on the applicability and or rate\value for a specific duty fee or tax.                                                                                                                |
| Attribute             | dutyFeeTaxAgencyCode                   | ResponsibleAgencyCode      | 0..1         | Identifies the agency responsible for the tax code list                                                                                                                                                    |
| Attribute             | dutyFeeTaxTypeCode                     | string                     | 1..1         | Identification of the type of duty or tax or fee applicable to the trade item. This will vary by target market.                                                                                            |
| Attribute             | dutyFeeTaxAgencyName                   | string                     | 0..1         | The name of an agency responsible for the collection of this duty                                                                                                                                          |
| Attribute             | dutyFeeTaxBasisPrice                   | Amount                     | 0..*         | The price that is determined a trade item should be set to by legal means within a market. This price is the basis to which the tax is set to. Some trade item prices are dictated by law in some markets. |
| Attribute             | dutyFeeTaxCountryCode                  | CountryCode                | 0..1         | The country that a duty, fee or tax may be applicable to for a trade item.                                                                                                                                 |

| content                     | Attribute / role                         | datatype /secondary class  | multiplicity | definition                                                                                                                                                                               |
|-----------------------------|------------------------------------------|----------------------------|--------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| attribute                   | dutyFeeTaxCountrySubdivisionShipFromCode | CountrySubdivisionCode     | 0..1         | The country subdivision the item is being shipped from in which the tax basis is made.                                                                                                   |
| attribute                   | dutyFeeTaxCountrySubdivisionShipToCode   | CountrySubdivisionCode     | 0..*         | The Country subdivision the item is being shipped to in which the tax basis is made.                                                                                                     |
| Attribute                   | dutyFeeTaxClassificationCode             | string                     | 0..1         | A code specifying the broad category of duty, fee or tax, for example, energy. waste, environment.                                                                                       |
| Attribute                   | dutyFeeTaxEffectiveEndTime               | dateTime                   | 0..1         | The effective date on which the tax, fee or duty must end being collected.                                                                                                               |
| Attribute                   | dutyFeeTaxEffectiveStartTime             | dateTime                   | 0..1         | The effective date on which the tax, fee or duty must start being collected.                                                                                                             |
| attribute                   | dutyFeeTaxLegalProvision                 | Description200             | 0..*         | The associated legal tax law that the tax information is based on. An example in Brazil: Inciso I, Art. 34, Anexo II, RICMS-SP.                                                          |
| Attribute                   | dutyFeeTaxTypeDescription                | Description70              | 0..*         | A description of tax type, for example, "Taxes sur les supports audio".                                                                                                                  |
| Attribute                   | isTradeItemACombinationItem              | NonBinaryLogicEnumeration  | 0..1         | An indicator whether a product assigned with one GTIN contains components which could have different tax rates, for example, chocolate eggs with toys would be chocolate 7% and toy 19%. |
| Association                 | avpList                                  | GS1_AttributeValuePairList | 0..1         | The transmission of non-standard data done in a simple, flexible, and easy to use method.                                                                                                |
| DutyFeeTaxInformationModule |                                          |                            |              | A module containing information on a duty, fee or tax which may be applicable to a trade item.                                                                                           |
| Association                 |                                          | DutyFeeTaxInformation      | 1..*         | A duty, fee or tax which may be applicable to a trade item.                                                                                                                              |

## 5.23 Electronic Device Characteristics Information Module







**class DataStorageDeviceInformation**
**DataStorageDeviceInformation**

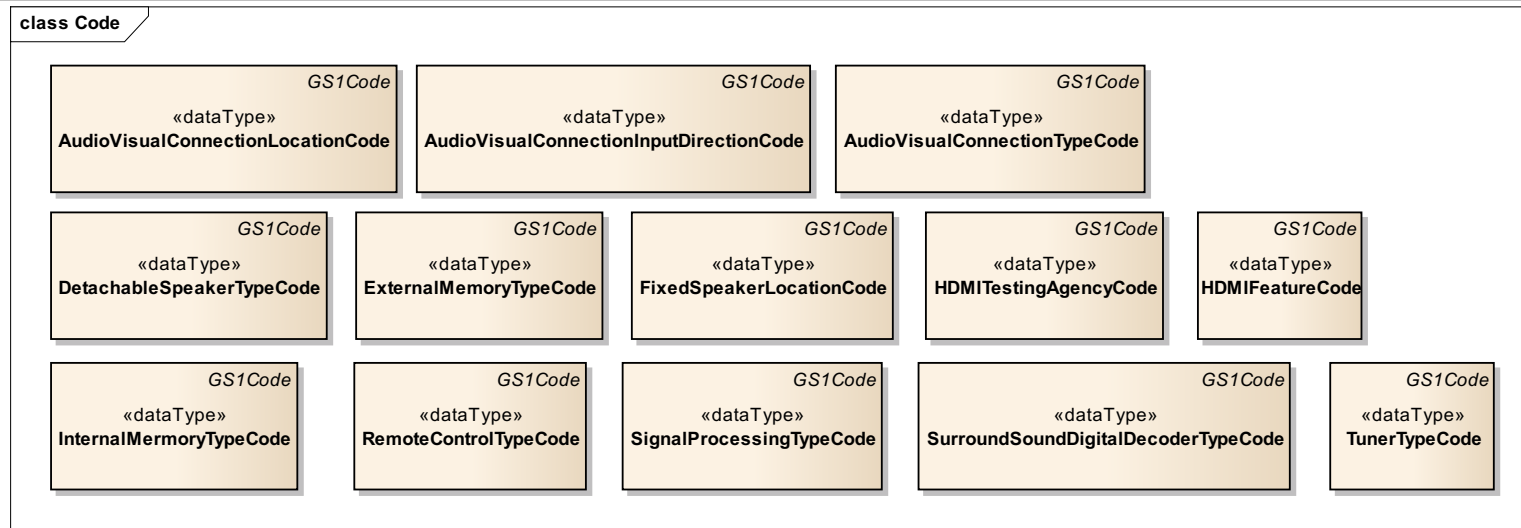
- + externalMemoryTypeCode :ExternalMemoryTypeCode [0..\*]
- + internalMemoryTypeCode :InternalMemoryTypeCode [0..1]
- + maximumAvailableStorageCapacity :Measurement [0..\*] (3.1.3)

**class ImageDeviceResolutionInformation**
**ImageDeviceResolutionInformation**

- + maximumResolution :Measurement [0..\*] (3.1.2)
- + resolutionTypeCode :ResolutionTypeCode [0..1] (3.1.2)

**class TradeItemAudioInformation**
**TradeItemAudioInformation**

- + detachableSpeakerTypeCode :DetachableSpeakerTypeCode [0..1]
- + fixedSpeakerLocationCode :FixedSpeakerLocationCode [0..1]
- + surroundSoundDigitalDecoderTypeCode :SurroundSoundDigitalDecoderTypeCode [0..\*]
- + totalAudioPowerOutput :Measurement [0..\*]
- + microphoneTypeCode :MicrophoneTypeCode [0..1] (3.1.2)
- + equalizerControlFeatures :Description500 [0..\*] (3.1.4)



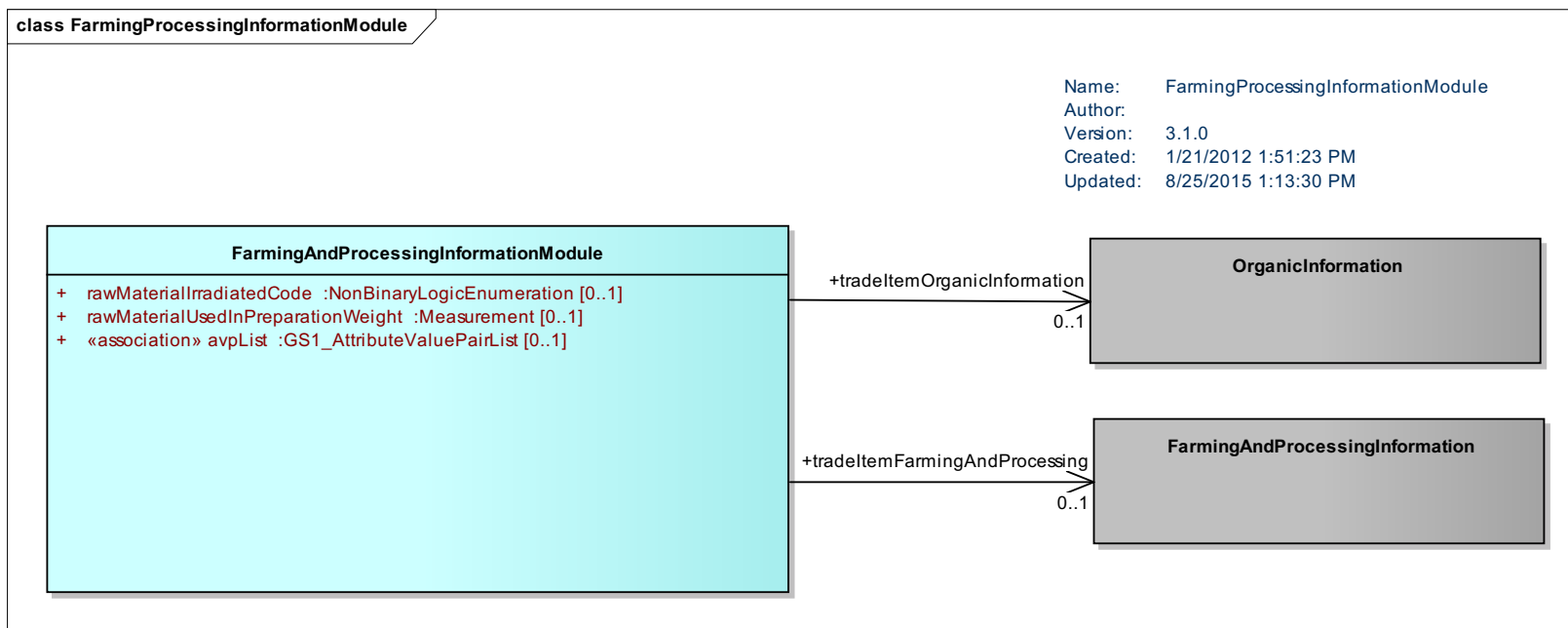
| Content                         | Attribute / Role          | Datatype /Secondary class | Multi plici ty | Definition                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|---------------------------------|---------------------------|---------------------------|----------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| AudioVideoConnectorInfor mation |                           |                           |                | Audio Video Connector information for a trade item.                                                                                                                                                                                                                                                                                                                                                                                                         |
| Association                     |                           | AudioVideoConnector       | 0..*           | Audio Video Connector information for a trade item.                                                                                                                                                                                                                                                                                                                                                                                                         |
| Attribute                       | hDMITestingAgencyCo de    | HDMITestingAgencyCode     | 0..1           | The testing agency that has certified all of the product's HDMI inputs or outputs as a code. HDMI/ HDCP interoperability is tested either by SimplayHD or another Authorized Testing Centre with the 1.2a specification. The High-Definition multimedia Interface (HDMI) is a compact audio/video connector interface for transmitting uncompressed digital streams. High-bandwidth Digital Content Protection (HDCP) is a form of digital copy protection. |
| Attribute                       | supportedHDMIFeatur eCode | HDMIFeatureCode           | 0..1           | The type of features that are supported by the High-Definition multimedia Interface. The High-Definition Multimedia Interface (HDMI) is a compact audio/video connector interface for transmitting uncompressed digital streams.                                                                                                                                                                                                                            |

| Content                                | Attribute / Role                         | Datatype /Secondary class               | Multi plici ty | Definition                                                                                                                                                                                               |
|----------------------------------------|------------------------------------------|-----------------------------------------|----------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| AudioVideoConnector                    |                                          |                                         |                | Audio Video Connector information for a trade item.                                                                                                                                                      |
| Attribute                              | audioVisualConnection InputDirectionCode | AudioVisualConnectionInputDirectionCode | 0..1           | The directions of connections (input, output) that are available expressed as a code value.                                                                                                              |
| Attribute                              | audioVisualConnection LocationCode       | AudioVisualConnectionLocationCode       | 0..1           | The location on the unit of any audio visual connector for example top.                                                                                                                                  |
| Attribute                              | audioVisualConnection Quantity           | nonNegativeInteger                      | 0..1           | The number of audio visual connections available on the unit expressed as a code.                                                                                                                        |
| Attribute                              | audioVisualConnection TypeCode           | AudioVisualConnectionTypeCode           | 0..1           | The types of Standard or Basic Connection Types that are available expressed as a code.                                                                                                                  |
| Attribute                              | connectorFinishDescription               | Description500                          | 0..*           | The plating used on the electrical mating surfaces of connectors.                                                                                                                                        |
| AudioVisualSignalProcessingInformation |                                          |                                         |                | Information on signal processing for a trade item. Signal processing is the ability to perform useful operations on signals.                                                                             |
| Attribute                              | availableChannelStationQuantity          | nonNegativeInteger                      | 0..1           | The number of channels available on the unit expressed as an integer.                                                                                                                                    |
| Attribute                              | electronicProgrammingGuideDaysAvailable  | nonNegativeInteger                      | 0..1           | The number of days available in an electronic programming guide expressed as an integer. The electronic programming guide feature is the capability for the users to interact with an intelligent guide. |
| Attribute                              | signalProcessingTypeCode                 | SignalProcessingTypeCode                | 0..1           | The type of processing capability of the television to receive and process enhanced signal types expressed as a code for example Analogue.                                                               |
| Attribute                              | tunerTypeCode                            | TunerTypeCode                           | 0..*           | A tuner type is the technology used for the built-in receiver expressed as a code for example HD (high definition). A tuner receives broadcasts and converts them into signals.                          |
| DataStorageDeviceInformation           |                                          |                                         |                | Information on included data storage devices associated with the trade item.                                                                                                                             |
| Attribute                              | externalMemoryTypeCode                   | ExternalMemoryTypeCode                  | 0..*           | The components, devices, and recording media that retain digital data that is external to the device expressed as a code.                                                                                |

| Content                                          | Attribute / Role                | Datatype /Secondary class              | Multi plicity | Definition                                                                                                                     |
|--------------------------------------------------|---------------------------------|----------------------------------------|---------------|--------------------------------------------------------------------------------------------------------------------------------|
| Attribute                                        | internalMemoryTypeCode          | InternalMemoryTypeCode                 | 0..1          | The components, devices, and recording media that retain digital data that is internal to the device expressed as a code.      |
| Attribute                                        | maximumAvailableStorageCapacity | Measurement                            | 0..*          | The maximum data storage capacity available within the trade item for electronic file storage hardware.                        |
| ElectronicDeviceCharacteristicsInformationModule |                                 |                                        |               | A module containing technical and other product characteristics for electronic items.                                          |
| Association                                      |                                 | AudioVisualSignalProcessingInformation | 0..1          | Signal processing information for a trade item.                                                                                |
| Association                                      |                                 | TradeItemAudioInformation              | 0..1          | Information on audio functionality of a Trade Item.                                                                            |
| Association                                      |                                 | DataStorageDeviceInformation           | 0..*          | Information on included data storage devices associated with the trade item.                                                   |
| Association                                      |                                 | AudioVideoConnectorInformation         | 0..*          | Audio Video Connector Information for a trade item.                                                                            |
| Association                                      |                                 | ImageDeviceResolutionInformation       | 0..*          | Details on the resolution for an image device such as a camera.                                                                |
| Association                                      | avpList                         | GS1_AttributeValuePairList             | 0..1          | The transmission of non-standard data done in a simple, flexible, and easy to use method.                                      |
| Attribute                                        | includedOperatingSystem         | String                                 | 0..1          | The operating system loaded on the trade item, device or upon which the software is designed to operate.                       |
| Attribute                                        | remoteControlTypeCode           | RemoteControlTypeCode                  | 0..1          | The type of remote control functionality available with a unit expressed as a code.                                            |
| Attribute                                        | selfTimerDelay                  | Measurement                            | 0..*          | The amount of time the timer on a camera runs before the mechanism triggers the action. Example 2 seconds, 10 seconds, custom. |
| ImageDeviceResolutionInformation                 |                                 |                                        |               | Details on the resolution for an image device such as a camera.                                                                |
| attribute                                        | maximumResolution               | Measurement                            | 0..*          | The maximum resolution of the image device, measured in dots/pixels per some measure.                                          |

| Content                    | Attribute / Role                    | Datatype /Secondary class           | Multi plici ty | Definition                                                                                                                                                                                                                                                                      |
|----------------------------|-------------------------------------|-------------------------------------|----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| attribute                  | resolutionTypeCode                  | ResolutionTypeCode                  | 0..1           | The qualifier describing the resolution of the device expressed as a code for example IMAGE.                                                                                                                                                                                    |
| TradeItemAudioInformati on |                                     |                                     |                | Information on audio functionality of a Trade Item.                                                                                                                                                                                                                             |
| Attribute                  | detachableSpeakerTypeCode           | DetachableSpeakerTypeCode           | 0..1           | The type of detachable speakers available on the unit for example wireless.                                                                                                                                                                                                     |
| Attribute                  | equalizerControlFeatures            | Description500                      | 0..*           | A description of the types of equalizer on an audio musical unit that are available. An equalizer allows the sound in specified frequency bands to be amplified or reduced, in order to adjust the quality and character of the sound. Examples: Bass; Mid; Treble; Parametric. |
| Attribute                  | fixedSpeakerLocationCode            | FixedSpeakerLocationCode            | 0..1           | The location of speakers that cannot be detached available on the unit.                                                                                                                                                                                                         |
| Attribute                  | microphoneTypeCode                  | microphoneTypeCode                  | 0..1           | The type of microphone the trade item contains expressed as a code for example WIRELESS.                                                                                                                                                                                        |
| Attribute                  | surroundSoundDigitalDecoderTypeCode | SurroundSoundDigitalDecoderTypeCode | 0..*           | The type of feature capable of decoding and playback of particular sound systems expressed as a code for example DTS HD.                                                                                                                                                        |
| Attribute                  | totalAudioPowerOutput               | Measurement                         | 0..*           | The total audio power output of the product expressed in Watts.                                                                                                                                                                                                                 |

## 5.24 Farming And Processing Information Module



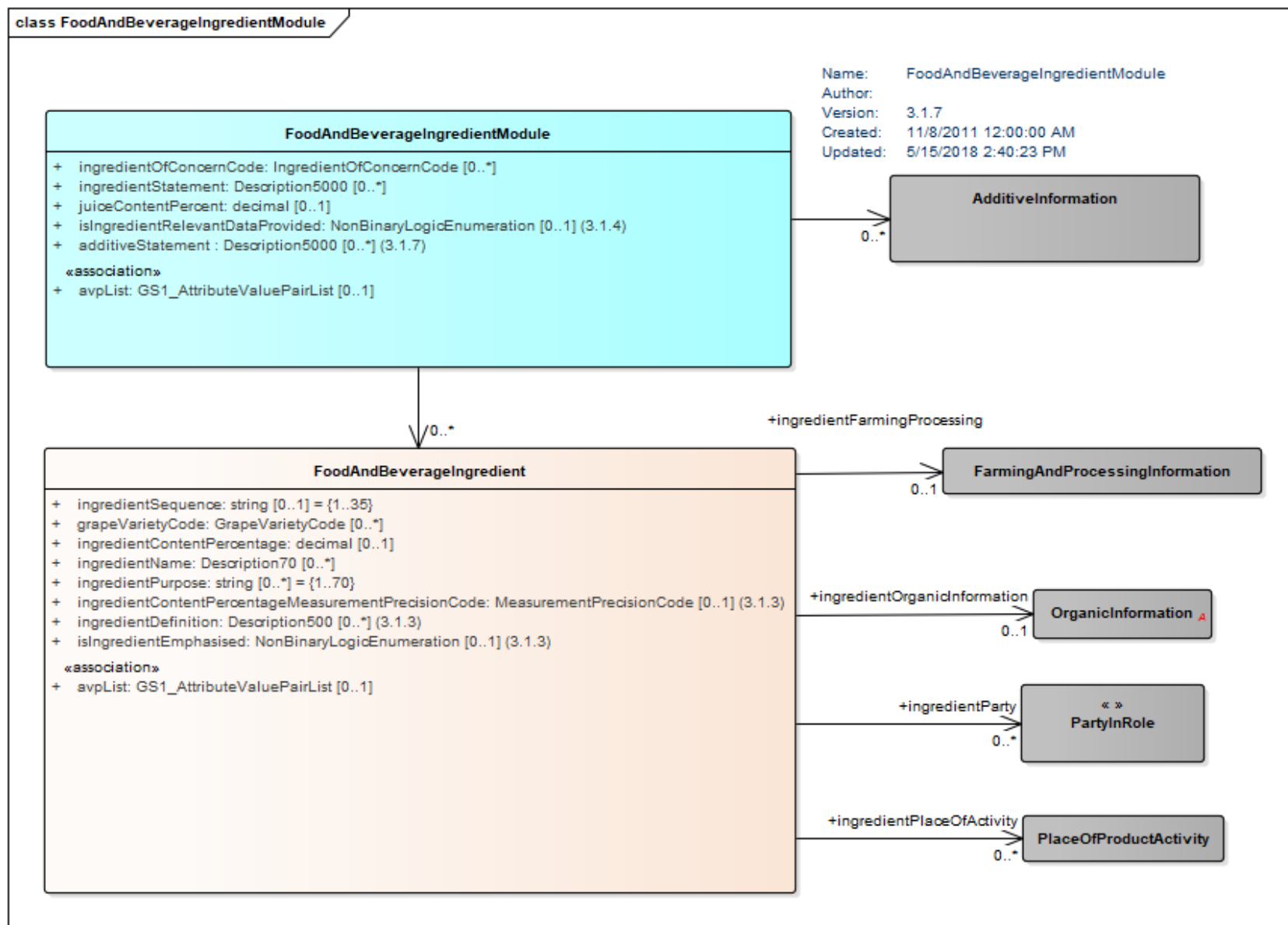
**Note:** Common class (in grey) is located in the GDSN Common Library.

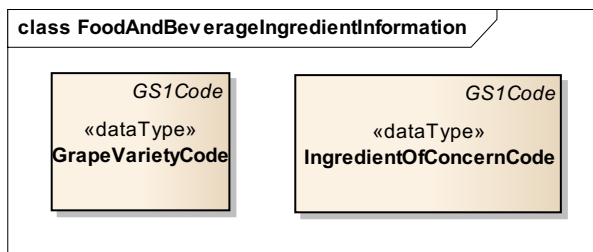
| content                               | attribute / role              | datatype /secondary class       | multiplcity | definition                                                                         |
|---------------------------------------|-------------------------------|---------------------------------|-------------|------------------------------------------------------------------------------------|
| FarmingAndProcessingInformationModule |                               |                                 |             | Information on any farming or processing performed on and agricultural trade item. |
| Association                           | tradeItemOrganicInformation   | OrganicInformation              | 0..1        | Details on the trade item regarding the extent of organic production.              |
| Association                           | tradeItemFarmingAndProcessing | FarmingAndProcessingInformation | 0..1        | Information on farming and processing for a trade item.                            |
| Association                           | avpList                       | GS1_AttributeValuePairList      | 0..1        | Attribute value pair information.                                                  |

| content   | attribute / role                   | datatype /secondary class | multipli city | definition                                                                                                                                                                                                                                                                                                                                                                                 |
|-----------|------------------------------------|---------------------------|---------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Attribute | rawMaterialIrradiated Code         | NonBinaryLogicEnumeration | 0..1          | Indicates if radiation has been applied to a trade item's raw material.                                                                                                                                                                                                                                                                                                                    |
| Attribute | rawMaterialUsedInPreparationWeight | Measurement               | 0..1          | The weight of the raw materials (meat) used to produce the finished food product. The weight of the raw materials (for example fat) can differ from the weight of the ingredient in the finished product. In some countries there are legal stipulations that the weight of the raw material used must be indicated if a product is produced using more than 100% of the finished product. |



## 5.25 Food And Beverage Ingredient Module

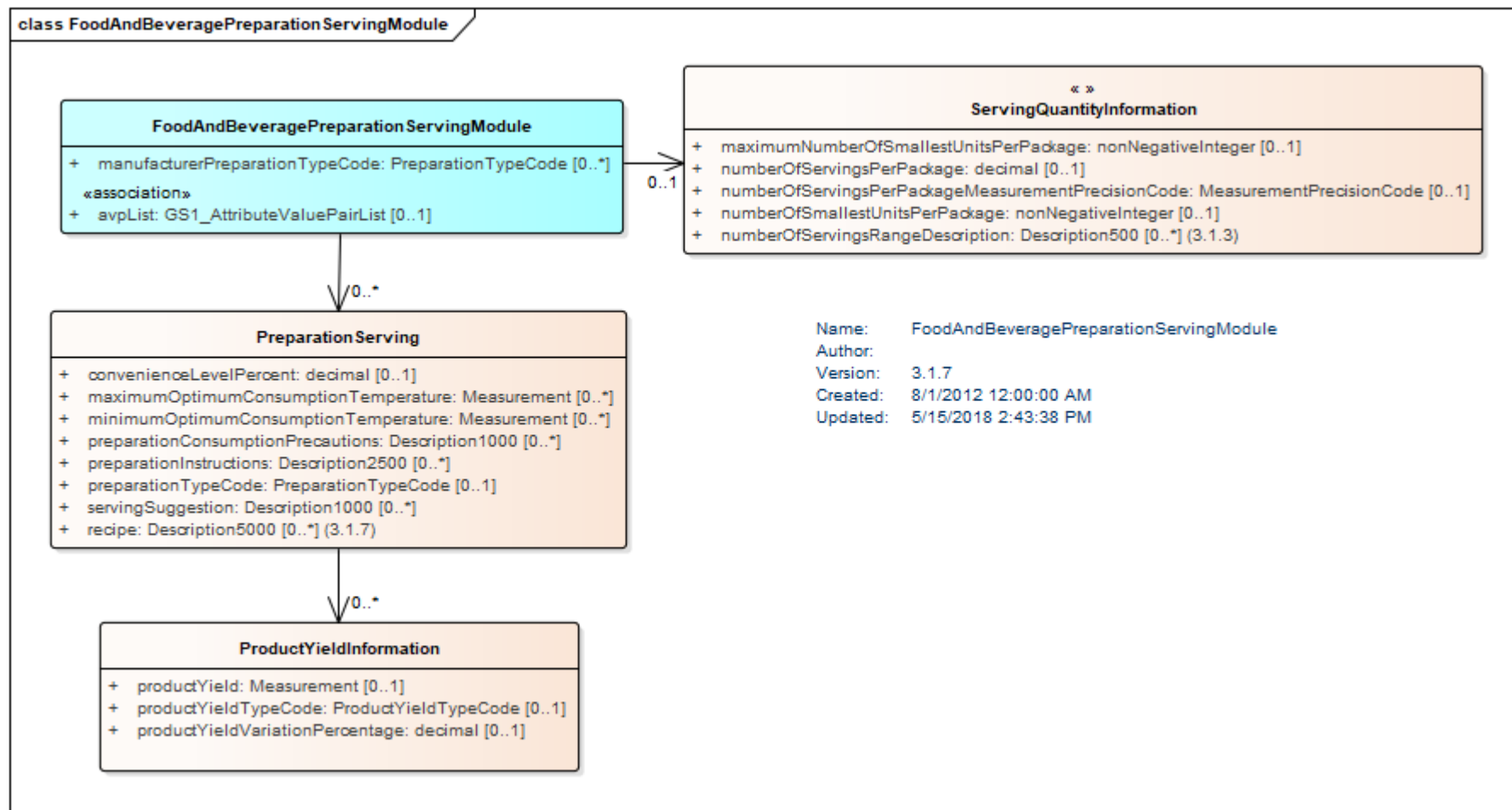




| Content                    | Attribute / Role                | Datatype / Secondary class  | Multipli city | Definition                                                                                                                                                                                                    |
|----------------------------|---------------------------------|-----------------------------|---------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| FoodAndBeverageIn gredient |                                 |                             |               | Information on the constituent ingredient make up of the product split out per ingredient.                                                                                                                    |
| Association                | ingredientParty                 | PartyInRole                 | 0..*          | Party and party role information that relates to an ingredient to describe growers, breeders, etc.                                                                                                            |
| Association                | ingredientFarmingAn dProcessing | FarmingAndProcessi ng       | 0..1          | Details on any methods and techniques used to grow or produce the ingredient.                                                                                                                                 |
| Association                | ingredientOrganicInf ormation   | OrganicInformation          | 0..1          | Information on the organic nature of an ingredient.                                                                                                                                                           |
| Association                | ingredientPlaceOfActi vity      | PlaceOfProductActivi ty     | 0..*          | Information on the activity (e.g. bottling) taken place for an ingredient as well as the associated geographic area.                                                                                          |
| Association                | avpList                         | GS1_AttributeValueP airList | 0..1          | Attribute value pair information.                                                                                                                                                                             |
| Attribute                  | ingredientSequence              | string                      | 0..1          | Incremental value (01, 02, 03...) indicating the ingredient order by content percentage of the product. (major ingredient = 01, second ingredient =01.01) etc.                                                |
| Attribute                  | grapeVarietyCode                | GrapeVarietyCode            | 0..*          | The vine variety used for the production of this wine for example Merlot expressed as a code.                                                                                                                 |
| Attribute                  | ingredientContentPer centage    | decimal                     | 0..1          | Indication of the percentage of the ingredient contained in the product.                                                                                                                                      |
| Attribute                  | ingredientName                  | Description70               | 0..*          | Text field indicating one ingredient or ingredient group (according to regulations of the target market). Ingredients include any additives (colourings, preservatives, e-numbers, etc) that are encompassed. |

| Content                                    | Attribute / Role                                    | Datatype / Secondary class | Multiplicity | Definition                                                                                                                                                                                                                                     |
|--------------------------------------------|-----------------------------------------------------|----------------------------|--------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Attribute                                  | ingredientPurpose                                   | string                     | 0..*         | A description of the primary purpose that an ingredient serves for example a colouring in the case of annatto in a cheese rind.                                                                                                                |
| Attribute                                  | ingredientContentPercentageMeasurementPrecisionCode | MeasurementPrecisionCode   | 0..1         | The measurement precision qualifying the ingredient content percentage for example LESS_THAN.                                                                                                                                                  |
| Attribute                                  | ingredientDefinition                                | Description500             | 0..*         | Plain language definitions of ingredients which are consumer friendly.                                                                                                                                                                         |
| Attribute                                  | isIngredientEmphasised                              | NonBinaryLogicEnumeration  | 0..1         | Denotes that the ingredient should have its text emphasised.                                                                                                                                                                                   |
| FoodAndBeverageIngredientInformationModule |                                                     |                            |              | Information on the constituent ingredient make up of the product.                                                                                                                                                                              |
| Association                                |                                                     | FoodAndBeverageIngredient  | 0..*         | Ingredient details for a food and beverage item.                                                                                                                                                                                               |
| Association                                |                                                     | AdditiveInformation        | 0..*         | Information on presence or absence of additives or genetic modifications contained in the trade item.                                                                                                                                          |
| Association                                | avpList                                             | GS1_AttributeValuePairList | 0..1         | Attribute value pair information.                                                                                                                                                                                                              |
| Attribute                                  | additiveStatement                                   | Description5000            | 0..*         | Statement on presence or absence of additives or genetic modification contained in the trade item for example "Contains no preservatives, no artificial colours or flavours and no artificial flavours".                                       |
| Attribute                                  | isIngredientRelevantDataProvided                    | NonBinaryLogicEnumeration  | 0..1         | A flag indicating that all of the relevant or required ingredient information has been provided.                                                                                                                                               |
| Attribute                                  | ingredientOfConcernCode                             | IngredientOfConcernCode    | 0..*         | Indicates a claim to an ingredient, considered to be a concern for regulatory or other reasons, and which is "contained" within the trade item but may not need to specify the amount whether approximate or an accurate measurement be given. |
| Attribute                                  | ingredientStatement                                 | Description5000            | 0..*         | Information on the constituent ingredient make-up of the product specified as one string.                                                                                                                                                      |
| Attribute                                  | juiceContentPercent                                 | decimal                    | 0..1         | The fruit juice content of the trade item expressed as a percentage.                                                                                                                                                                           |

## 5.26 Food and Beverage Preparation Serving Module



class FoodAndBeverage...

GS1Code

«dataType»

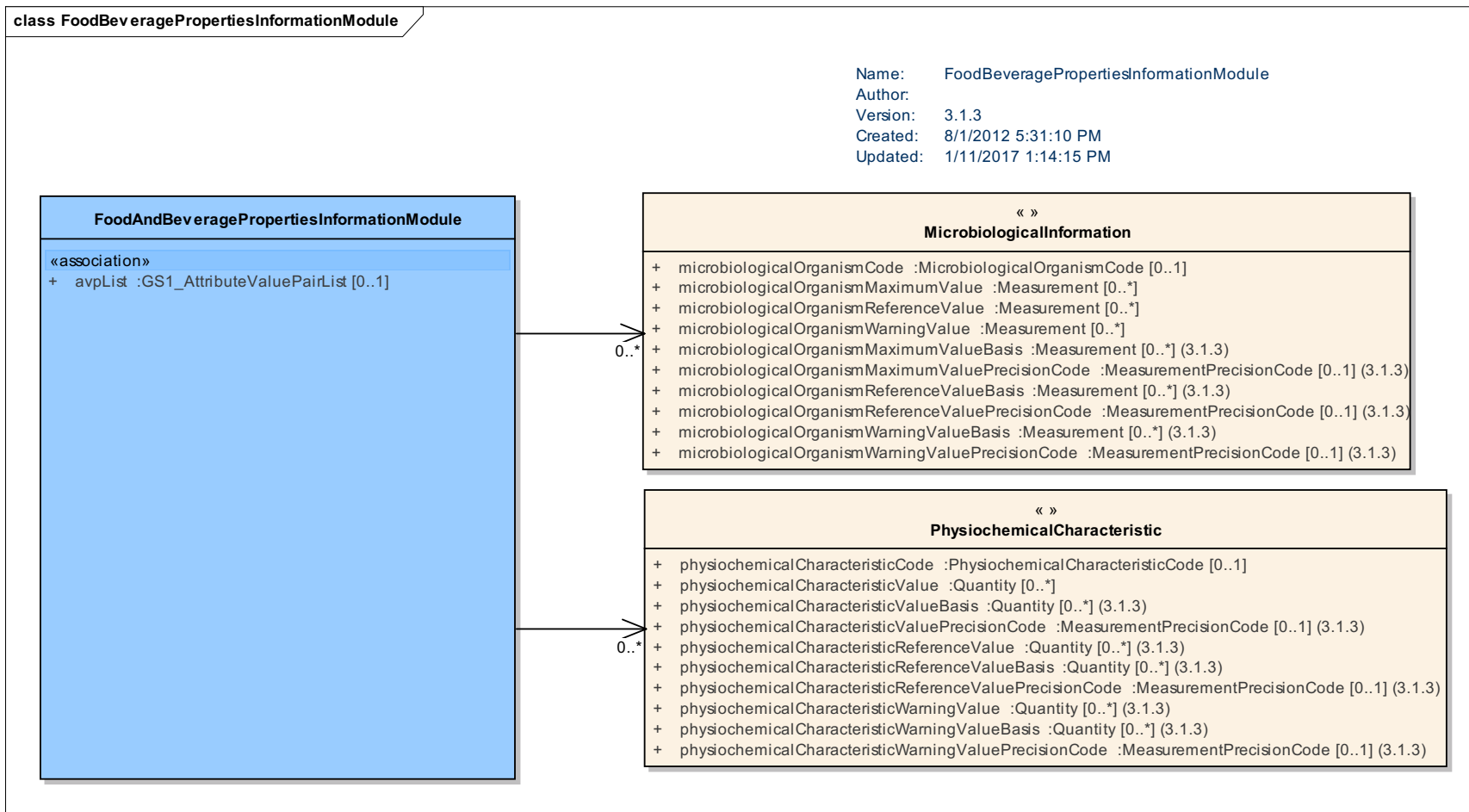
ProductYieldTypeCode

| content                                 | attribute / role                     | datatype /secondary class  | multipl<br>city | definition                                                                                                                                                                                                                                  |
|-----------------------------------------|--------------------------------------|----------------------------|-----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| FoodAndBeveragePreparationServingModule |                                      |                            |                 | Information on way the product can be prepared or served.                                                                                                                                                                                   |
| Attribute                               | manufacturerPreparationTypeCode      | PreparationTypeCode        | 0..*            | An indication of the preparation methods that a manufacturer has used on the product or a component of the product during the manufacturing process.                                                                                        |
| Association                             |                                      | PreparationServing         | 0..*            | Preparation and serving information for a food and beverage item.                                                                                                                                                                           |
| Association                             |                                      | ServingQuantityInformation | 0..1            | Information on the number of servings and units contained in the package.                                                                                                                                                                   |
| Association                             | avpList                              | GS1_AttributeValuePairList | 0..1            | The transmission of non-standard data done in a simple, flexible, and easy to use method.                                                                                                                                                   |
| PreparationServing                      |                                      |                            |                 | Information on way the product can be prepared or served.                                                                                                                                                                                   |
| Association                             |                                      | ProductYieldInformation    | 0..*            | Information on the yield of a product.                                                                                                                                                                                                      |
| Attribute                               | convenienceLevelPercent              | decimal                    | 0..1            | An indication of the ease of preparation for semi-prepared products. The convenience level indicates the level of preparation in percentage required to prepare and helps the consumer to assess how long it will take to prepare the meal. |
| Attribute                               | maximumOptimumConsumptionTemperature | Measurement                | 0..*            | The upper limit drinking temperature of the optimum range of the drinking temperature. The optimum range of the drinking temperature is a recommendation and is based on the experience of the individual producer.                         |
| Attribute                               | minimumOptimumConsumptionTemperature | Measurement                | 0..*            | The lower limit drinking temperature of the optimum range of the drinking temperature. The optimum range of the drinking temperature is a recommendation and is based on the experience of the individual producer.                         |

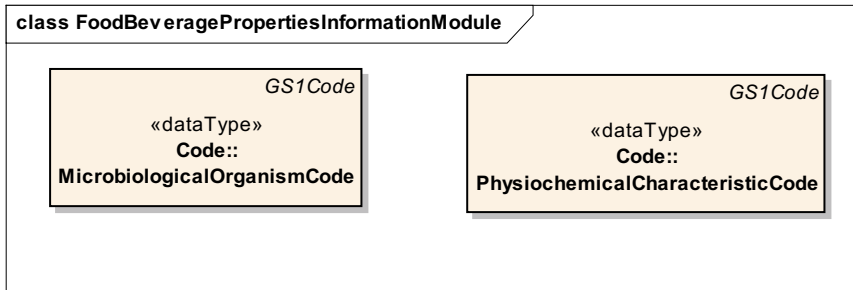
| content                    | attribute / role                                   | datatype /secondary class | multipl<br>city | definition                                                                                                                                                                                                                                                                                                                                                  |
|----------------------------|----------------------------------------------------|---------------------------|-----------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Attribute                  | preparationConsumptionPrecautions                  | Description1000           | 0..*            | Specifies additional precautions to be taken before preparation or consumption of the product.                                                                                                                                                                                                                                                              |
| Attribute                  | preparationInstructions                            | Description2500           | 0..*            | Textual instruction on how to prepare the product before serving.                                                                                                                                                                                                                                                                                           |
| Attribute                  | preparationTypeCode                                | PreparationTypeCode       | 0..1            | A code specifying the technique used to make the product ready for consumption. For example: baking, boiling.                                                                                                                                                                                                                                               |
| Attribute                  | recipe                                             | Description5000           | 0..*            | A description of how the product is used with other ingredients to yield a new result different than the trade item.                                                                                                                                                                                                                                        |
| Attribute                  | servingSuggestion                                  | Description1000           | 0..*            | Free text field for serving suggestion.                                                                                                                                                                                                                                                                                                                     |
| ProductYieldInformation    |                                                    |                           |                 | Information on the yield of a product.                                                                                                                                                                                                                                                                                                                      |
| Attribute                  | productYield                                       | Measurement               | 0..1            | Product quantity after preparation.                                                                                                                                                                                                                                                                                                                         |
| Attribute                  | productYieldTypeCode                               | ProductYieldTypeCode      | 0..1            | Code indicating the type of yield measurement. Examples: After dilution, Drained weight, After cooking, etc.                                                                                                                                                                                                                                                |
| Attribute                  | productYieldVariationPercentage                    | decimal                   | 0..1            | Indication of range in percent of the given cooking / roasting loss. Percentage that the actual weight of the trade item differs upward or downward from the average or estimated product yield.                                                                                                                                                            |
| ServingQuantityInformation |                                                    |                           |                 | Information on the number of servings and units contained in the package.                                                                                                                                                                                                                                                                                   |
| Attribute                  | maximumNumberOfSmallestUnitsPerPackage             | nonNegativeInteger        | 0..1            | The maximum number of the smallest units contained in the package. This attribute is to be used in conjunction with numberOfSmallestUnitsPerPackage in order to enter a minimum and maximum value. For example for a package of meatballs where the smallest units per package could be from 56-60, the maximumNumberOfSmallestUnitsPerPackage would be 60. |
| Attribute                  | numberOfServingsPerPackage                         | decimal                   | 0..1            | The total number of servings contained in the package.                                                                                                                                                                                                                                                                                                      |
| Attribute                  | numberOfServingsPerPackageMeasurementPrecisionCode | MeasurementPrecisionCode  | 0..1            | Code indicating whether the number of servings per package is exact or approximate. One should follow local regulatory guidelines when selecting a precision.                                                                                                                                                                                               |

| content   | attribute / role                 | datatype /secondary class | multipl<br>city | definition                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|-----------|----------------------------------|---------------------------|-----------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Attribute | numberOfSmallestUnitsPerPackage  | nonNegativeInteger        | 0..1            | The total number of smallest units contained in the package. The smallest unit cannot be further divided without breaking or slicing the product. Example: 10 pancakes.                                                                                                                                                                                                                                                                                                                                                                         |
| Attribute | numberOfServingsRangeDescription | Description500            | 0..*            | A text description describing the range of servings/portions contained within a trade item. Some items may contain a variance in the number of units or a range, therefore the servings could also vary for the trade item. This attribute should only be used when there is a range of servings. If servings is an exact amount, this should not be used. An example of its use would be a bag of meatballs may contain 18-20 meatballs. If the serving size is 2 meatballs then the numberOfServingsRange would be 9-10 servings or portions. |

## 5.27 Food and Beverage Properties Information Module





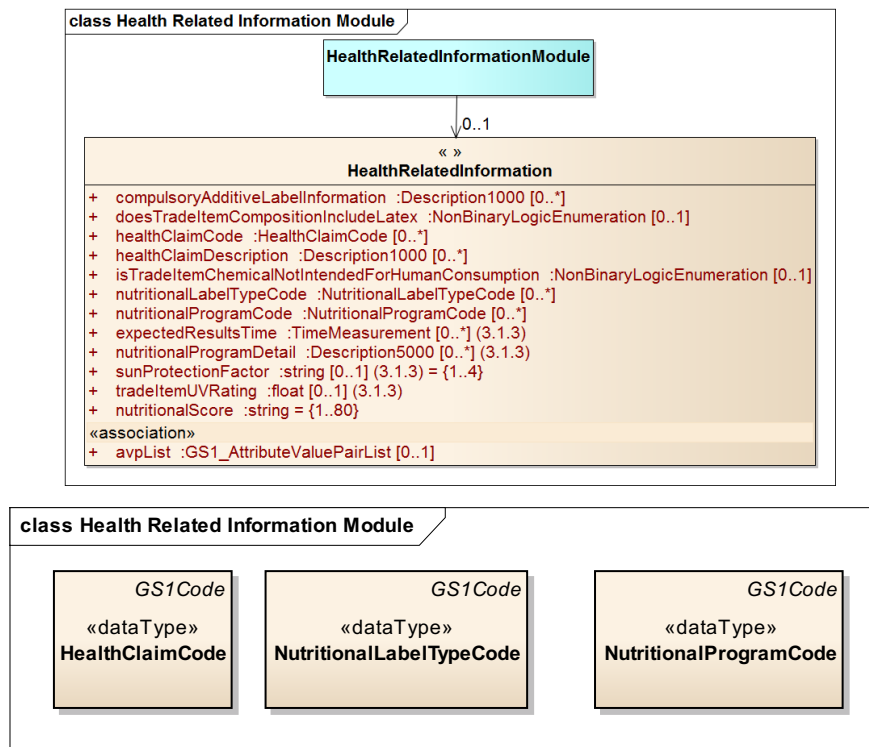


| content                                            | attribute / role                        | datatype /secondary class        | multipl<br>city | definition                                                                                                                            |
|----------------------------------------------------|-----------------------------------------|----------------------------------|-----------------|---------------------------------------------------------------------------------------------------------------------------------------|
| FoodAndBeverage<br>PropertiesInforma<br>tionModule |                                         |                                  |                 | Information on physiochemical or other properties of food and beverage products.                                                      |
| Association                                        | avpList                                 | GS1_AttributeValu<br>ePairList   | 0..1            | The transmission of non-standard data done in a simple, flexible, and easy to use method.                                             |
| Association                                        |                                         | MicrobiologicalInfo<br>rmation   | 0..*            | Information on the maximum allowable presence of certain micro-organisms as guaranteed by the manufactures upon receipt of the goods. |
| Association                                        |                                         | PhysiochemicalCha<br>racteristic | 0..*            | Information on the product's physicochemical characteristics.                                                                         |
| MicrobiologicalInf<br>ormation                     |                                         |                                  |                 | Information on the maximum allowable presence of certain micro-organisms as guaranteed by the manufactures upon receipt of the goods. |
| Attribute                                          | microbiologicalOrganis<br>mCode         | MicrobiologicalOrg<br>anismCode  | 0..1            | Code indicating the type of microbiological organism.                                                                                 |
| Attribute                                          | microbiologicalOrganis<br>mMaximumValue | Measurement                      | 0..*            | The maximum allowable value of the microbiological organism per weight or volume in a specific environment.                           |

| content                          | attribute / role                                           | datatype /secondary class            | multipl<br>city | definition                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|----------------------------------|------------------------------------------------------------|--------------------------------------|-----------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Attribute                        | microbiologicalOrganis<br>mReferenceValue                  | Measurement                          | 0..*            | Reference values give an indication of which product specific ranges of micro organisms are to be expected and which micro organism contents in the appropriate food products are acceptable due to hygiene rules. Per definition this value reflects a microbiological limit which in a 2-class plan, separates good quality from defective quality or in a 3-class plan, separates good quality from marginally acceptable quality.<br><br>With regard to the audit of the production processes exceeding the microbiological reference limit means, it indicates there are leak points in the production process and the hygienic situation needs to be increased. |
| Attribute                        | microbiologicalOrganis<br>mWarningValue                    | Measurement                          | 0..*            | A microbiological limit which, in a 3-class plan, separates marginally acceptable quality from defective quality. Exceeding the limits of the allowed content of micro-organisms defined as warning values indicating there is a poor quality of the hygiene standard in the food production. This would probably lead to health hazards.                                                                                                                                                                                                                                                                                                                             |
| Attribute                        | microbiologicalOrganis<br>mMaximumValueBasis               | Measurement                          | 0..*            | Used to express the analytical circumstances in which the maximum value was measured (e.g. in 10 g or 200 mg/kg).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Attribute                        | microbiologicalOrganis<br>mMaximumValuePrecis<br>ionCode   | MeasurementPreci<br>sionCode         | 0..1            | The measurement precision used for the measurement of the organism maximum value for example UNDETECTABLE.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Attribute                        | microbiologicalOrganis<br>mReferenceValueBasis             | Measurement                          | 0..*            | Used to express the analytical circumstances in which the reference value was measured (e.g. in 10 g or 200 mg/kg).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Attribute                        | microbiologicalOrganis<br>mReferenceValuePreci<br>sionCode | MeasurementPreci<br>sionCode         | 0..1            | A code specifying the precision of the measurement of the organism reference value for example EXACT.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Attribute                        | microbiologicalOrganis<br>mWarningValueBasis               | Measurement                          | 0..*            | Used to express the analytical circumstances in which the warning value was measured (e.g. in 10 g or 200 mg/kg).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Attribute                        | microbiologicalOrganis<br>mWarningValuePrecisi<br>onCode   | MeasurementPreci<br>sionCode         | 0..1            | A code specifying the precision of the measurement of the organism warning value for example EXACT.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| PhysiochemicalCh<br>aracteristic |                                                            |                                      |                 | Information on the product's physicochemical characteristics.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Attribute                        | physiochemicalCharact<br>eristicCode                       | PhysiochemicalCha<br>racteristicCode | 0..1            | Code indicating the type of physiochemical characteristic.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Attribute                        | physiochemicalCharact<br>eristicValue                      | Quantity                             | 0..*            | Measurement value of the physicochemical characteristic.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |

| content   | attribute / role                                        | datatype /secondary class | multipli city | definition                                                                                                                                                                                                          |
|-----------|---------------------------------------------------------|---------------------------|---------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Attribute | physiochemicalCharacteristicValueBasis                  | Quantity                  | 0..*          | Used to express the analytical circumstances in which the value was measured (e.g. in 10 g or 200 mg/kg). This is to specify the circumstance of the metric a foundation of the measure values has to be.           |
| Attribute | physiochemicalCharacteristicValuePrecisionCode          | MeasurementPrecisionCode  | 0..1          | A code specifying the precision of the measurement of the physiochemical characteristic for example EXACT.                                                                                                          |
| Attribute | physiochemicalCharacteristicReferenceValue              | Quantity                  | 0..*          | The measured value of the physiochemical characteristic or a value which results of several tests during the production process.                                                                                    |
| Attribute | physiochemicalCharacteristicReferenceValueBasis         | Quantity                  | 0..*          | Used to express the analytical circumstances in which the reference value was measured (e.g. in 10 g or 200 mg/kg). This is to specify the circumstance of the metric a foundation of the measure values has to be. |
| Attribute | physiochemicalCharacteristicReferenceValuePrecisionCode | MeasurementPrecisionCode  | 0..1          | A code specifying the precision of the reference value of the physiochemical characteristic for example EXACT.                                                                                                      |
| Attribute | physiochemicalCharacteristicWarningValue                | Quantity                  | 0..*          | A warning limit according to a regulation (e.g. regulation EG 2073/2005). This value can differ from the value and the characteristic reference value.                                                              |
| Attribute | physiochemicalCharacteristicWarningValueBasis           | Quantity                  | 0..*          | Used to express the analytical circumstances in which the warning value was measured (e.g. in 10 g or 200 mg/kg). This is to specify the circumstance of the metric a foundation of the measure values has to be.   |
| Attribute | physiochemicalCharacteristicWarningValuePrecisionCode   | MeasurementPrecisionCode  | 0..1          | A code specifying the precision of the warning value of the physiochemical characteristic for example EXACT.                                                                                                        |

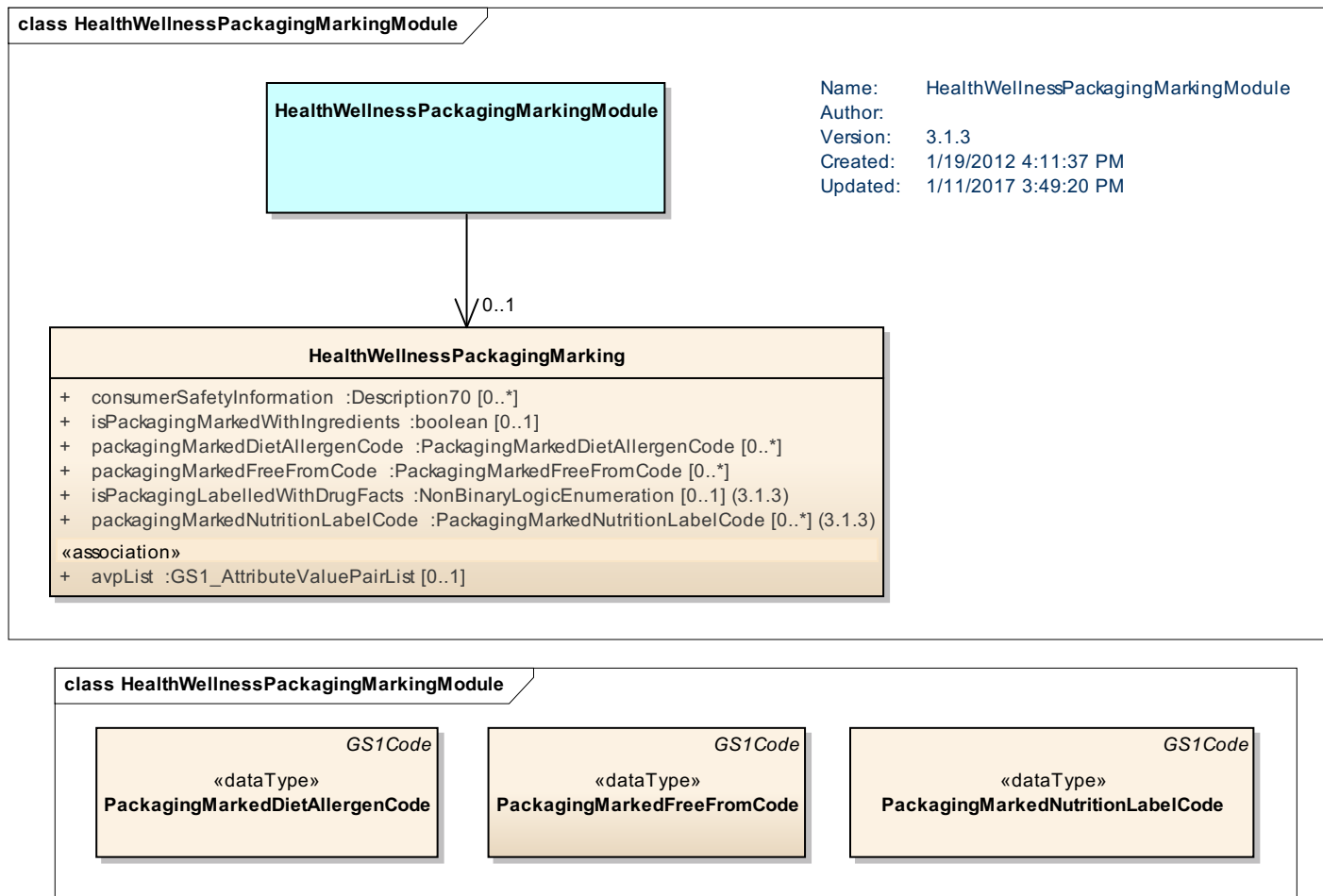
## 5.28 Health Related Information Module



| Content                        | Attribute / Role | Datatype /Secondary class | Multiplcity | Definition                                                                            |
|--------------------------------|------------------|---------------------------|-------------|---------------------------------------------------------------------------------------|
| HealthRelatedInformationModule |                  |                           |             | A module containing marketing or regulatory information specific to health or safety. |
| Association                    |                  | HealthRelatedInformation  | 0..1        | A module containing marketing or regulatory information specific to health or safety. |
| HealthRelatedInformation       |                  |                           |             | Marketing or regulatory information specific to health or safety.                     |

| Content     | Attribute / Role                                  | Datatype /Secondary class  | Multipli city | Definition                                                                                                                                                                                                                                                          |
|-------------|---------------------------------------------------|----------------------------|---------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Association | avpList                                           | GS1_AttributeValuePairList | 0..1          | The transmission of non-standard data done in a simple, flexible, and easy to use method.                                                                                                                                                                           |
| Attribute   | compulsoryAdditiveLabelInformation                | Description1000            | 0..*          | A description of any compulsory label information on the product. For example, the German additives regulation (ZzulV), for products such as meats and sausages, meat products, bread and bread products is needed for the serving counter.                         |
| Attribute   | doesTradeItemCompositionIncludeLatex              | NonBinaryLogicEnumeration  | 0..1          | Identifies if any of the trade item's components or pieces contain latex.                                                                                                                                                                                           |
| Attribute   | healthClaimCode                                   | HealthClaimCode            | 0..*          | Any health claims according to regulations of the target market.                                                                                                                                                                                                    |
| Attribute   | healthClaimDescription                            | Description1000            | 0..*          | A description of health claims according to regulations of the target market.                                                                                                                                                                                       |
| Attribute   | isTradeItemChemicalNotIntendedForHumanConsumption | NonBinaryLogicEnumeration  | 0..1          | Indicates that the trade item is or contains a Liquid, Gel, Paste, Powder, or Flammable solid not intended for human consumption (ingested).                                                                                                                        |
| Attribute   | nutritionalLabelTypeCode                          | NutritionalLabelTypeCode   | 0..*          | Code indicating that the trade item is eligible for certain nutritional labelling programs according to a specific regulation                                                                                                                                       |
| Attribute   | nutritionalProgramCode                            | NutritionalProgramCode     | 0..*          | Programs designed to encourage people to eat a certain way                                                                                                                                                                                                          |
| Attribute   | expectedResultsTime                               | TimeMeasurement            | 0..*          | The amount of time the consumer can expect to see the results as described on the product for example 10 days.                                                                                                                                                      |
| Attribute   | nutritionalProgramDetail                          | Description5000            | 0..*          | Information providing more detail as to the level or value relevant for the nutritionalProgramCode. For example, 5 points as applicable to the Weight Watchers program. This value should be expressed as text and be as is presented on the item or its packaging. |
| Attribute   | sunProtectionFactor                               | string                     | 0..1          | It is a measure of Ultra Violet B (UVB) radiation protection and ranges from 1 to 90.                                                                                                                                                                               |
| Attribute   | tradeItemUVRating                                 | float                      | 0..1          | The ultra violet rays protection rating of the product for example 400 or 300. Usually used for eyewear.                                                                                                                                                            |
| Attribute   | nutritionalScore                                  | string                     | 0..1          | A score points or ratings, associated with a nutritional program e.g. A - E for Nutri-Score.                                                                                                                                                                        |

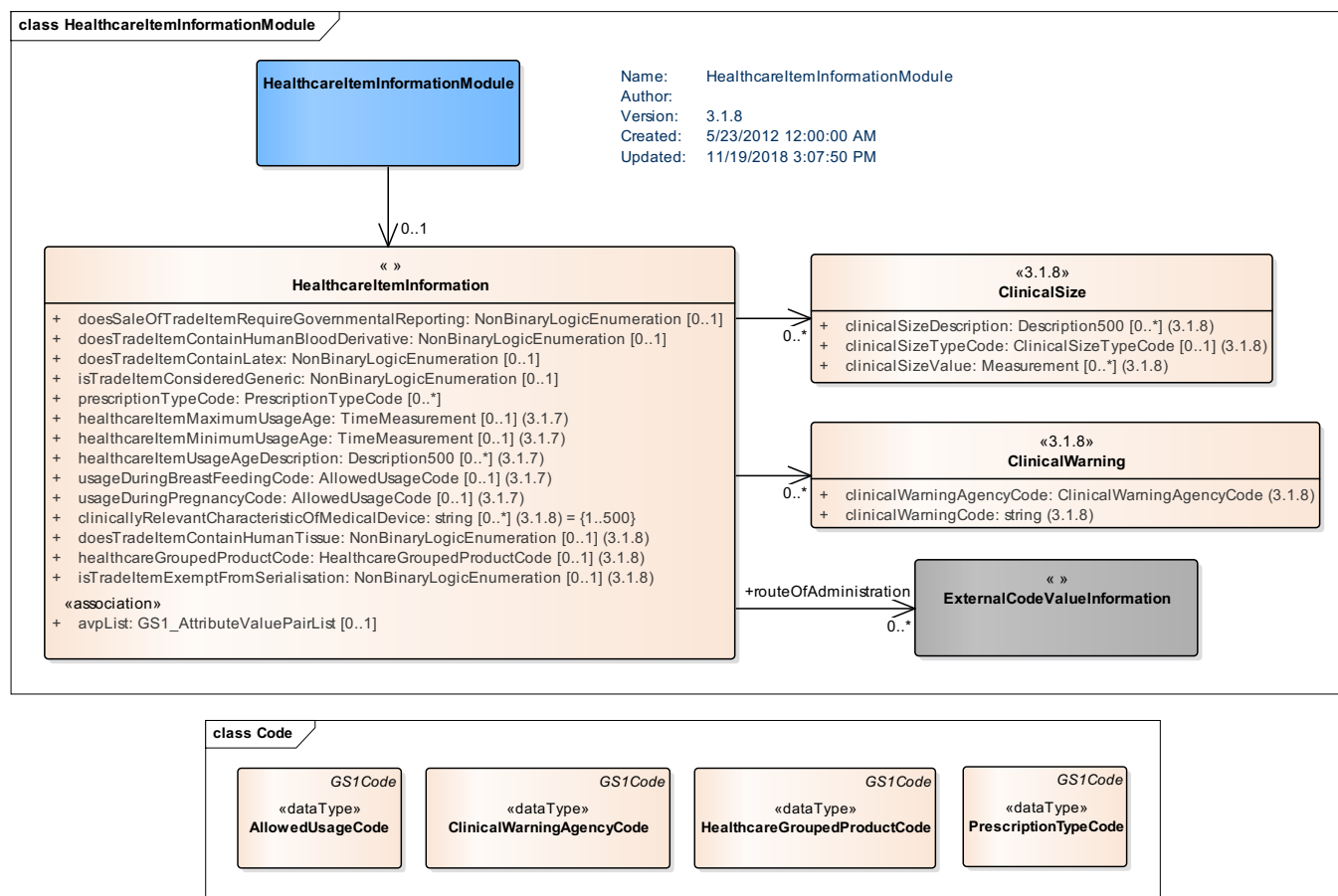
## 5.29 Health Wellness Packaging Marking Module



| content                              | Attribute / Role | Datatype /Secondary class | Multipli city | Definition                                                                                                                                              |
|--------------------------------------|------------------|---------------------------|---------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|
| HealthWellnessPackagingMarkingModule |                  |                           |               | Indicates any marking on the packaging of a trade item, including labelling of information related to allergens, suitable diet, safety and ingredients. |

| content                        | Attribute / Role                  | Datatype /Secondary class         | Multipli city | Definition                                                                                                                                                                                                                                           |
|--------------------------------|-----------------------------------|-----------------------------------|---------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Association                    |                                   | HealthWellnessPackagingMarking    | 0..1          | Indicates any marking on the packaging of a trade item, including labelling of information related to allergens, suitable diet, safety and ingredients.                                                                                              |
| HealthWellnessPackagingMarking |                                   |                                   |               | Indicates any marking on the packaging of a trade item, including labelling of information related to allergens, suitable diet, safety and ingredients.                                                                                              |
| Association                    | avpList                           | GS1_AttributeValuePairList        | 0..1          | The transmission of non-standard data done in a simple, flexible, and easy to use method.                                                                                                                                                            |
| Attribute                      | consumerSafetyInformation         | Description70                     | 0..*          | Information on consumer safety regarding the trade item.                                                                                                                                                                                             |
| Attribute                      | isPackagingMarkedWithIngredients  | Boolean                           | 0..1          | Trade item packaging contains information pertaining to its ingredients. trade item ingredients are required to be shown on the trade item (normally at base trade item level). This is a yes/no (Boolean) where yes equals marked with ingredients. |
| Attribute                      | packagingMarkedDietAllergenCode   | PackagingMarkedDietAllergenCode   | 0..*          | Indication of which dietary or allergen marks that are on the package.                                                                                                                                                                               |
| Attribute                      | packagingMarkedFreeFromCode       | PackagingMarkedFreeFromCode       | 0..*          | Indication on the trade item that the package is marked free from something as specified by a code value.                                                                                                                                            |
| Attribute                      | isPackagingLabelledWithDrugFacts  | NonBinaryLogicEnumeration         | 0..1          | Indicates if the item has drug facts labelling. A drug fact panel of the trade item is a label usually contains such items as active ingredients, uses, warnings, purpose, directions, etc.                                                          |
| Attribute                      | packagingMarkedNutritionLabelCode | PackagingMarkedNutritionLabelCode | 0..*          | Indication of which nutrition call outs or highlights are on the package. A nutrition call out is a graphic which highlights some elements from the nutrition panel for the consumer to have a quick view for example, Front of Package information. |

## 5.30 Healthcare Item Information Module



**Note:** Common class (in grey) is located in the GDSN Common Library.

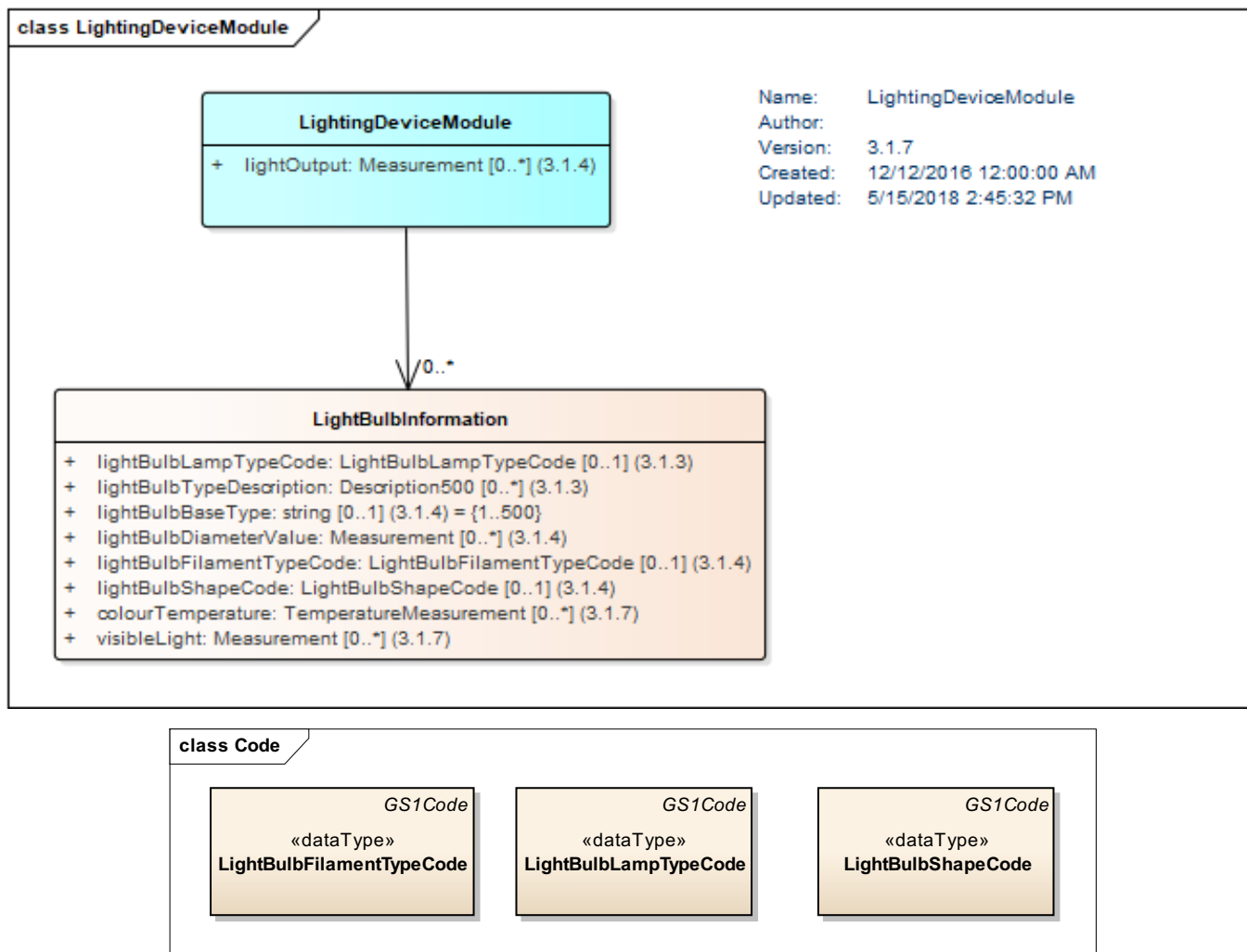


| Content                         | Attribute / Role          | Datatype /Secondary class  | Multi plicit y | Definition                                                                                                                                                                                                        |
|---------------------------------|---------------------------|----------------------------|----------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ClinicalSize                    |                           |                            |                | The dimensional size which is clinically relevant for the use of the trade item by the clinical user.                                                                                                             |
| Attribute                       | clinicalSizeDescription   | Description500             | 0..*           | This is the text used to denote the dimensional size which is clinically relevant for the use of the trade item by the clinical user. Use when the clinicalSizeType is coded as "DEVICE_SIZE_TEXT_SPECIFY".       |
| Attribute                       | clinicalSizeTypeCode      | ClinicalSizeTypeCode       | 0..1           | The qualifier to denote the dimensional size which is clinically relevant for the use of the trade item by the clinical user. For example "NEEDLE_GAUGE" for a 16 gauge needle, or "VOLUME" for a 200 cc syringe. |
| Attribute                       | clinicalSizeValue         | Measurement                | 0..*           | The value to denote the dimensional size which is clinically relevant for the use of the trade item by the clinical user. For example 16 gauge for a needle, or 200 cc for a syringe.                             |
| ClinicalWarning                 |                           |                            |                | Clinical warning information is additional information which outlines special requirements, warning and caution information printed on the package.                                                               |
| Attribute                       | clinicalWarningAgencyCode | clinicalWarningAgencyCode  | 1..1           | The agency which manages the clinical warning codings for example FDA.                                                                                                                                            |
| Attribute                       | clinicalWarningCode       | string                     | 1..1           | Clinical warning information is additional information which outlines special requirements, warning and caution information printed on the package.                                                               |
| HealthcareItemInformationModule |                           |                            |                | Information relevant to all classifications of healthcare items.                                                                                                                                                  |
| Association                     |                           | HealthcareItemInformation  | 0..1           | Information relevant to all classifications of healthcare items.                                                                                                                                                  |
| HealthcareItemInformation       |                           |                            |                | Information relevant to all classifications of healthcare items.                                                                                                                                                  |
| Association                     | avpList                   | GS1_AttributeValuePairList | 0..1           | Attribute value pair information.                                                                                                                                                                                 |
| Association                     |                           | ClinicalSize               | 0..*           | The dimensional size which is clinically relevant for the use of the trade item by the clinical user.                                                                                                             |
| Association                     |                           | ClinicalWarning            | 0..*           | Clinical warning information is additional information which outlines special requirements, warning and caution information printed on the package.                                                               |

| Content     | Attribute / Role                                  | Datatype /Secondary class     | Multi plicit y | Definition                                                                                                                                                                                                                            |
|-------------|---------------------------------------------------|-------------------------------|----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Association | routeOfAdministratio n                            | ExternalCodeValueInfo rmation | 0..*           | Route of Administration expresses the method(s) of administering the product. In pharmacology and toxicology, a route of administration is the path by which a drug, fluid, or other substance is brought into contact with the body. |
| Attribute   | clinicallyRelevantChar acteristicOfMedicalDe vice | string                        | 0..*           | Terms used to describe the clinical characteristics which are relevant for the trade item. These terms will refer to measurement or size appropriate for the trade item, for example 8F Catheter.                                     |
| Attribute   | doesSaleOfTradeItem RequireGovernmental Reporting | NonBinaryLogicEnumer ation    | 0..1           | Indicates whether the government requires the reporting of sale of the trade item.                                                                                                                                                    |
| Attribute   | doesTradeItemContai nHumanBloodDerivati ve        | NonBinaryLogicEnumer ation    | 0..1           | The use of this attribute indicates that the trade item is a product that contains blood, blood components or blood products used in the manufacturing.                                                                               |
| Attribute   | doesTradeItemContai nLatex                        | NonBinaryLogicEnumer ation    | 0..1           | An indication that the trade item has a positive natural rubber latex reference on the trade item's labelling.                                                                                                                        |
| Attribute   | doesTradeItemContai nHumanTissue                  | NonBinaryLogicEnumer ation    | 0..1           | Determines whether the trade item has, as a component or ingredient, human tissue. The amount of tissue is not limited to a certain amount, any amount will cause a flag of TRUE.                                                     |
| Attribute   | healthcareGroupedPr oductCode                     | HealthcareGroupedPro ductCode | 0..1           | A code representing whether a healthcare item is considered by the manufacturer to be more than a single item for example whether it is a KIT or COMBINATION.                                                                         |
| Attribute   | healthcareItemMaxim umUsageAge                    | TimeMeasurement               | 0..1           | The maximum age to which the healthcare item may be used. for example 6 MON or 18 ANN.                                                                                                                                                |
| Attribute   | healthcareItemMinim umUsageAge                    | TimeMeasurement               | 0..1           | The minimum age from which the healthcare item may be used. for example 6 MON or 18 ANN.                                                                                                                                              |
| Attribute   | healthcareItemUsage AgeDescription                | Description500                | 0..*           | Additional information regarding the usage age for a healthcare item for example "This product is not indicated for use in children under 6 years of age unless it is advised by a physician."                                        |
| Attribute   | isTradeItemConsideredGeneric                      | NonBinaryLogicEnumer ation    | 0..1           | An indication that the trade item is being produced by someone other than the Brand Innovator of the product. A value of no indicates that it is not considered a "Generic Substitution" of another product.                          |

| Content   | Attribute / Role                   | Datatype /Secondary class | Multiplicity | Definition                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|-----------|------------------------------------|---------------------------|--------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Attribute | isTradeItemExemptFromSerialisation | NonBinaryLogicEnumeration | 0..1         | Indicator that a trade item is exempt from current serialisation requirements, for example US requirements. Serialization and traceability requirements may vary by product and country. In some existing instances, certain products have been granted an exception to these regulatory requirements. This attribute will indicate to supply chain participants (wholesalers and dispensers) clearly if a product is expected to be in compliance with serialisation and traceability requirements in their country. |
| Attribute | prescriptionTypeCode               | PrescriptionTypeCode      | 0..*         | Providing a value to this code list indicates the type of prescription that is required. The prescription type may indicate that it is a product that can only be prescribed under the direction of a specialist such as an oncologist, dentist, or other specialist.                                                                                                                                                                                                                                                 |
| Attribute | usageDuringBreastFeedingCode       | AllowedUsageCode          | 0..1         | Indicates if the trade item can be used or not during breast feeding.                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Attribute | usageDuringPregnancyCode           | AllowedUsageCode          | 0..1         | Indicates if the trade item can be used or not during pregnancy.                                                                                                                                                                                                                                                                                                                                                                                                                                                      |

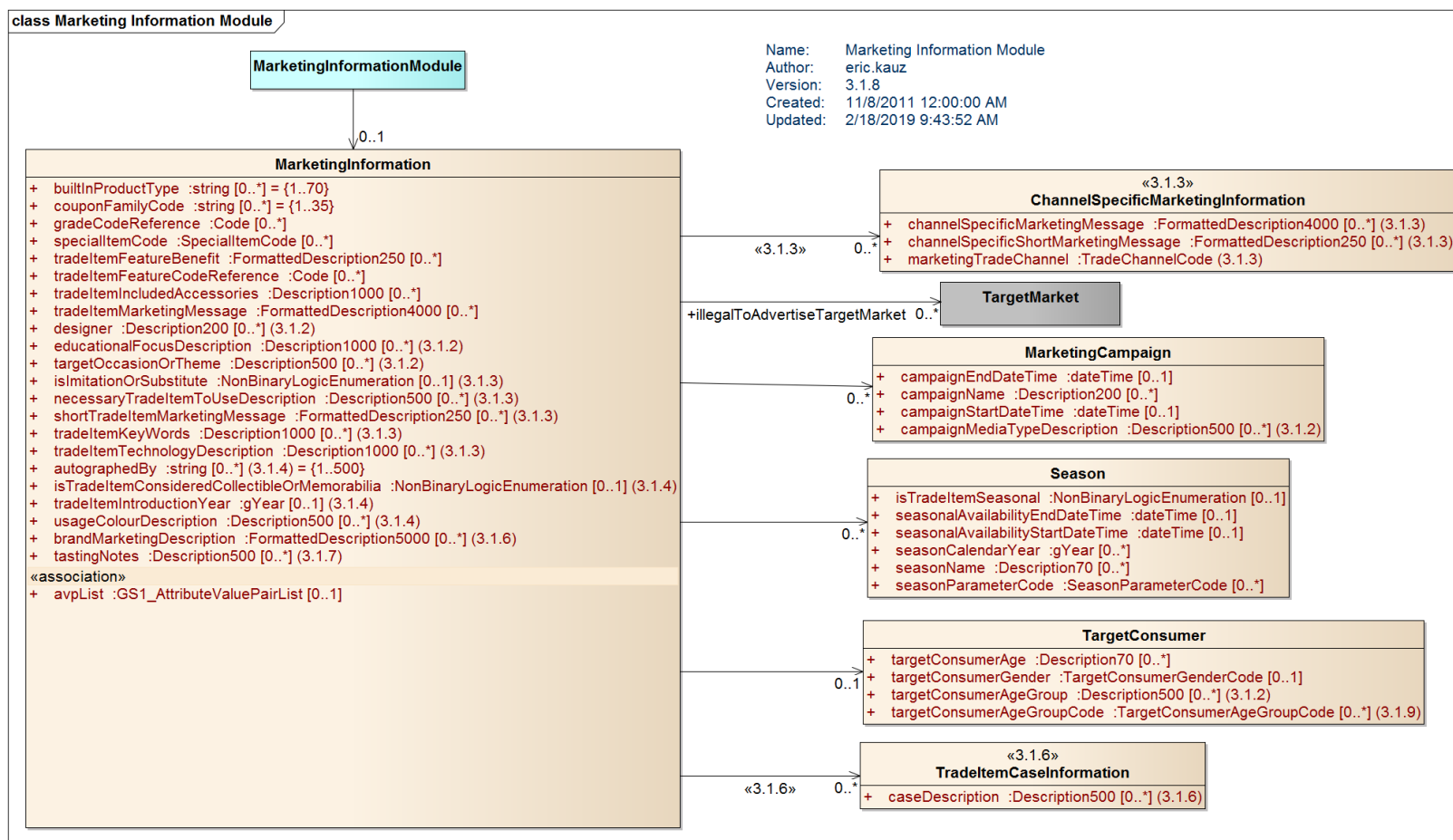
## 5.31 Lighting Device Module



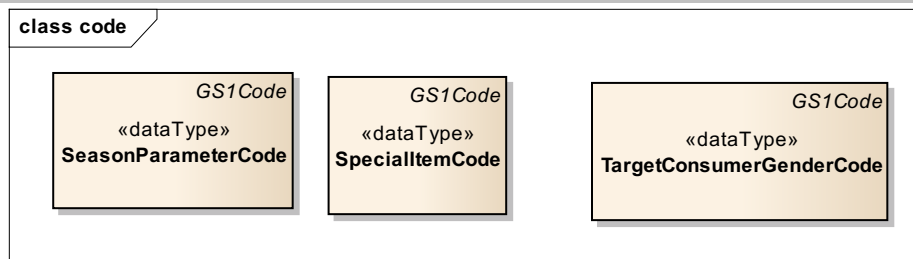
| content                  | Attribute / Role              | Datatype / Secondary class    | Multipl<br>city | Definition                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|--------------------------|-------------------------------|-------------------------------|-----------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| LightBulbInformatio<br>n |                               |                               |                 | Information related to the capabilities and characteristics of light bulbs.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Attribute                | colourTemperature             | TemperatureMeasure<br>ment    | 0..*            | Colour temperature is a way to describe the light appearance provided by a light bulb for example 2700 KEL.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Attribute                | lightBulbBaseType             | String                        | 0..1            | Light bulb sockets, lamp sockets or lamp holders provide electrical connections to the lighting fixture and support it in the lighting fixture. Examples: G4, G5, GU5.3, GU10, G13, Bi PiN T-3/4, Flanged T-3/4, BA75, BA95, BA150, BAY150, BA155, BA220.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Attribute                | lightBulbDiameterVal<br>ue    | Measurement                   | 0..*            | The maximum diameter of the light bulb, either in 1/8 of an inch, or in millimetres, depending on the shape and the region. For example, 63 mm reflectors are designated R63, but in the US, they are known as R20 (2.5 in). However, in both regions, a PAR38 reflector is known as PAR38.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Attribute                | lightBulbFilamentTyp<br>eCode | LightBulbFilamentTy<br>peCode | 0..1            | The type of filament used in the light bulb. A filament is the threadlike conductor, often of tungsten, in the bulb that is heated to incandescence by the passage of current. Additional details on the types of light bulb filament types can be found on such sites as <a href="http://www.lighttopedia.com/bases-filament-types">http://www.lighttopedia.com/bases-filament-types</a> .                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Attribute                | lightBulbShapeCode            | LightBulbShapeCode            | 0..1            | Light bulbs come in a range of shapes and sizes. The names of the shapes vary somewhat from region to region. Many of these shapes have a designation consisting of one or more letters followed by one or more numbers, e.g. A55 or PAR38. The letters represent the shape of the bulb. The numbers represent the maximum diameter, either in 1/8 of an inch, or in millimetres, depending on the shape and the region. For example, 63 mm reflectors are designated R63, but in the US, they are known as R20 (2.5 in). However, in both regions, a PAR38 reflector is known as PAR38. Additional details on light bulb shapes can be found at sites such as <a href="http://www.eaglelight.com/category/lighting_tutorials.bulb_shapes/">http://www.eaglelight.com/category/lighting_tutorials.bulb_shapes/</a> . |
| attribute                | lightBulbLampTypeCo<br>de     | LightBulbLampTypeC<br>ode     | 0..1            | A code describing the type of light bulb whether it is the trade item or is contained in the trade item for example HALOGEN or LED.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| attribute                | lightBulbTypeDescript<br>ion  | Description500                | 0..*            | A description of the type of light bulb whether it is the trade item or is contained in the trade item for example Incandescent or Halogen                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |

| content              | Attribute / Role | Datatype / Secondary class | Multiplicity | Definition                                                                                                                                                  |
|----------------------|------------------|----------------------------|--------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Attribute            | visibleLight     | Measurement                | 0..*         | Total quantity of visible light emitted by a light source for example 1200 LUM.                                                                             |
| LightingDeviceModule |                  |                            |              | A module including attributes related to lighting devices such as lamps.                                                                                    |
| Association          |                  | LightBulbInformation       | 0..*         | Light bulb information relating to a lighting device.                                                                                                       |
| Attribute            | lightOutput      | Measurement                | 0..*         | The amount of light a fixture produces and how the fixture emits and distributes that light. This is usually measured in lumens or lux for example 450 LUM. |

## 5.32 Marketing Information Module



**Note:** Common class (in grey) is located in the GDSN Common Library.



| content                        | attribute / role                   | datatype /secondary class               | multipl<br>city | definition                                                                                                                                        |
|--------------------------------|------------------------------------|-----------------------------------------|-----------------|---------------------------------------------------------------------------------------------------------------------------------------------------|
| MarketingInforma<br>tionModule |                                    |                                         |                 | A module containing information on a trade item meant to convey features and benefits and targeted customer.                                      |
| Association                    |                                    | MarketingInformati<br>on                | 0..1            | Information on a trade item meant to convey features and benefits and targeted customer.                                                          |
| MarketingInforma<br>tion       |                                    |                                         |                 | Information on a trade item meant to convey features and benefits.                                                                                |
| Association                    |                                    | ChannelSpecificMar<br>ketingInformation | 0..*            | Provides marketing information that can differ per trade channel.                                                                                 |
| Association                    |                                    | MarketingCampaig<br>n                   | 0..*            | Details on a sales or marketing campaign for a trade item.                                                                                        |
| Association                    | illegalToAdvertiseTar<br>getMarket | TargetMarket                            | 0..*            | The target market where it is prohibited by law to advertise a trade item. An example of this is France where laxatives are illegal to advertise. |
| Association                    |                                    | TradeItemCaseInfo<br>rmation            | 0..*            | Information on cases that come with a trade item.                                                                                                 |
| Association                    |                                    | Season                                  | 0..*            | Information on whether or not the trade item is only offered during certain parts of the year or targeted to different seasons.                   |
| Association                    |                                    | TargetConsumer                          | 0..1            | Target consumer details for a trade item.                                                                                                         |
| Association                    | avpList                            | GS1_AttributeValu<br>ePairList          | 0..1            | The transmission of non-standard data done in a simple, flexible, and easy to use method.                                                         |
| Attribute                      | autographedBy                      | String                                  | 0..*            | The person's name who signed or autographed the trade item for example John Hancock.                                                              |
| Attribute                      | brandMarketingDescr<br>iption      | FormattedDescripti<br>on5000            | 0..*            | A marketing description which focuses on the brand of the trade item. For example the history of the brand.                                       |



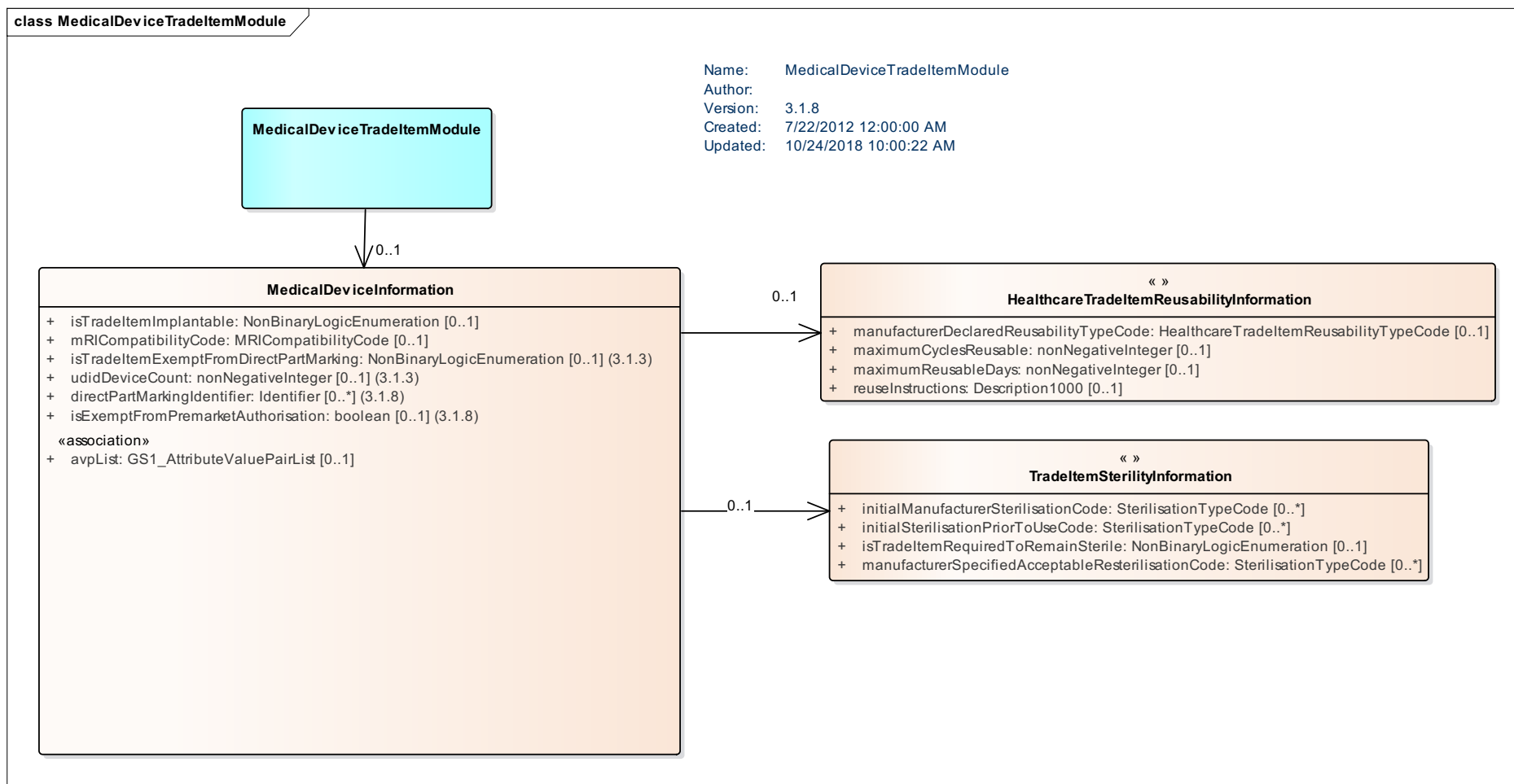
| content   | attribute / role                              | datatype /secondary class | multipl<br>city | definition                                                                                                                                                                                                                                                |
|-----------|-----------------------------------------------|---------------------------|-----------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Attribute | builtInProductType                            | string                    | 0..*            | The type of product that the trade item is combined with for example a VCR in the case that a television is combined with a VCR.                                                                                                                          |
| Attribute | couponFamilyCode                              | string                    | 0..*            | A code assigned by the vendor to a single trade item or to families of consumer trade items that can be used by in store scanners in conjunction with a U.P.C. coupon value code for coupon value discount when the proper trade item has been purchased. |
| attribute | designer                                      | Description200            | 0..*            | The person or company that designed the product. This may or may not be the brand name as designers. Guess jeans designers were Paul and Maurice Marciano.                                                                                                |
| attribute | educationalFocusDescription                   | Description1000           | 0..*            | A description of the educational benefit the trade item is designed to provide for example: shape identification, language, motor skills, pretend play, color identification, science.                                                                    |
| Attribute | gradeCodeReference                            | Code                      | 0..*            | A code indicating the degree of refinement, features, or capabilities for a trade item for example the quality grade of a ceramic tile or of a food item such as eggs.                                                                                    |
| Attribute | IsImitationOrSubstitute                       | NonBinaryLogicEnumeration | 0..1            | Determines whether the trade item is an imitation or substitute product resembling the real product for example imitation eggs or milk substitute non-dairy.                                                                                              |
| Attribute | isTradeItemConsideredCollectibleOrMemorabilia | NonbinaryLogicEnumeration | 0..1            | Is the trade item considered collectible by consumer or evokes memories to the end consumer.                                                                                                                                                              |
| Attribute | necessaryTradeItemToUseDescription            | Description500            | 0..*            | A description used to differentiate the stand alone trade items from the trade items that cannot be used on their own for example an add-on for SIMS video game or accessories for i-phone.                                                               |
| Attribute | shortTradeItemMarketingMessage                | FormattedDescription250   | 0..*            | A short marketing message associated to the Trade item.                                                                                                                                                                                                   |
| Attribute | specialItemCode                               | SpecialItemCode           | 0..*            | This element identifies specific items for promotional or special tracking purposes.                                                                                                                                                                      |
| Attribute | tradeItemFeatureBenefit                       | FormattedDescription250   | 0..*            | Element for consumer facing market-ing content to describe the key features or benefits of the style suitable for display purposes.                                                                                                                       |
| attribute | targetOccasionOrTheme                         | Description500            | 0..*            | The particular target time, event, theme, or holiday for the product for example Mother's Day, baby shower, birthday, etc.                                                                                                                                |
| attribute | tastingNotes                                  | Description500            | 0..*            | Written testimony about a products aroma, flavour, texture for example fruity.                                                                                                                                                                            |

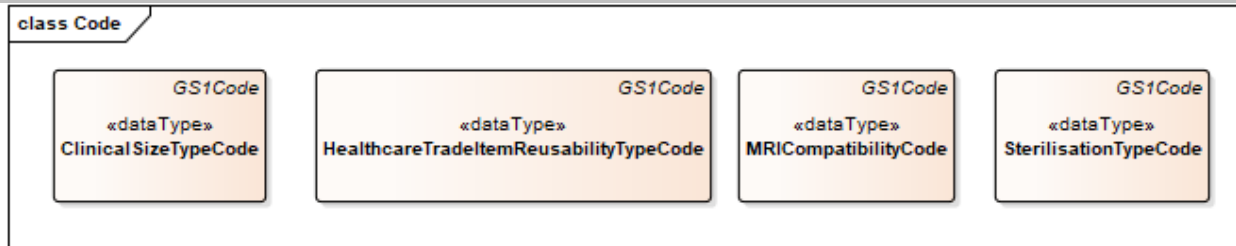
| content                             | attribute / role                     | datatype /secondary class | multipl<br>city | definition                                                                                                                                                                                 |
|-------------------------------------|--------------------------------------|---------------------------|-----------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Attribute                           | tradeItemFeatureCodeReference        | Code                      | 0..*            | A code depicting a distinctive functionality offered as a special attraction to the trade item for example BUILT_IN_ALARM_CLOCK. Use FeatureCode.                                          |
| Attribute                           | tradeItemIncludedAccessories         | Description1000           | 0..*            | Any included object or device not part of the core product itself but which adds to its functionality or use.                                                                              |
| Attribute                           | tradeItemIntroductionYear            | gYear                     | 0..1            | The date the GTIN and/or trade item is introduced into the marketplace. Once established this does not change.                                                                             |
| Attribute                           | tradeItemMarketingMessage            | FormattedDescription4000  | 0..*            | Marketing message associated to the Trade item.                                                                                                                                            |
| Attribute                           | tradeItemKeyWords                    | Description1000           | 0..*            | Words or phrases that enables web search engines to find trade items on the internet for example Shampoo, Lather, Baby.                                                                    |
| Attribute                           | tradeItemTechnologyDescription       | Description1000           | 0..*            | The type(s) of marketing name technologies contained in the appliance for example Smart Technology.                                                                                        |
| Attribute                           | usageColourDescription               | Description500            | 0..*            | A description of the usage of colour(s) the trade item offers such as pens, markers, ink pads, printer cartridges and other implements that provide colour. Examples include black, white. |
| ChannelSpecificMarketingInformation |                                      |                           |                 | Provides marketing information that can differ per trade channel.                                                                                                                          |
| Attribute                           | channelSpecificMarketingMessage      | FormattedDescription4000  | 0..*            | A marketing message for the trade item relating to a specific trade channel such as CONVENIENCE.                                                                                           |
| Attribute                           | channelSpecificShortMarketingMessage | FormattedDescription250   | 0..*            | A short marketing message associated to the Trade item for a specific trade channel.                                                                                                       |
| Attribute                           | marketingTradeChannel                | TradeChannelCode          | 1..1            | The trade channel associated with the marketing information.                                                                                                                               |
| MarketingCampaign                   |                                      |                           |                 | Details on a sales or marketing campaign for a trade item.                                                                                                                                 |
| Attribute                           | campaignEndDateTime                  | dateTime                  | 0..1            | The date suggested by the supplier for the campaign to end. It indicates the end of a marketing campaign.                                                                                  |
| Attribute                           | campaignMediaTypeDescription         | Description500            | 0..*            | Describes the type of advertising mechanism, example TV, radio, magazine, newspaper.                                                                                                       |
| Attribute                           | campaignName                         | Description200            | 0..*            | Name of the sales or marketing campaign, for which the trade item is intended. Input of user-defined text in order to assign the item to a specific marketing campaign.                    |
| Attribute                           | campaignStartDateTime                | dateTime                  | 0..1            | The date suggested by the supplier for the campaign to start. It indicates the beginning of a marketing campaign.                                                                          |

| content                  | attribute / role                  | datatype /secondary class  | multipli city | definition                                                                                                                                                                                                  |
|--------------------------|-----------------------------------|----------------------------|---------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Season                   |                                   |                            |               | Information on whether or not the trade item is only offered during certain parts of the year or targeted to different seasons.                                                                             |
| Attribute                | isTradeItemSeasonal               | NonBinaryLogicEnumeration  | 0..1          | An indicator whether or not the trade item is only offered during certain parts of the year or targeted to different seasons.                                                                               |
| Attribute                | seasonalAvailabilityEndDateTime   | dateTime                   | 0..1          | Indicates the end date of the trade item's seasonal availability.                                                                                                                                           |
| Attribute                | seasonalAvailabilityStartDateTime | dateTime                   | 0..1          | Indicates the start date of the trade item's seasonal availability.                                                                                                                                         |
| Attribute                | seasonCalendarYear                | gYear                      | 0..*          | This element indicates the calendar year in which the trade item is seasonally available.                                                                                                                   |
| Attribute                | seasonName                        | Description70              | 0..*          | Element defines the season applicable to the item.                                                                                                                                                          |
| Attribute                | seasonParameterCode               | SeasonParameterCode        | 0..*          | Indication of the season, in which the trade item is available, i.e. assignment to one of the following collection periods: spring/summer, autumn/ winter or all year around.                               |
| TargetConsumer           |                                   |                            |               | The type of consumer the trade item is marketed towards for example gender or age.                                                                                                                          |
| Attribute                | targetConsumerAge                 | Description70              | 0..*          | Identifies the target consumer age range for which a trade item has been designed.                                                                                                                          |
| Attribute                | targetConsumerAgeGroup            | Description500             | 0..*          | A description of a general age group the product is designed for. This would not include the actual age ranges. For example Infant, Toddler, Child, Teen, Adult.                                            |
| Attribute                | targetConsumerGender              | TargetConsumerGenderCode   | 0..1          | Identifies the target consumer gender for which a product has been designed.                                                                                                                                |
| Attribute                | targetConsumerAgeGroupCode        | TargetConsumerAgeGroupCode | 0..*          | A code depicting the general age group the product is designed for example BABY.                                                                                                                            |
| TradeItemCaseInformation |                                   |                            |               | Information on any case that is included with a trade item for example material, size, features.                                                                                                            |
| Attribute                | caseDescription                   | Description500             | 0..*          | Describes the shape and characteristics of the case the trade item will be inside. For example watches come in unique cases. Examples include leather bound case, designer matching case, velvet lined box. |



## 5.33 Medical Device Trade Item Module





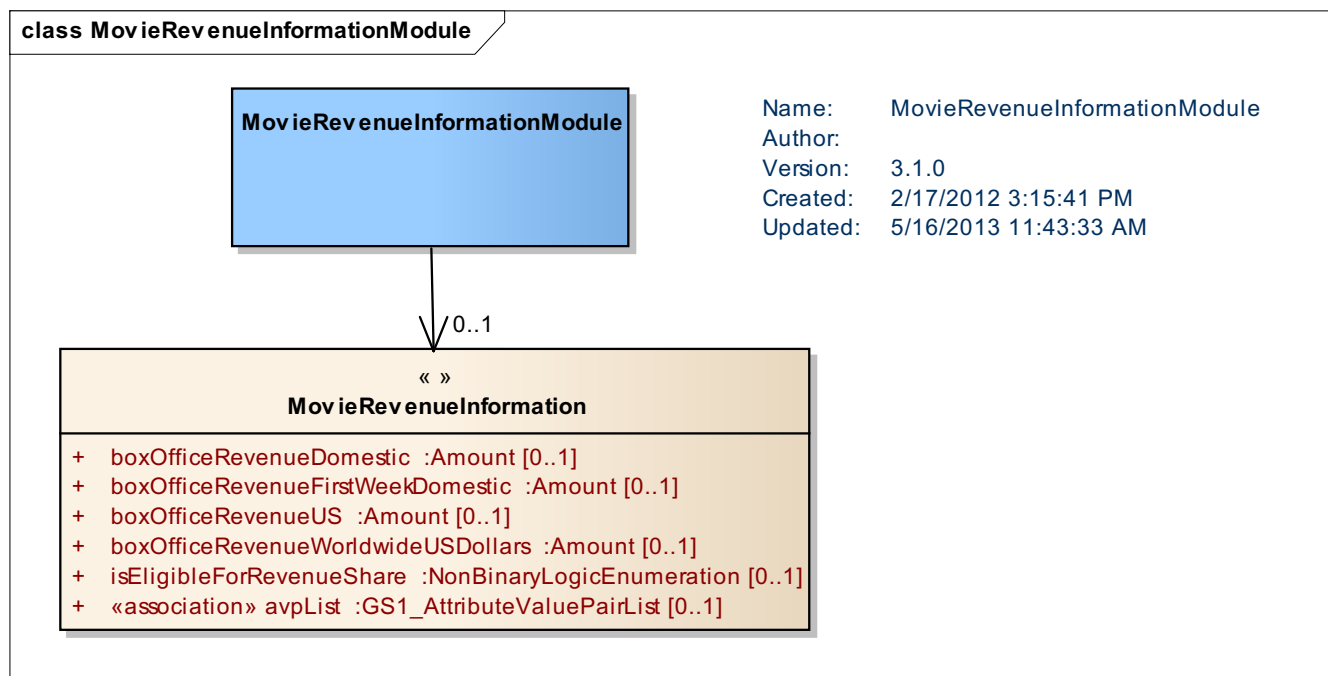
| content                      | attribute / role                       | datatype /secondary class                         | multipl<br>city | definition                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|------------------------------|----------------------------------------|---------------------------------------------------|-----------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| MedicalDeviceInfo<br>rmation |                                        |                                                   |                 | Information on medical device trade items.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Association                  |                                        |                                                   | 0..*            | Clinical size information for a trade item.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Association                  |                                        | TradeItemSterilityI<br>nformation                 | 0..1            | Information regarding sterility of Healthcare trade items.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Association                  |                                        | HealthCareTradeIt<br>emReusabilityInfor<br>mation | 0..1            | Provides the ability to specify details about the reusability of a healthcare trade item.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Association                  | avpList                                | GS1_AttributeValu<br>ePairList                    | 0..1            | The transmission of non-standard data done in a simple, flexible, and easy to use method.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Attribute                    | directPartMarkingIde<br>ntifier        | Identifier                                        | 0..*            | A number or marking placed directly on the medical device for example DLC-2200.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Attribute                    | isExemptFromPremar<br>ketAuthorisation | NonBinaryLogicEnu<br>meration                     | 0..1            | Indicates whether the medical device is exempt from premarket regulations. For the FDA, Premarket approval (PMA) is the process of scientific and regulatory review to evaluate the safety and effectiveness of Class III medical devices. Class III devices are those that support or sustain human life, are of substantial importance in preventing impairment of human health, or which present a potential, unreasonable risk of illness or injury. Due to the level of risk associated with Class III devices, FDA has determined that general and special controls alone are insufficient to assure the safety and effectiveness of class III devices. Therefore, these devices require a premarket approval (PMA) application under section 515 of the FD&C Act in order to obtain marketing clearance. Please note that some Class III preamendment devices may require a Class III 510(k). |

| content                                   | attribute / role                        | datatype /secondary class              | multipl<br>city | definition                                                                                                                                                                                                                                                                                                                                    |
|-------------------------------------------|-----------------------------------------|----------------------------------------|-----------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Attribute                                 | isTradeItemExemptFromDirectPartMarking  | NonBinaryLogicEnumeration              | 0..1            | Indicator signifying the trade item is exempt from direct identification marking according to regulation or regulatory filings within the target market.                                                                                                                                                                                      |
| Attribute                                 | isTradeItemImplantable                  | NonBinaryLogicEnumeration              | 0..1            | Implantable devices are defined as devices that are partly or totally inserted into the human body, as determined by local regulations.                                                                                                                                                                                                       |
| Attribute                                 | mRICompatibilityCode                    | MRICompatibilityCode                   | 0..1            | This is an identification of the compatibility of a trade item for use in the presence of a Magnetic Resonance Imaging (MRI) system.                                                                                                                                                                                                          |
| Attribute                                 | udidDeviceCount                         | nonNegativeInteger                     | 0..1            | The count of medical devices which are contained inside the base item for regulatory purposes." This information is part of the UDID regulatory requirements and would be populated at the lowest level of a hierarchy. Device count is not the same as net content as a single device can contain multiple uses.                             |
| MedicalDeviceTradeItemModule              |                                         |                                        |                 | A module containing information on medical device trade items.                                                                                                                                                                                                                                                                                |
| Association                               |                                         | MedicalDeviceInformation               | 0..1            | Information on medical device trade items.                                                                                                                                                                                                                                                                                                    |
| HealthcareTradeItemReusabilityInformation |                                         |                                        |                 | Provides the ability to specify details about the reusability of a healthcare trade item.                                                                                                                                                                                                                                                     |
| Attribute                                 | manufacturerDeclaredReusabilityTypeCode | HealthcareTradeItemReusabilityTypeCode | 0..1            | Determines if the product is intended for single or multiple uses, including the number of validated cycles and the number of times a product can be used according to the manufacturer specifications. It is suggested that medical providers consult the device manufacturer's Instruction For Use (IFU) for full reusability instructions. |
| Attribute                                 | maximumCyclesReusable                   | nonNegativeInteger                     | 0..1            | Maximum number of times this Trade Item can be reused.                                                                                                                                                                                                                                                                                        |
| Attribute                                 | maximumReusableDays                     | nonNegativeInteger                     | 0..1            | Maximum number of days this product can be reused.                                                                                                                                                                                                                                                                                            |
| Attribute                                 | reuseInstructions                       | Description1000                        | 0..1            | Additional instructions that advise the customer on the reusability limitations of this product.                                                                                                                                                                                                                                              |
| TradeItemSterilityInformation             |                                         |                                        |                 | Information regarding sterility of Healthcare trade items.                                                                                                                                                                                                                                                                                    |

| content   | attribute / role                                   | datatype /secondary class | multipl<br>city | definition                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|-----------|----------------------------------------------------|---------------------------|-----------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Attribute | initialManufacturerSterilisationCode               | SterilisationTypeCode     | 0..*            | Type(s) of sterilisation that may have been performed by the manufacturer if a trade item is sterile when it comes from the manufacturer. Sterilisation refers to any process that effectively kills or eliminates transmissible agents (such as fungi, bacteria, viruses, prions and spore forms etc.) from a surface, equipment, foods, medications, or biological culture medium. Some methods of sterilisation are through the application of heat, radiation, and ethylene.                          |
| Attribute | initialSterilisationPriorToUseCode                 | SterilisationTypeCode     | 0..*            | This is an indication of the type(s) of sterilisation that is required to be completed by a healthcare provider prior to initial use of the healthcare trade item. Sterilisation refers to any process that effectively kills or eliminates transmissible agents (such as fungi, bacteria, viruses, prions and spore forms etc.) from a surface, equipment, foods, medications, or biological culture medium. Some methods of sterilisation are through the application of heat, radiation, and ethylene. |
| Attribute | isTradeItemRequiredToRemainSterile                 | NonBinaryLogicEnumeration | 0..1            | An indication that the products sterile status must be maintained from the point in time of sterilisation until point of administration.                                                                                                                                                                                                                                                                                                                                                                  |
| Attribute | manufacturerSpecifiedAcceptableResterilisationCode | SterilisationTypeCode     | 0..*            | This is a list of the type(s) of acceptable sterilisation that a reusable trade item can undergo by a healthcare provider if a trade item is reusable. Sterilisation refers to any process that effectively kills or eliminates transmissible agents (such as fungi, bacteria, viruses, prions and spore forms etc.) from a surface, equipment, foods, medications, or biological culture medium. Some methods of sterilisation are through the application of heat, radiation, and ethylene.             |



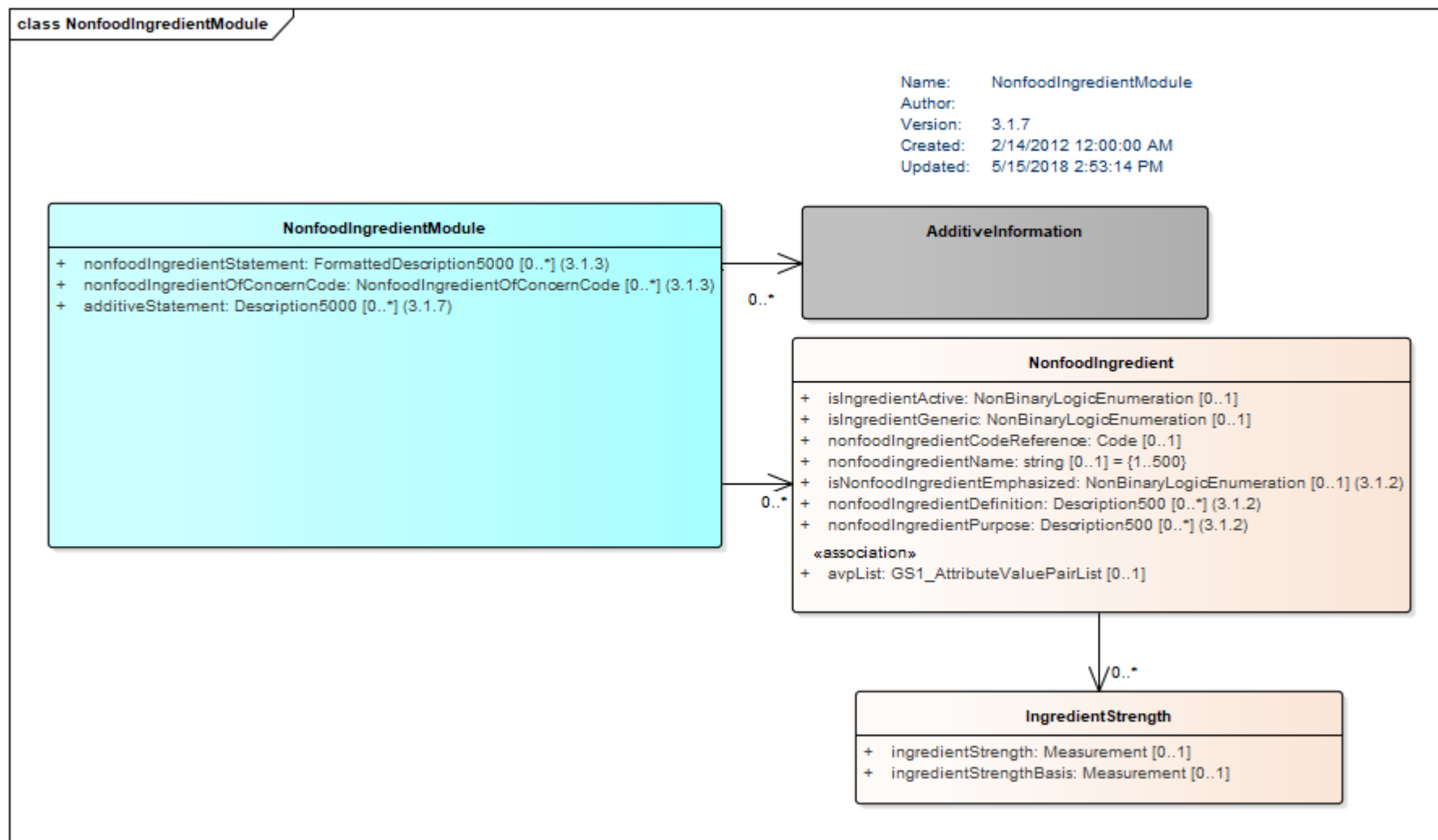
## 5.34 Movie Revenue Information Module



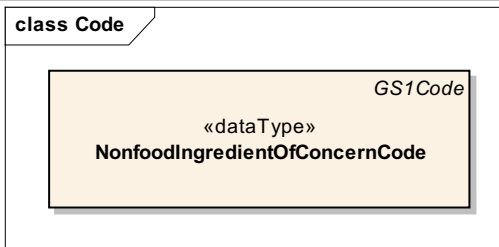
| Content                       | Attribute / Role         | Datatype /Secondary class  | Multiplicity | Definition                                                                                |
|-------------------------------|--------------------------|----------------------------|--------------|-------------------------------------------------------------------------------------------|
| MovieRevenueInformationModule |                          |                            |              | A module containing attributes relating to the revenue of a film.                         |
| Association                   |                          | MovieRevenueInformation    | 0..1         | Logical grouping of attributes relating to the revenue of a film.                         |
| MovieRevenueInformation       |                          |                            |              | Logical grouping of attributes relating to the revenue of a film.                         |
| Association                   | avpList                  | GS1_AttributeValuePairList | 0..1         | The transmission of non-standard data done in a simple, flexible, and easy to use method. |
| Attribute                     | boxOfficeRevenueDomestic | Amount                     | 0..1         | The revenue the film earned on the target market expressed in local currency.             |

| Content   | Attribute / Role                   | Datatype /Secondary class  | Multiplicity | Definition                                                                                                                                     |
|-----------|------------------------------------|----------------------------|--------------|------------------------------------------------------------------------------------------------------------------------------------------------|
| Attribute | boxOfficeRevenueFirstWeek Domestic | Amount                     | 0..1         | The revenue the film earned on the target market for the first week expressed in local currency.                                               |
| Attribute | boxOfficeRevenueUS                 | Amount                     | 0..1         | The revenue the film earned on the US market expressed in US dollars.                                                                          |
| Attribute | boxOfficeRevenueWorldwideUSDollars | Amount                     | 0..1         | The revenue the film earned on all the markets expressed in US dollars.the revenue the film earned on all the markets expressed in US dollars. |
| Attribute | isEligibleForRevenueShare          | NonBinaryLogic Enumeration | 0..1         | A boolean that indicates if the film is available for revenue share or not.                                                                    |

## 5.35 Nonfood Ingredient Module



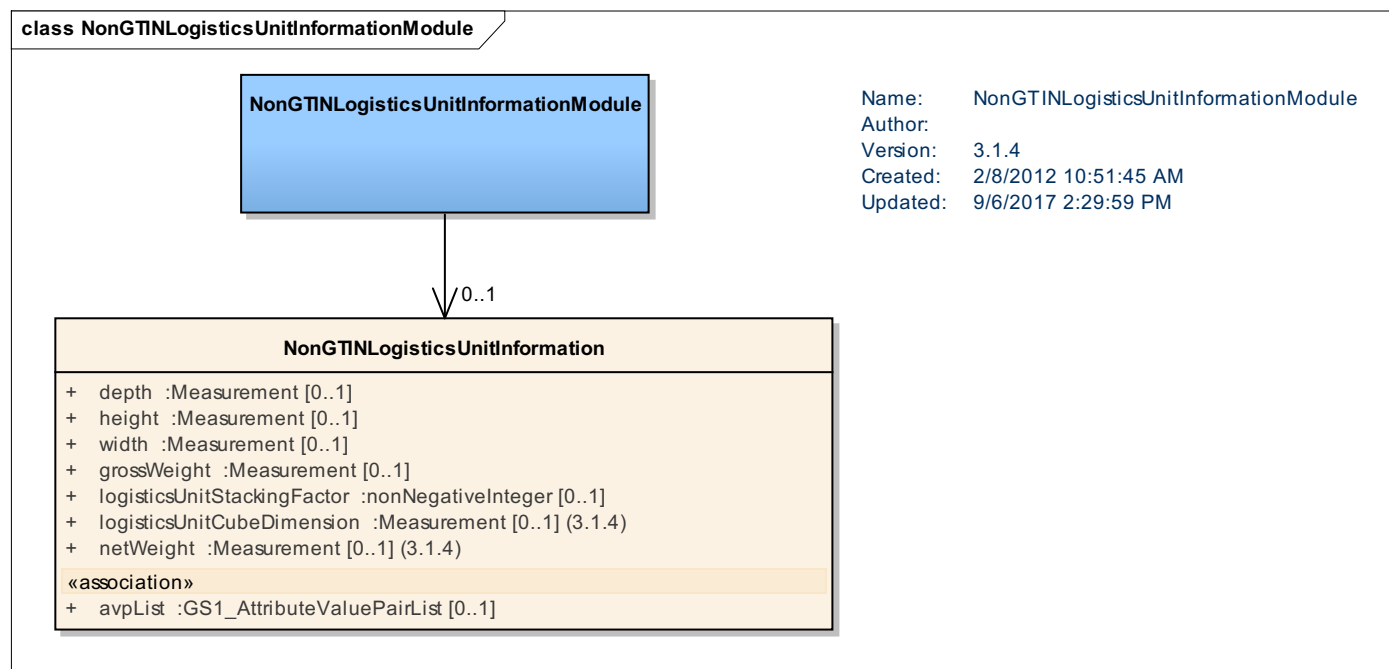
**Note:** Common class (in grey) is located in the GDSN Common Library.



| content                     | attribute / role                   | datatype /secondary class      | multipl<br>city | definition                                                                                                                                           |
|-----------------------------|------------------------------------|--------------------------------|-----------------|------------------------------------------------------------------------------------------------------------------------------------------------------|
| NonfoodIngredien<br>t       |                                    |                                |                 | Information on ingredients for items that are not food for example detergents, medicines.                                                            |
| Association                 | avpList                            | GS1_AttributeValu<br>ePairList | 0..1            | The transmission of non-standard data done in a simple, flexible, and easy to use method.                                                            |
| association                 |                                    | IngredientStrength             | 0..*            | Information on the strength of a nonfood ingredient.                                                                                                 |
| Attribute                   | isIngredientActive                 | NonBinaryLogicEnu<br>meration  | 0..1            | Determines whether the ingredient helps directly in achieving the objectives of the trade item.                                                      |
| Attribute                   | isIngredientGeneric                | NonBinaryLogicEnu<br>meration  | 0..1            | Determines whether the ingredient is classified as being generic.                                                                                    |
| Attribute                   | isNonfoodIngredientE<br>mphasized  | NonBinaryLogicEnu<br>meration  | 0..1            | Denotes the nonfood ingredient that should have its text emphasised in some fashion on the item's packaging.                                         |
| Attribute                   | nonfoodIngredientCo<br>deReference | Code                           | 0..1            | A code from a specific code list for a nonFood ingredient.                                                                                           |
| Attribute                   | nonfoodIngredientDe<br>finition    | Description500                 | 0..*            | A definition associated with the value in the nonfoodIngredientName. The definition should explain to the end user what the nonfood ingredient is.   |
| Attribute                   | nonfoodIngredientNa<br>me          | string                         | 0..1            | The name of the non-food ingredient for example ammonia.                                                                                             |
| Attribute                   | nonfoodIngredientPur<br>pose       | Description500                 | 0..*            | A description of the primary purpose that an ingredient serves for example for sunscreen the ingredient may have the purpose of being a UVB Blocker. |
| NonfoodIngredien<br>tModule |                                    |                                |                 | A module providing Information on ingredients for items that are not food for example detergents, medicines.                                         |
| Association                 |                                    | NonfoodIngredient              | 0..*            | Information on ingredients for items that are not food for example detergents, medicines.                                                            |

| content                | attribute / role                   | datatype /secondary class          | multipl<br>city | definition                                                                                                                                                                                               |
|------------------------|------------------------------------|------------------------------------|-----------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Association            |                                    | AdditiveInformatio<br>n            | 0..*            | Information on presence or absence of additives or genetic modifications contained in the trade item.                                                                                                    |
| Attribute              | additiveStatement                  | Description5000                    | 0..*            | Statement on presence or absence of additives or genetic modification contained in the trade item for example "Contains no preservatives, no artificial colours or flavours and no artificial flavours". |
| Attribute              | nonfoodIngredientSta<br>tement     | FormattedDescripti<br>on5000       | 0..*            | Ingredient statement for non-food items.                                                                                                                                                                 |
| Attribute              | nonfoodIngredientOf<br>ConcernCode | NonfoodIngredient<br>OfConcernCode | 0..*            | Specifies a non-food ingredient of concern for a trade item as a code.                                                                                                                                   |
| IngredientStrengt<br>h |                                    |                                    |                 | Information on the strength of a nonfood ingredient.                                                                                                                                                     |
| Attribute              | ingredientStrength                 | Measurement                        | 0..1            | Used to define the strength of each ingredient in a trade item or unit volume of non-food trade items.                                                                                                   |
| Attribute              | ingredientStrengthBa<br>sis        | Measurement                        | 0..1            | The basis amount for an ingredient strength for example 1000 millilitres in the case of 400 milligrams per 1000 millilitres.                                                                             |

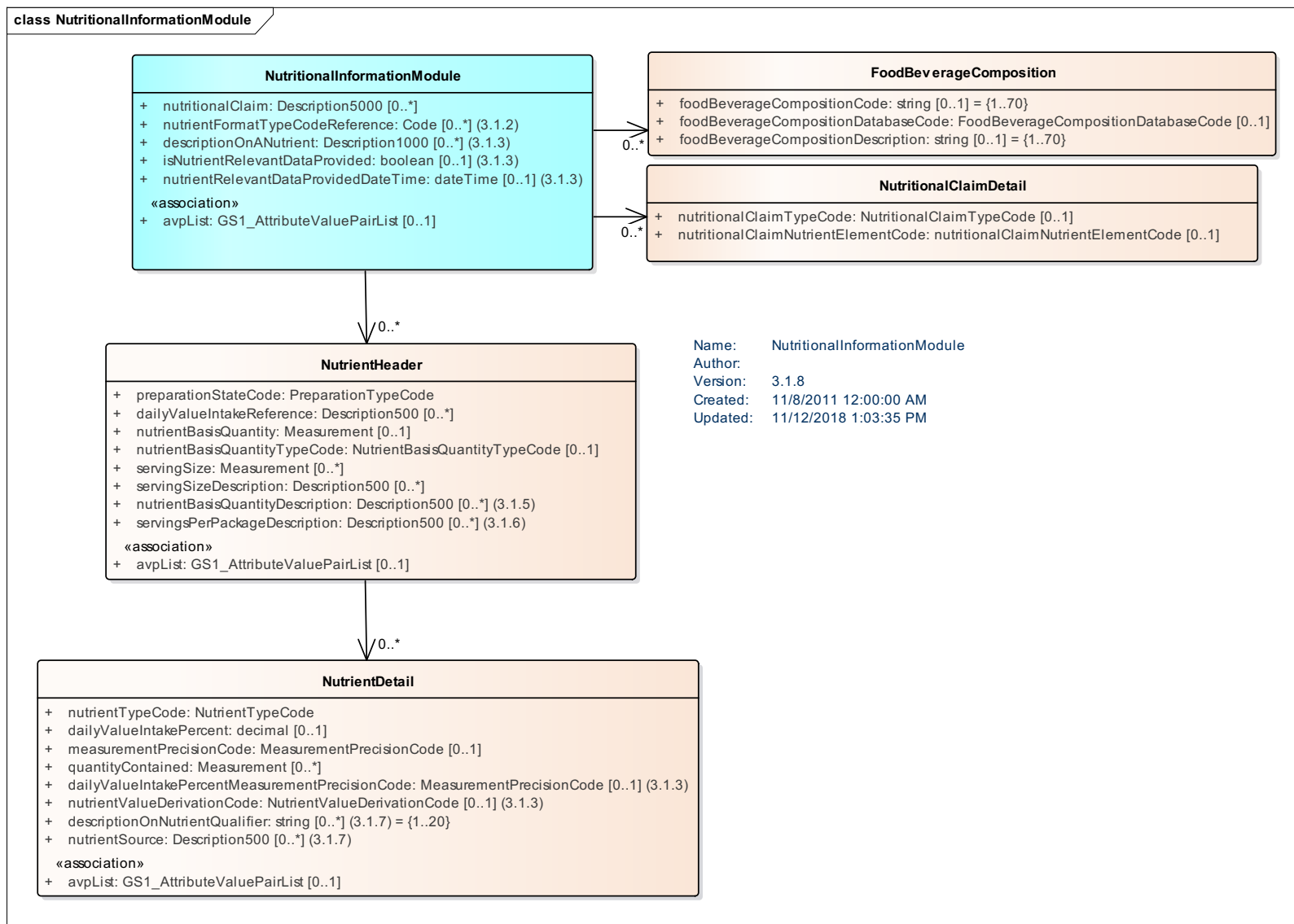
## 5.36 NonGTIN Logistics Unit Information Module



| content                               | attribute / role | datatype /secondary class       | multipli city | definition                                                                                |
|---------------------------------------|------------------|---------------------------------|---------------|-------------------------------------------------------------------------------------------|
| NonGTINLogisticsUnitInformationModule |                  |                                 |               | A module detailing information on a logistics item without a GTIN.                        |
| Association                           |                  | NonGTINLogisticsUnitInformation | 0..1          | Details on a logistics item without a GTIN.                                               |
| NonGTINLogisticsUnitInformation       |                  |                                 |               | Details on a logistics item without a GTIN.                                               |
| Association                           | avpList          | GS1_AttributeValuePairList      | 0..1          | The transmission of non-standard data done in a simple, flexible, and easy to use method. |

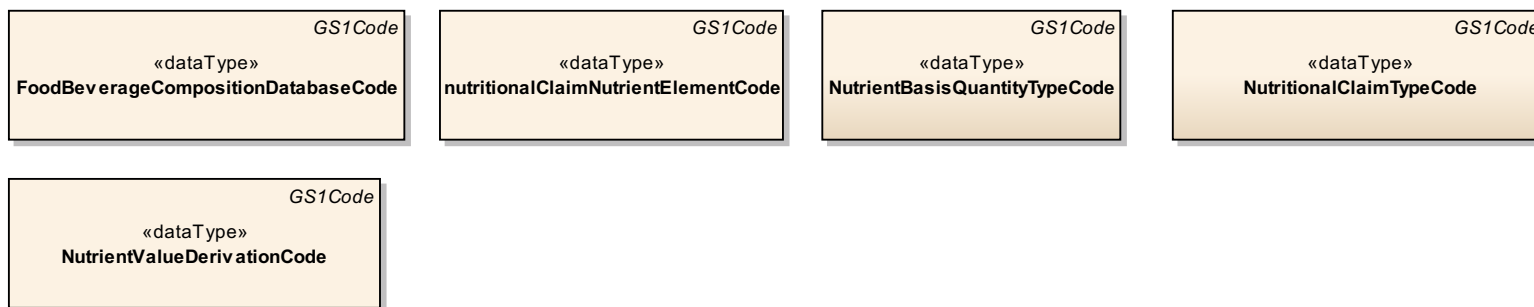
| content   | attribute / role            | datatype /secondary class | multipli city | definition                                                                                                                                                                                                                                                     |
|-----------|-----------------------------|---------------------------|---------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Attribute | depth                       | Measurement               | 0..1          | The depth of the unit load, as measured according to the GDSN Package Measurement Rules, including the shipping platform.                                                                                                                                      |
| Attribute | height                      | Measurement               | 0..1          | The height of the unit load, as measured according to the GDSN Package Measurement Rules, including the shipping platform unless it is excluded according to the Platform Type Code chosen.                                                                    |
| Attribute | grossWeight                 | Measurement               | 0..1          | The weight of both the unit load (content) and the platform upon which the goods are carried if there is one.                                                                                                                                                  |
| Attribute | logisticsUnitCubeDimension  | Measurement               | 0..1          | The dimensions of an imaginary cube which can be drawn around both the unit load (content) and the platform upon which the goods are carried if there is one, as defined in the formula of H X W X D (the linear dimensions multiplied to get a cubic result). |
| Attribute | netWeight                   | Measurement               | 0..1          | The weight of both the unit load (content) and the platform upon which the goods are carried if there is one, excluding all packaging materials.                                                                                                               |
| Attribute | width                       | Measurement               | 0..1          | The width of the unit load, as measured according to the GDSN Package Measurement Rules, including the shipping platform unless it is excluded according to the Platform Type Code chosen.                                                                     |
| Attribute | logisticsUnitStackingFactor | nonNegativeInteger        | 0..1          | The stacking factor of both the unit load (content) and the platform upon which the goods are carried, if there is one. A stacking factor determines the maximum stacking for the product. Indicates the number of levels the product may be stacked.          |

## 5.37 Nutritional Information Module





## class Nutrient Information Module



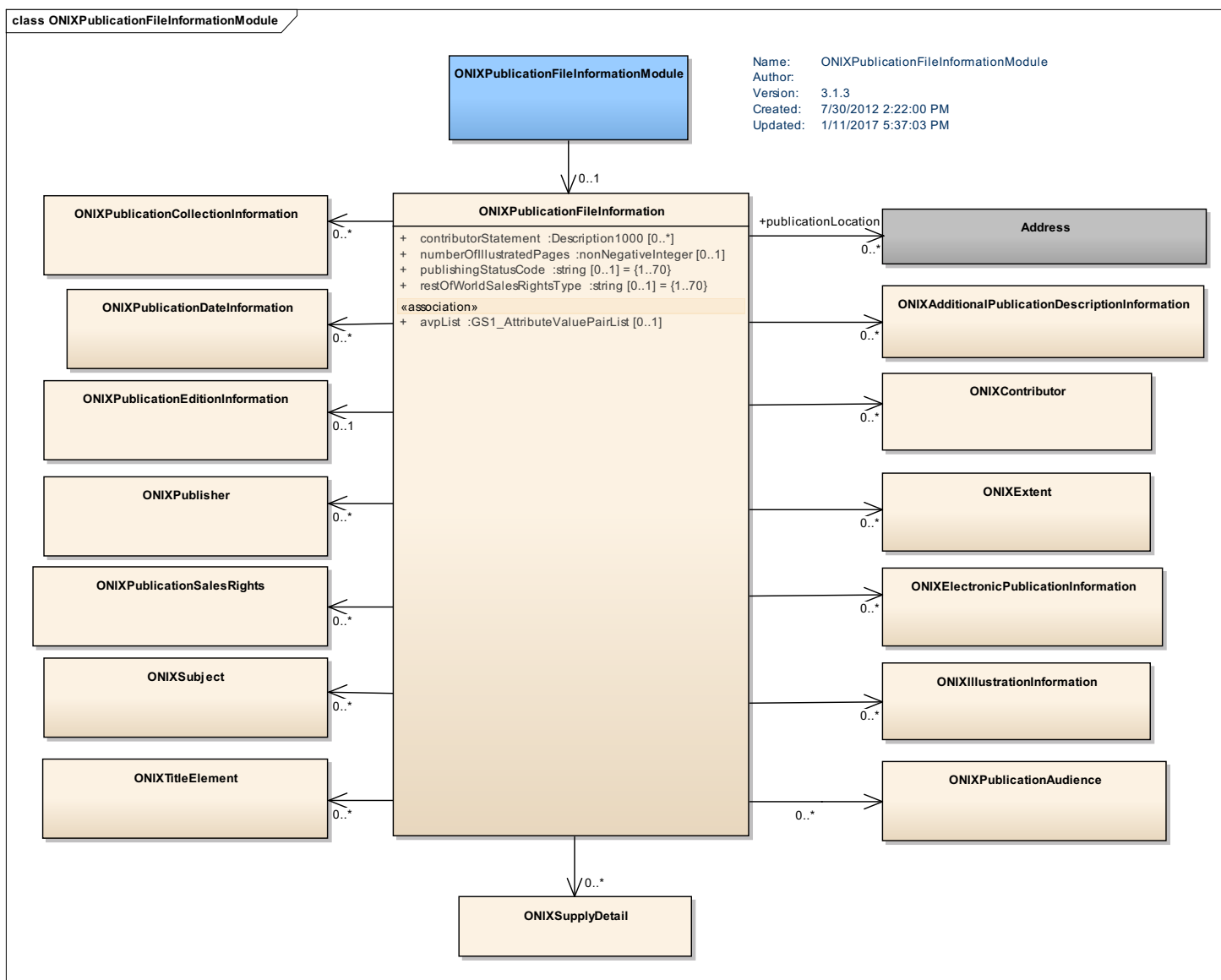
| content                          | attribute / role                            | datatype /secondary class                   | multipl<br>city | definition                                                                                                                                                    |
|----------------------------------|---------------------------------------------|---------------------------------------------|-----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------|
| FoodBeverageComp<br>osition      |                                             |                                             |                 | Information on the nutritional composition of foods and beverages from food composition databases.                                                            |
| Attribute                        | foodBeverageComp<br>ositionCode             | string                                      | 0..1            | A value assigned by the agency for the lookup of food composition information that applies to regulatory nutrition information e.g. R851011.                  |
| Attribute                        | foodBeverageComp<br>ositionDatabaseCod<br>e | FoodBeverageCom<br>positionDatabaseC<br>ode | 0..1            | A code depicting an agency which manages a food composition database that applies to regulatory nutrition information, for example, the Government of Canada. |
| Attribute                        | foodBeverageComp<br>ositionDescription      | string                                      | 0..1            | A text description of either the associated value or the actual database entry lookup for example chicken soup clear instant.                                 |
| NutritionalClaimDet<br>ail       |                                             |                                             |                 | Details on a nutritional claim for a trade item permitted by known regulations for a target market.                                                           |
|                                  | nutritionalClaimTyp<br>eCode                | nutritionalClaimTyp<br>eCode                | 0..1            | A code depicting the degree to which a trade item contains a specific nutrient or ingredient in relation to a health claim for example FREE_FROM.             |
|                                  | nutritionalClaimNut<br>rientElementCode     | nutritionalClaimNut<br>rientElementCode     | 0..1            | The type of nutrient, ingredient, vitamins and minerals that the nutritional claim is in reference to for example fat, copper, milk.                          |
| NutritionalInformati<br>onModule |                                             |                                             |                 | Information about content of nutrients. Multiple sets of nutrient information can be specified with varying state, serving size and daily value intake base.  |
| Attribute                        | nutritionalClaim                            | Description5000                             | 0..*            | Free text field for any additional nutritional claims.                                                                                                        |

| content        | attribute / role                             | datatype /secondary class         | multipl<br>city | definition                                                                                                                                                                                                                                                       |
|----------------|----------------------------------------------|-----------------------------------|-----------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Attribute      | nutrientFormatType<br>CodeReference          | Code                              | 0..*            | Specifies how nutrition information is displayed or provided for each prepackaged food for different nutrition layouts for example NFT.                                                                                                                          |
| Attribute      | descriptionOnANutri<br>ent                   | Description1000                   | 0..*            | Any description on a nutrient which can not expressed by using in INFOODS code value.                                                                                                                                                                            |
| Attribute      | isNutrientRelevantD<br>ataProvided           | boolean                           | 0..1            | Nutrient Information is populated for those values which are relevant or required to be populated on the product label or label equivalent. All values not populated are not relevant or not required to be populated on the product label by local regulations. |
| Attribute      | nutrientRelevantDa<br>taProvidedDateTim<br>e | dateTime                          | 0..1            | The date upon which the isNutrientRelevantDataProvided indicator was last updated.                                                                                                                                                                               |
| Association    | avpList                                      | GS1_AttributeValu<br>ePairList    | 0..1            | The transmission of non-standard data done in a simple, flexible, and easy to use method.                                                                                                                                                                        |
| Association    |                                              | NutritientHeader                  | 0..*            | Nutrient information for a trade item.                                                                                                                                                                                                                           |
| Association    |                                              | NutritionalClaimDe<br>tail        | 0..*            | Details on a nutritional claim for a trade item permitted by known regulations for a target market.                                                                                                                                                              |
| Association    |                                              | FoodBeverageCom<br>position       | 0..*            | Information on the nutritional composition of foods and beverages from food composition databases.                                                                                                                                                               |
| NutrientHeader |                                              |                                   |                 | Information about content of nutrients. Multiple sets of nutrient information can be specified with varying state, serving size and daily value intake base.                                                                                                     |
| Association    |                                              | NutrientDetail                    | 0..*            | Nutrient detail for a trade item.                                                                                                                                                                                                                                |
| Association    | avpList                                      | GS1_AttributeValu<br>ePairList    | 0..1            | The transmission of non-standard data done in a simple, flexible, and easy to use method.                                                                                                                                                                        |
| Attribute      | dailyValueIntakeRef<br>erence                | Description500                    | 0..*            | Free text field specifying the daily value intake base for on which the daily value intake per nutrient has been based. Example: "Based on a 2000 calorie diet."                                                                                                 |
| Attribute      | nutrientBasisQuanti<br>ty                    | Measurement                       | 0..1            | The basis amount that a nutrient is measured against. In some markets, this is required by regulation. For example, 100 gr, 100 ml, etc. Please refer to the target markets implementation guideline on how to populate this attribute.                          |
| Attribute      | nutrientBasisQuanti<br>tyTypeCode            | NutrientBasisQuant<br>ityTypeCode | 0..1            | The type of quantity contained for example measurement, serving size, or container.                                                                                                                                                                              |
| Attribute      | nutrientBasisQuanti<br>tyDescription         | Description500                    | 0..*            | Additional free text information needed to correctly express nutrient basis quantity for example per bottle (100 ml).                                                                                                                                            |

| content        | attribute / role                                | datatype /secondary class  | multipl<br>city | definition                                                                                                                                                                                                                                                                                                            |
|----------------|-------------------------------------------------|----------------------------|-----------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Attribute      | preparationStateCode                            | PreparationTypeCode        | 1..1            | Code specifying the preparation state or type the nutrient information applies to, for example, unprepared, boiled, fried.                                                                                                                                                                                            |
| Attribute      | servingSizeDescription                          | Description500             | 0..*            | A free text field specifying the serving size for which the nutrient information has been stated for example: per 1/3 cup (42 g).                                                                                                                                                                                     |
| Attribute      | servingSize                                     | Measurement                | 0..*            | Measurement value specifying the serving size or portion. In some markets, due to regulation, this information is used as the basis amount that a nutrient is measured against. Example: Per 30 grams. 1/2 cup, etc. Please refer to the target markets implementation guideline on how to populate this attribute.   |
| Attribute      | servingsPerPackageDescription                   | Description500             | 0..*            | The total number of servings based upon the serving size contained in the package for example about 24.                                                                                                                                                                                                               |
| NutrientDetail |                                                 |                            |                 | Information on the nutrients contained in the product. Examples are vitamins, minerals, different types of carbohydrates, different types of saturated fat, types of unsaturated fat, types of polyunsaturated fat.                                                                                                   |
| Association    | avpList                                         | GS1_AttributeValuePairList | 0..1            | The transmission of non-standard data done in a simple, flexible, and easy to use method.                                                                                                                                                                                                                             |
| Attribute      | dailyValueIntakePercent                         | decimal                    | 0..1            | The percentage of the recommended daily intake of a nutrient as recommended by authorities of the target market. Is expressed relative to the serving size and base daily value intake.                                                                                                                               |
| Attribute      | dailyValueIntakePercentMeasurementPrecisionCode | MeasurementPrecisionCode   | 0..1            | Code indicating whether the specified nutrient content for the Daily Value Intake % is exact or approximate or less than etc. One should follow local regulatory guidelines when selecting a precision.                                                                                                               |
| Attribute      | descriptionOnNutrientQualifier                  | string                     | 0..*            | The qualifier from the descriptionOnNutrient applies to a specific nutrient. Sometimes an actual nutrient quantity or % are not given, instead only a qualifier. Example descriptionOnNutrient = * Daily Value Intake does not apply. Then this would only be the * at the nutrient level. Examples include *, @, etc |
| Attribute      | measurementPrecisionCode                        | MeasurementPrecisionCode   | 0..1            | Code indicating whether the specified nutrient content is exact or approximate. One should follow local regulatory guidelines when selecting a precision.                                                                                                                                                             |
| Attribute      | nutrientTypeCode                                | NutrientTypeCode           | 1..1            | Code from the list of the INFOODS food component tag names                                                                                                                                                                                                                                                            |

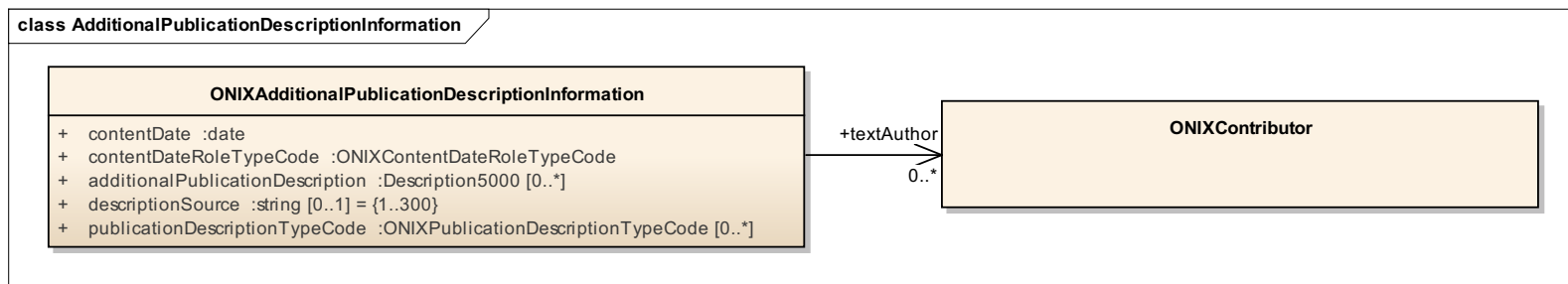
| content   | attribute / role             | datatype /secondary class    | multipli city | definition                                                                                                               |
|-----------|------------------------------|------------------------------|---------------|--------------------------------------------------------------------------------------------------------------------------|
| Attribute | quantityContained            | Measurement                  | 0..*          | Measurement value indicating the amount of nutrient contained in the product. Is expressed relative to the serving size. |
| Attribute | nutrientSource               | Description500               | 0..*          | Information about the source ingredient from which the nutrient value is derived.                                        |
| Attribute | nutrientValueDeriva tionCode | NutrientValueDeriv ationCode | 0..1          | The derivation of the values, percent of intake and quantity contained, provided in the nutrient class.                  |

## 5.38 ONIX Publication File Information Module



| content                              | attribute / role    | datatype /secondary class                       | multiplicity | definition                                                                                      |
|--------------------------------------|---------------------|-------------------------------------------------|--------------|-------------------------------------------------------------------------------------------------|
| ONIXPublicationFileInformationModule |                     |                                                 |              | An extension to the trade item providing books and publication information found in ONIX files. |
| Association                          |                     | ONIXPublicationFileInformation                  | 0..1         | Trade item information on books and publication found in ONIX files.                            |
| ONIXPublicationFileInformation       |                     |                                                 |              | An extension to the trade item providing books and publication information found in ONIX files. |
| Association                          | publicationLocation | Address                                         | 0..*         | The location (e.g. City, Country) where the item was published.                                 |
| Association                          |                     | ONIXAdditionalPublicationDescriptionInformation | 0..*         | Additional Publication Descriptions/Reviews for Publication Information                         |
| Association                          |                     | ONIXContributor                                 | 0..*         | information on Contributors for Publication Information                                         |
| Association                          |                     | ONIXExtent                                      | 0..*         | Information on Extent for Publication Information                                               |
| Association                          |                     | ONIXElectronicPublicationInformation            | 0..*         | Electronic publication details for a trade item.                                                |
| Association                          |                     | ONIXIllustrationInformation                     | 0..*         | information on Illustration Information for Publication Information                             |
| Association                          |                     | ONIXPublicationAudience                         | 0..*         | Information on Target Audience for Publication Information                                      |
| Association                          |                     | ONIXPublisher                                   | 0..*         | information on Publisher for Publication Information                                            |
| Association                          |                     | ONIXPublicationCollectionInformation            | 0..*         | Information on Publication Collections for Publication Information                              |
| Association                          |                     | ONIXPublicationDateInformation                  | 0..*         | Information on Publication Date Information for Publication Information                         |
| Association                          |                     | ONIXPublicationEditionInformation               | 0..1         | Information on Publication Edition Information for Publication Information                      |
| Association                          |                     | OnixPublicationSalesRights                      | 0..*         | Information on Sales Rights for Publication Information                                         |
| Association                          |                     | ONIXSubject                                     | 0..*         | This information on Subject for Publication Information                                         |
| Association                          |                     | ONIXSupplyDetail                                | 0..*         | Details for an ONIX file regarding the supply and availability of a publication.                |

| content     | attribute / role           | datatype /secondary class  | multiplicity | definition                                                                                                                                                                                                                                                                                                                                                                                                     |
|-------------|----------------------------|----------------------------|--------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Association |                            | ONIXTitleElement           | 0..*         | Information on Publication Title for Publication Information                                                                                                                                                                                                                                                                                                                                                   |
| Association | avpList                    | GS1_AttributeValuePairList | 0..1         | The transmission of non-standard data done in a simple, flexible, and easy to use method.                                                                                                                                                                                                                                                                                                                      |
| Attribute   | contributorStatement       | Description1000            | 0..*         | Text showing how the authorship should be described in an online display, when a standard concatenation of individual contributor elements would not give a satisfactory presentation. Optional and non-repeating. When this field is sent, the receiver should use it to replace all name detail sent in the Contributor Class for display purposes only. It does not replace the biographicalNote attribute. |
| Attribute   | numberOfIllustratedPages   | nonNegativeInteger         | 0..1         | The total number of illustrations in a book or other printed product.                                                                                                                                                                                                                                                                                                                                          |
| Attribute   | publishingStatusCode       | string                     | 0..1         | Identifies the status of a published product                                                                                                                                                                                                                                                                                                                                                                   |
| Attribute   | restOfWorldSalesRightsType | String                     | 0..1         | A description of the sales rights applicable in territories not specifically associated with a defined sales right.                                                                                                                                                                                                                                                                                            |

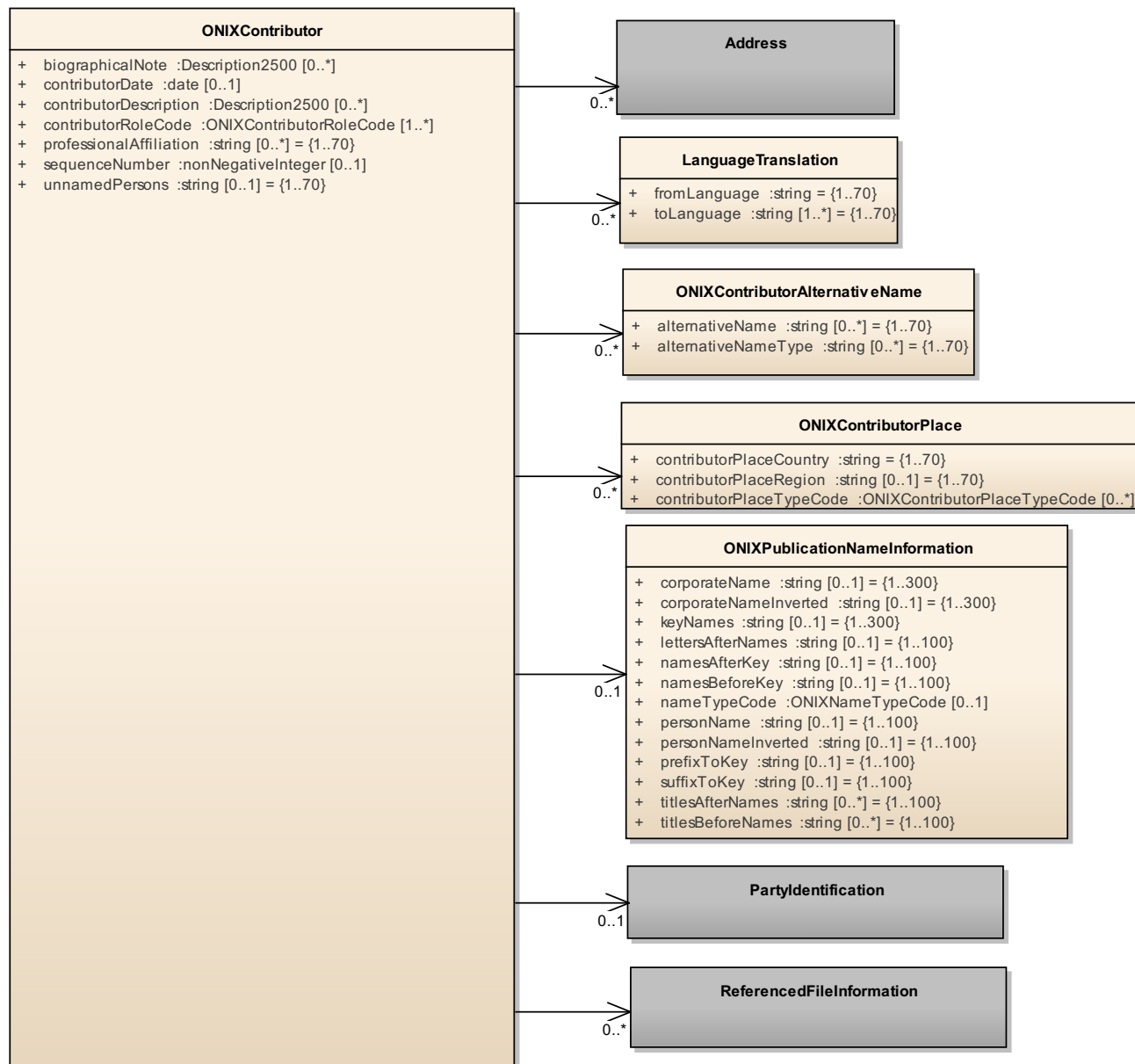


| content                                         | attribute / role | datatype /secondary class | multiplicity | definition                                                                 |
|-------------------------------------------------|------------------|---------------------------|--------------|----------------------------------------------------------------------------|
| ONIXAdditionalPublicationDescriptionInformation |                  |                           |              | A group of data elements which together carry text related to the product. |
| Association                                     | textAuthor       | ONIXContributor           | 0..*         | The name of an author of text                                              |

| content   | attribute / role                 | datatype /secondary class          | multiplicity | definition                                                                                                    |
|-----------|----------------------------------|------------------------------------|--------------|---------------------------------------------------------------------------------------------------------------|
| Attribute | additionalPublicationDescription | Description5000                    | 0..*         | The publication description to be used for marketing purposes (i.e. cover description, review).               |
| Attribute | contentDate                      | date                               | 1..1         | Date information applicable to the Additional Description Information                                         |
| Attribute | contentDateRoleTypeCode          | OnixContentDateRoleTypeCode        | 1..1         | Indicates the significance of the date in relation to the text content.                                       |
| Attribute | descriptionSource                | string                             | 0..1         | The name of a company or corporate body responsible for the text.                                             |
| Attribute | publicationDescriptionTypeCode   | ONIXPublicationDescriptionTypeCode | 0..*         | Identifies the type of text which is sent. This attribute uses the Description Type Code List (ONIX Code 153) |



## class Contributor



| content         | attribute / role        | datatype /secondary class      | multiplicity | definition                                                                                                                                                                                                                                                                                       |
|-----------------|-------------------------|--------------------------------|--------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ONIXContributor |                         |                                |              | A group of data elements which together describe a personal or corporate contributor to a collection.                                                                                                                                                                                            |
| Association     |                         | Address                        | 0..*         | City and country information for a contributor.                                                                                                                                                                                                                                                  |
| Association     |                         | LanguageTranslation            | 0..*         | Information on language translations performed by the contributor.                                                                                                                                                                                                                               |
| Association     |                         | ONIXContributorAlternativeName | 0..*         | Any alternative names for the contributor.                                                                                                                                                                                                                                                       |
| Association     |                         | ONIXContributorPlace           | 0..*         | Location information for a contributor.                                                                                                                                                                                                                                                          |
| Association     |                         | ONIXPublicationNameInformation | 0..1         | Publication information for a contributor.                                                                                                                                                                                                                                                       |
| Association     |                         | ReferencedFileInformation      | 0..*         | Provides the URL for the contributor website.                                                                                                                                                                                                                                                    |
| Association     |                         | PartyIdentification            | 0..1         | Party identification for a contributor.                                                                                                                                                                                                                                                          |
| Attribute       | biographicalNote        | Description2500                | 0..*         | A biographical note about a contributor to the product. May occur with a person name or with a corporate name. A biographical note should always contain the name of the person or body concerned, and it should always be presented as a piece of continuous text consisting of full sentences. |
| Attribute       | contributorDate         | date                           | 0..1         | The date specified that is associated with the person or organization identified as a contributor.                                                                                                                                                                                               |
| Attribute       | contributorDescription  | Description2500                | 0..*         | Brief text describing a contributor to the product, at the publisher's discretion. Optional and non-repeating. It may be used with either a person or corporate name, to draw attention to any aspect of a contributor's background which supports the promotion of the book.                    |
| Attribute       | contributorRoleCode     | ONIXContributorRoleCode        | 1..*         | Indicates the role played by a person or corporate body in the creation of the product. Mandatory in each occurrence of the Contributor class, and may be repeated if the same person or corporate body has more than one role in relation to the product.                                       |
| Attribute       | professionalAffiliation | string                         | 0..*         | An organisation to which a contributor to the product was affiliated at the time of its creation                                                                                                                                                                                                 |
| Attribute       | sequenceNumber          | nonNegativeInteger             | 0..1         | A number which specifies a single overall sequence of contributor names                                                                                                                                                                                                                          |

| content                        | attribute / role         | datatype /secondary class    | multiplicity | definition                                                                                                                                                                                                                                                                         |
|--------------------------------|--------------------------|------------------------------|--------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Attribute                      | unnamedPersons           | string                       | 0..1         | Positive indication to be given when authorship is unknown or anonymous, or when as a matter of editorial policy only a limited number of contributors are named.Utilizes Unnamed Persons Code List.                                                                               |
| ONIXContributorPlace           |                          |                              |              | Location information for a contributor.                                                                                                                                                                                                                                            |
| Attribute                      | contributorPlaceCountry  | string                       | 1..1         | A code identifying a country with which a contributor is particularly associated.                                                                                                                                                                                                  |
| Attribute                      | contributorPlaceRegion   | string                       | 0..1         | Identifies a region with which a contributor is particularly associated                                                                                                                                                                                                            |
| Attribute                      | contributorPlaceTypeCode | ONIXContributorPlaceTypeCode | 0..*         | Identifies a region with which a contributor is particularly associated                                                                                                                                                                                                            |
| ONIXPublicationNameInformation |                          |                              |              | Publication information for a contributor.                                                                                                                                                                                                                                         |
| Attribute                      | corporateName            | string                       | 0..1         | The name of a corporate body.                                                                                                                                                                                                                                                      |
| Attribute                      | corporateNameInverted    | string                       | 0..1         | The inverted name of a corporate body                                                                                                                                                                                                                                              |
| Attribute                      | keyNames                 | string                       | 0..1         | Part of a structured name of a person who contributed to the creation of the product: key name(s), i.e. the name elements normally used to open an entry in an alphabetical list, e.g. 'Smith' or 'Garcia Marquez' or 'Madonna' or 'Francis de Sales' (in Saint Francis de Sales). |
| Attribute                      | lettersAfterNames        | string                       | 0..1         | Qualifications and honours following a person's names, e.g. 'CBE FRS'.                                                                                                                                                                                                             |
| Attribute                      | namesAfterKey            | string                       | 0..1         | Part of a structured name of a person who contributed to the creation of the product: name suffix, or name(s) following a person's key name(s), e.g. 'Ibrahim' (in Anwar Ibrahim).                                                                                                 |
| Attribute                      | namesBeforeKey           | string                       | 0..1         | Part of a structured name of a person who contributed to the creation of the product: name(s) and/or initial(s) preceding a person's key name(s), e.g. James J                                                                                                                     |
| Attribute                      | nameTypeCode             | ONIXNameTypeCode             | 0..1         | Indicates the type of the name                                                                                                                                                                                                                                                     |
| Attribute                      | personName               | string                       | 0..1         | The name of a person who contributed to the creation of the product, unstructured, and presented in normal order.                                                                                                                                                                  |

| content                        | attribute / role   | datatype /secondary class | multiplicity | definition                                                                                                                                                                                                                                                                                                                                                                                                          |
|--------------------------------|--------------------|---------------------------|--------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Attribute                      | personNameInverted | string                    | 0..1         | The name of a person who contributed to the creation of the product, presented in inverted order, with the element used for alphabetical sorting placed first.                                                                                                                                                                                                                                                      |
| Attribute                      | prefixToKey        | string                    | 0..1         | Part of a structured name of a person who contributed to the creation of the product: a prefix which precedes the key name(s) but which is not to be treated as part of the key name, e.g. 'van' in Ludwig van Beethoven. This element may also be used for titles that appear after given names and before key names, e.g. 'Lord' in Alfred, Lord Tennyson.                                                        |
| Attribute                      | suffixToKey        | string                    | 0..1         | Part of a structured name of a person who contributed to the creation of the product: a suffix following a person's key name(s), e.g. 'Jr' or 'III'.                                                                                                                                                                                                                                                                |
| Attribute                      | titlesAfterNames   | string                    | 0..*         | Part of a structured name of a person who contributed to the creation of the product: titles following a person's names, e.g. 'Duke of Edinburgh'.                                                                                                                                                                                                                                                                  |
| Attribute                      | titlesBeforeNames  | string                    | 0..*         | Part of a structured name of a person who contributed to the creation of the product: qualifications and/or titles preceding a person's names, e.g. 'Professor' or 'HRH Prince' or 'Saint'.                                                                                                                                                                                                                         |
| LanguageTranslation            |                    |                           |              | Information on any language translations (from and to) that apply to the published trade item.                                                                                                                                                                                                                                                                                                                      |
| Attribute                      | fromLanguage       | string                    | 1..1         | Used only when the code value is B06, B08 or B10 indicating a translator, to specify the source language from which the translation was made. This element makes it possible to specify a translator's exact responsibility when a work involves translation from two or more languages. Optional and repeatable in the event that a single person has been responsible for translation from two or more languages. |
| Attribute                      | toLanguage         | string                    | 1..*         | Used only when the code value is B06, B08 or B10 indicating a translator, to specify the target language into which the translation was made. This element makes it possible to specify a translator's exact responsibility when a work involves translation into two or more languages. Optional and repeatable in the event that a single person has been responsible for translation to two or more languages.   |
| ONIXContributorAlternativeName |                    |                           |              | Any alternative names for the contributor.                                                                                                                                                                                                                                                                                                                                                                          |

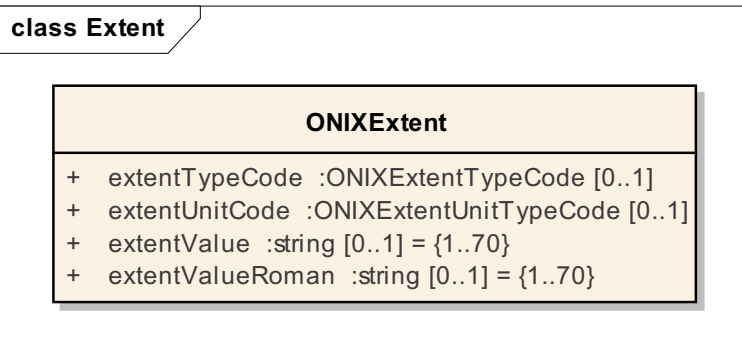
| content   | attribute / role    | datatype /secondary class | multiplicity | definition                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|-----------|---------------------|---------------------------|--------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Attribute | alternativeName     | string                    | 0..*         | It may be used to send a pseudonym as well as a real name, where both names are on the product, eg to handle such cases as 'Ian Rankin writing as Jack Harvey'; or to send an authority-controlled form of a name; or to identify the real name of the contributor where the book is written under a pseudonym (and the real identity need not be kept private). Note that in all cases, the primary name is that used on the product, and the alternative name merely provides additional information. |
| Attribute | alternativeNameType | string                    | 0..*         | Indicates the type of the name sent in an occurrence of the composite.                                                                                                                                                                                                                                                                                                                                                                                                                                  |

#### class ElectronicPublicationInformation

| ONIXElectronicPublicationInformation |                                                                             |
|--------------------------------------|-----------------------------------------------------------------------------|
| +                                    | epubTechnicalProtectionTypeCode :ONIXEpubTechnicalProtectionTypeCode [0..*] |
| +                                    | epubUsageLimit :string [0..1] = {1..70}                                     |
| +                                    | epubUsageStatus :string [0..1] = {1..70}                                    |
| +                                    | epubUsageType :string [0..1] = {1..70}                                      |

| content                              | attribute / role                | datatype /secondary class           | multiplicity | definition                                                                                                                                                           |
|--------------------------------------|---------------------------------|-------------------------------------|--------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ONIXElectronicPublicationInformation |                                 |                                     |              | Describes a usage constraint on a digital product, whether imposed by DRM technical protection or inherent in the platform used (or the absence of such constraint). |
| Attribute                            | epubTechnicalProtectionTypeCode | ONIXEpubTechnicalProtectionTypeCode | 0..*         | Specifies whether a digital product has DRM or other technical protection features.                                                                                  |
| Attribute                            | epubUsageLimit                  | string                              | 0..1         | Specifies a quantitative limit on a particular type of usage of a digital product.                                                                                   |
| Attribute                            | epubUsageStatus                 | string                              | 0..1         | Specifies the status of a usage of a digital product, e.g. permitted without limit, permitted with limit, prohibited. Use ONIXUsageStatusCode.                       |

| content   | attribute / role | datatype /secondary class | multiplicity | definition                                                    |
|-----------|------------------|---------------------------|--------------|---------------------------------------------------------------|
| Attribute | epubUsageType    | string                    | 0..1         | Specifies a usage of a digital product. Use ONIXUsageTypeCode |



| content    | attribute / role | datatype /secondary class | multiplicity | definition                                                                                                                                                                                                                                                                                                                                         |
|------------|------------------|---------------------------|--------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ONIXExtent |                  |                           |              | A repeatable group of data elements which together describe an extent pertaining to the product. Optional, but in practice required for most products, e.g. to give the number of pages in a printed book or paginated ebook, or to give the running time of an audiobook.                                                                         |
| Attribute  | extentTypeCode   | ONIXExtentTypeCode        | 0..1         | An ONIX code which identifies the type of extent carried in the composite, eg running time for an audio or video product. Mandatory in each occurrence of the <Extent> composite, and non-repeating. From Issue 9 of the code lists, an extended set of values for <ExtentType> has been defined to allow more accurate description of pagination. |
| Attribute  | extentUnitCode   | ONIXExtentUnitTypeCode    | 0..1         | An ONIX code indicating the unit used for the <ExtentValue> and the format in which the value is presented. Mandatory in each occurrence of the <Extent> composite, and non-repeating. Recommended to use ONIX List 24: Extent Unit Code.                                                                                                          |

| content   | attribute / role | datatype /secondary class | multiplicity | definition                                                                                                                                                                                                                                                                                                                                      |
|-----------|------------------|---------------------------|--------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Attribute | extentValue      | string                    | 0..1         | The numeric value of the extent specified in <ExtentType>. Optional, and non-repeating. However, either <ExtentValue> or <ExtentValueRoman> must be present in each occurrence of the <Extent> composite; and it is very strongly recommended that <ExtentValue> should always be included, even when the original product uses Roman numerals. |
| Attribute | extentValueRoman | string                    | 0..1         | The value of the extent expressed in Roman numerals. Optional, and non-repeating. Used only for page runs which are numbered in Roman.                                                                                                                                                                                                          |

**class IllustrationInformation**
**ONIXIllustrationInformation**

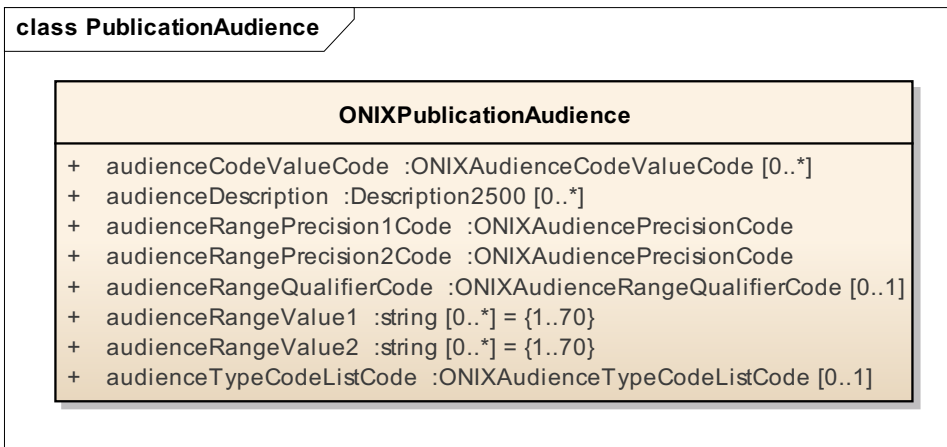
```

+ illustrationNote :Description2500 [0..*]
+ illustrationTypeCode :ONIXIllustrationTypeCode [0..1]
+ mapScale :string [0..1] = {1..70}
+ numberOfIllustrations :nonNegativeInteger [0..1]

```

| content                     | attribute / role     | datatype /secondary class | multiplicity | definition                                                                                                                                                                                                                            |
|-----------------------------|----------------------|---------------------------|--------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ONIXIllustrationInformation |                      |                           |              | A repeatable group of data elements which together specify the number of illustrations which the product carries.                                                                                                                     |
| Attribute                   | illustrationNote     | Description2500           | 0..*         | For books or other text media only, this data element carries text stating the number and type of illustrations. The text may also include other content items, eg maps, bibliography, tables, index etc. Optional and non-repeating. |
| Attribute                   | illustrationTypeCode | ONIXIllustrationTypeCode  | 0..1         | Identifies the type of illustration or other content to which an occurrence of the composite refers. Mandatory in each occurrence                                                                                                     |

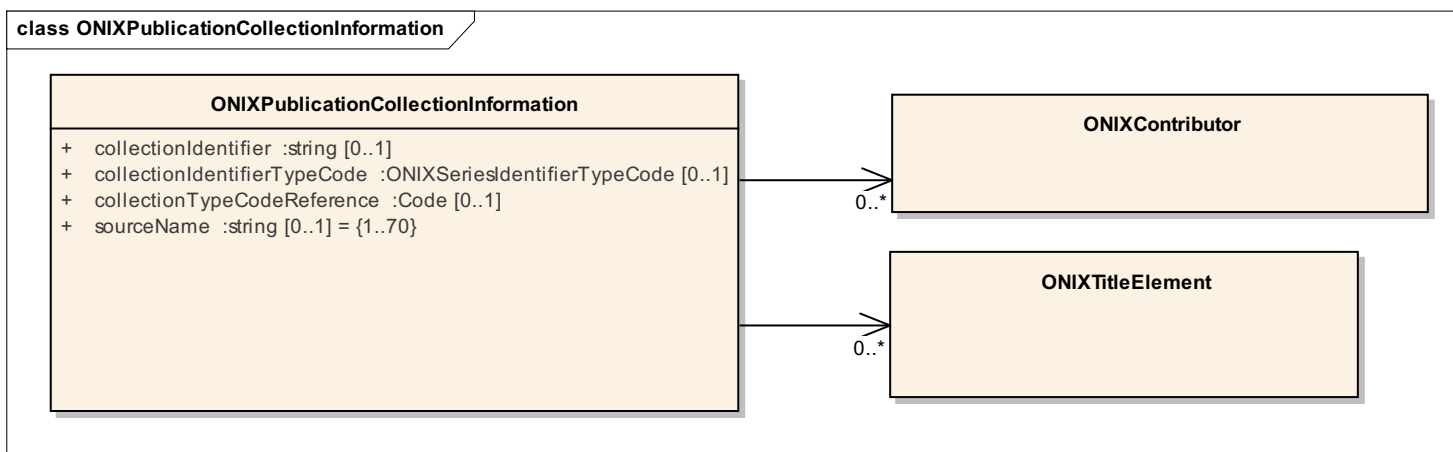
| content   | attribute / role      | datatype /secondary class | multiplicity | definition                                                                                                                                                                                                                     |
|-----------|-----------------------|---------------------------|--------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Attribute | mapScale              | string                    | 0..1         | The scale of a map, expressed as a ratio 1:nnnnn; only the number nnnnn is carried in the data element, without spaces or punctuation. Optional, and repeatable if a product comprises maps with two or more different scales. |
| Attribute | numberOfIllustrations | nonNegativeInteger        | 0..1         | The number of illustrations or other content items of the type specified. Optional and non-repeating.                                                                                                                          |



| content                 | attribute / role            | datatype /secondary class | multiplicity | definition                                                                                                                                                                                                   |
|-------------------------|-----------------------------|---------------------------|--------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ONIXPublicationAudience |                             |                           |              | A repeatable group of data elements which together describe an audience to which the product is directed.                                                                                                    |
| Attribute               | audienceCodeValueCode       | ONIXAudienceCodeValueCode | 0..*         | Identifies the applicable values of the appropriate audienceCodeType. For Audience Code Type 01 (Onix Type) this value should be populated with Onix Audience Code 28 (Books: Onix Audience Code Value Code) |
| Attribute               | audienceDescription         | Description2500           | 0..*         | Free text describing the audience for which a product is intended. Optional and non-repeating.                                                                                                               |
| Attribute               | audienceRangePrecision1Code | ONIXAudiencePrecisionCode | 1..1         | Specifies the 'precision' of the value in the AudienceRange attribute which follows (From, To, Exact). Mandatory in each occurrence of the AudienceRange, and non-repeating.                                 |



| content   | attribute / role            | datatype /secondary class      | multiplicity | definition                                                                                                                                                                                                                                                     |
|-----------|-----------------------------|--------------------------------|--------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Attribute | audienceRangePrecision2Code | ONIXAudiencePrecisionCode      | 1..1         | Specifies the 'precision' of the value in AudienceRange attribute which follows. Optional and non-repeating. This second occurrence of the two elements audienceRangePrecision and audienceRange is required only when a 'From ... to ...' range is specified. |
| Attribute | audienceRangeQualifierCode  | ONIXAudienceRangeQualifierCode | 0..1         | Specifies the attribute (age, school grade etc) which is measured by the value in the AudienceRange attribute.                                                                                                                                                 |
| Attribute | audienceRangeValue1         | string                         | 0..*         | A value indicating an exact position within a range, or the upper or lower end of a range.                                                                                                                                                                     |
| Attribute | audienceRangeValue2         | string                         | 0..*         | A value indicating the upper end of a range.                                                                                                                                                                                                                   |
| Attribute | audienceTypeCodeListCode    | ONIXAudienceTypeCodeListCode   | 0..1         | Identifies the broad audience or readership for which a product is intended. Repeatable if the product is intended for two or more groups.                                                                                                                     |



| content                              | attribute / role | datatype /secondary class | multiplicity | definition                                                                     |
|--------------------------------------|------------------|---------------------------|--------------|--------------------------------------------------------------------------------|
| ONIXPublicationCollectionInformation |                  |                           |              | Carries attributes of a bibliographic collection of which the product is part. |
| Association                          |                  | ONIXContributor           | 0..*         | A contributor for a publication collection.                                    |

| content     | attribute / role             | datatype /secondary class    | multiplicity | definition                                                                                                                                                                                                                                                     |
|-------------|------------------------------|------------------------------|--------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Association |                              | ONIXTitleElement             | 0..*         | The title element for a publication collection.                                                                                                                                                                                                                |
| Attribute   | collectionIdentifier         | string                       | 0..1         | Identifier of the type specified in the collectionIDType field.                                                                                                                                                                                                |
| Attribute   | collectionIdentifierTypeCode | ONIXSeriesIdentifierTypeCode | 0..1         | Identifies the scheme from which an identifier in the collectionIdentifier is taken.<br>This attribute utilizes the Series Identifier Type Code List (Onix List 13)                                                                                            |
| Attribute   | collectionTypeCodeReference  | Code                         | 0..1         | Indicates the type of a bibliographic collection: publisher collection, ascribed collection, or unspecified                                                                                                                                                    |
| Attribute   | sourceName                   | string                       | 0..1         | If the CollectionType code indicates an 'ascribed collection' (i.e. a collection which has been identified and described by a supply chain organisation other than the publisher), this element may be used to carry the name of the organisation responsible. |

#### class ONIXPublicationDateInformation

##### ONIXPublicationDateInformation

- + publicationDate :date
- + publicationDateTypeCode :ONIXPublicationDateTypeCode

| content                        | attribute / role | datatype /secondary class | multiplicity | definition                                                                                                                                                                                    |
|--------------------------------|------------------|---------------------------|--------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ONIXPublicationDateInformation |                  |                           |              | An optional and repeatable group of data elements which together specify a date associated with the text carried in an occurrence of the composite, e.g. date when quoted text was published. |

| content | attribute / role        | datatype /secondary class   | multiplicity | definition                                                                                                                                                                                                                                                                                     |
|---------|-------------------------|-----------------------------|--------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|         | publicationDate         | Date                        | 1..1         | The date specified in the field. Mandatory in each occurrence of the composite, and non-repeating. May carry a dateFormat attribute: if the attribute is missing, then indicates the format of the date; if both dateFormat attribute and element are missing, the default format is YYYYMMDD. |
|         | publicationDateTypeCode | ONIXPublicationDateTypeCode | 1..1         | An ONIX code indicating the significance of the date in relation to the text content. Mandatory in each occurrence of the composite, and non-repeating. In ONIX this utilizes list 155.                                                                                                        |

#### class PublicationEditionInformation

##### ONIXPublicationEditionInformation

- + editionNumber :string [0..1] = {1..70}
- + editionStatement :Description2500 [0..\*]
- + editionTypeCode :ONIXEditionTypeCode [0..\*]
- + editionVersionNumber :string [0..1] = {1..70}

| content                           | attribute / role | datatype /secondary class | multiplicity | definition                                                                                                                                                                                                                                                                                                                                                                             |
|-----------------------------------|------------------|---------------------------|--------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ONIXPublicationEditionInformation |                  |                           |              | Describes an edition of a work which is manifested in the product. Its use should generally be limited to describing an edition whose content is materially different from that of other editions of the same work. However, it may sometimes be used to specify a product feature (eg 'bilingual edition') without necessarily implying that another, different, edition also exists. |
| Attribute                         | editionNumber    | string                    | 0..1         | The number of a numbered edition. Optional and non-repeating. Normally sent only for the second and subsequent editions of a work, but by agreement between parties to an ONIX exchange a first edition may be explicitly numbered.                                                                                                                                                    |

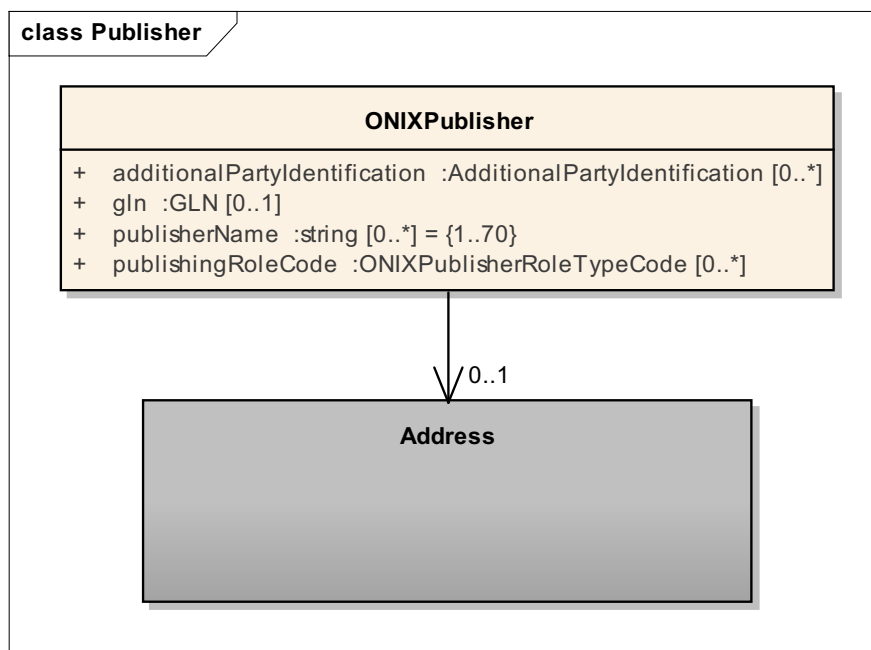
| content   | attribute / role     | datatype /secondary class | multiplicity | definition                                                                                                                                                                                                                                                                                                                                                                                                                  |
|-----------|----------------------|---------------------------|--------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Attribute | editionStatement     | Description2500           | 0..*         | A short free-text description of a version or edition. Optional and non-repeating. When used, an <EditionStatement> must be complete in itself, ie it should not be treated as merely supplementary to an <EditionType> or an <EditionNumber>. An <EditionStatement> should be strictly limited to describing features of the content of the edition, and should not include aspects such as rights or market restrictions. |
| Attribute | editionTypeCode      | ONIXEditionTypeCode       | 0..*         | Indicates the type of a version or edition. Optional, and repeatable if the product has characteristics of two or more types (eg 'revised' and 'annotated').                                                                                                                                                                                                                                                                |
| Attribute | editionVersionNumber | string                    | 0..1         | The number of a numbered revision within an edition number. To be used only where a publisher uses such two-level numbering to indicate revisions which do not constitute a new edition under a new ISBN or other distinctive product identifier. Optional and non-repeating. If this field is used, an <EditionNumber> must also be present.                                                                               |

### class ONIXPublicationSalesRights

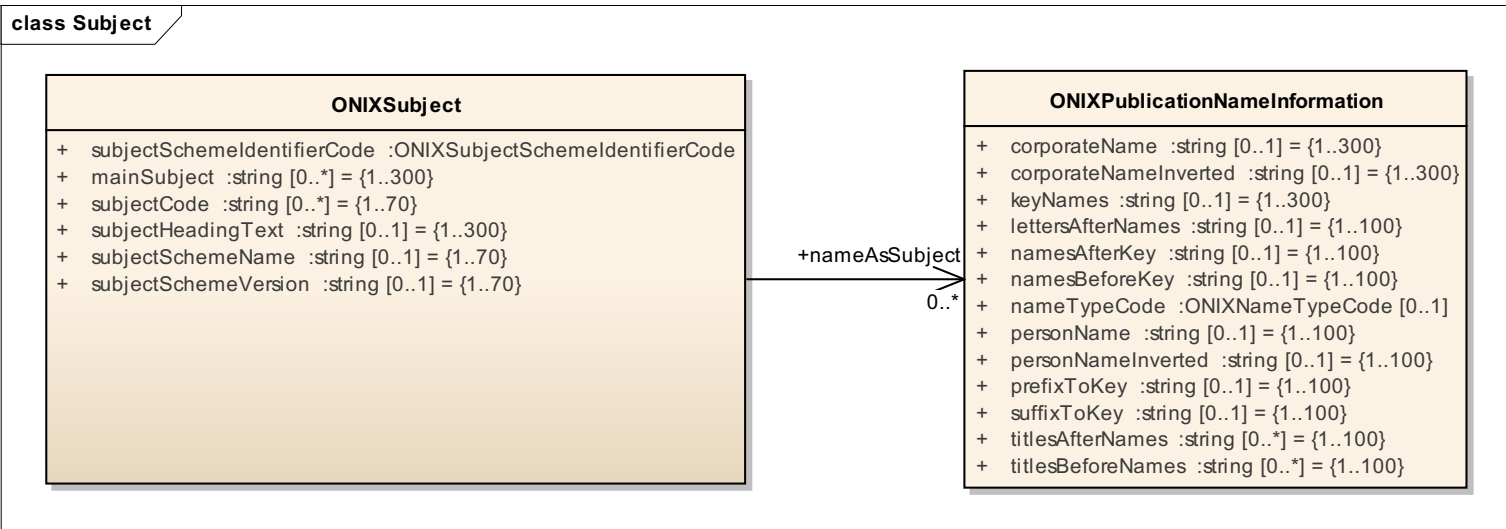
#### ONIXPublicationSalesRights

- + salesRightsTypeCode :ONIXSalesRightsTypeCode
- + salesTerritory :string = {1..70}

| content                    | attribute / role    | datatype /secondary class | multiplicity | definition                                                                                                                                                                                                                                                                                       |
|----------------------------|---------------------|---------------------------|--------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ONIXPublicationSalesRights |                     |                           |              | Identifies territorial sales rights a brand owner chooses to exercise in a product. When specifying a territory in which the product is not for sale, the publisher and product ID for an edition which is available in the specified territory can optionally be included.                      |
| Attribute                  | salesRightsTypeCode | ONIXSalesRightsTypeCode   | 1..1         | Identifies the type of sales right or exclusion which applies in the territories which are associated with it. Mandatory in each occurrence of the <SalesRights> composite, and non-repeating. Values include: for sale with exclusive rights, for sale with non-exclusive rights, not for sale. |
| Attribute                  | salesTerritory      | string                    | 1..1         | Identify a territory in which the rights specified in <SalesRightsType> are applicable. Mandatory in each occurrence of the <SalesRights> composite, and non-repeating.                                                                                                                          |



| content       | attribute / role              | datatype /secondary class     | multiplicity | definition                                                                                                                                                                                                                                                                    |
|---------------|-------------------------------|-------------------------------|--------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ONIXPublisher |                               |                               |              | A repeatable group of data elements which together identify an entity which is associated with the publishing of a product. The composite allows additional publishing roles to be introduced without adding new fields.                                                      |
| Association   |                               | Address                       | 0..1         | City and country information for a publisher.                                                                                                                                                                                                                                 |
| Attribute     | additionalPartyIdentification | AdditionalPartyIdentification | 0..*         | Identification of a party by use of a code other than the Global Location Number.                                                                                                                                                                                             |
| Attribute     | gln                           | GLN                           | 0..1         | The Global Location Number (GLN) is a structured Identification of a physical location, legal or functional entity within an enterprise. The GLN is the primary party identifier. Each party identified in the trading relationship must have a primary party Identification. |
| Attribute     | publisherName                 | string                        | 0..*         | A name which identifies a proprietary identifier scheme (ie a scheme which is not a standard and for which there is no individual ID type code) when, and only when, the code in the <PublisherIDType> element indicates a proprietary scheme.                                |
| Attribute     | publishingRoleCode            | ONIXPublisherRoleTypeCode     | 0..*         | Identifies a role played by an entity in the publishing of a product.                                                                                                                                                                                                         |



| content                        | attribute / role      | datatype /secondary class | multiplicity | definition                                                                                                                                                                                                                                                                         |
|--------------------------------|-----------------------|---------------------------|--------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ONIXPublicationNameInformation |                       |                           |              | Publication information for a contributor.                                                                                                                                                                                                                                         |
| Attribute                      | corporateName         | string                    | 0..1         | The name of a corporate body.                                                                                                                                                                                                                                                      |
| Attribute                      | corporateNameInverted | string                    | 0..1         | The inverted name of a corporate body                                                                                                                                                                                                                                              |
| Attribute                      | keyNames              | string                    | 0..1         | Part of a structured name of a person who contributed to the creation of the product: key name(s), i.e. the name elements normally used to open an entry in an alphabetical list, e.g. 'Smith' or 'Garcia Marquez' or 'Madonna' or 'Francis de Sales' (in Saint Francis de Sales). |
| Attribute                      | lettersAfterNames     | string                    | 0..1         | Qualifications and honours following a person's names, e.g. 'CBE FRS'.                                                                                                                                                                                                             |
| Attribute                      | namesAfterKey         | string                    | 0..1         | Part of a structured name of a person who contributed to the creation of the product: name suffix, or name(s) following a person's key name(s), e.g. 'Ibrahim' (in Anwar Ibrahim).                                                                                                 |
| Attribute                      | namesBeforeKey        | string                    | 0..1         | Part of a structured name of a person who contributed to the creation of the product: name(s) and/or initial(s) preceding a person's key name(s), e.g. James J                                                                                                                     |

| content     | attribute / role            | datatype /secondary class       | multiplicity | definition                                                                                                                                                                                                                                                                                                                                                   |
|-------------|-----------------------------|---------------------------------|--------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Attribute   | nameTypeCode                | ONIXNameTypeCode                | 0..1         | Indicates the type of the name                                                                                                                                                                                                                                                                                                                               |
| Attribute   | personName                  | string                          | 0..1         | The name of a person who contributed to the creation of the product, unstructured, and presented in normal order.                                                                                                                                                                                                                                            |
| Attribute   | personNameInverted          | string                          | 0..1         | The name of a person who contributed to the creation of the product, presented in inverted order, with the element used for alphabetical sorting placed first.                                                                                                                                                                                               |
| Attribute   | prefixToKey                 | string                          | 0..1         | Part of a structured name of a person who contributed to the creation of the product: a prefix which precedes the key name(s) but which is not to be treated as part of the key name, e.g. 'van' in Ludwig van Beethoven. This element may also be used for titles that appear after given names and before key names, e.g. 'Lord' in Alfred, Lord Tennyson. |
| Attribute   | suffixToKey                 | string                          | 0..1         | Part of a structured name of a person who contributed to the creation of the product: a suffix following a person's key name(s), e.g. 'Jr' or 'III'.                                                                                                                                                                                                         |
| Attribute   | titlesAfterNames            | string                          | 0..*         | Part of a structured name of a person who contributed to the creation of the product: titles following a person's names, e.g. 'Duke of Edinburgh'.                                                                                                                                                                                                           |
| Attribute   | titlesBeforeNames           | string                          | 0..*         | Part of a structured name of a person who contributed to the creation of the product: qualifications and/or titles preceding a person's names, e.g. 'Professor' or 'HRH Prince' or 'Saint'.                                                                                                                                                                  |
| ONIXSubject |                             |                                 |              | Specifies a subject classification or subject heading.                                                                                                                                                                                                                                                                                                       |
| Association | nameAsSubject               | ONIXPublicationNameInformation  | 0..*         | Name as a subject                                                                                                                                                                                                                                                                                                                                            |
| Attribute   | subjectSchemeIdentifierCode | ONIXSubjectSchemeIdentifierCode | 1..1         | For category schemes that use code values, use the associated element to carry the value (if so required, the element can be used simultaneously to carry the text equivalent of the code). For schemes that use text headings, use the element to carry the text of the category heading.                                                                   |
| Attribute   | mainSubject                 | string                          | 0..*         | Main subject category for the product                                                                                                                                                                                                                                                                                                                        |
| Attribute   | subjectCode                 | string                          | 0..*         | A subject class or category code from the scheme specified in the element. Either or both must be present in each occurrence of the composite.                                                                                                                                                                                                               |



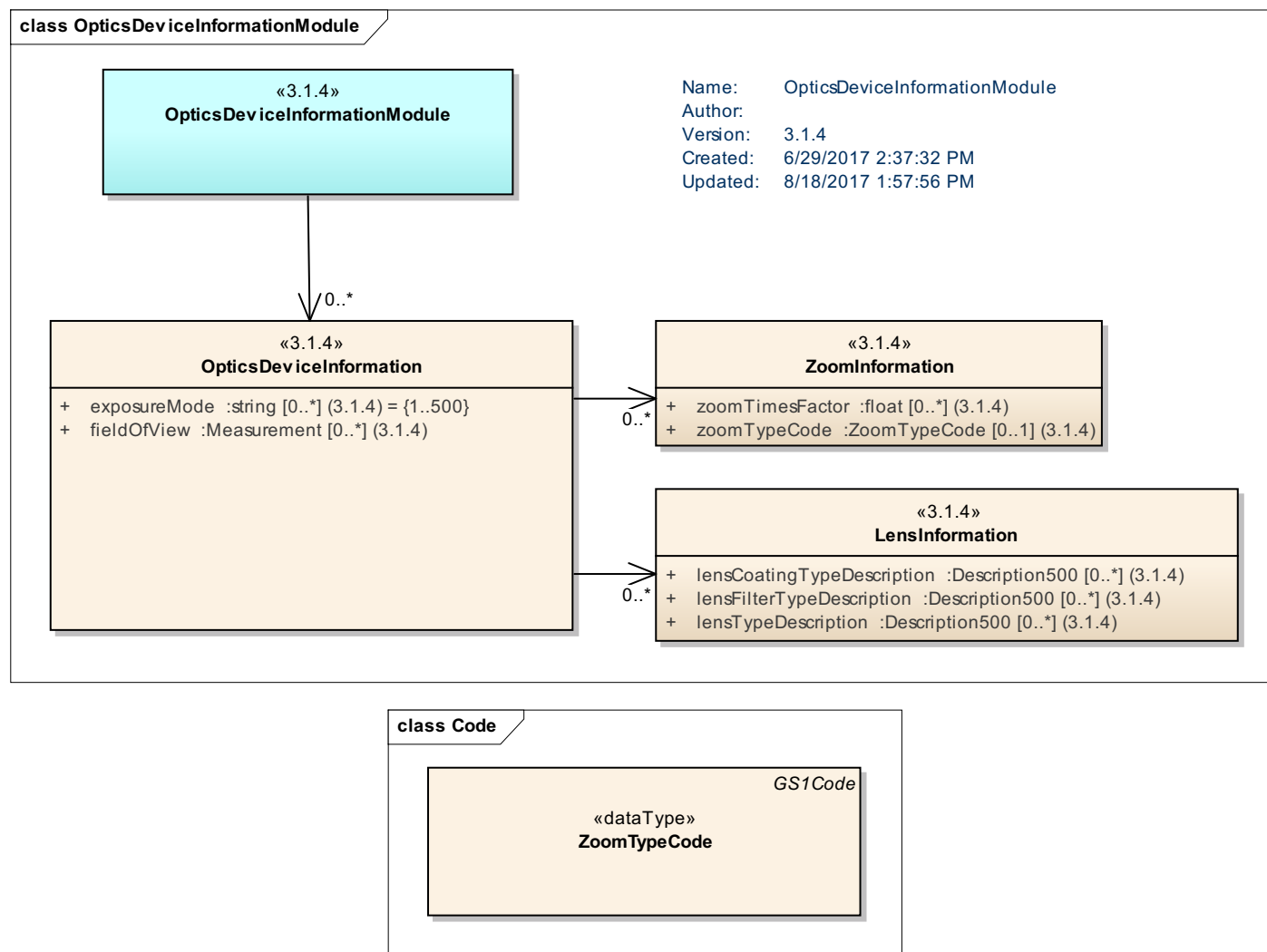
| content   | attribute / role     | datatype /secondary class | multiplicity | definition                                                                                                                                                                                                                                                                                    |
|-----------|----------------------|---------------------------|--------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Attribute | subjectHeadingText   | string                    | 0..1         | The text of a subject heading taken from the scheme specified in the element, or of free language keywords if the scheme is specified as 'keywords'; or the text equivalent to the value, if both code and text are sent. Either or both must be present in each occurrence of the composite. |
| Attribute | subjectSchemeName    | string                    | 0..1         | A name identifying a proprietary subject scheme (i.e. a scheme which is not a standard and for which there is no individual identifier code) when is coded '24'.                                                                                                                              |
| Attribute | subjectSchemeVersion | string                    | 0..1         | A number which identifies a version or edition of the subject scheme specified in the associated element.                                                                                                                                                                                     |

| class ONIXTitleElement                                                                                                                                                                                                                                                                                                                                                                                                                   |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <div> <div>ONIXTitleElement</div> <div> + titleElementLevel :string = {1..70}<br/> + titleTypeCode :ONIXTitleTypeCode [1..*] = {1..70}<br/> + subTitle :string [0..1] = {1..300}<br/> + titlePrefixType :string [0..1] = {1..70}<br/> + titleText :string = {1..300}<br/> + titleWithoutPrefix :string [0..1] = {1..300}<br/> + yearOfAnnual :string [0..1] = {1..70}<br/> + onixPartNumber :Description500 [0..*] (3.1.2) </div> </div> |

| content   | attribute / role  | datatype /secondary class | multiplicity | definition                                                                                                                                                                                                                                                                         |
|-----------|-------------------|---------------------------|--------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Attribute | titleElementLevel | string                    | 1..1         | Code indicating the level of a title element: collection level, subcollection level, or product level. Mandatory in each occurrence of the TitleElement composite.                                                                                                                 |
| Attribute | titleTypeCode     | ONIXTitleTypeCode         | 1..*         | Indicates the type of a title.                                                                                                                                                                                                                                                     |
| Attribute | subTitle          | string                    | 0..1         | The text of a subtitle, if any. 'Subtitle' means any added words which appear with the title element given in an occurrence of the <TitleElement> composite, and which amplify and explain the title element, but which are not considered to be part of the title element itself. |

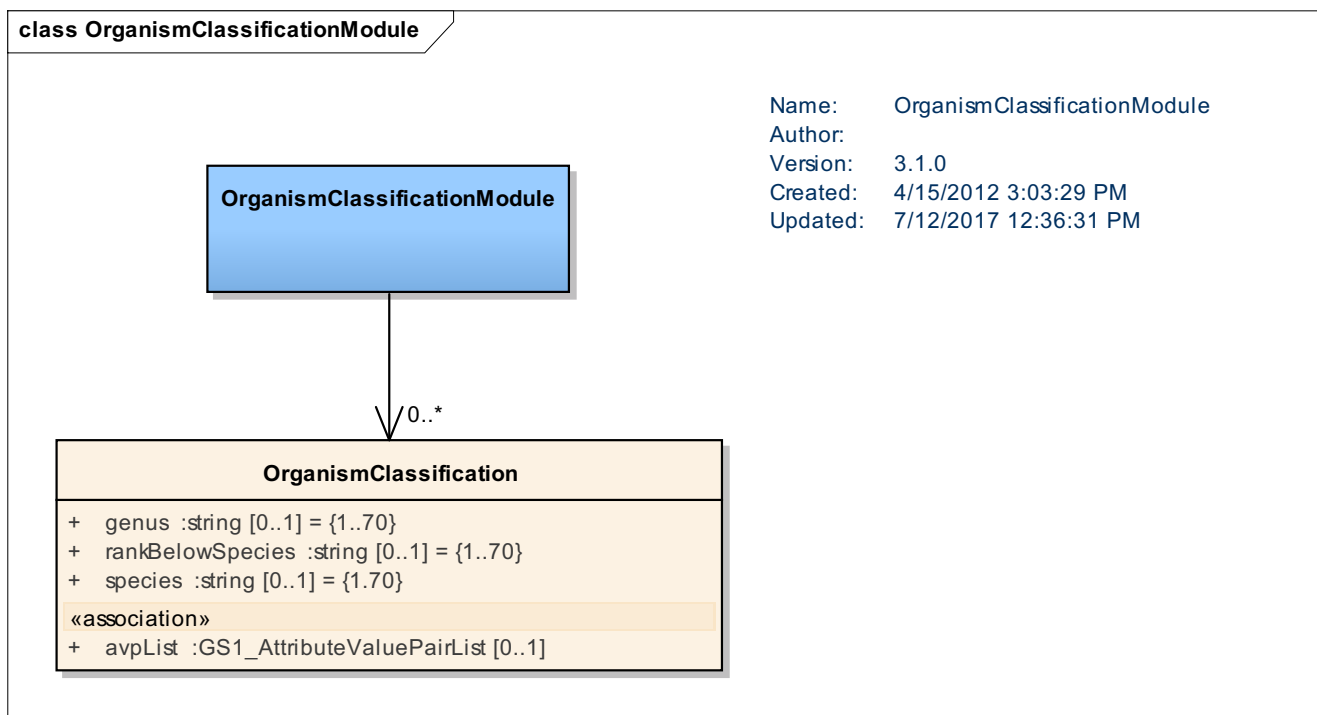
| content   | attribute / role   | datatype /secondary class | multiplicity | definition                                                                                                                                                                                                                                                                                                                                                                                                                           |
|-----------|--------------------|---------------------------|--------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Attribute | titlePrefixType    | string                    | 0..1         | Text at the beginning of a title element which is to be ignored for alphabetical sorting. Optional and non-repeating; can only be used if the <TitleWithoutPrefix> element is also present. These two elements may be used in combination in applications where it is necessary to distinguish an initial word or character string which is to be ignored for filing purposes, eg in library systems and in some bookshop databases. |
| Attribute | titleText          | string                    | 1..1         | The text of a title element, excluding any subtitle. Optional and non-repeating.                                                                                                                                                                                                                                                                                                                                                     |
| Attribute | titleWithoutPrefix | string                    | 0..1         | The text of a title element without the title prefix; and excluding any subtitle. Optional and non-repeating; can only be used if the TitlePrefix element is also present.                                                                                                                                                                                                                                                           |
| Attribute | yearOfAnnual       | string                    | 0..1         | When the year of an annual is part of a title, this field should be used to carry the year (or, if required, a spread of years such as 2009-2010). Optional and non-repeating.                                                                                                                                                                                                                                                       |
| Attribute | onixPartNumber     | Description500            | 0..*         | When a title element includes a part designation within a larger whole (e.g.<i> </i>Part I, or Volume 3), this field should be used to carry the number and its 'caption' as text.                                                                                                                                                                                                                                                   |

## 5.39 Optics Device Information Module



| content                       | attribute / role           | datatype /secondary class | multiplicity | definition                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|-------------------------------|----------------------------|---------------------------|--------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| LensInformation               |                            |                           |              | Information on a lens for an optical device.                                                                                                                                                                                                                                                                                                                                                                                                   |
| Attribute                     | lensCoatingTypeDescription | Description500            | 0..*         | A description of the type of coating either protective or other feature the coating brings to the lens. Examples anti-reflective, mirrored, tinted, scratch resistant, multicoated.                                                                                                                                                                                                                                                            |
| Attribute                     | lensFilterTypeDescription  | Description500            | 0..*         | The type of lens filter that trade item is or comes with. Examples: protective, skylight, colour tint, etc                                                                                                                                                                                                                                                                                                                                     |
| Attribute                     | lensTypeDescription        | Description500            | 0..*         | Description of an optical lens or assembly of lenses used in conjunction with a camera body and mechanism to make images of objects either on photographic film or on other media capable of storing an image chemically or electronically. Examples include ultra wide angle, wide angle, standard, telephoto.                                                                                                                                |
| OpticsDeviceInformationModule |                            |                           |              | A module including information on optics devices for example lens for cameras, microscopes, telescopes.                                                                                                                                                                                                                                                                                                                                        |
| Association                   |                            | OpticsDeviceInformation   | 0..*         | Details on optics devices for example lens for cameras, microscopes, telescopes.                                                                                                                                                                                                                                                                                                                                                               |
| OpticsDeviceInformation       |                            |                           |              | Information on optics devices for example lens for cameras, microscopes, telescopes.                                                                                                                                                                                                                                                                                                                                                           |
| Association                   |                            | LensInformation           | 0..*         | Information on a lens for an optical device.                                                                                                                                                                                                                                                                                                                                                                                                   |
| Association                   |                            | ZoomInformation           | 0..*         | Zoom information for a photography/optics Device.                                                                                                                                                                                                                                                                                                                                                                                              |
| Attribute                     | exposureMode               | string                    | 0..*         | Description of each of the various automatic or manual exposure (shooting) modes a camera comes with for example, P (programmed auto), S (shutter-priority auto), A (aperture-priority auto), M (manual).                                                                                                                                                                                                                                      |
| Attribute                     | fieldOfView                | Measurement               | 0..*         | Real field of view (field of vision) is the angle of the visible field, seen without moving the item, measured from the central point of the objective lens. In games the extent of the observable world that is seen at any given moment. This is used by such items as: microscope, rifle scope, cameras, binoculars are just some type of items. Measure in linear length or angular degrees for example 300 metres (MTR), 45 degrees (DD). |
| ZoomInformation               |                            |                           |              | Information on the abilities of a product to go from long view to a close-up or vice versa.                                                                                                                                                                                                                                                                                                                                                    |
| Attribute                     | zoomTimesFactor            | float                     | 0..*         | The distance (how far or close), the zoom is capable of for example 2, 10.5, 100.                                                                                                                                                                                                                                                                                                                                                              |
| Attribute                     | zoomTypeCode               | ZoomTypeCode              | 0..1         | A code depicting the type of zoom the device or lens has for example DIGITAL or OPTICAL.                                                                                                                                                                                                                                                                                                                                                       |

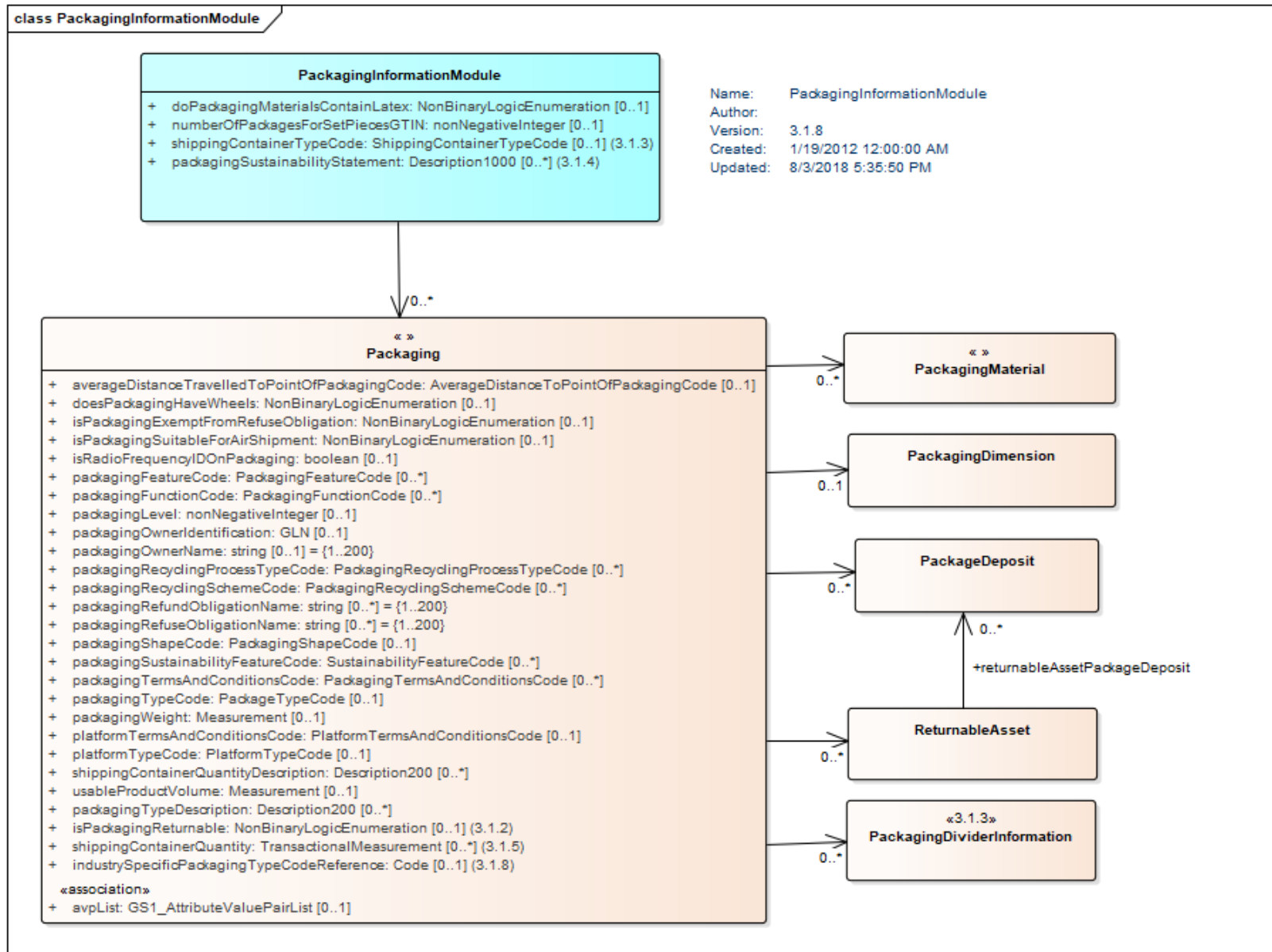
## 5.40 Organism Classification Module

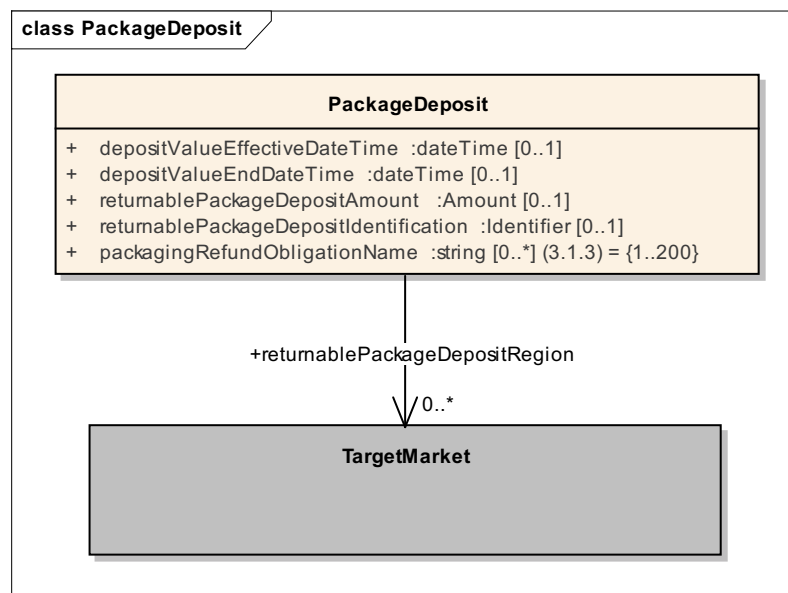


| content                 | attribute / role | datatype /secondary class   | multipli city | definition                                                                                                                                                                                                                                                                                    |
|-------------------------|------------------|-----------------------------|---------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| OrganismClassific ation |                  |                             |               | Hierarchical system for grouping and naming types of living organisms.                                                                                                                                                                                                                        |
| Association             | avpList          | GS1_AttributeValue PairList | 0..1          | The transmission of non-standard data done in a simple, flexible, and easy to use method.                                                                                                                                                                                                     |
| Attribute               | genus            | string                      | 0..1          | A taxonomic category ranking below a family and above a species and generally consisting of a group of species exhibiting similar characteristics. In taxonomic nomenclature the genus name is used, either alone or followed by a Latin adjective or epithet, to form the name of a species. |

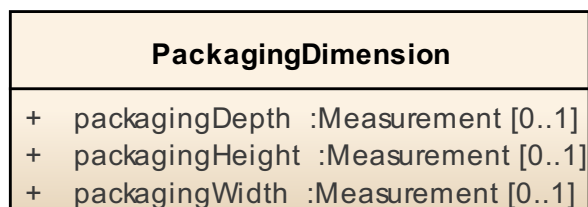
| content                      | attribute / role | datatype /secondary class | multipl<br>city | definition                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|------------------------------|------------------|---------------------------|-----------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Attribute                    | rankBelowSpecies | string                    | 0..1            | <p>Either the Sub-Species, Variety, Sub-Variety, Form, and/or Sub-Form of an organism. All are taxonomic rank below that of species.</p> <ul style="list-style-type: none"> <li>• A Sub-Species is a taxonomic rank subordinate to species.</li> <li>• A Variety will have an appearance distinct from other varieties, but will hybridize freely with other varieties of the same species (if brought into contact). Usually varieties will be geographically separate from each other.</li> <li>• A Sub-Variety is a subordinate variety, or a division of a variety.</li> </ul> <p>A Form usually designates a group with a noticeable but minor deviation. For instance, white-flowered forms of species that usually have coloured flowers can be named a "f. alba".</p> <p>It is recommended to place an Abbreviation at the beginning of the text to clarify to what type the text belongs. The recommended abbreviations are:</p> <ul style="list-style-type: none"> <li>• subspecies (Abbreviation not required for Animals) -<br/>– subsp or ssp</li> <li>• varietas (variety) -- var</li> <li>• subvarietas (sub-variety) -- subvar</li> <li>• forma (form) -- form or f</li> <li>• subforma (sub-forma) -- subf</li> </ul> |
| Attribute                    | species          | string                    | 0..1            | <p>A fundamental category of taxonomic classification, ranking below a genus and consisting of related organisms capable of interbreeding. An organism belonging to such a category, represented in binomial nomenclature by a lower case Latin adjective or noun following a capitalized genus name, as in <i>Ananas comosus</i>, the pineapple, and <i>Equus caballus</i>, the horse.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| OrganismClassificationModule |                  |                           |                 | <p>Hierarchical system for grouping and naming types of living organisms.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Association                  |                  | OrganismClassification    | 0..*            | <p>Hierarchical system for grouping and naming types of living organisms.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |

## 5.41 Packaging Information Module





**class PackagingDimension**





**class PackagingDividerInformation**

«3.1.3»

**PackagingDividerInformation**

- + numberOfDividersHorizontal :nonNegativeInteger [0..1] (3.1.3)
- + numberOfDividersVertical :nonNegativeInteger [0..1] (3.1.3)
- + placementOfDivider :nonNegativeInteger [0..\*] (3.1.3)

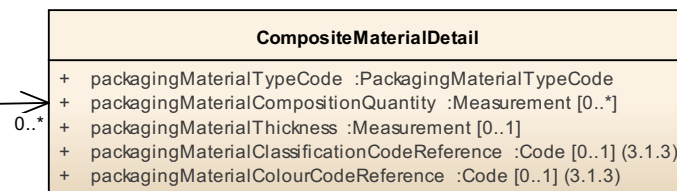
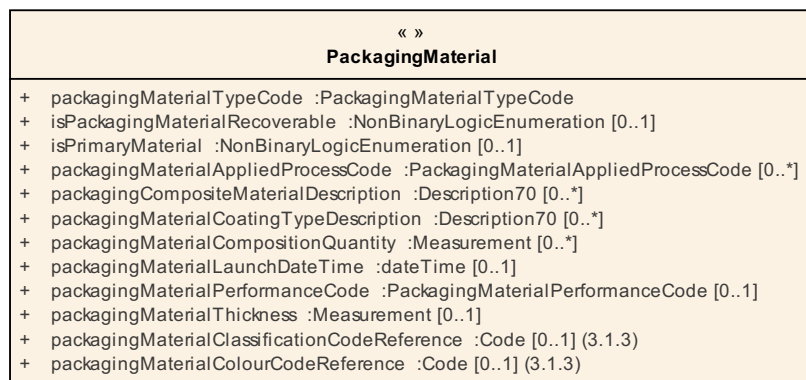
**class ReturnableAsset**
**ReturnableAsset**

- + alternativeReturnableAssetIdentification :AdditionalReturnableAssetIdentification [0..\*]
- + grai :GRAI [0..1]
- + isReturnableAssetEmpty :NonBinaryLogicEnumeration [0..1]
- + returnableAssetCapacityContent :Measurement [0..\*]
- + returnableAssetsContainedQuantity :Quantity [0..\*]
- + returnableAssetOwnerId :GLN [0..1]
- + returnableAssetOwnerName :string [0..1] = {1..200}

+returnableAssetPackageDeposit /0..\*

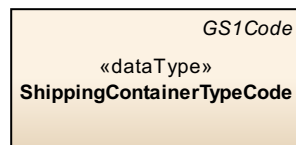
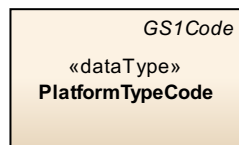
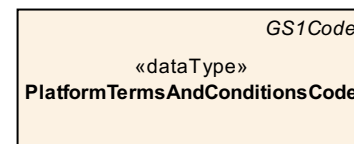
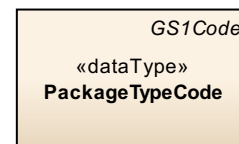
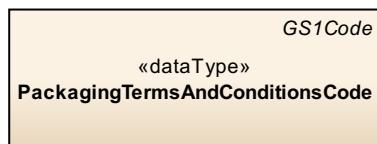
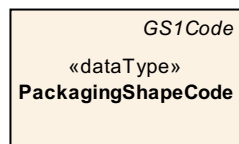
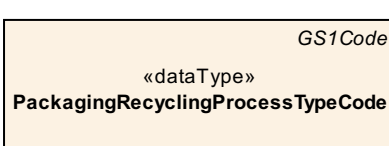
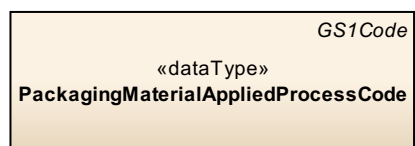
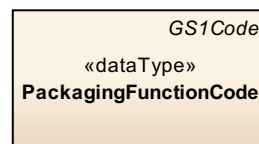
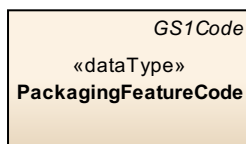
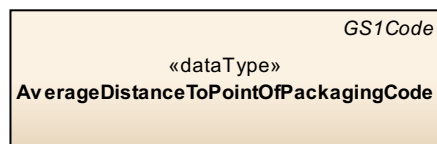
**PackageDeposit**

## class PackagingMaterial



0..\*

## class Code



| content                     | attribute / role                  | datatype /secondary class    | multi plicit y | definition                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|-----------------------------|-----------------------------------|------------------------------|----------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| PackagingInform ationModule |                                   |                              |                | Packaging information for a trade item.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Association                 |                                   | Packaging                    | 0..*           | Packaging information for a trade item.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Attribute                   | doPackagingMaterials ContainLatex | NonBinaryLogicEnu meration   | 0..1           | Identifies if any of the trade item's packaging contains latex.                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Attribute                   | numberOfPackagesFor SetPiecesGTIN | nonNegativeInteger           | 0..1           | The total number of separately packaged components comprising a single trade item.                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Attribute                   | shippingContainerType Code        | ShippingContainerT ypeCode   | 0..1           | The type and size of the container in which the trade items composing the standard transport load (identified by a unique GTIN) are shipped by the consignor for international transport. This attribute should be populated using the ISO 6346 recommendation to indicate size and type codes of the shipping container. This code refers to the type of container and not the items inside. The first digit is the length of the container, the second is the height of the container, and the last two are the container type. |
| Attribute                   | packagingSustainabilit yStatement | Description1000              | [0..*]         | A statement about the trade Item and/or packaging that makes the item sustainable. This may refer to some marketing facing information that is relative to the consumer concerning sustainability for example "Now available in plastic vs. aluminum packaging. Resulting in 15% less energy and 10% waste reduction in manufacturing".                                                                                                                                                                                           |
| Packaging                   |                                   |                              |                | Details on packaging for a trade item.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Association                 |                                   | packagingDimensio n          | 0..1           | Details on the dimensions of a packaging.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Association                 |                                   | PackageDeposit               | 0..*           | Deposit information for packaging.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Association                 |                                   | PackagingMaterial            | 0..*           | Details on packaging material for a trade item's packaging.                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Association                 |                                   | ReturnableAsset              | 0..*           | Returnable asset information for a trade item's packaging.                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Association                 |                                   | PackagingDividerInf ormation | 0..*           | Information on the type and placements of dividers used within the packaging.                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Association                 | avpList                           | GS1_AttributeValue PairList  | 0..1           | The transmission of non-standard data done in a simple, flexible, and easy to use method.                                                                                                                                                                                                                                                                                                                                                                                                                                         |

| content   | attribute / role                               | datatype /secondary class             | multi plicit y | definition                                                                                                                                                                                                                                                                                             |
|-----------|------------------------------------------------|---------------------------------------|----------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Attribute | averageDistanceTravelledToPointOfPackagingCode | AverageDistanceToPointOfPackagingCode | 0..1           | The average distance each packaging material travelled from the packaging material supplier to the point where the product and packaging are combined to form the trade item.                                                                                                                          |
| Attribute | doesPackagingHaveWheels                        | NonBinaryLogicEnumeration             | 0..1           | Indicates if packaging has wheels to facilitate its transportation. Wheels can be permanently fixed or could be detachable. This could apply to a number of packaging types such as trays, cages, boxes, etc.                                                                                          |
| Attribute | industrySpecificPackagingTypeCodeReference     | Code                                  | 0..1           | A code describing packaging types specific to an industry for example alcoholic beverages. This attribute is populated using a Local Code List (LCL). Example: Growler a jug type used in the alcohol beer industry.                                                                                   |
| Attribute | isPackagingExemptFromRefuseObligation          | NonBinaryLogicEnumeration             | 0..1           | An indication for the packaging of this item that there exists an exemption from refuse (disposal) obligations.                                                                                                                                                                                        |
| Attribute | isPackagingReturnable                          | NonBinaryLogicEnumeration             | 0..1           | Trade item has returnable packaging. True equals package can be returned. This attribute applies to returnable packaging with or without deposit.                                                                                                                                                      |
| Attribute | isPackagingSuitableForAirShipment              | NonBinaryLogicEnumeration             | 0..1           | Determines whether or not the packaging is suitable for air shipment for passenger or cargo for example has it been air pressure tested.                                                                                                                                                               |
| Attribute | isRadioFrequencyIDOnPackaging                  | boolean                               | 0..1           | Indicates that the packaging of the trade item is tagged with a Radio Frequency ID.                                                                                                                                                                                                                    |
| Attribute | packagingFeatureCode                           | PackagingFeatureCode                  | 0..*           | A packaging feature that facilitates the usage of the product by the consumer. Features do not affect the core composition of the packaging type nor modify its usage.                                                                                                                                 |
| Attribute | packagingFunctionCode                          | PackagingFunctionCode                 | 0..*           | A code that is used to identify specific functionality for packaging resulting from specific processes or features present in the packaging type. These additional functionalities are not dependant on the packaging type and maybe applied to multiple different types.                              |
| Attribute | packagingLevel                                 | nonNegativeInteger                    | 0..1           | Identifies the hierarchical level of the packaging element, i.e. 1,2,3. For example: a bottle in a cardboard box displayed on a shelf. The level 1 hierarchical level is the bottle (plastic or glass), the 2 level would be the box (cardboard), and the 3 level would be the film around the pallet. |
| Attribute | packagingOwnerIdentification                   | GLN                                   | 0..1           | The GLN of the owner of the packaging.                                                                                                                                                                                                                                                                 |
| Attribute | packagingOwnerName                             | string                                | 0..1           | The name of the owner of the packaging.                                                                                                                                                                                                                                                                |

| content   | attribute / role                       | datatype /secondary class             | multi plicit y | definition                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|-----------|----------------------------------------|---------------------------------------|----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Attribute | packagingRecyclingPro<br>cessTypeCode  | PackagingRecycling<br>ProcessTypeCode | 0..*           | The process the packaging could undertake for recyclable & sustainability programs. Examples COMPOSTABLE, ENERGY_RECOVERABLE, REUSABLE.                                                                                                                                                                                                                                                                                                                                                                                                     |
| Attribute | packagingRecyclingSc<br>hemeCode       | PackagingRecycling<br>SchemeCode      | 0..*           | A code determining the recycling scheme the packaging of this trade item will fall within when recycled. Applies to recyclable packaging with or without deposit.                                                                                                                                                                                                                                                                                                                                                                           |
| Attribute | packagingRefundOblig<br>ationName      | string                                | 0..*           | The refund obligation that the packaging of this item is subject to for example the DPG = Deutsche Pfandsystem GmbH which is a refund obligation for one way beverage packaging for beer, sparkling soft drinks and mineral water.                                                                                                                                                                                                                                                                                                          |
| Attribute | packagingRefuseOblig<br>ationName      | string                                | 0..*           | The name of the specific refuse obligation that may apply to packaging or that the packaging may be exempt from for example ARA.                                                                                                                                                                                                                                                                                                                                                                                                            |
| Attribute | packagingShapeCode                     | PackagingShapeCod<br>e                | 0..1           | A code depicting the shape of a package for example cone.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Attribute | packagingSustainabil<br>ityFeatureCode | SustainabilityFeatur<br>eCode         | 0..*           | A feature of the packaging that contributes to sustainability initiatives for example that it is made from renewable materials.                                                                                                                                                                                                                                                                                                                                                                                                             |
| Attribute | packagingTermsAndCo<br>nditionsCode    | PackagingTermsAnd<br>ConditionsCode   | 0..*           | Indicates if the packaging given in the described packaging configuration is a rented, exchangeable, against deposit or one way/not reusable.                                                                                                                                                                                                                                                                                                                                                                                               |
| Attribute | packagingTypeCode                      | PackageTypeCode                       | 0..1           | The dominant means used to transport, store, handle or display the trade item as defined by the data source. This packaging is not used to describe any manufacturing process. Data recipients can use this data for: <ul style="list-style-type: none"> <li>• Space Planning</li> <li>• Data Accuracy (Tolerances)</li> <li>• Supply Chain processes</li> <li>• Recycling process (In combination with packaging materials)</li> <li>• Product buying/procurement decisions</li> <li>• Tax calculations/fees/duties calculation</li> </ul> |
| Attribute | packagingTypeDescrip<br>tion           | Description200                        | 0..*           | A text description of the type of packaging used for the trade item.                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Attribute | packagingWeight                        | Measurement                           | 0..1           | Used to identify the measurement of the packaging weight of the trade item                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |

| content                  | attribute / role                      | datatype /secondary class       | multi plicit y | definition                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|--------------------------|---------------------------------------|---------------------------------|----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Attribute                | platformTermsAndCon ditionsCode       | platformTermsAndC onditionsCode | 0..1           | Indicates if the platform in the prescribed pallet configuration is rented, exchangeable, against deposit or one way (not reusable).                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Attribute                | platformTypeCode                      | PlatformTypeCode                | 0..1           | Indicates whether the described despatch unit is delivered on a pallet/platform and on which type of platform. If the despatch unit is delivered on a platform, the platform type must be given here. The range of the platform types/codes is listed in code sets.                                                                                                                                                                                                                                                                                                                               |
| Attribute                | shippingContainerQua ntityDescription | Description200                  | 0..*           | The quantity of the contents of the shipping container as described on the outside of the shipping container, for example 100 .5 oz envelopes.                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Attribute                | usableProductVolume                   | Measurement                     | 0..1           | The cubic space occupied by the product excluding the packaging. This is measured as the smallest theoretical space the product will fit into. For example: Liquid - a 12 fluid ounce soda has a product volume of 12 fluid ounces or 21.7 cubic inches within the can. Solids by count- a 50ct bottle of tablets (where 1000 tablets requires 1000 cubic centimetre has a product volume of 50 cubic centimetres or 3.1cubic inches, Solids by weight-a 5kg bag of sugar (with a bulk density of .849 g/cubic centimetres has a product volume of 5.889 cubic centimetres or 359.4 cubic inches. |
| Attribute                | shippingContainerQua ntity            | TransactionalMeasur ement       | 0..*           | The quantity of units contained in a shipping container for example 75 cases (75 CA).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| CompositeMateri alDetail |                                       |                                 |                | Details on the materials that make up a composite material.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Attribute                | packagingMaterialTyp eCode            | PackagingMaterialTy peCode      | 1..1           | <p>The materials used for the packaging of the trade item for example glass or plastic.</p> <p>This material information can be used by data recipients for:</p> <ul style="list-style-type: none"> <li>o Tax calculations/fees/duties calculation</li> <li>o Carbon footprint calculations/estimations (resource optimisation)</li> <li>o to determine the material used.</li> </ul>                                                                                                                                                                                                             |
| Attribute                | packagingMaterialCom positionQuantity | Measurement                     | 0..*           | The quantity of the packaging material of the trade item. Can be weight, volume or surface, can vary by country.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |

| content               | attribute / role                                     | datatype /secondary class               | multi plicit y | definition                                                                                                                                                                                                                                                                                                                                                              |
|-----------------------|------------------------------------------------------|-----------------------------------------|----------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Attribute             | packagingMaterialThic<br>kness                       | Measurement                             | 0..1           | The thickness of a packaging material.                                                                                                                                                                                                                                                                                                                                  |
| Attribute             | packagingMaterialClas<br>sificationCodeReferenc<br>e | Code                                    | 0..1           | Identifies the packing material classification used in each packaging component. It is assumed that a packaging material classification would be a broader material grouping that other packaging materials would fit under as classified by a specific agency. This attribute is populated by local code lists.                                                        |
| Attribute             | packagingMaterialColo<br>urCodeReference             | Code                                    | 0..1           | Identifies the packaging material colour. This attribute is populated by local code lists.                                                                                                                                                                                                                                                                              |
| PackagingMateri<br>al |                                                      |                                         |                | Information on any material used for packaging.                                                                                                                                                                                                                                                                                                                         |
| Association           |                                                      | CompositeMaterialD<br>etail             | 0..*           | Details on the materials that make up a composite material.                                                                                                                                                                                                                                                                                                             |
| Attribute             | packagingMaterialTyp<br>eCode                        | PackagingMaterialTy<br>peCode           | 1..1           | The materials used for the packaging of the trade item for example glass or plastic. This material information can be used by data recipients for: <ul style="list-style-type: none"> <li>o Tax calculations/fees/duties calculation</li> <li>o Carbon footprint calculations/estimations (resource optimisation)</li> <li>o to determine the material used.</li> </ul> |
| Attribute             | isPackagingMaterialRe<br>coverable                   | NonBinaryLogicEnu<br>meration           | 0..1           | Determines whether packaging material is recoverable. Recoverable materials are those which are capable of being reused or returned to use in the form of raw materials                                                                                                                                                                                                 |
| Attribute             | isPrimaryMaterial                                    | NonBinaryLogicEnu<br>meration           | 0..1           | Specifies the primary or majority material in a composite material used for packaging.                                                                                                                                                                                                                                                                                  |
| Attribute             | packagingMaterialAppl<br>iedProcessCode              | PackagingMaterialA<br>ppliedProcessCode | 0..*           | The processes applied to the material or used in the manufacturing of the material to modify/enhance its properties.                                                                                                                                                                                                                                                    |
| Attribute             | packagingCompositeM<br>aterialDescription            | Description70                           | 0..*           | A description of any composite material used in packaging. A composite material is a combination of different material.                                                                                                                                                                                                                                                 |
| Attribute             | packagingMaterialCoat<br>ingTypeDescription          | Description70                           | 0..*           | Specifies any coating material that is applied to the packaging material.                                                                                                                                                                                                                                                                                               |
| Attribute             | packagingMaterialCom<br>positionQuantity             | Measurement                             | 0..*           | The quantity of the packaging material of the trade item. Can be weight, volume or surface, can vary by country.                                                                                                                                                                                                                                                        |

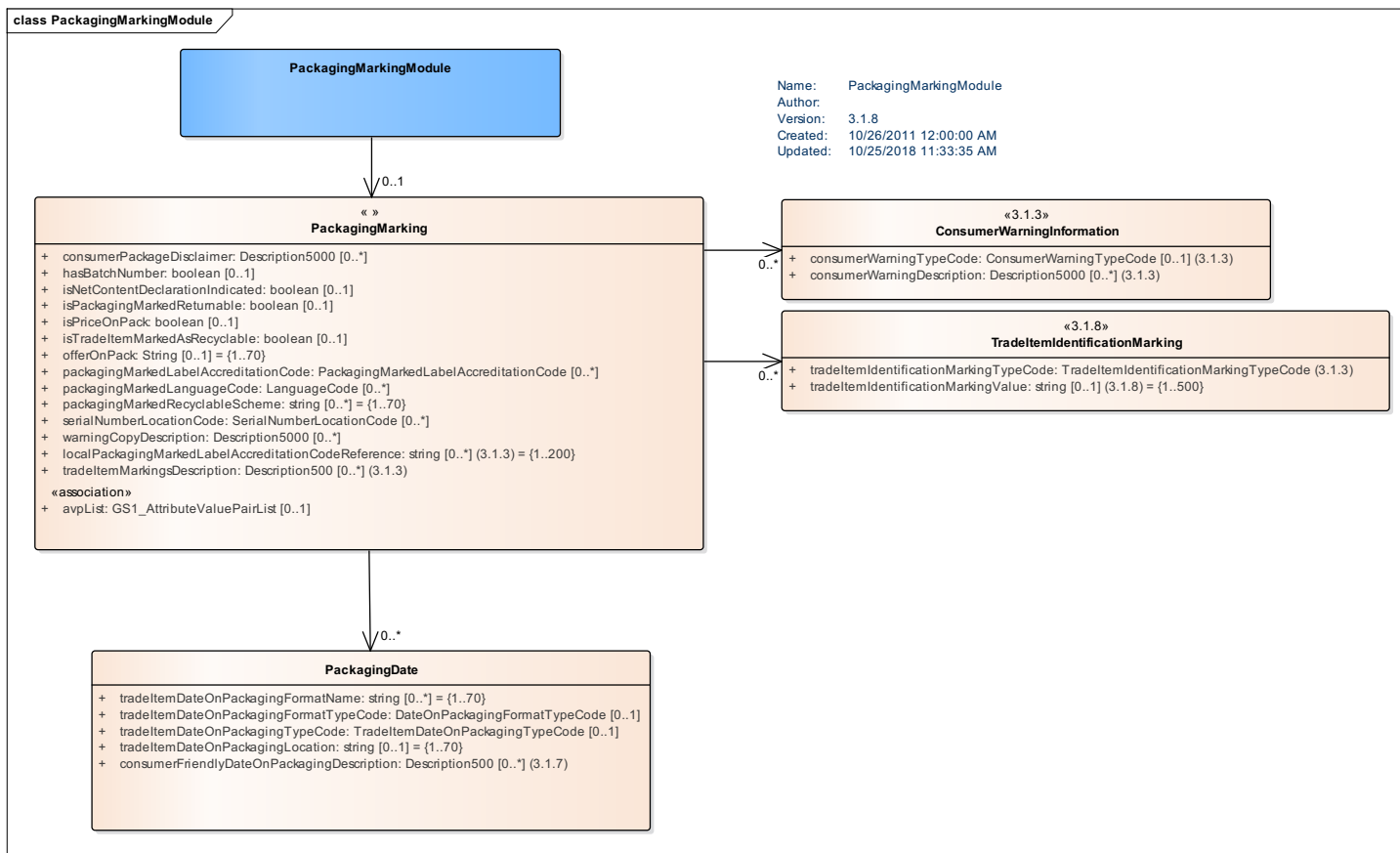
| content        | attribute / role                             | datatype /secondary class        | multi plicit y | definition                                                                                                                                                                                                                                                                                                       |
|----------------|----------------------------------------------|----------------------------------|----------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Attribute      | packagingMaterialLaunchDateTime              | dateTime                         | 0..1           | The first date that a change in packaging material has occurred. This change does not result in a new GTIN at any level of the item hierarchy, such as, an increase or decrease in packaging material and is delivered to the retailer.                                                                          |
| Attribute      | packagingMaterialPerformanceCode             | PackagingMaterialPerformanceCode | 0..1           | A status of packaging performance based on testing to minimize damage to Trade Items for example 3 (improved packaging performance).                                                                                                                                                                             |
| Attribute      | packagingMaterialThickness                   | Measurement                      | 0..1           | The thickness of a packaging material.                                                                                                                                                                                                                                                                           |
| Attribute      | packagingMaterialClassificationCodeReference | Code                             | 0..1           | Identifies the packing material classification used in each packaging component. It is assumed that a packaging material classification would be a broader material grouping that other packaging materials would fit under as classified by a specific agency. This attribute is populated by local code lists. |
| Attribute      | packagingMaterialColourCodeReference         | Code                             | 0..1           | Identifies the packaging material colour. This attribute is populated by local code lists.                                                                                                                                                                                                                       |
| PackageDeposit |                                              |                                  |                | Deposit information for a package.                                                                                                                                                                                                                                                                               |
| Association    | returnablePackageDepositRegion               | TargetMarket                     | 0..*           | The geographic region associated with the returnable package deposit amount.                                                                                                                                                                                                                                     |
| Attribute      | depositValueEffectiveDateTime                | dateTime                         | 0..1           | First date that the deposit value is valid for the deposit code.                                                                                                                                                                                                                                                 |
| Attribute      | depositValueEndDateTime                      | dateTime                         | 0..1           | Last date that the deposit value in the currency is valid for the deposit code.                                                                                                                                                                                                                                  |
| Attribute      | returnablePackageDepositAmount               | Amount                           | 0..1           | The monetary amount for the individual returnable package.                                                                                                                                                                                                                                                       |
| Attribute      | returnablePackageDepositIdentification       | Identifier                       | 0..1           | In some markets the deposit information is specified by a GTIN giving the type of returnable package on which a deposit is charged. Each deposit code is associated with an amount specified elsewhere. The enumeration list is maintained externally.                                                           |
| attribute      | packagingRefundObligationName                | string                           | 0..*           | The refund obligation that the packaging of this item is subject to for example the DPG = Deutsche Pfandsystem GmbH which is a refund obligation for one way beverage packaging for beer, sparkling soft drinks and mineral water.                                                                               |

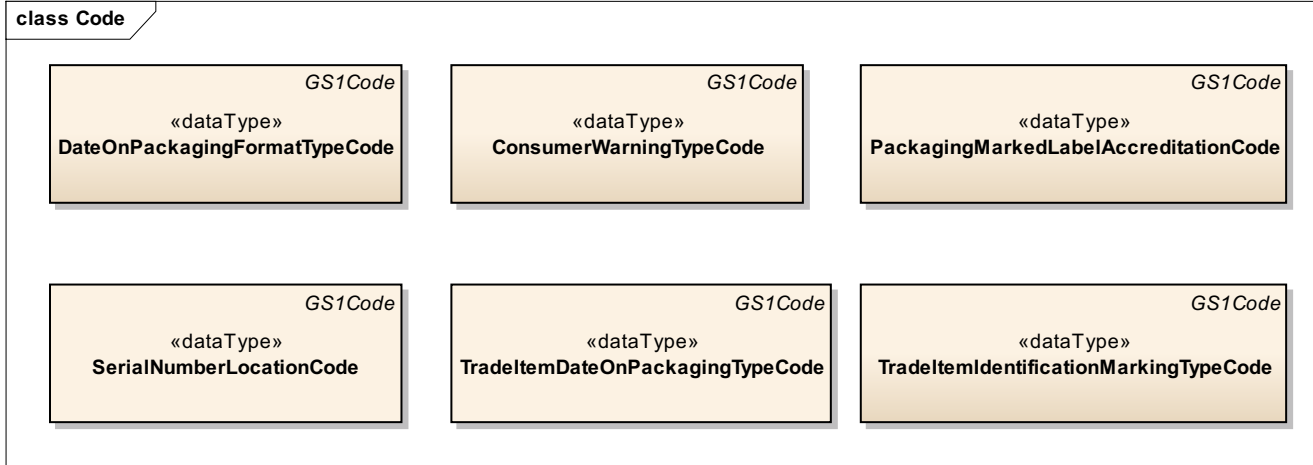


| content                      | attribute / role              | datatype /secondary class | multi plicit y | definition                                                                                                                                                                                                                                                                                                           |
|------------------------------|-------------------------------|---------------------------|----------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| PackagingDivider Information |                               |                           |                | Information on the type and placements of dividers used within the packaging.                                                                                                                                                                                                                                        |
| attribute                    | numberOfDividersHorizontal    | nonNegativeInteger        | 0..1           | Specifies the number of internal dividers that separate one layer from another in a trade item (applies to any level with multiple children (pack/case/pallet). For example, 2 means there is a total of two horizontal dividers in the configuration.                                                               |
| attribute                    | numberOfDividersVertical      | nonNegativeInteger        | 0..1           | Specifies the number of vertical internal dividers that separate trade items within a layer in the internal configuration (applies to any level with multiple children: pack/case/pallet).                                                                                                                           |
| attribute                    | placementOfDivider            | nonNegativeInteger        | 0..*           | Indicates layer number that the dividers are found. Layer dividers are always counted starting at the uppermost layer (top to bottom) or leftmost divider (Left to right). For example "3", "5" would mean that the 2 dividers are located on the 3rd and 5th layer counting always from the top to bottom.          |
| PackagingDimension           |                               |                           |                | Details on the dimensions of a packaging.                                                                                                                                                                                                                                                                            |
| Attribute                    | packagingDepth                | Measurement               | 0..1           | The depth of the packaging as measured according to the GDSN Package Measurement Rules. If the packaging dimensions is for a platform or pallet, the measurements for the platform itself are provided based on the orientation and tolerances for non-consumer trade items in the GDSN Package Measurements Rules.  |
| Attribute                    | packagingHeight               | Measurement               | 0..1           | The height of the packaging as measured according to the GDSN Package Measurement Rules. If the packaging dimensions is for a platform or pallet, the measurements for the platform itself are provided based on the orientation and tolerances for non-consumer trade items in the GDSN Package Measurements Rules. |
| Attribute                    | packagingWidth                | Measurement               | 0..1           | The width of the packaging as measured according to the GDSN Package Measurement Rules. If the packaging dimensions is for a platform or pallet, the measurements for the platform itself are provided based on the orientation and tolerances for non-consumer trade items in the GDSN Package Measurements Rules.  |
| ReturnableAsset              |                               |                           |                | Returnable asset information for a package.                                                                                                                                                                                                                                                                          |
| Association                  | returnableAssetPackageDeposit | PackageDeposit            | 0..*           | Package deposit information for a package.                                                                                                                                                                                                                                                                           |

| content   | attribute / role                          | datatype /secondary class                | multi plicit y | definition                                                                                                                                                                                                     |
|-----------|-------------------------------------------|------------------------------------------|----------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Attribute | alternativeReturnable AssetIdentification | AdditionalReturnabl eAssetIdentification | 0..*           | An additional returnable asset identification type. Allowed code values are specified in GS1 Code List AdditionalReturnableAssetIdentificationTypeCode.                                                        |
| Attribute | grai                                      | GRAI                                     | 0..1           | The GS1 Identification Key used to identify Returnable Assets. The key comprises a GS1 Company Prefix, Asset Type, Check Digit, and optional serial number.                                                    |
| Attribute | isReturnableAssetEmp ty                   | NonBinaryLogicEnu meration               | 0..1           | Determines whether the returnable asset is empty.                                                                                                                                                              |
| Attribute | returnableAssetCapaci tyContent           | Measurement                              | 0..*           | A measurement of the potential capacity of a returnable asset for example how many bottles can fit into a crate. This is not the content for the full packaging but rather how much the packaging can contain. |
| Attribute | returnableAssetsConta inedQuantity        | Quantity                                 | 0..*           | The number of returnable assets contained that are allocated to the full returnable item identified by the GTIN of the returnable asset. An example would be 6 bottles of beer in a six pack (Trade Item).     |
| Attribute | returnableAssetOwner Id                   | GLN                                      | 0..1           | The GLN of the owner of a returnable asset.                                                                                                                                                                    |
| Attribute | returnableAssetOwner Name                 | string                                   | 0..1           | The name of the owner of a returnable asset.                                                                                                                                                                   |

## 5.42 Packaging Marking Module





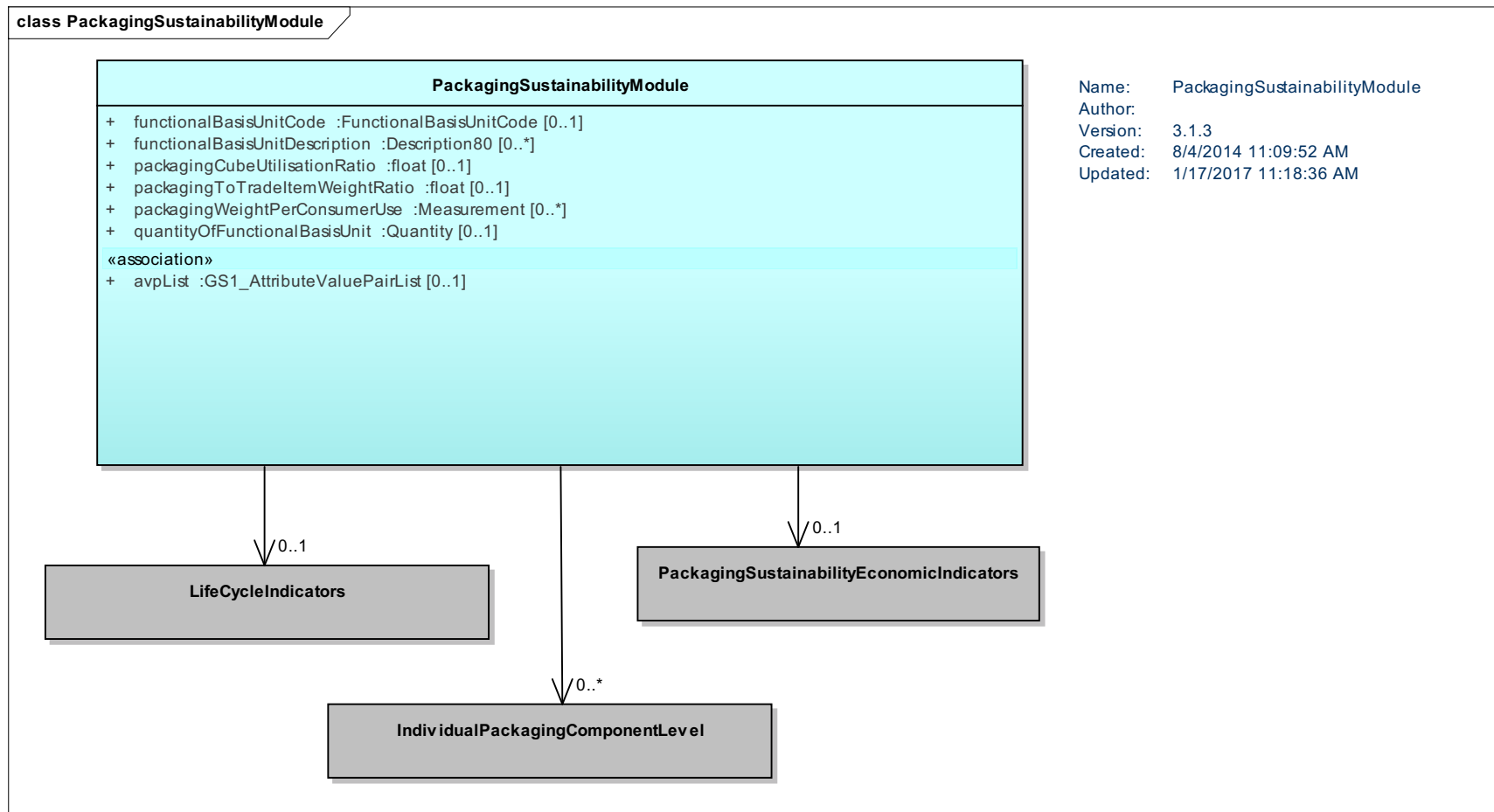
| content                    | attribute / role                           | datatype /secondary class     | multiplicity | definition                                                                                                                                                                                                               |
|----------------------------|--------------------------------------------|-------------------------------|--------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ConsumerWarningInformation |                                            |                               |              | Information on specific warnings for consumers for example maximum weight.                                                                                                                                               |
| Attribute                  | consumerWarningTypeCode                    | ConsumerWarningTypeCode       | 0..1         | Indicate if the warning information given in the consumer warning description concerns a specific distinctive feature/ability of the user as age (e.g. Minimum Age 3 years) or weight (e.g. Maximum Weight 20 Kilogram). |
| Attribute                  | consumerWarningDescription                 | Description5000               | 0..*         | A description associated with a specific warning type for example if the consumerWarningTypeCode is AGE, the consumerWarningDescription would be "For ages 15 and over".                                                 |
| PackagingDate              |                                            |                               |              | Details on date markings on the packaging of the trade item.                                                                                                                                                             |
| Attribute                  | consumerFriendlyDateOnPackagingDescription | Description500                | 0..*         | The exact textual type of date on the packaging. Examples: Used By, Freeze By, Exp Date, Best Before, etc.                                                                                                               |
| Attribute                  | tradeItemDateOnPackagingFormatName         | string                        | 0..*         | The format that the date is printed on the package for example YYYY: year, YY: year in century, MM: month number, MMM: month short name, DD: day of month, D: day of week (Monday=1), ' ': space and hyphen.             |
| Attribute                  | tradeItemDateOnPackagingFormatTypeCode     | DateOnPackagingFormatTypeCode | 0..1         | A category of date formats for example calendar or ordinal date.                                                                                                                                                         |

| content                | attribute / role                 | datatype /secondary class        | multiplicity | definition                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|------------------------|----------------------------------|----------------------------------|--------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Attribute              | tradeItemDateOnPackagingTypeCode | TradeItemDateOnPackagingTypeCode | 0..1         | Indicates the type of date marked on the packaging for example Best Before Date.                                                                                                                                                                                                                                                                                                                                                                     |
| Attribute              | tradeItemDateOnPackagingLocation | string                           | 0..1         | Free text detailing the location of the date marking on the packaging.                                                                                                                                                                                                                                                                                                                                                                               |
| PackagingMarkingModule |                                  |                                  |              | A module containing details on markings on the packaging of the trade item for example dates, environment.                                                                                                                                                                                                                                                                                                                                           |
| Association            |                                  | PackagingMarking                 | 0..1         | Details on markings on the packaging of the trade item for example dates, environment.                                                                                                                                                                                                                                                                                                                                                               |
| PackagingMarking       |                                  |                                  |              | Details on markings on the packaging of the trade item for example dates, environment.                                                                                                                                                                                                                                                                                                                                                               |
| Association            |                                  | PackagingDate                    | 0..*         | Details on date markings on the packaging of the trade item.                                                                                                                                                                                                                                                                                                                                                                                         |
| Association            |                                  | ConsumerWarningInformation       | 0..*         | Information on specific warnings for consumers for example maximum weight.                                                                                                                                                                                                                                                                                                                                                                           |
| Association            |                                  | TradeItemIdentificationMarking   | 0..*         | The specific identification the item and/or its packaging is marked with.                                                                                                                                                                                                                                                                                                                                                                            |
| Association            | avpList                          | GS1_AttributeValuePairList       | 0..1         | The transmission of non-standard data done in a simple, flexible, and easy to use method.                                                                                                                                                                                                                                                                                                                                                            |
| Attribute              | consumerPackageDisclaimer        | Description5000                  | 0..*         | Additional information that should be used in advertising and in displaying.                                                                                                                                                                                                                                                                                                                                                                         |
| Attribute              | hasBatchNumber                   | boolean                          | 0..1         | Indication whether the base trade item is batch or lot number requested by law, not batch or lot number requested by law but batch or lot number allocated, or not batch or lot number allocated. A batch or lot number is a manufacturer assigned code used to identify a trade item's trade item on batch or lot. Differs from Serial Number which is a manufacturer assigned code during the trade item on cycle to identify a unique trade item. |
| Attribute              | isNetContentDeclarationIndicated | boolean                          | 0..1         | This field is used to facilitate local business rules where a declaration of a trade item's net content is not on the product label e.g.UK under 50g.legislation.                                                                                                                                                                                                                                                                                    |

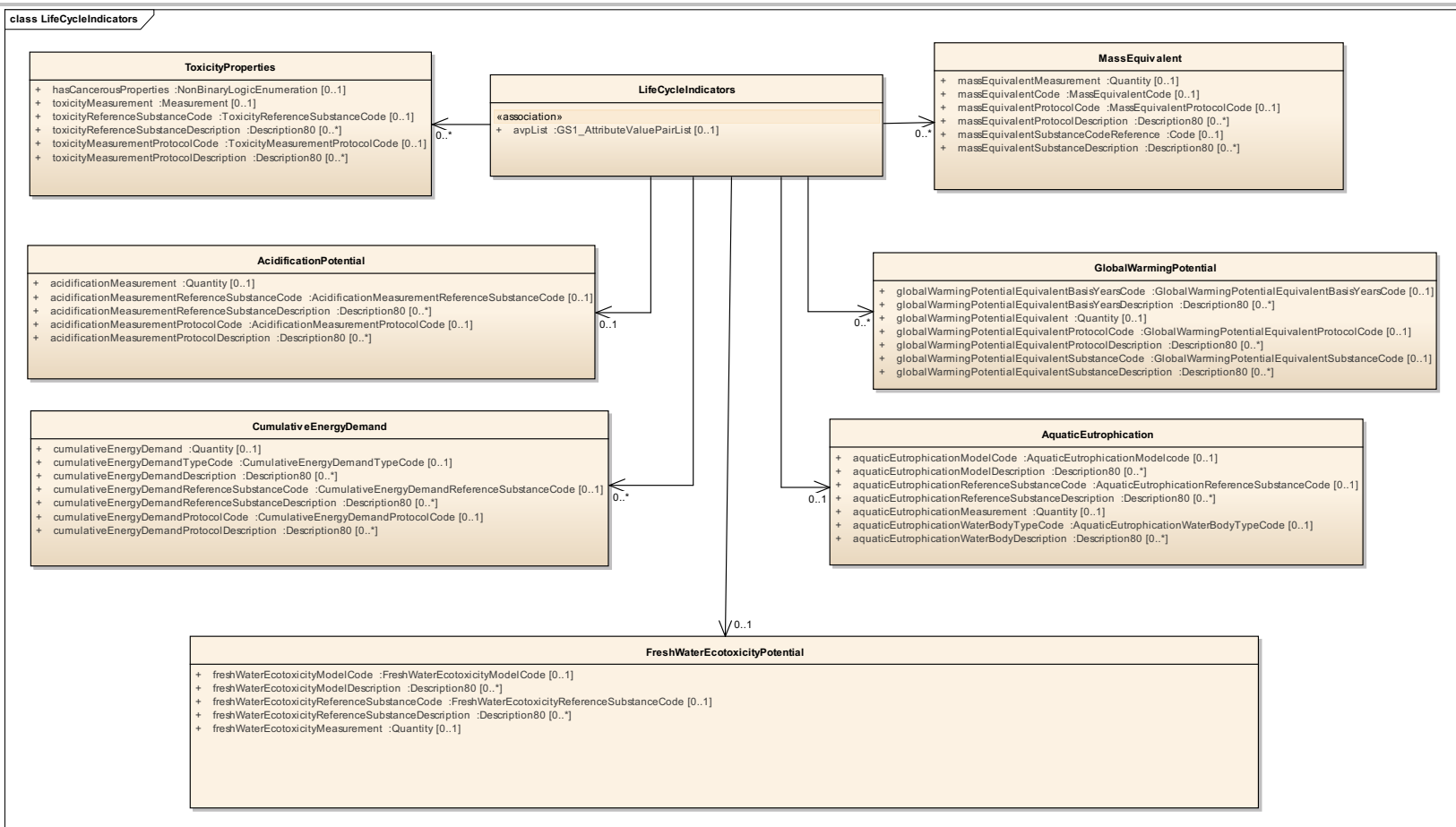
| content   | attribute / role                                    | datatype /secondary class             | multiplicity | definition                                                                                                                                                                                                                                                                                          |
|-----------|-----------------------------------------------------|---------------------------------------|--------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Attribute | isPackagingMarkedReturnable                         | boolean                               | 0..1         | Trade item has returnable packaging. This is a yes/no (Boolean) where yes equals package can be returned. Attribute applies to returnable packaging with or without deposit.                                                                                                                        |
| Attribute | isPriceOnPack                                       | boolean                               | 0..1         | Indication of whether there is a retail price physically on or attached to the trade item packaging of the trade item by the manufacturer or information provider.                                                                                                                                  |
| Attribute | isTradeItemMarkedAsRecyclable                       | boolean                               | 0..1         | Trade item has a recyclable indication marked on it. This may be a symbol from one of many regional agencies.                                                                                                                                                                                       |
| Attribute | offerOnPack                                         | string                                | 0..1         | Contains details of any on pack product offer (consumer or traded).                                                                                                                                                                                                                                 |
| Attribute | packagingMarkedLabelAccreditationCode               | PackagingMarkedLabelAccreditationCode | 0..*         | A marking that the trade item received recognition, endorsement, certification by following guidelines by the label issuing agency. This does not represent claims for regulatory purposes on products such as free from markings.                                                                  |
| Attribute | packagingMarkedLanguageCode                         | LanguageCode                          | 0..*         | The language in which text on the packaging is stated.                                                                                                                                                                                                                                              |
| Attribute | packagingMarkedRecyclableScheme                     | string                                | 0..*         | The package of this GTIN is marked to indicate under which scheme it is recyclable. Applies to recyclable packaging with or without deposit. Examples: Aluminium can be marked as recyclable.                                                                                                       |
| Attribute | serialNumberLocationCode                            | SerialNumberLocationCode              | 0..*         | The location on the item or packaging of a serial number. A serial number is a code, numeric or alphanumeric, assigned to an individual instance of an entity for its lifetime for example a Microscope model AC-2 with serial number 1234568 and microscope model AC-2 with serial number 1234569. |
| Attribute | warningCopyDescription                              | Description5000                       | 0..*         | Warning information is additional information that outlines special requirements, warning and caution information printed on the package.                                                                                                                                                           |
| Attribute | localPackagingMarkedLabelAccreditationCodeReference | string                                | 0..*         | Used for markings on package that are locally managed and are not regulatory in nature. Use local code lists to populate this attribute.                                                                                                                                                            |

| content                        | attribute / role                       | datatype /secondary class              | multiplicity | definition                                                                                                                                                                                                        |
|--------------------------------|----------------------------------------|----------------------------------------|--------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Attribute                      | tradeItemMarkingsDescription           | Description500                         | 0..*         | Describes the distinctive direct marking(s) or imprints on a trade item and the location of the markings as described by the manufacturer for example a company logo on front, value with UOM on back and scored. |
| TradeItemIdentificationMarking |                                        |                                        |              | The specific identification the item and/or its packaging is marked with.                                                                                                                                         |
| Attribute                      | tradeItemIdentificationMarkingTypeCode | TradeItemIdentificationMarkingTypeCode | 1..1         | A code determining whether the item and/or its packaging is marked with a specific identification.                                                                                                                |
| Attribute                      | tradeItemIdentificationMarkingValue    | string                                 | 0..1         | The specific identification the item and/or its packaging is marked with.                                                                                                                                         |

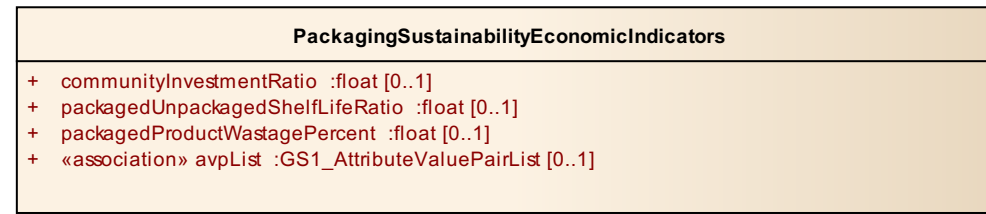
## 5.43 Packaging Sustainability Module



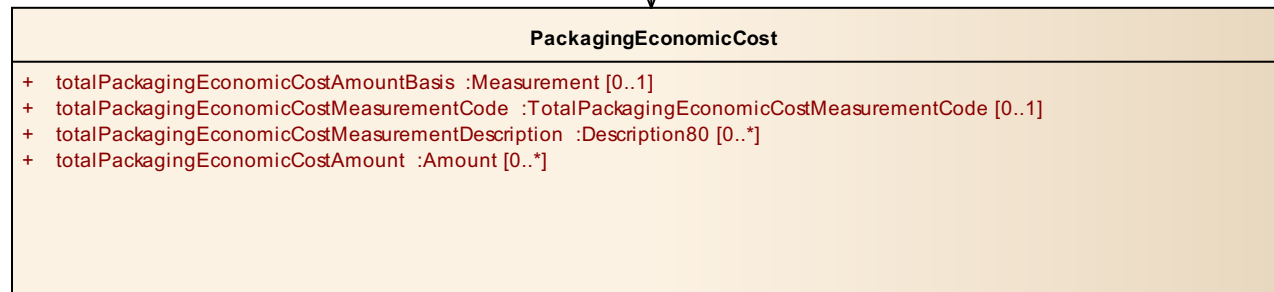


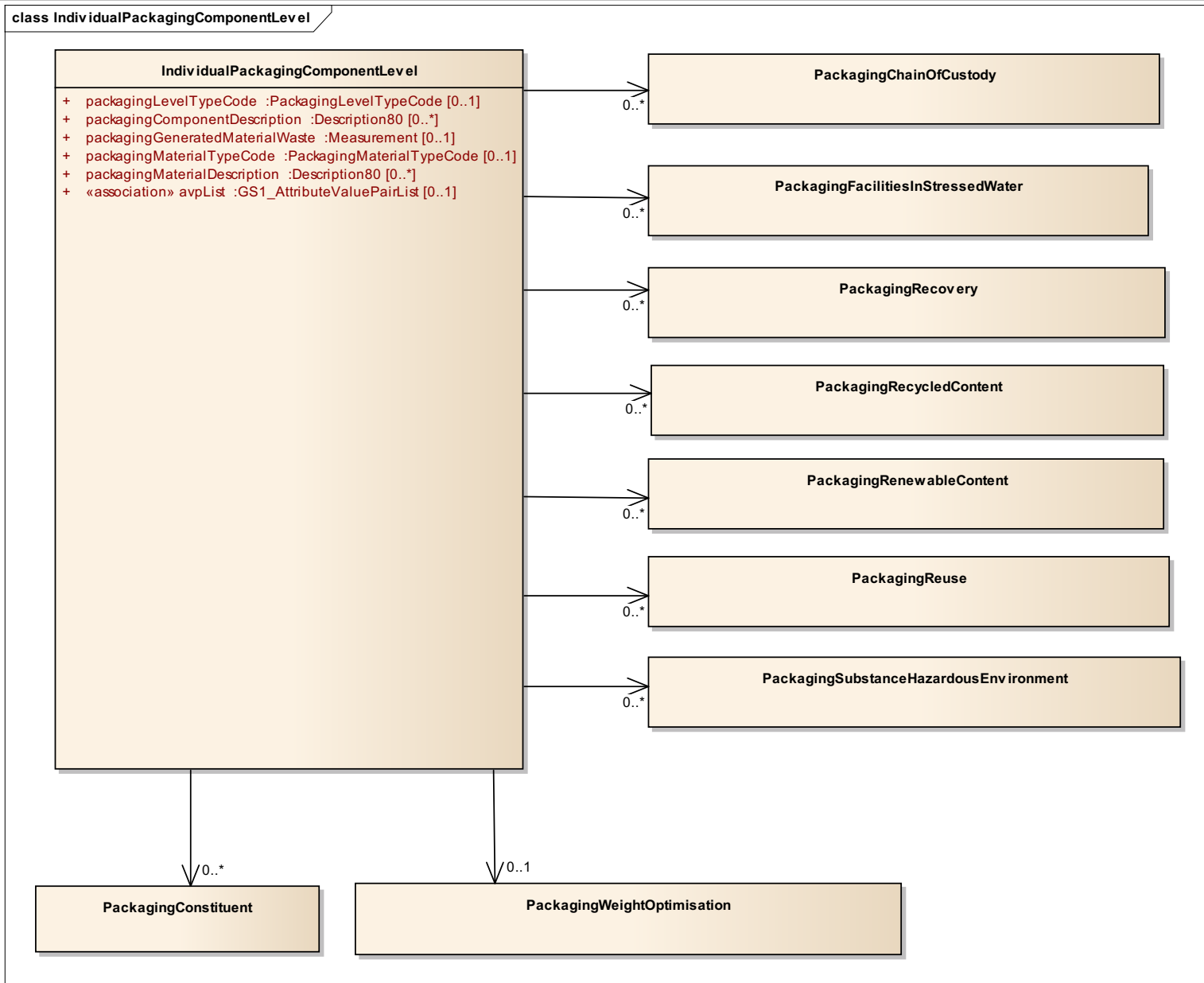


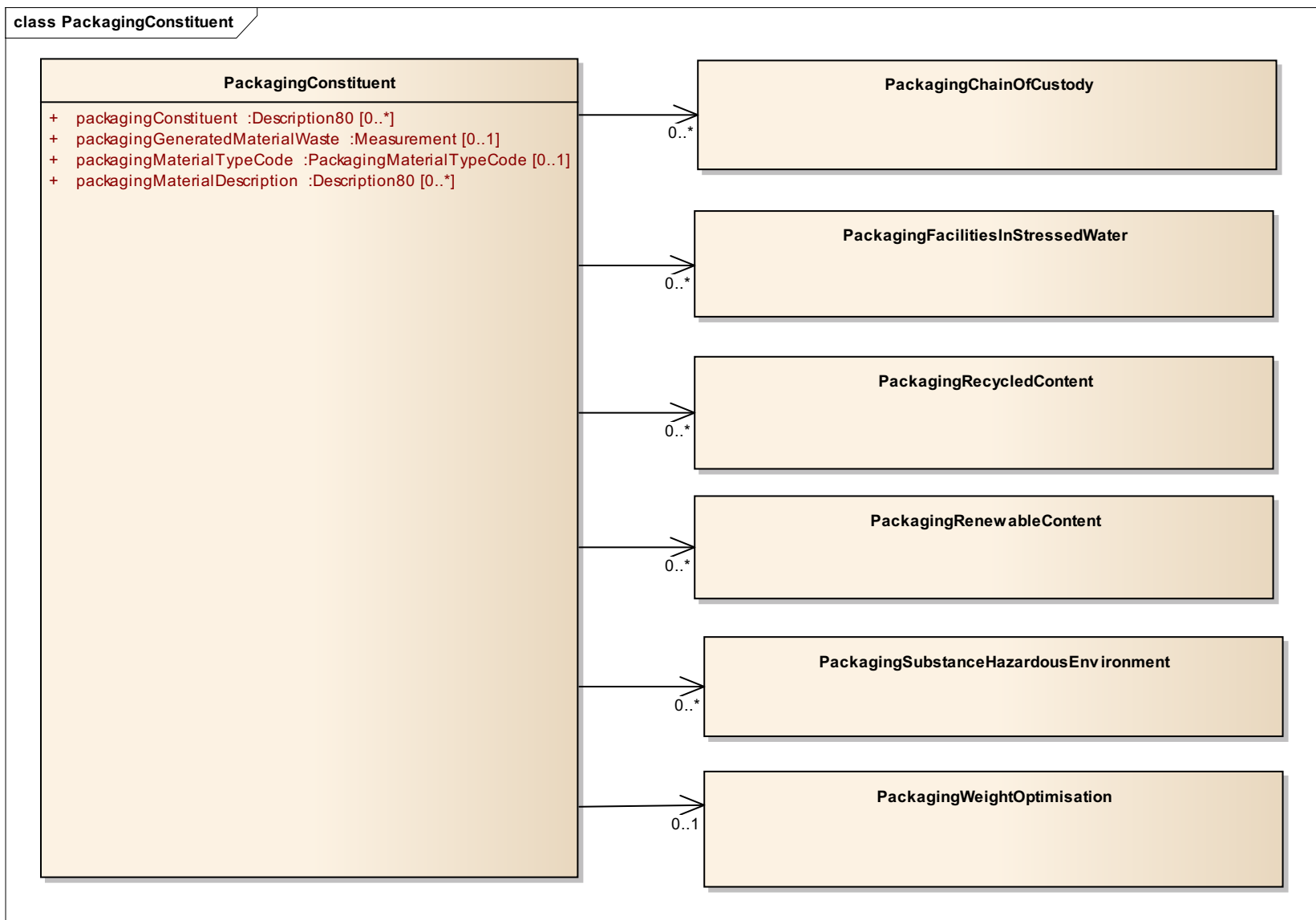
class PackagingSustainabilityEconomicIndicators



0..\*







## class Packaging\_Sustainability\_Module\_Classes

**PackagingChainOfCustody**

- + packagingChainOfCustodyEventSequenceNumber :nonNegativeInteger [0..1]
- + packagingChainOfCustodySourceCertifiedCode :PackagingChainOfCustodySourceCertifiedCode [0..1]
- + sourceCertificationSystemProtocolCode :SourceCertificationSystemProtocolCode [0..1]
- + sourceCertificationSystemProtocolDescription :Description80 [0..\*]

**PackagingFacilitiesInStressedWater**

- + facilitiesInStressedWaterAreaPercent :float [0..1]
- + facilitiesInStressedWaterAreaCalculationMethod :Description200 [0..\*]
- + numberOfFacilitiesInStressedWaterArea :nonNegativeInteger [0..1]

**PackagingRecovery**

- + doesPackagingRecoveryRateTypeCodeMeetTheStandard :NonBinaryLogicEnumeration [0..1]
- + packagingRecoveryRate :float [0..1]
- + packagingRecoveryRateDescription :Description80 [0..\*]
- + packagingRecoveryRateTypeCode :PackagingRecoveryRateTypeCode [0..1]
- + totalPackagingRecoveryRate :float [0..1]

**PackagingRecycledContent**

- + packagingRecycledContentRatio :float [0..1]
- + packagingRecycledContentTypeCode :PackagingRecycledContentTypeCode [0..1]
- + packagingRecycledContentDescription :Description80 [0..\*]

**PackagingRenewableContent**

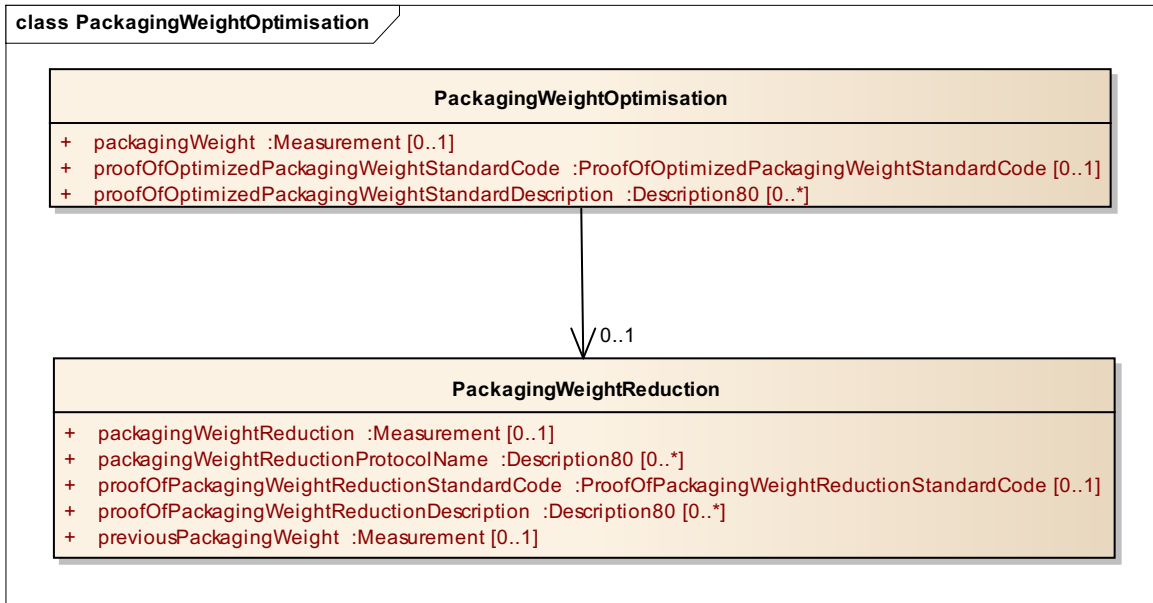
- + packagingRenewableContentRatio :float [0..1]
- + packagingRenewableContentTypeCode :PackagingRenewableContentTypeCode [0..1]
- + packagingRenewableContentDescription :Description80 [0..\*]

**PackagingReuse**

- + numberOfCyclesPriorToWithdrawal :nonNegativeInteger [0..1]
- + packagingReuseRate :float [0..1]
- + packagingReusabilityStandardCode :PackagingReusabilityStandardCode [0..1]
- + packagingReusabilityStandardDescription :Description80 [0..\*]

**PackagingSubstanceHazardousEnvironment**

- + haveYouMinimizedHazardousSubstance :NonBinaryLogicEnumeration [0..1]
- + hazardousSubstancesMinimizationCode :HazardousSubstancesMinimizationCode [0..1]
- + relevantSupportingSubstanceHazardousDocumentation :Description200 [0..\*]



| class Code                                                   |                                                               |                                                             |                                                             |  |
|--------------------------------------------------------------|---------------------------------------------------------------|-------------------------------------------------------------|-------------------------------------------------------------|--|
| «data Type»<br>AcidificationMeasurementProtocolCode          | «data Type»<br>AcidificationMeasurementReferenceSubstanceCode | «data Type»<br>AquaticEutrophicationModelCode               | «data Type»<br>AquaticEutrophicationReferenceSubstanceCode  |  |
| «data Type»<br>AquaticEutrophicationWaterBodyTypeCode        | «data Type»<br>CumulativeEnergyDemandProtocolCode             | «data Type»<br>CumulativeEnergyDemandReferenceSubstanceCode | «data Type»<br>CumulativeEnergyDemandTypeCode               |  |
| «data Type»<br>FreshWaterEcotoxicityModelCode                | «data Type»<br>FreshWaterEcotoxicityReferenceSubstanceCode    | «data Type»<br>FunctionalBasisUnitCode                      | «data Type»<br>GlobalWarmingPotentialEquivalentProtocolCode |  |
| «data Type»<br>GlobalWarmingPotentialEquivalentSubstanceCode | «data Type»<br>GlobalWarmingPotentialEquivalentBasisYearsCode | «data Type»<br>HazardousSubstancesMinimizationCode          | «data Type»<br>MassEquivalentCode                           |  |
| «data Type»<br>MassEquivalentProtocolCode                    | «data Type»<br>PackagingChainOfCustodySourceCertifiedCode     | «data Type»<br>PackagingLevelTypeCode                       |                                                             |  |
| «data Type»<br>PackagingRecoveryRateTypeCode                 | «data Type»<br>PackagingRecycledContentTypeCode               | «data Type»<br>PackagingRenewableContentTypeCode            | «data Type»<br>PackagingReusabilityStandardCode             |  |
| «data Type»<br>ProofOfOptimizedPackagingWeightStandardCode   | «data Type»<br>ProofOfPackagingWeightReductionStandardCode    | «data Type»<br>SourceCertificationSystemProtocolCode        | «data Type»<br>TotalPackagingEconomicCostMeasurementCode    |  |
| «data Type»<br>ToxicityMeasurementProtocolCode               | «data Type»<br>ToxicityReferenceSubstanceCode                 |                                                             |                                                             |  |

| content                | attribute / role                                      | datatype /secondary class                      | multiplicity | definition                                                                                                                                                                                                                                                                                                        |
|------------------------|-------------------------------------------------------|------------------------------------------------|--------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| AcidificationPotential |                                                       |                                                |              | Acidification Potential is the potential of a chemical emission to acidify ecosystems. Emissions of acidifying substances strongly depend on industrial practice and environmental legislation.                                                                                                                   |
| attribute              | acidificationMeasurement                              | Quantity                                       | 0..1         | The measurement of acidification potential.                                                                                                                                                                                                                                                                       |
| attribute              | acidificationMeasurementReferenceSubstanceCode        | AcidificationMeasurementReferenceSubstanceCode | 0..1         | The reference substance used to represent the potential to acidify ecosystems.                                                                                                                                                                                                                                    |
| attribute              | acidificationMeasurementReferenceSubstanceDescription | Description 80                                 | 0..*         | The reference substance description used to represent the potential to acidify ecosystems.                                                                                                                                                                                                                        |
| attribute              | acidificationMeasurementProtocolCode                  | AcidificationMeasurementProtocolCode           | 0..1         | The reference protocol used to represent the potential to acidify ecosystems.                                                                                                                                                                                                                                     |
| attribute              | acidificationMeasurementProtocolDescription           | Description 80                                 | 0..*         | The reference protocol description used to represent the potential to acidify ecosystems.                                                                                                                                                                                                                         |
| AquaticEutrophication  |                                                       |                                                |              | Aquatic Eutrophication occurs when excessive amounts of nutrients reach freshwater systems or oceans. Algae bloom may result and fish may disappear. Whereas phosphorous is mainly responsible for eutrophication in freshwater systems, nitrogen is mainly responsible for eutrophication in ocean water bodies. |
| attribute              | aquaticEutrophicationModelCode                        | AquaticEutrophicationModelCode                 | 0..1         | The model determining the degree of aquatic eutrophication                                                                                                                                                                                                                                                        |
| attribute              | aquaticEutrophicationModelDescription                 | Description 80                                 | 0..*         | The model description determining the degree of aquatic eutrophication                                                                                                                                                                                                                                            |
| attribute              | aquaticEutrophicationReferenceSubstanceCode           | AquaticEutrophicationReferenceSubstanceCode    | 0..1         | The reference substance used to represent aquatic eutrophication potential.                                                                                                                                                                                                                                       |
| attribute              | aquaticEutrophicationReferenceSubstanceDescription    | Description 80                                 | 0..*         | The reference substance used to represent aquatic eutrophication potential.                                                                                                                                                                                                                                       |
| attribute              | aquaticEutrophicationMeasurement                      | Quantity                                       | 0..1         | The measurement of Aquatic Eutrophication per functional unit.                                                                                                                                                                                                                                                    |
| attribute              | aquaticEutrophicationWaterBodyTypeCode                | AquaticEutrophicationWaterBodyTypeCode         | 0..1         | The type of water body that aquatic eutrophication is being measured for.                                                                                                                                                                                                                                         |



| content                        | attribute / role                                    | datatype /secondary class                         | multiplicity | definition                                                                                                                                          |
|--------------------------------|-----------------------------------------------------|---------------------------------------------------|--------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|
| attribute                      | aquaticEutrophicationWaterBodyDescription           | Description 80                                    | 0..*         | The description of water body that aquatic eutrophication is being measured for.                                                                    |
| CumulativeEnergyDemand         |                                                     |                                                   |              | Provides the cumulative energy demand information details.                                                                                          |
| attribute                      | cumulativeEnergyDemand                              | Quantity                                          | 0..1         | CED is a statement of the entire energy demand for a given product or service composed by a renewable part (CEDR) and a non-renewable part (CEDNR). |
| attribute                      | cumulativeEnergyDemandTypeCode                      | Cumulative EnergyDemand andTypeCode               | 0..1         | The type of cumulative energy demand that is being measured for.                                                                                    |
| attribute                      | cumulativeEnergyDemandDescription                   | Description 80                                    | 0..*         | The description of cumulative energy demand that is being measured for.                                                                             |
| attribute                      | cumulativeEnergyDemandReferenceSubstanceCode        | Cumulative EnergyDemand andReferenceSubstanceCode | 0..1         | The reference substance used to represent cumulative energy demand.                                                                                 |
| attribute                      | cumulativeEnergyDemandReferenceSubstanceDescription | Description 80                                    | 0..*         | The reference substance description used to represent cumulative energy demand.                                                                     |
| attribute                      | cumulativeEnergyDemandProtocolCode                  | Cumulative EnergyDemand andProtocolCode           | 0..1         | The reference protocol used to represent the potential to cumulative energy demand.                                                                 |
| attribute                      | cumulativeEnergyDemandProtocolDescription           | Description 80                                    | 0..*         | The reference protocol description used to represent the potential to cumulative energy demand.                                                     |
| FreshWaterEcotoxicityPotential |                                                     |                                                   |              | Provides the freshwater ecotoxicity potential information.                                                                                          |
| attribute                      | freshWaterEcotoxicityModelCode                      | FreshWater Ecotoxicity ModelCode                  | 0..1         | The model used to determine freshwater ecotoxicity.                                                                                                 |
| attribute                      | freshWaterEcotoxicityModelDescription               | Description 80                                    | 0..*         | The model description used to determine freshwater ecotoxicity.                                                                                     |
| attribute                      | freshWaterEcotoxicityReferenceSubstanceCode         | FreshWater Ecotoxicity ReferenceSubstanceCode     | 0..1         | The reference substance used to represent freshwater ecotoxicity.                                                                                   |
| attribute                      | freshWaterEcotoxicityReferenceSubstanceDescription  | Description 80                                    | 0..*         | The reference substance description used to represent freshwater ecotoxicity.                                                                       |

| content                           | attribute / role                                      | datatype /secondary class                      | multiplicity | definition                                                                                                                                                                                                                                                                                                                                          |
|-----------------------------------|-------------------------------------------------------|------------------------------------------------|--------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| attribute                         | freshWaterEcotoxicityMeasurement                      | Quantity                                       | 0..1         | The measurement of freshwater ecotoxicity according to the following formula: kg [chemical reference] eq / FU.                                                                                                                                                                                                                                      |
| GlobalWarmingPotential            |                                                       |                                                |              | Provides the global warming potential information.                                                                                                                                                                                                                                                                                                  |
| attribute                         | globalwarmingPotentialEquivalentBasisYearsCode        | GlobalWarmingPotentialEquivalentBasisYearsCode | 0..1         | The time perspective over which global warming potential is considered (20, 100, 500 years). Use the characterization factors of the 4th assessment report of the Intergovernmental Panel on Climate Change (IPCC). A 100 year time perspective is recommended. The time perspective chosen should always be communicated together with the metric. |
| attribute                         | globalwarmingPotentialEquivalentBasisYearsDescription | Description 80                                 | 0..*         | The time perspective description over which global warming potential is considered. Use the characterization factors of the 4th assessment report of the Intergovernmental Panel on Climate Change (IPCC). A 100 year time perspective is recommended. The time perspective chosen should always be communicated together with the metric.          |
| attribute                         | globalwarmingPotentialEquivalent                      | Quantity                                       | 0..1         | The associated mass of CO2 equivalents associated with the Functional Unit.                                                                                                                                                                                                                                                                         |
| attribute                         | globalwarmingPotentialEquivalentProtocolCode          | GlobalWarmingPotentialEquivalentProtocolCode   | 0..1         | The reference protocol used to represent the potential to global warming.                                                                                                                                                                                                                                                                           |
| attribute                         | globalwarmingPotentialEquivalentProtocolDescription   | Description 80                                 | 0..*         | The reference protocol description used to represent the potential to global warming.                                                                                                                                                                                                                                                               |
| attribute                         | globalwarmingPotentialEquivalentSubstanceCode         | GlobalWarmingPotentialEquivalentSubstanceCode  | 0..1         | The reference substance used to represent the potential to global warming.                                                                                                                                                                                                                                                                          |
| attribute                         | globalwarmingPotentialEquivalentSubstanceDescription  | Description 80                                 | 0..*         | The reference protocol description used to represent the potential to global warming.                                                                                                                                                                                                                                                               |
| IndividualPackagingComponentLevel |                                                       |                                                |              | Provides the individual packaging components details.                                                                                                                                                                                                                                                                                               |
| Association                       |                                                       | PackagingRecycledContent                       | 0..*         | Provides the recycled content information.                                                                                                                                                                                                                                                                                                          |
| Association                       |                                                       | PackagingChainOfCustody                        | 0..*         | Provides the chain of custody information.                                                                                                                                                                                                                                                                                                          |
| Association                       |                                                       | PackagingFacilitiesInStressedWater             | 0..*         | Provides the facilities in stress water information.                                                                                                                                                                                                                                                                                                |

| content             | attribute / role                | datatype /secondary class              | multiplicity | definition                                                                                                                                                                                                                                          |
|---------------------|---------------------------------|----------------------------------------|--------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Association         |                                 | PackagingRecovery                      | 0..*         | Provides the packaging recovery information                                                                                                                                                                                                         |
| Association         |                                 | PackagingConstituent                   | 0..*         | Provides the packaging constituent information.                                                                                                                                                                                                     |
| Association         |                                 | PackagingReuse                         | 0..*         | Provides the packaging reuse information                                                                                                                                                                                                            |
| Association         |                                 | PackagingSubstanceHazardousEnvironment | 0..*         | Provides the substance hazardous environment information.                                                                                                                                                                                           |
| Association         |                                 | PackagingWeightOptimisation            | 0..1         | Provides the packaging weight optimisation information.                                                                                                                                                                                             |
| Association         |                                 | PackagingRenewableContent              | 0..*         | Provides the renewable content information                                                                                                                                                                                                          |
| attribute           | packagingLevelTypeCode          | PackagingLevelTypeCode                 | 0..1         | Provides the packaging level.                                                                                                                                                                                                                       |
| attribute           | packagingComponentDescription   | Description80                          | 0..*         | Part of packaging that can be separated by hand or by using simple physical means (EN 13427, ISO/DIS 18601), for example a packaging film.                                                                                                          |
| attribute           | packagingGeneratedMaterialWaste | Measurement                            | 0..1         | The mass of material waste generated during the production and transport of packaging materials, packaging constituents, packaging components or packaging systems destined to final disposal, i.e. landfill or incineration without heat recovery. |
| attribute           | packagingMaterialTypeCode       | PackagingMaterialTypeCode              | 0..1         | A code that provides the packaging material.                                                                                                                                                                                                        |
| attribute           | packagingMaterialDescription    | Description80                          | 0..*         | A description of the packaging material.                                                                                                                                                                                                            |
| Association         | avpList                         | GS1_AttributeValuePairList             | 0..1         | Attribute value pair information.                                                                                                                                                                                                                   |
| LifeCycleIndicators |                                 |                                        |              | Provides the environmental indicator information.                                                                                                                                                                                                   |
| Association         |                                 | GlobalWarmingPotential                 | 0..*         | Provides the global warming potential information.                                                                                                                                                                                                  |
| Association         |                                 | AcidificationPotential                 | 0..1         | Provides the acidification potential information.                                                                                                                                                                                                   |
| Association         |                                 | AquaticEutrophication                  | 0..1         | Provides the aquatic eutrophication information.                                                                                                                                                                                                    |
| Association         |                                 | MassEquivalent                         | 0..*         | Provides the mass equivalent information.                                                                                                                                                                                                           |

| content                 | attribute / role                     | datatype /secondary class      | multiplicity | definition                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|-------------------------|--------------------------------------|--------------------------------|--------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Association             |                                      | ToxicityProperties             | 0..*         | Provides the toxicity properties information.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Association             |                                      | FreshWaterEcotoxicityPotential | 0..1         | Provides the freshwater ecotoxicity potential information.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Association             |                                      | CumulativeEnergyDemand         | 0..*         | Provides the cumulative energy demand information.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Association             | avpList                              | GS1_AttributeValuePairList     | 0..1         | Attribute value pair information.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| MassEquivalent          |                                      |                                |              | Provides the mass equivalent information.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| attribute               | massEquivalentMeasurement            | Quantity                       | 0..1         | The measurement for the mass equivalent code.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| attribute               | massEquivalentCode                   | MassEquivalentCode             | 0..1         | The type of mass equivalent being measured.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| attribute               | massEquivalentProtocolCode           | MassEquivalentProtocolCode     | 0..1         | The protocol code related to the mass equivalent code. Based On MassEquivalentCode, use one of following: <ul style="list-style-type: none"> <li>• Mass Equivalent Fresh Water Consumption Protocol Code</li> <li>• Mass Equivalent Ionizing Radiation Human Protocol Code</li> <li>• Mass Equivalent Land Use Protocol Code</li> <li>• Mass Equivalent Nonrenewable Resource Depletion Protocol Code</li> <li>• Mass Equivalent Ozone Depletion Protocol Code</li> <li>• Mass Equivalent Particulate Respiratory Effects Protocol Code</li> <li>• Mass Equivalent Photochemical Ozone Creation Potential Protocol Code.</li> </ul> |
| attribute               | massEquivalentProtocolDescription    | Description 80                 | 0..*         | The protocol description related to the mass equivalent code.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| attribute               | massEquivalentSubstanceCodeReference | Code                           | 0..1         | The substance code related to the mass equivalent code. Based On MassEquivalentCode, use one of following: <ul style="list-style-type: none"> <li>• Mass Equivalent Fresh Water Consumption Substance Code</li> <li>• Mass Equivalent Ionizing Radiation Human Substance Code</li> <li>• Mass Equivalent Land Use Substance Code</li> <li>• Mass Equivalent Non Renewable Resource Depletion Substance Code</li> <li>• Mass Equivalent Ozone Depletion Reference Substance Code</li> <li>• Mass Equivalent Particulate Respiratory Effects Reference Substance Code.</li> </ul>                                                     |
| attribute               | massEquivalentSubstanceDescription   | Description 80                 | 0..*         | The substance description related to the mass equivalent code                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| PackagingChainOfCustody |                                      |                                |              | Provides the packaging chain of custody information.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |

| content              | attribute / role                             | datatype /secondary class                  | multiplicity | definition                                                                                                                                                                                                                                                        |
|----------------------|----------------------------------------------|--------------------------------------------|--------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| attribute            | packagingChainOfCustodyEventSequenceNumber   | nonNegativeInteger                         | 0..1         | The linked set of organizations, from point of harvest or extraction to point of purchase, that have held legal ownership or physical control of raw materials or recycled materials, used in packaging constituents, packaging components, or packaging systems. |
| attribute            | packagingChainOfCustodySourceCertifiedCode   | PackagingChainOfCustodySourceCertifiedCode | 0..1         | A code that determines whether the source has been certified.                                                                                                                                                                                                     |
| attribute            | sourceCertificationSystemProtocolCode        | SourceCertificationSystemProtocolCode      | 0..1         | Provides the organisation(s) identification that certifies the source. (e.g. Forest Stewardship Council, Sustainable Forestry Initiative, Programme for Endorsement of Forest Certification.)                                                                     |
| attribute            | sourceCertificationSystemProtocolDescription | Description 80                             | 0..*         | Provides the organisation(s) identification that certifies the source. (e.g. Forest Stewardship Council, Sustainable Forestry Initiative, Programme for Endorsement of Forest Certification.)                                                                     |
| PackagingConstituent |                                              |                                            |              | Provides the packaging constituent information.                                                                                                                                                                                                                   |
| Association          |                                              | PackagingSubstanceHazardousEnvironment     | 0..*         | Provides the substance hazardous environment information.                                                                                                                                                                                                         |
| Association          |                                              | PackagingChainOfCustody                    | 0..*         | Provides the chain of custody information.                                                                                                                                                                                                                        |
| Association          |                                              | PackagingRenewableContent                  | 0..*         | Provides the renewable content information                                                                                                                                                                                                                        |
| Association          |                                              | PackagingRecycledContent                   | 0..*         | Provides the recycled content information.                                                                                                                                                                                                                        |
| Association          |                                              | PackagingFacilitiesInStressedWater         | 0..*         | Provides the facilities in stress water information.                                                                                                                                                                                                              |
| Association          |                                              | PackagingWeightOptimisation                | 0..1         | Provides the packaging weight optimisation information.                                                                                                                                                                                                           |
| attribute            | packagingConstituent                         | Description 80                             | 0..*         | Provides the packaging constituent                                                                                                                                                                                                                                |
| attribute            | packagingGeneratedMaterialWaste              | Measurement                                | 0..1         | The mass of material waste generated during the production and transport of packaging materials, packaging constituents, packaging components or packaging systems destined to final disposal, i.e. landfill or incineration without heat recovery                |

| content                            | attribute / role                                 | datatype /secondary class                 | multiplicity | definition                                                                                                                                                                                                                                                                                                         |
|------------------------------------|--------------------------------------------------|-------------------------------------------|--------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| attribute                          | packagingMaterialTypeCode                        | PackagingMaterialTypeCode                 | 0..1         | A code that provides the packaging material.                                                                                                                                                                                                                                                                       |
| attribute                          | packagingMaterialDescription                     | Description 80                            | 0..*         | A description of the packaging material.                                                                                                                                                                                                                                                                           |
| PackagingEconomicCost              |                                                  |                                           |              | Provides the packaging economic cost information.                                                                                                                                                                                                                                                                  |
| attribute                          | totalPackagingEconomicCostAmountBasis            | Measurement                               | 0..1         | The basis amount or quantity used to determine the packaging costs for example 1 kg, 1000 units, 1 year                                                                                                                                                                                                            |
| attribute                          | totalPackagingEconomicCostMeasurementCode        | TotalPackagingEconomicCostMeasurementCode | 0..1         | A code determining the packaging component, material, etc that is cost and being determined for.                                                                                                                                                                                                                   |
| attribute                          | totalPackagingEconomicCostMeasurementDescription | Description 80                            | 0..*         | A description determining the packaging component, material, etc that is cost and being determined for.                                                                                                                                                                                                            |
| attribute                          | totalPackagingEconomicCostAmount                 | Amount                                    | 0..*         | The total cost of all materials, energy, equipment and direct labour used during the sourcing of raw, recycled and reused materials and the production, filling, transport and/or disposal of packaging materials, packaging components or units of packaging.                                                     |
| PackagingFacilitiesInStressedWater |                                                  |                                           |              | Provides the ability to communicate information about production sites located in areas with conditions of water stress or scarcity.                                                                                                                                                                               |
| attribute                          | facilitiesInStressedWaterAreaPercent             | float                                     | 0..1         | Percent of facilities owned by a single operator located in an area identified as a stressed or scarce water resource area.                                                                                                                                                                                        |
| attribute                          | facilitiesInStressedWaterAreaCalculationMethod   | Description 200                           | 0..*         | The approach or tool used to determine water stress or scarcity should be identified (e.g. Global Water Tool, ETH Water Scarcity Index).                                                                                                                                                                           |
| attribute                          | numberOfFacilitiesInStressedWaterArea            | nonNegativeInteger                        | 0..1         | The number of facilities involved with the production of packaging materials (including recycled materials), packaging constituents, packaging components or units of packaging and/or filling and sealing of units of packaging that operate in areas identified as stressed or scarce fresh water resource area. |
| PackagingRecovery                  |                                                  |                                           |              | Provides the packaging recovery information.                                                                                                                                                                                                                                                                       |
| attribute                          | doesPackagingRecoveryRateTypeCodeMeetTheStandard | NonBinaryLogicEnumeration                 | 0..1         | Determine if the packaging recovery rate meet the standard.                                                                                                                                                                                                                                                        |
| attribute                          | packagingRecoveryRate                            | float                                     | 0..1         | The mass fraction or absolute mass of packaging recovered from all sources (commercial and residential) based on relevant waste management statistics.                                                                                                                                                             |
| attribute                          | packagingRecoveryRateDescription                 | Description 80                            | 0..*         | The description of the recovery applicable to the packaging.                                                                                                                                                                                                                                                       |
| attribute                          | packagingRecoveryRateTypeCode                    | PackagingRecoveryRateTypeCode             | 0..1         | A code determining the type of recovery applicable to the packaging.                                                                                                                                                                                                                                               |

| content                                | attribute / role                        | datatype /secondary class         | multiplicity | definition                                                                                                                                                                                                                                              |
|----------------------------------------|-----------------------------------------|-----------------------------------|--------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| attribute                              | totalPackagingRecoveryRate              | float                             | 0..1         | Expressed as cumulative sum of recovery rate by recovery method in % of total packaging weight [% wt.] placed on the market or as mass expressed by rate × total packaging weight put on the market.                                                    |
| PackagingRecycledContent               |                                         |                                   |              | Provides the recycled content information                                                                                                                                                                                                               |
| attribute                              | packagingRecycledContentRatio           | float                             | 0..1         | The ratio of recycled material to total material used in packaging constituents, packaging components, or packaging systems                                                                                                                             |
| attribute                              | packagingRecycledContentTypeCode        | PackagingRecycledContentTypeCode  | 0..1         | The type of recycled content that is being measured for.                                                                                                                                                                                                |
| attribute                              | packagingRecycledContentDescription     | Description 80                    | 0..*         | The description of recycled content that is being measured for.                                                                                                                                                                                         |
| PackagingRenewableContent              |                                         |                                   |              | Provides the packaging renewable content information.                                                                                                                                                                                                   |
| attribute                              | packagingRenewableContentRatio          | float                             | 0..1         | The ratio of renewable material used to total material used in packaging constituents, components, units of packaging or packaging systems.                                                                                                             |
| attribute                              | packagingRenewableContentTypeCode       | PackagingRenewableContentTypeCode | 0..1         | The type of renewable content that is being measured for.                                                                                                                                                                                               |
| attribute                              | packagingRenewableContentDescription    | Description 80                    | 0..*         | The description of renewable content that is being measured for.                                                                                                                                                                                        |
| PackagingReuse                         |                                         |                                   |              | Provides the packaging reuse information.                                                                                                                                                                                                               |
| attribute                              | numberOfCyclesPriorToWithdrawal         | nonNegativeInteger                | 0..1         | Determines reusability in accordance with EN 13429 or ISO/DIS18603.                                                                                                                                                                                     |
| attribute                              | packagingReuseRate                      | float                             | 0..1         | The number of times packaging accomplishes the same use, rotation or trip for which it was conceived and designed within its life cycle. Demonstration of reusability must first be established in accordance with EN 13429 or ISO/DIS18603 once final. |
| attribute                              | packagingReusabilityStandardCode        | PackagingReusabilityStandardCode  | 0..1         | The reusability standard used to determine packaging reuse rate.                                                                                                                                                                                        |
| attribute                              | packagingReusabilityStandardDescription | Description 80                    | 0..*         | The description for the reusability standard used to determine packaging reuse rate.                                                                                                                                                                    |
| PackagingSubstanceHazardousEnvironment |                                         |                                   |              | Provides the packaging substance hazardous environment information.                                                                                                                                                                                     |
| attribute                              | haveYouMinimizedHazardousSubstance      | NonBinaryLogicEnumeration         | 0..1         | Meeting the requirements of EN 13428 or ISO 18602 on heavy metals and dangerous/hazardous substances.                                                                                                                                                   |

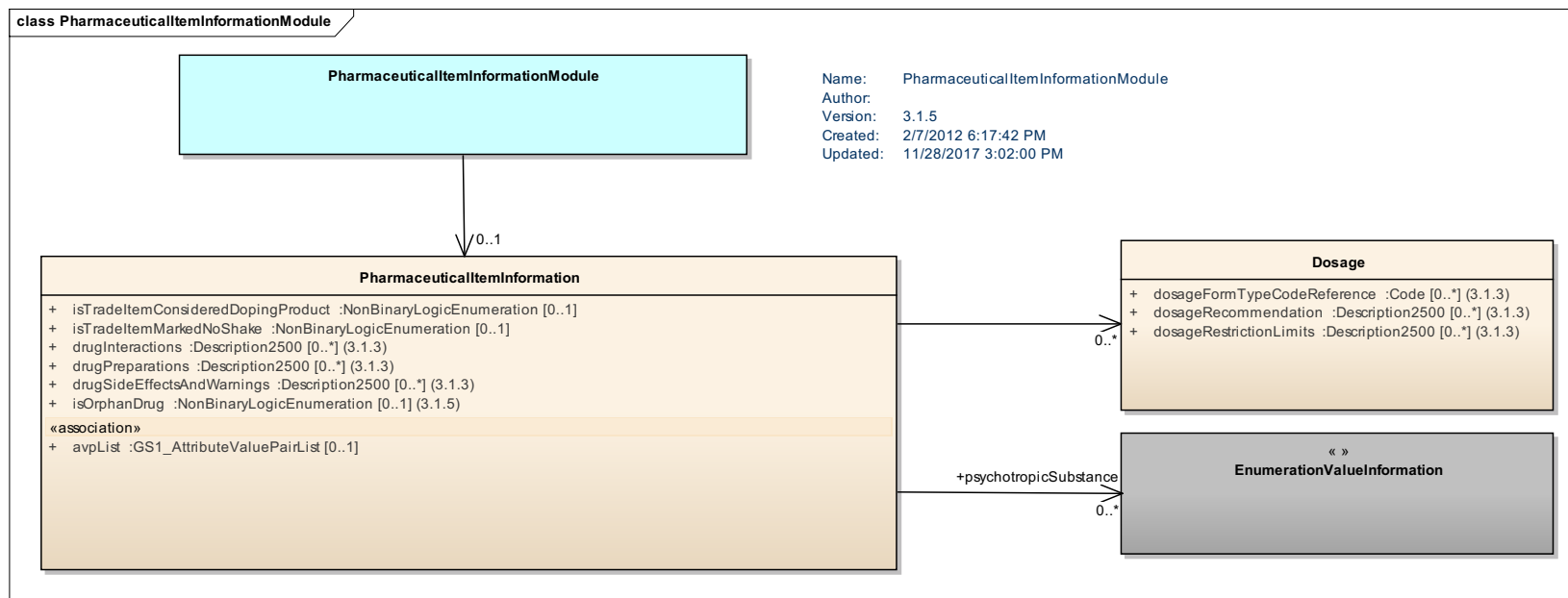
| content                                   | attribute / role                                  | datatype /secondary class                 | multiplicity | definition                                                                                                                                                                                                                                                            |
|-------------------------------------------|---------------------------------------------------|-------------------------------------------|--------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| attribute                                 | hazardousSubstanceMinimizationCode                | HazardousSubstancesMinimizationCode       | 0..1         | Assessment and minimization of substances, or mixtures, hazardous to the environment in packaging constituents, components, or systems that are at risk of entering the environment.                                                                                  |
| attribute                                 | relevantSupportingSubstanceHazardousDocumentation | Description 200                           | 0..*         | This is a certificate of compliance with relevant legislation. So the metric is a simple yes qualified with supporting documentation or a no.                                                                                                                         |
| PackagingSustainabilityEconomicIndicators |                                                   |                                           |              | Provides the packaging sustainability economic indicator information.                                                                                                                                                                                                 |
| Association                               |                                                   | PackagingEconomicCost                     | 0..*         | Provides the packaging economic cost information                                                                                                                                                                                                                      |
| attribute                                 | communityInvestmentRatio                          | float                                     | 0..1         | The value of investments made in community projects related to packaging such as recycling education programs or recycling infrastructure development over and above regulated requirements.                                                                          |
| attribute                                 | packagedUnpackagedShelfLifeRatio                  | float                                     | 0..1         | The ratio of a product's shelf life in packaging to a product's shelf life without packaging.                                                                                                                                                                         |
| attribute                                 | packagedProductWastePercent                       | float                                     | 0..1         | Cost of wasted goods expressed as a percentage of cost of goods sold per annum.                                                                                                                                                                                       |
| Association                               | avpList                                           | GS1_AttributeValuePairList                | 0..1         | Attribute value pair information.                                                                                                                                                                                                                                     |
| PackagingSustainabilityModule             |                                                   |                                           |              | Provides the packaging sustainability module information                                                                                                                                                                                                              |
| Association                               |                                                   | IndividualPackagingComponentLevel         | 0..*         | Provides the packaging level details.                                                                                                                                                                                                                                 |
| Association                               |                                                   | LifeCycleIndicators                       | 0..1         | Provides the life cycle indicator information.                                                                                                                                                                                                                        |
| Association                               |                                                   | PackagingSustainabilityEconomicIndicators | 0..1         | Provides the packaging sustainability economic information                                                                                                                                                                                                            |
| attribute                                 | functionalBasisUnitCode                           | FunctionalBasisUnitCode                   | 0..1         | Code of the functional basis unit.                                                                                                                                                                                                                                    |
| attribute                                 | functionalBasisUnitDescription                    | Description 80                            | 0..*         | Description of the functional basis unit.                                                                                                                                                                                                                             |
| attribute                                 | packagingCubeUtilisationRatio                     | float                                     | 0..1         | The overall volumetric measurement of packaging design efficiency. Expressed as the total volume of product in a pallet or other transport unit divided by either the volume of the transport unit or the space allotted to the transport unit, whichever is greater. |



| content                     | attribute / role                                   | datatype /secondary class                   | multiplicity | definition                                                                                                                                                                                                                                                                                                                |
|-----------------------------|----------------------------------------------------|---------------------------------------------|--------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| attribute                   | packagingToTradeItemWeightRatio                    | float                                       | 0..1         | The ratio of the weight of all packaging material used to the weight of the product or functional unit delivered. The weight of all packaging components used in the packaging system per functional unit (i.e. per consumer use as expressed by e.g. per serving for food & beverages, per washing cycle for detergent). |
| attribute                   | packagingWeightPerConsumerUse                      | Measurement                                 | 0..*         | The weight of all packaging components used in the packaging system per consumer use.                                                                                                                                                                                                                                     |
| attribute                   | quantityOfFunctionalBasisUnit                      | Quantity                                    | 0..1         | Quantity of the functional basis unit.                                                                                                                                                                                                                                                                                    |
| Association                 | avpList                                            | GS1_AttributeValuePairList                  | 0..1         | Attribute value pair information.                                                                                                                                                                                                                                                                                         |
| PackagingWeightOptimisation |                                                    |                                             |              | Provides the packaging weight optimisation details.                                                                                                                                                                                                                                                                       |
| Association                 |                                                    | PackagingWeightReduction                    | 0..1         | Provides the packaging weight reduction information.                                                                                                                                                                                                                                                                      |
| attribute                   | packagingWeight                                    | Measurement                                 | 0..1         | The weight and identity of a packaging constituent, component or system which changes hands in the supply chain.                                                                                                                                                                                                          |
| attribute                   | proofOfOptimizedPackagingWeightStandardCode        | ProofOfOptimizedPackagingWeightStandardCode | 0..1         | The demonstration that the packaging has been minimized by weight or volume in accordance with EN 13428 or ISO/DIS 18602.                                                                                                                                                                                                 |
| attribute                   | proofOfOptimizedPackagingWeightStandardDescription | Description 80                              | 0..*         | The description for the proof of adequate packaging weight                                                                                                                                                                                                                                                                |
| PackagingWeightReduction    |                                                    |                                             |              | Provides the packaging weight reduction information.                                                                                                                                                                                                                                                                      |
| attribute                   | packagingWeightReduction                           | Measurement                                 | 0..1         | The reduction of packaging weight with regards to a previous reference state expressed as a percentage reduction or an absolute weight reduction [e.g. g or kg / packaging constituent, component or system].                                                                                                             |
| attribute                   | packagingWeightReductionProtocolName               | Description 80                              | 0..*         | The protocol name that the calculation is based on (i.e. packaging weight reduction should be calculated according to the protocol stipulated in GPPS 2.0).                                                                                                                                                               |
| attribute                   | proofOfPackagingWeightReductionStandardCode        | ProofOfPackagingWeightReductionStandardCode | 0..1         | The standard for the proof of packaging weight reduction is based on.                                                                                                                                                                                                                                                     |
| attribute                   | proofOfPackagingWeightReductionDescription         | Description 80                              | 0..*         | The description for the proof of packaging weight reduction is based on.                                                                                                                                                                                                                                                  |

| content            | attribute / role                       | datatype /secondary class       | multiplicity | definition                                                                                                                                                        |
|--------------------|----------------------------------------|---------------------------------|--------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| attribute          | previousPackagingWeight                | Measurement                     | 0..1         | The packaging weight of the previous product used to calculate the packaging weight reduction.                                                                    |
| ToxicityProperties |                                        |                                 |              | Provides the toxicity properties information.                                                                                                                     |
| attribute          | hasCancerousProperties                 | NonBinaryLogicEnumeration       | 0..1         | The Toxicity, Cancer indicator evaluates potential cancer-related health outcomes that may occur due to the emissions associated with a given product or process. |
| attribute          | toxicityMeasurement                    | Measurement                     | 0..1         | The amount of the cancerous substance per functional unit                                                                                                         |
| attribute          | toxicityReferenceSubstanceCode         | ToxicityReferenceSubstanceCode  | 0..1         | The reference substance or unit which is used to represent cancerous toxicity effects.                                                                            |
| attribute          | toxicityReferenceSubstanceDescription  | Description 80                  | 0..*         | The reference substance description or unit which is used to represent cancerous toxicity effects.                                                                |
| attribute          | toxicityMeasurementProtocolCode        | ToxicityMeasurementProtocolCode | 0..1         | The protocol code used for the measurement.                                                                                                                       |
| attribute          | toxicityMeasurementProtocolDescription | Description 80                  | 0..*         | The description of the protocol used for the measurement.                                                                                                         |

## 5.44 Pharmaceutical Item Information Module



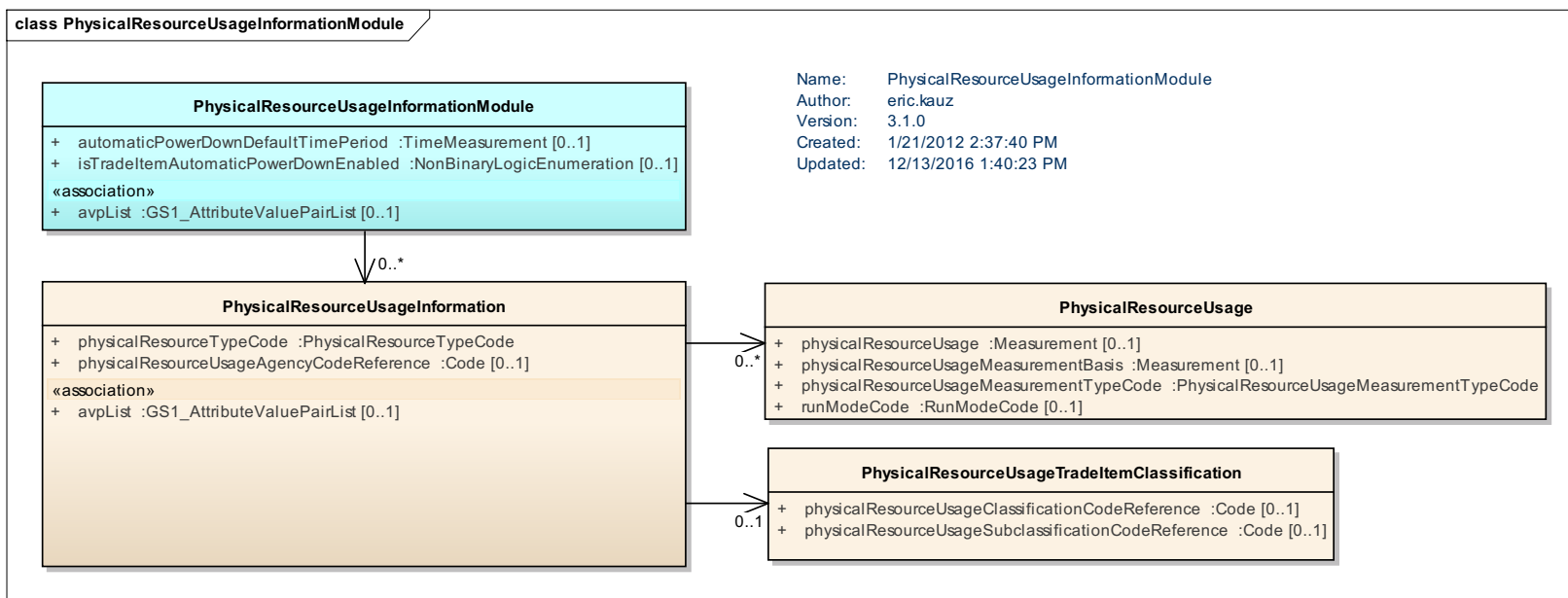
**Note:** Note: Common class (in grey) is located in the GDSN Common Library.

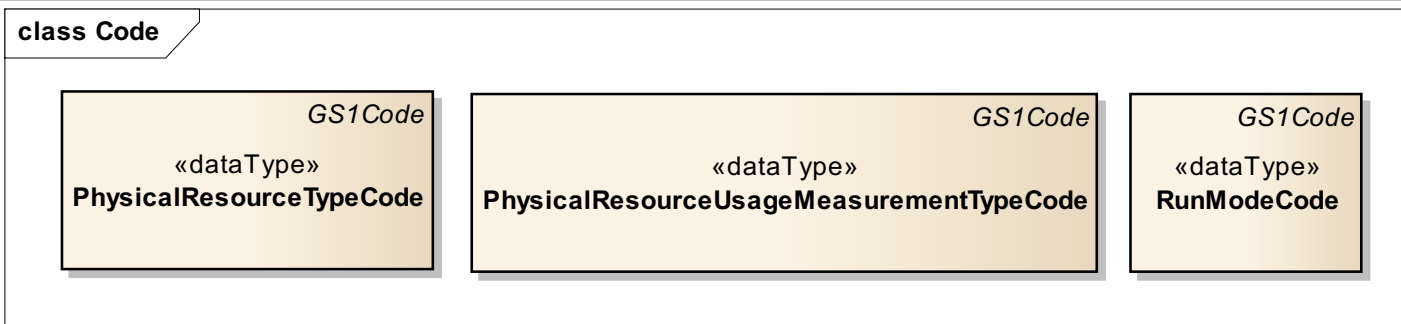
| content   | attribute / role            | datatype /secondary class | multiplicity | definition                                                                                                                                                                                                                                                                                                                           |
|-----------|-----------------------------|---------------------------|--------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Dosage    |                             |                           |              | Information on dosage for a pharmaceutical item.                                                                                                                                                                                                                                                                                     |
| Attribute | dosageFormTypeCodeReference | Code                      | 0..*         | A dosage form is the physical form of a medication that identifies the form of the pharmaceutical item for example oral. This attribute is populated by Local Code Lists and code lists for target market can be found on the GDSN Standards web site.                                                                               |
| Attribute | dosageRecommendation        | Description2500           | 0..*         | Information pertaining to the dosage of drug or supplement that should be taken/administered per dose. This is not based upon prescribed dosage, but recommended dosage. This may be pre-labelled on product or need to be labelled per target market regulations. Example Take 2 tablets every 4 hours, Take 1 teaspoon daily, etc. |
| Attribute | dosageRestrictionLimits     | Description2500           | 0..*         | Information pertaining to the dosage of drug or supplement that should be taken/administered in a                                                                                                                                                                                                                                    |

| content                        | attribute / role                   | datatype /secondary class    | multiplicity | definition                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|--------------------------------|------------------------------------|------------------------------|--------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                |                                    |                              |              | limited quantity. This is not based upon prescribed dosage, but recommended restrictions. This may be pre-labelled on product or need to be labeled per target market regulations. Example Do not exceed no more than 8 tablets per day, Do not exceed use for more than 14 days, etc.                                                                                                                                                                                                                                                                                                                                                                         |
| PharmaceuticalItem Information |                                    |                              |              | Information on medicinal drugs.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Association                    | psychotropicSubstance              | ExternalCodeValueInformation | 0..*         | A psychotropic substance is any chemical agent affecting the mind or mental processes (i.e., any psychoACTIVE drug). (ii) In the context of international drug control, 'psychotropic substance' means any substance, natural or synthetic, or any natural material in Schedule I, II, III or IV of the 1971 Convention. *Those utilizing this functionality should be aware of the Vienna convention and requirement to annually declare stock movements to national control body.Examples of psychoactive drugs may include: amphetamines, barbiturates, and psychedelics. This class of substances includes almost any conceivable mind-altering substance. |
| Association                    |                                    | Dosage                       | 0..*         | Information on dosage for a pharmaceutical item.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Association                    | avpList                            | GS1_AttributeValuePairList   | 0..1         | The transmission of non-standard data done in a simple, flexible, and easy to use method.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Attribute                      | isOrphanDrug                       | NonBinaryLogicEnumeration    | 0..1         | Indicates whether or not the pharmaceutical product is an orphan drug. A pharmaceutical is said to be an orphan when it has been developed to cure rare diseases also called orphan disease.                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Attribute                      | isTradeItemConsideredDopingProduct | NonBinaryLogicEnumeration    | 0..1         | Indicates that the product could be considered a doping substance which is a substance which is part of the list of prohibited substances, pharmaceutical products and methods yearly published by World Anti-Doping Agency. Doping products typically fall into one of the following general types of substances: Anabolic Agents, Hormones and Related Substances, Beta-2 Agonist, Hormone Antagonist and Modulators, Diuretics and other Masking Agents, Stimulants, Narcotics, Cannabinoids, Glucocorticosteroids, Alcohol, Beta-Blockers.                                                                                                                 |
| Attribute                      | isTradeItemMarkedNoShake           | NonBinaryLogicEnumeration    | 0..1         | Indicates that the trade item is marked to not be shaken during transport, storage, or use.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Attribute                      | drugInteractions                   | Description2500              | 0..*         | Pertaining to different type of consumer information needed for proper usage of drug or supplement. This may be pre-labeled on product or need to be labeled per target market regulations. Examples                                                                                                                                                                                                                                                                                                                                                                                                                                                           |

| content                              | attribute / role           | datatype /secondary class      | multiplicity | definition                                                                                                                                                                                                                                                     |
|--------------------------------------|----------------------------|--------------------------------|--------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                      |                            |                                |              | include Do not take with alcohol, Eat with food, Do not take if you are on diabetic medication, etc.                                                                                                                                                           |
| Attribute                            | drugPreparations           | Description2500                | 0..*         | Instructions for the consumer in preparing the drug or supplement before usage. This may be pre-labeled on product or need to be labeled per target market regulations. Examples include Shake before using, Add to 200 millitres of water, etc.               |
| Attribute                            | drugSideEffectsAndWarnings | Description2500                | 0..*         | Information to the side effects of the drug or supplement. This may be pre-labeled on the product or need to be labeled per target market regulations. Examples include Could make you drowsy, Do not operate machinery, Do not take if you are pregnant, etc. |
| PharmaceuticalItem InformationModule |                            |                                |              | A module containing information on medicinal drugs.                                                                                                                                                                                                            |
| Association                          |                            | PharmaceuticalItem Information | 0..1         | Pharmaceutical information for a trade item.                                                                                                                                                                                                                   |

## 5.45 Physical Resource Usage Information Module

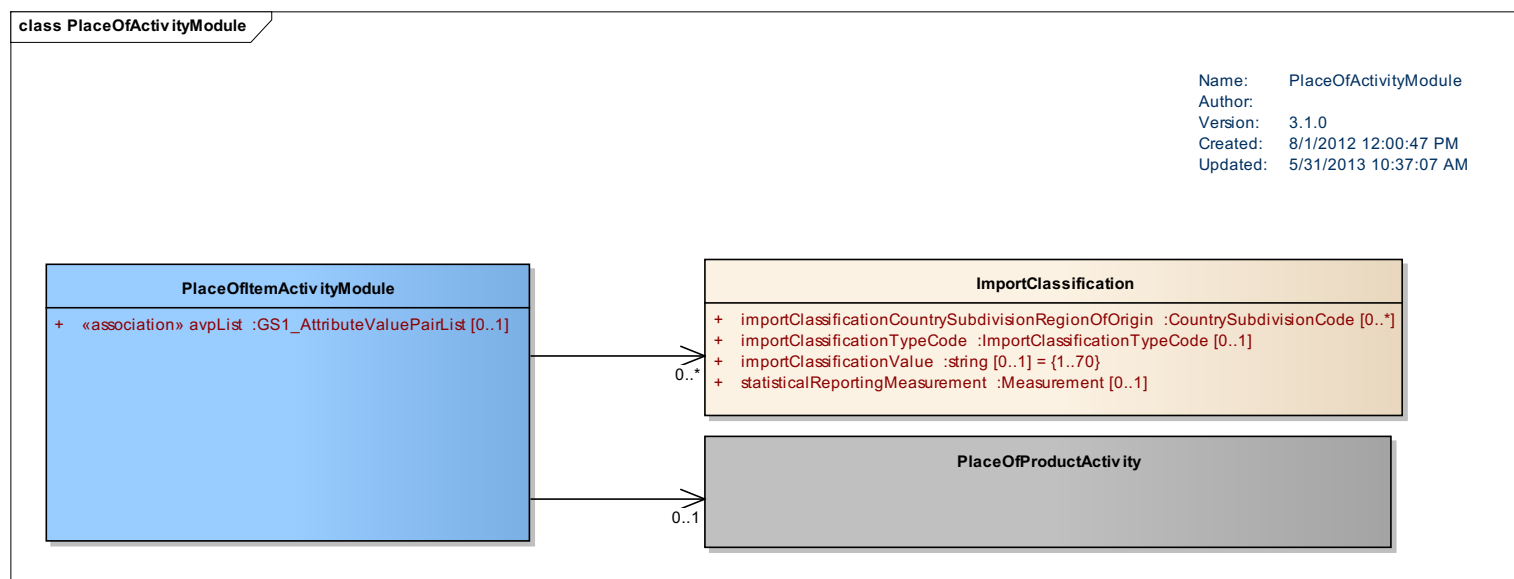




| content                                      | attribute / role                                    | datatype /secondary class                | multiplicity | definition                                                                                                                                                               |
|----------------------------------------------|-----------------------------------------------------|------------------------------------------|--------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| PhysicalResourceUsage                        |                                                     |                                          |              | Information on the amount of resources used of generated by a device.                                                                                                    |
| Attribute                                    | physicalResourceUsageMeasurementTypeCode            | PhysicalResourceUsageMeasurementTypeCode | 1..1         | A qualifier determining whether the resource usage is maximum, average, minimum, etc.                                                                                    |
| Attribute                                    | physicalResourceUsageMeasurementBasis               | Measurement                              | 0..1         | The basis used to determine the resource usage for the trade item for example time period (e.g. hours, days, years).                                                     |
| Attribute                                    | physicalResourceUsage                               | Measurement                              | 0..1         | The amount of resources used or generated by a device.                                                                                                                   |
| Attribute                                    | runModeCode                                         | runModeCode                              | 0..1         | The functional mode of a device expressed as a code for example ON, SLEEP or STANDBY. Run modes are defined by various guidelines for example the energy star guideline. |
| PhysicalResourceUsageTradeItemClassification |                                                     |                                          |              | A trade item classification used to drive requirements for information for trade items which use physical resources for example water or electricity.                    |
| Attribute                                    | physicalResourceUsageSubclassificationCodeReference | Code                                     | 0..1         | A sub-classification code value from a product classification scheme provided to drive required information for resource usage.                                          |
| Attribute                                    | physicalResourceUsageClassificationCodeReference    | Code                                     | 0..1         | A classification code value from a product classification scheme provided to drive required information for resource usage.                                              |
| PhysicalResourceUsageInformation             |                                                     |                                          |              | Details on the usage of physical resources for a trade item during various modes of usage.                                                                               |

| content                                | attribute / role                         | datatype /secondary class                    | multiplicity | definition                                                                                                                                                                                                                                                                                               |
|----------------------------------------|------------------------------------------|----------------------------------------------|--------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Association                            |                                          | PhysicalResourceUsageTradeItemClassification | 0..1         | A trade item classification used to drive requirements for information for trade items which use physical resources.                                                                                                                                                                                     |
| Association                            |                                          | PhysicalResourceUsage                        | 0..*         | Information on the amount of physical resources used and/or energy output for a trade item.                                                                                                                                                                                                              |
| Association                            | avpList                                  | GS1_AttributeValuePairList                   | 0..1         | The transmission of non-standard data done in a simple, flexible, and easy to use method.                                                                                                                                                                                                                |
| Attribute                              | physicalResourceTypeCode                 | physicalResourceTypeCode                     | 1..1         | A code depicting the type of physical resource being measured for usage for example electricity, gas.                                                                                                                                                                                                    |
| Attribute                              | physicalResourceUsageAgencyCodeReference | Code                                         | 0..*         | The agency that regulates resource usage for products within a target market. For example Environmental Protection Agency (EPA) in the United States.                                                                                                                                                    |
| PhysicalResourceUsageInformationModule |                                          |                                              |              | A module containing details on the usage of resources and/or energy output for a trade item during various modes of usage.                                                                                                                                                                               |
| Association                            |                                          | PhysicalResourceUsageInformation             | 0..*         | Details on the usage of resources for a trade item during various modes of usage.                                                                                                                                                                                                                        |
| Association                            | avpList                                  | GS1_AttributeValuePairList                   | 0..1         | The transmission of non-standard data done in a simple, flexible, and easy to use method.                                                                                                                                                                                                                |
| Attribute                              | automaticPowerDownDefaultTimePeriod      | TimeMeasurement                              | 0..1         | The default time value that the product will automatically power down for trade item.                                                                                                                                                                                                                    |
| Attribute                              | isTradeItemAutomaticPowerDownEnabled     | NonBinaryLogicEnumeration                    | 0..1         | An indicator whether a product is enabled with auto power down feature when shipped to the customer. Auto power down is a feature that operates similarly to power management features and requires the unit to enter a standby passive mode after a certain pre-set number of hours of user inactivity. |

## 5.46 Place of Item Activity Module



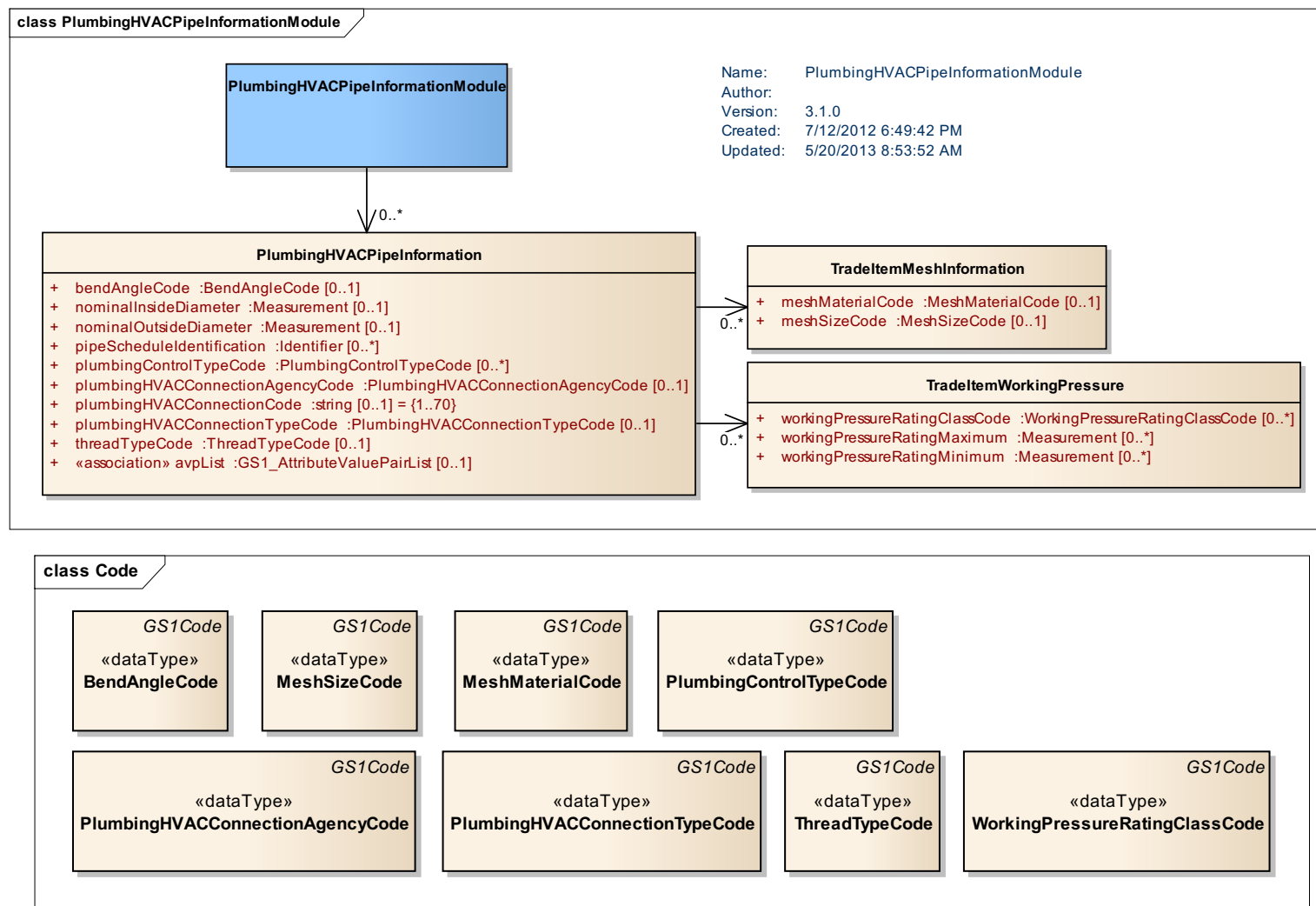
**Note:** Common class (in grey) is located in the GDSN Common Library.

| content              | attribute / role                                     | datatype /secondary class | multiplicity | definition                                                                                                                                                                                                                                                                                                                                                             |
|----------------------|------------------------------------------------------|---------------------------|--------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ImportClassification |                                                      |                           |              | Imports and exports of trade items typically require classification codes to determine appropriate duties and tariffs. Values include Netherlands Import Code, Harmonized Commodity Description and Coding System, Customs Tariff and INTRASTAT Code, Harmonized Tariff Schedule of the United States, INTRASTAT Combined Nomenclature, Tarif Intégré de la Communauté |
| Attribute            | importClassificationCountrySubdivisionRegionOfOrigin | CountrySubdivisionCode    | 0..*         | The region of origin of the trade item for import purposes. This is required by Intrastat.                                                                                                                                                                                                                                                                             |



| content                   | attribute / role                | datatype /secondary class    | multiplicity | definition                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|---------------------------|---------------------------------|------------------------------|--------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Attribute                 | importClassificationTypeCode    | ImportClassificationTypeCode | 0..1         | Imports and exports of trade items typically require classification codes to determine appropriate duties and tariffs. Values include Netherlands Import Code, Harmonized Commodity Description and Coding System, Customs Tariff and INTRASTAT Code, Harmonized Tariff Schedule of the United States, INTRASTAT Combined Nomenclature, Tarif Intégré de la Communauté                                                                                                                                                                                                  |
| Attribute                 | importClassificationValue       | string                       | 0..1         | The value for an associated import classification type.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Attribute                 | statisticalReportingMeasurement | Measurement                  | 0..1         | The amount of the trade item net of any packaging (e.g. Box, Spool) provided for statistical reporting purposes. In the EU, the Supplementary Unit of the Intrastat Supplementary Declaration, provided when the Net Mass in Kilograms is not acceptable based on the Commodity Classification for Foreign Trade Statistics. For example, ice cream is reported in net mass so no supplementary unit is required. Carpets are reported in square metres, so the area of carpet of the trade item should be shown in statistical Reporting Measurement in square metres. |
| PlaceOfItemActivityModule |                                 |                              |              | Origin and other information for the purposes of customs, marketing, etc.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Association               |                                 | PlaceOfProductActivity       | 0..1         | Information on the activity (e.g. bottling) taken place for a trade item as well as the associated geographic area.                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Association               |                                 | ImportClassification         | 0..*         | The value for an associated import classification type.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Association               | avpList                         | GS1_AttributeValuePairList   | 0..1         | The transmission of non-standard data done in a simple, flexible, and easy to use method.                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |

## 5.47 Plumbing HVAC Pipe Information Module

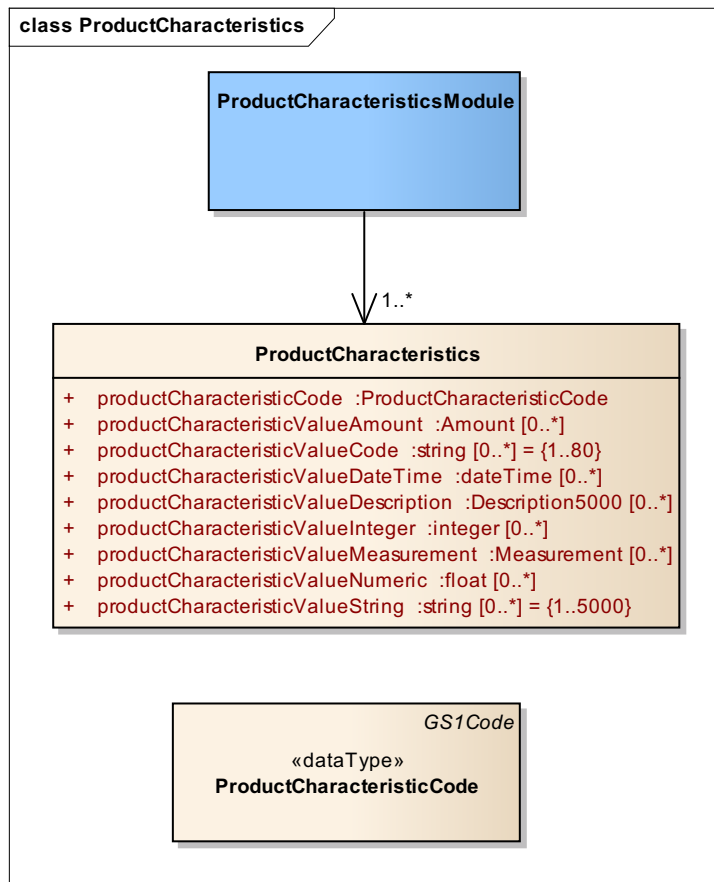


| content                         | attribute / role | datatype /secondary class | multipl<br>city | definition                                      |
|---------------------------------|------------------|---------------------------|-----------------|-------------------------------------------------|
| PlumbingHVACPip<br>eInformation |                  |                           |                 | Plumbing and HVAC information for a trade item. |

| content     | attribute / role                  | datatype /secondary class          | multipli city | definition                                                                                                                                                                                                                                                      |
|-------------|-----------------------------------|------------------------------------|---------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Association |                                   | TradeItemMeshInf or mation         | 0..*          | Information related to mesh trade items.                                                                                                                                                                                                                        |
| Association |                                   | TradeItemWorking Pressure          | 0..*          | Information related to the working pressure of a trade item.                                                                                                                                                                                                    |
| Association | avpList                           | GS1_AttributeValu ePairList        | 0..1          | Attribute value pair information.                                                                                                                                                                                                                               |
| Attribute   | bendAngleCode                     | bendAngleCode                      | 0..1          | The type of bend or angle for the product. For example a pipe made to turn a corner might have a bend angle of 90 degrees.                                                                                                                                      |
| Attribute   | nominalInsideDiamet er            | Measurement                        | 0..1          | The measurement of the nominal (not the exact measurement) inside diameter of the plumbing connection point of the trade item.                                                                                                                                  |
| Attribute   | nominalOutsideDiam eter           | Measurement                        | 0..1          | The measurement of the nominal (not the exact measurement) outside diameter of the plumbing connection point of the trade item.                                                                                                                                 |
| Attribute   | pipeScheduleIdentific ation       | Identifier                         | 0..*          | The pipe schedule or rating size as defined by an external agency for example Schedule 40 or SDR-9. A pipe schedule is how this is classified in regards to the functions of the pipe including type of medium (e.g. solid, liquid or gas) and pressure rating. |
| Attribute   | plumbingControlType Code          | PlumbingControlTy peCode           | 0..*          | The mechanism used for the flow control of the unit for example faucet, handle, wheel, electronic actuator.                                                                                                                                                     |
| Attribute   | plumbingHVACConne ctionAgencyCode | PlumbingHVACCon nectionAgencyCod e | 0..1          | The agency which controls the standards used to determine the design for a plumbing HVAC connection type and dimensions.                                                                                                                                        |
| Attribute   | plumbingHVACconne ctionCode       | string                             | 0..1          | A code determining the connection point on the trade item that the plumbing connection type refers to. This code is determined by standards established by the plumbing HVAC connection agency.                                                                 |
| Attribute   | plumbingHVACconne ctionTypeCode   | PlumbingHVACCon nectionTypeCode    | 0..1          | The type of plumbing HVAC connection points available for the trade item for example grooved joint. The connection type(s) will help determine how this trade item can connect to other products.                                                               |
| Attribute   | threadTypeCode                    | ThreadTypeCode                     | 0..1          | The type of pipe threading available on the product. Threading is the grooves onto which another unit or part can be screwed to make a connection                                                                                                               |

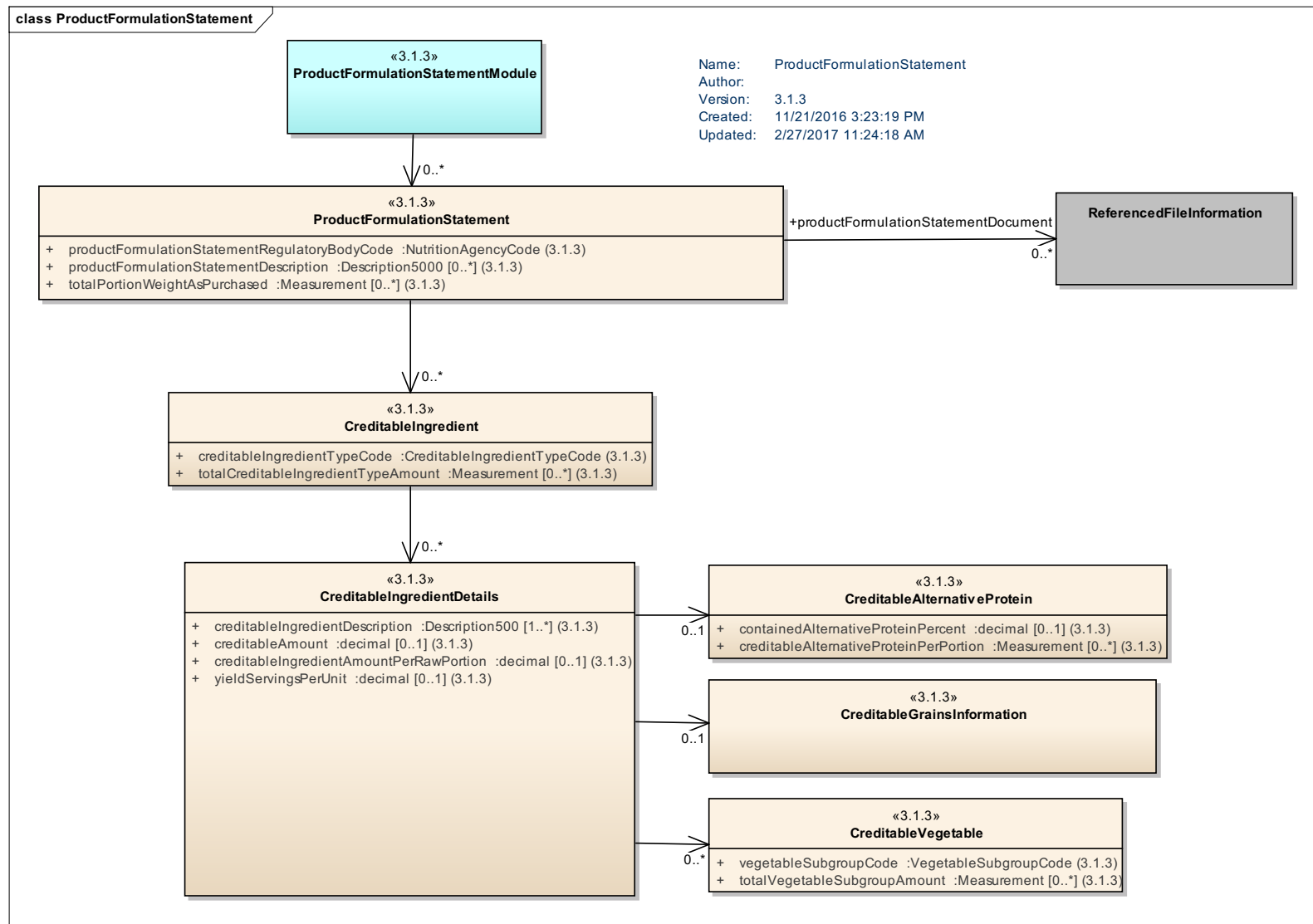
| content                           | attribute / role               | datatype /secondary class      | multipli city | definition                                                                                                                         |
|-----------------------------------|--------------------------------|--------------------------------|---------------|------------------------------------------------------------------------------------------------------------------------------------|
| PlumbingHVACPipeInformationModule |                                |                                |               | Pipe and heating, ventilation, and air conditioning information for a trade item.                                                  |
| Association                       |                                | PlumbingHVACPipeInformation    | 0..*          | Pipe and heating, ventilation, and air conditioning information for a trade item.                                                  |
| TradeItemMeshInformation          |                                |                                |               | Information related to mesh trade items.                                                                                           |
| Attribute                         | meshMaterialCode               | MeshMaterialCode               | 0..1          | The material used to create the mesh strainer in the product. The mesh provides particulate filtration for the unit.               |
| Attribute                         | meshSizeCode                   | MeshSizeCode                   | 0..1          | The size of the openings in the mesh strainer of the product as an integer. The mesh provides particulate filtration for the unit. |
| TradeItemWorkingPressure          |                                |                                |               | Information related to the working pressure of a trade item.                                                                       |
| Attribute                         | workingPressureRatingClassCode | WorkingPressureRatingClassCode | 0..*          | The state of the medium being pushed through the pipe for example water or steam in relation to determining working pressure.      |
| Attribute                         | workingPressureRatingMaximum   | Measurement                    | 0..*          | The maximum approved working pressure rating for the product for a specific medium state (water, gas, etc).                        |
| Attribute                         | workingPressureRatingMinimum   | Measurement                    | 0..*          | The minimum approved working pressure rating for the product for a specific medium state (water, gas, etc).                        |

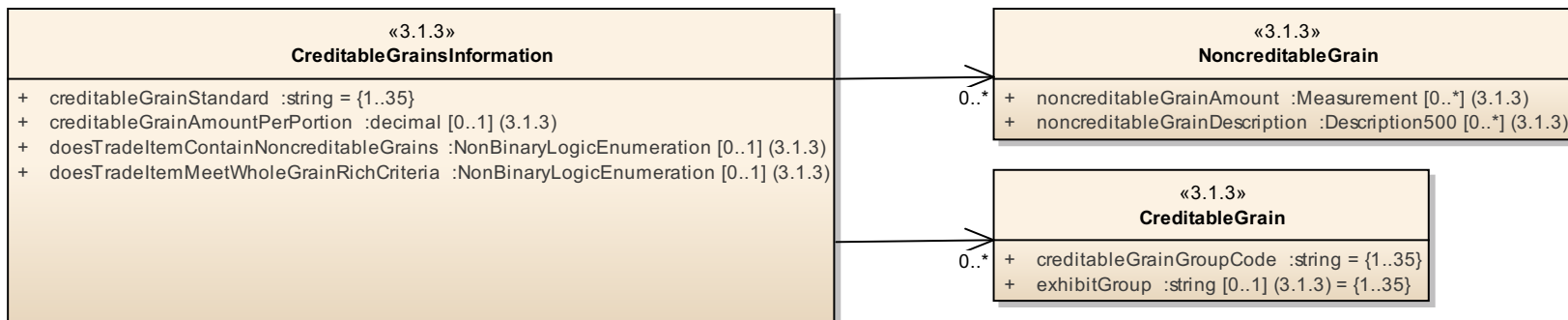
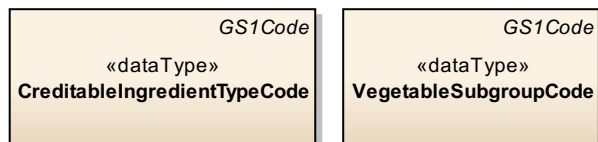
## 5.48 Product Characteristics Module



| content                      | attribute / role                      | datatype /secondary class | multipli city | definition                                                                                                                           |
|------------------------------|---------------------------------------|---------------------------|---------------|--------------------------------------------------------------------------------------------------------------------------------------|
| ProductCharacteristics       |                                       |                           |               | A characteristic for a product for example values for a property such as numberOfPlys along with its associated value for example 2. |
| Attribute                    | productCharacteristicCode             | productCharacteristicCode | 1..1          | The name of the product characteristic being described for example numberOfPlys.                                                     |
| Attribute                    | productCharacteristicValueAmount      | Amount                    | 0..*          | The product characteristic value expressed as an amount (with currency code).                                                        |
| Attribute                    | productCharacteristicValueCode        | string                    | 0..*          | The product characteristic value expressed as a code.                                                                                |
| Attribute                    | productCharacteristicValueDateTime    | dateTime                  | 0..*          | The product characteristic value expressed as a date and time.                                                                       |
| Attribute                    | productCharacteristicValueDescription | Description5000           | 0..*          | The product characteristic value expressed as a description (text with language).                                                    |
| Attribute                    | productCharacteristicValueInteger     | integer                   | 0..*          | The product characteristic value expressed as an integer.                                                                            |
| Attribute                    | productCharacteristicValueMeasurement | Measurement               | 0..*          | The product characteristic value expressed as a measurement (float with unit of measure).                                            |
| Attribute                    | productCharacteristicValueNumeric     | float                     | 0..*          | The product characteristic value expressed as a float.                                                                               |
| Attribute                    | productCharacteristicValueString      | string                    | 0..*          | The product characteristic value expressed as a string (text value with no language).                                                |
| ProductCharacteristicsModule |                                       |                           |               | A module used to express characteristics for a product for example values for a property such as numberOfPlys.                       |
| Association                  |                                       | ProductCharacteristics    | 1..*          | The product characteristic value expressed as an amount (with currency code).                                                        |

## 5.49 Product Formulation Statement Module



**class CreditableGrainsInformation**

**class Code**


| content                      | attribute / role                       | datatype /secondary class | multiplicity | definition                                                                                                                                                          |
|------------------------------|----------------------------------------|---------------------------|--------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| CreditableAlternativeProtein |                                        |                           |              | A class of attributes to provide information on specific protein creditable ingredients of the item.                                                                |
| attribute                    | containedAlternativeProteinPercent     | decimal                   | 0..1         | The percent of alternative protein as provided in the item. In the US this is noted on the Alternate Protein Product (APP) documentation.                           |
| attribute                    | creditableAlternativeProteinPerPortion | Measurement               | 0..*         | The portion of alternative protein as provided in the item. In the US this is noted on the Alternate Protein Product (APP) documentation and is measured in ounces. |
| CreditableGrain              |                                        |                           |              | A class of attributes to provide information on specific grain creditable ingredients of the item .                                                                 |

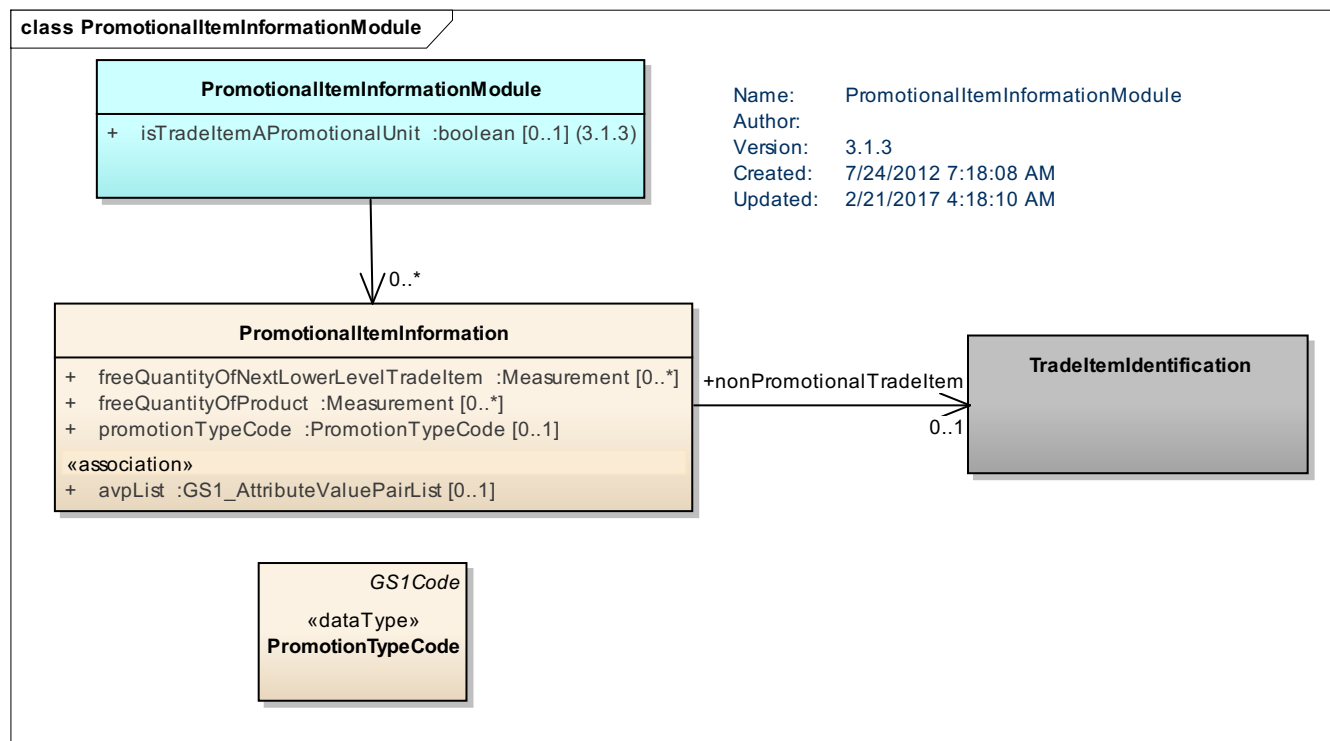


| content                     | attribute / role                        | datatype /secondary class    | multiplicity | definition                                                                                                                                                                                                                                                                                   |
|-----------------------------|-----------------------------------------|------------------------------|--------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| attribute                   | creditableGrainGroup Code               | string                       | 1..1         | The code assigned by the Product Formulation Statement Regulatory Body indicating to which exhibit group the trade item belongs. This code specifics set the formulas and calculations used to determine the grain equivalents for the trade item.                                           |
| attribute                   | exhibitGroup                            | string                       |              | A reference to the exhibit grouping for the creditable ingredient, described in the creditable ingredient description of the Product Formulation Statement and defined by the requirements, rules and regulations set forth by the applicable product formulation statement regulatory body. |
| CreditableGrainsInformation |                                         |                              |              | A class of attributes to provide information on specific grain creditable and non-creditable ingredients of the item.                                                                                                                                                                        |
| Association                 |                                         | NoncreditableGrain           | 0..*         | A link to a class of attributes to provide information on non-creditable grains in the trade item.                                                                                                                                                                                           |
| Association                 |                                         | CreditableGrain              | 0..*         | A link to a class of attributes to provide information on specific grain creditable ingredients of the item.                                                                                                                                                                                 |
| attribute                   | creditableGrainStandard                 | string                       | 1..1         | The standard gram value applicable to the creditable grain gram group code.                                                                                                                                                                                                                  |
| attribute                   | creditableGrainAmountPerPortion         | decimal                      | 0..1         | The gram per portion value of the creditable grains contained in the trade item as specified on the Product Formulation Statement and defined by the requirements, rules and regulations set forth by the applicable product formulation statement regulatory body.                          |
| attribute                   | doesTradeItemContainNoncreditableGrains | NonBinaryLogicEnumeration    | 0..1         | An indication that the item contains non-creditable grains. The existence of non-creditable grains in excess of specified limits may alter the item's credit toward child nutrition requirements as specified by the applicable Product Formulation Statement Regulatory Body.               |
| attribute                   | doesTradeItemMeetWholeGrainRichCriteria | NonBinaryLogicEnumeration    | 0..1         | An indication the trade item meets the whole grain-rich criteria as defined and regulated by the applicable Product Formulation Statement Regulatory Body.                                                                                                                                   |
| CreditableIngredient        |                                         |                              |              | A class of attributes to provide information on the creditable ingredients of the item. Creditable ingredients are ingredients that meet a the needs of a certain diet.                                                                                                                      |
| Association                 |                                         | CreditableIngredientDetails  | 0..*         | Provides details on creditable ingredients.                                                                                                                                                                                                                                                  |
| attribute                   | creditableIngredientTypeCode            | CreditableIngredientTypeCode | 1..1         | A qualifier to specify a type of creditable ingredient applicable to the trade item as noted on the Product Formulation Statement and specified by the requirements, rules and regulations set forth by the applicable Product Formulation Statement Regulatory Body.                        |

| content                     | attribute / role                        | datatype /secondary class    | multiplicity | definition                                                                                                                                                                                                                                                                                                                                                                      |
|-----------------------------|-----------------------------------------|------------------------------|--------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| attribute                   | totalCreditableIngredientTypeAmount     | Measurement                  | 0..*         | The sum total creditable amount of all the creditable ingredient type(s) applicable for the item as calculated using the requirements, rules and regulations set forth by the applicable Product Formulation Statement Regulatory Body. Per US regulations total creditable amount must be rounded down to the nearest quarter (0.25) ounce equivalent in the US target market. |
| CreditableIngredientDetails |                                         |                              |              | A class of attributes providing information on individual creditable ingredients related to the creditable ingredient type.                                                                                                                                                                                                                                                     |
| Association                 |                                         | CreditableVegetable          | 0..*         | Details for creditable vegetables.                                                                                                                                                                                                                                                                                                                                              |
| Association                 |                                         | CreditableGrainsInformation  | 0..1         | Details on creditable grain ingredients.                                                                                                                                                                                                                                                                                                                                        |
| Association                 |                                         | CreditableAlternativeProtein | 0..1         | Provides attributes on information on specific protein creditable ingredients of the item.                                                                                                                                                                                                                                                                                      |
| attribute                   | creditableIngredientDescription         | Description500               | 1..*         | A description of the trade item's creditable ingredient applicable to the creditable ingredient type and as noted on the Product Formulation Statement. In the US, this description should be from the Food Buying Guide or an Alternate Protein Product letter (APP) or a Child Nutrition Source Label.                                                                        |
| attribute                   | creditableAmount                        | decimal                      | 0..1         | The creditable amount of the provided creditable ingredient as listed in the Creditable Ingredient Description and calculated as specified in the requirements, rules and regulations set forth by the applicable Product Formulation Statement Regulatory Body.                                                                                                                |
| attribute                   | creditableIngredientAmountPerRawPortion | decimal                      | 0..1         | The ounces per portion value of the raw creditable fruit or vegetable ingredient contained in the trade item as specified on the Product Formulation Statement and defined by the requirements, rules and regulations set forth by the applicable Product Formulation Statement Regulatory Body.                                                                                |
| attribute                   | yieldServingsPerUnit                    | decimal                      | 0..1         | The yield per purchasing unit as calculated using the requirements, rules and regulations set forth by the applicable product formulation statement regulatory body.                                                                                                                                                                                                            |
| CreditableVegetable         |                                         |                              |              | A class of attributes to provide information on specific ingredients of the item that are creditable as a vegetable.                                                                                                                                                                                                                                                            |
| attribute                   | vegetableSubgroupCode                   | VegetableSubgroupCode        | 1..1         | A qualifier to specify the type of creditable vegetable ingredient subgroup applicable to the item as specified on the Product Formulation Statement and defined by the requirements, rules and regulations set forth by the applicable product formulation statement regulatory body.                                                                                          |
| attribute                   | totalVegetableSubgroupAmount            | Measurement                  | 0..*         | The creditable amount of the vegetable subgroup in the item.                                                                                                                                                                                                                                                                                                                    |

| content                           | attribute / role                              | datatype /secondary class   | multiplicity | definition                                                                                                                                                                                                                                                                            |
|-----------------------------------|-----------------------------------------------|-----------------------------|--------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| NoncreditableGrain                |                                               |                             |              | A class of attributes to provide information on non-creditable grains in the trade item.                                                                                                                                                                                              |
| attribute                         | noncreditableGrainAmount                      | Measurement                 | 0..*         | The amount of the non-creditable grain contained in the item. Measured in grams per US regulation.                                                                                                                                                                                    |
| attribute                         | noncreditableGrainDescription                 | Description500              | 0..*         | A descriptive term to describe the non creditable grain contained in the item. This value must be supplied when non-creditable grains are present in the trade item. In the US, this description should be from the Food Buying Guide.                                                |
| ProductFormulationStatement       |                                               |                             |              | A class of attributes to provide information from the product formulation statement for the item.                                                                                                                                                                                     |
| Association                       |                                               | CreditableIngredient        | 0..*         | Provides a creditable ingredients as per the product formulation statement.                                                                                                                                                                                                           |
| Association                       | productFormulationStatementDocument           | ReferencedFileInformation   | 0..*         | A link to a copy of the Product Formulation Statement.                                                                                                                                                                                                                                |
| attribute                         | productFormulationStatementRegulatoryBodyCode | NutritionAgencyCode         | 1..1         | The agency within the target market which is responsible for the requirements, rules and regulations governing the product formulation statement calculations, format and contents.                                                                                                   |
| attribute                         | productFormulationStatementDescription        | Description5000             | 0..*         | A textual statement listed on the Product Formulation Statement as specified in the requirements, rules and regulations set forth by the applicable Product Formulation Statement Regulatory Body. The name and position of the company official who has signed the actual statement. |
| attribute                         | totalPortionWeightAsPurchased                 | Measurement                 | 0..*         | The total portion weight of the trade item as purchased. This value(s) is as noted on the Product Formulation Statement and expressed in at least one measurement.                                                                                                                    |
| ProductFormulationStatementModule |                                               |                             |              | A module used to send product formulation information for a trade item.                                                                                                                                                                                                               |
| Association                       |                                               | ProductFormulationStatement | 0..*         | A link to a class of attributes to provide information from the product formulation statement for the item.                                                                                                                                                                           |

## 5.50 Promotional Item Information Module

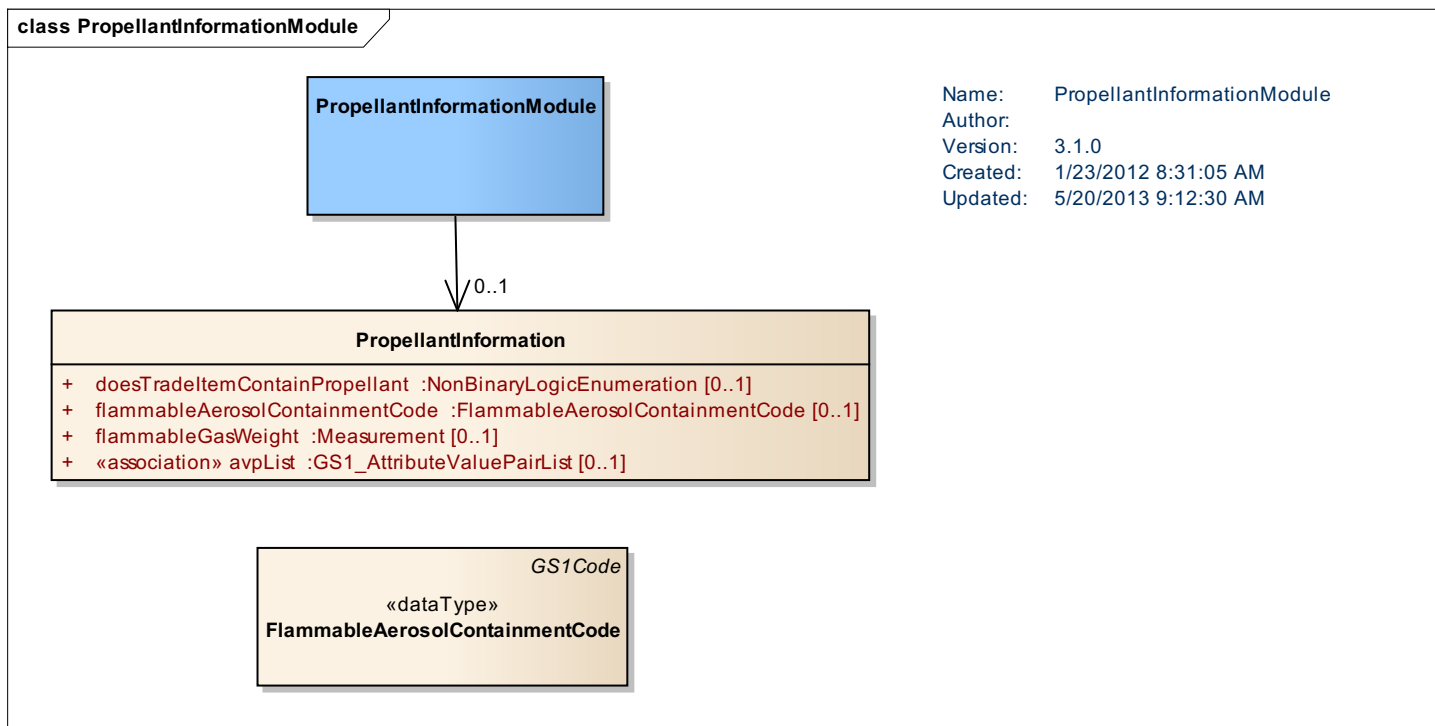


**Note:** Common class (in grey) is located in Shared Common Library.

| content                    | attribute / role        | datatype /secondary class | multiplicity | definition                                                                                                                                                                                                                     |
|----------------------------|-------------------------|---------------------------|--------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| PromotionalItemInformation |                         |                           |              | Provides details of the type of promotional item and its relationship to the non-promotional item.                                                                                                                             |
| Association                | nonPromotionalTradeItem | TradeItemIdentification   | 0..1         | The GTIN of the standard Trade Item. Used to indicate which trade item the promotional trade item replaces or coexists with. To enable the linking of identification and there for of information be-teen the two trade items. |

| content                           | attribute / role                      | datatype /secondary class  | multiplicity | definition                                                                                                                                                                                                                                                                                                                                                                            |
|-----------------------------------|---------------------------------------|----------------------------|--------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Association                       | avpList                               | GS1_AttributeValuePairList | 0..1         | Attribute value pair information.                                                                                                                                                                                                                                                                                                                                                     |
| Attribute                         | freeQuantityOfNextLowerLevelTradeItem | Measurement                | 0..*         | The numeric quantity of free items in a combination pack. If the free quantity promotional trade item is simple or is a multi-pack the free quantity is populated. The unit of measure used for the free quantity of next lower level must be the same as the unit of measure of the Net Content of the Child Trade Item.                                                             |
| Attribute                         | freeQuantityOfProduct                 | Measurement                | 0..*         | To indicate the quantity which is free. It is needed to update the price per unit of measure as displayed on the shelves. The unit of measure must be the same as the unit of measure of the Net Content. If the free quantity is expressed on the package it must be converted to a quantity expressed in the same unit of measure as the net content in the message.                |
| Attribute                         | promotionTypeCode                     | PromotionType Code         | 0..1         | Used to identify the different types of free quantity promotional trade items and the nature of the link between the standard trade item and the promotional trade item.                                                                                                                                                                                                              |
| PromotionalItemInformation Module |                                       |                            |              | A module providing details of the type of promotional item.                                                                                                                                                                                                                                                                                                                           |
| Attribute                         | isTradeItemAPromotionalUnit           | boolean                    | 0..1         | An indicator used to point out those trade items which are promotions from regular line articles for example a bundle containing one bottle or shampoo and one of conditioner that is released for a three-month period will have to indicate 'true' in 'istradeitemapromotionalpackunit', while a soda six-pack would leave it blank or indicate 'no' as it is a regular trade item. |
| Association                       |                                       | PromotionalItemInformation | 0..*         | Details of the type of promotional item.                                                                                                                                                                                                                                                                                                                                              |

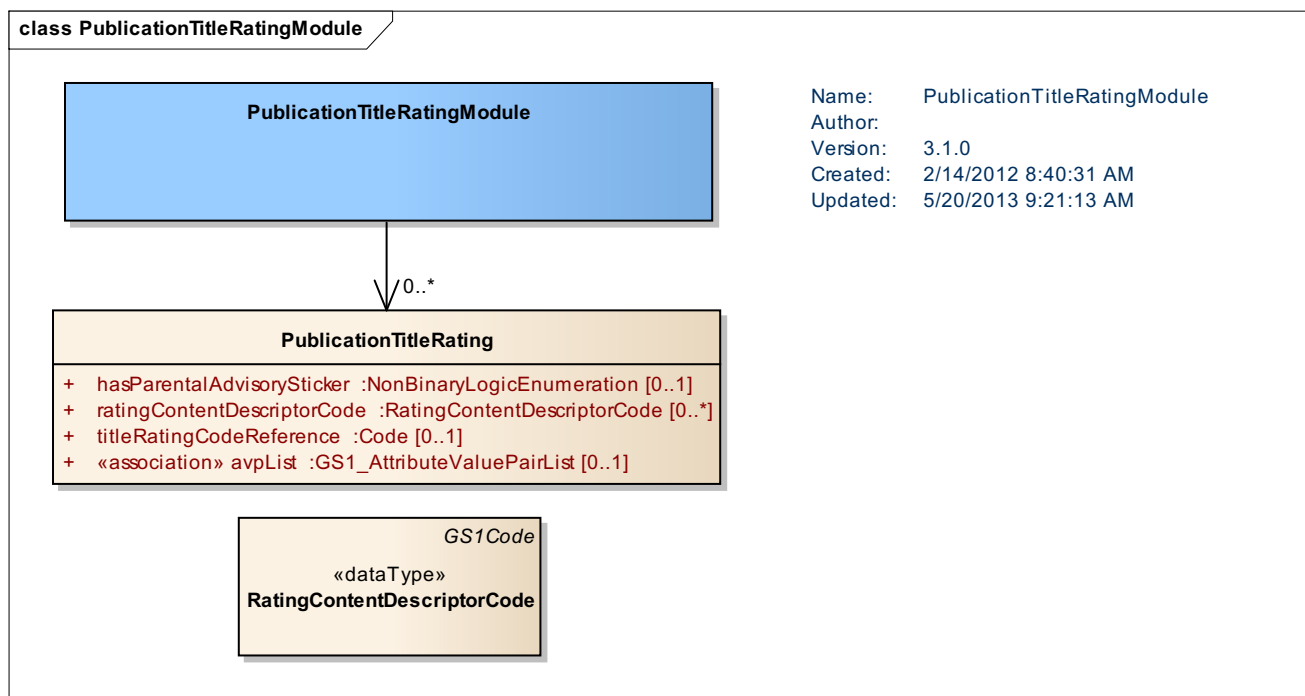
## 5.51 Propellant Information Module



| content               | attribute / role                | datatype /secondary class       | multiplicity | definition                                                                                                         |
|-----------------------|---------------------------------|---------------------------------|--------------|--------------------------------------------------------------------------------------------------------------------|
| PropellantInformation |                                 |                                 |              | Information on compressed gas or propellant contained in the trade item.                                           |
| Association           | avpList                         | GS1_AttributeValuePairList      | 0..1         | Attribute value pair information.                                                                                  |
| Attribute             | doesTradeltemContainPropellant  | NonBinaryLogicEnumeration       | 0..1         | Indicates if a trade item contains a compressed gas or propellant.                                                 |
| Attribute             | flammableAerosolContainmentCode | FlammableAerosolContainmentCode | 0..1         | Determines whether the propellant in the trade item is an aerosol and whether the aerosol is considered flammable. |

| content                     | attribute / role   | datatype /secondary class | multiplicity | definition                                                                                                                                                                                                                         |
|-----------------------------|--------------------|---------------------------|--------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Attribute                   | flammableGasWeight | Measurement               | 0..1         | This is the weight of the flammable gas in the trade item.<br>Note: Per submitter this is expressed in the UK in grammes<br>This attribute is required if the item is an aerosol which contains flammable gas (FLAMMABLE_AEROSOL). |
| PropellantInformationModule |                    |                           |              | Information on compressed gas or propellant contained in the trade item.                                                                                                                                                           |
| Association                 |                    | PropellantInformation     | 0..1         | Propellant details for a trade item.                                                                                                                                                                                               |

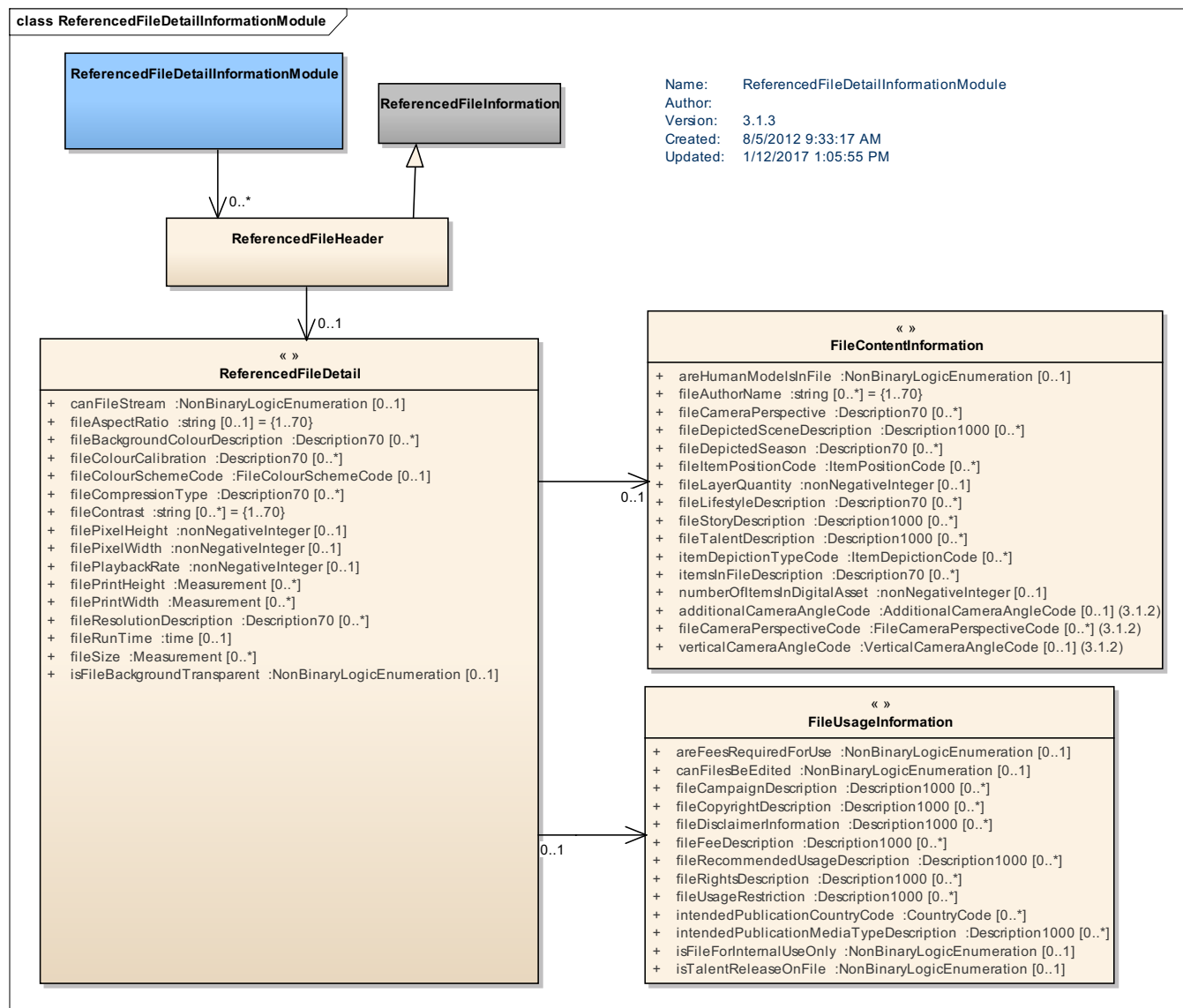
## 5.52 Publication Title Rating Module

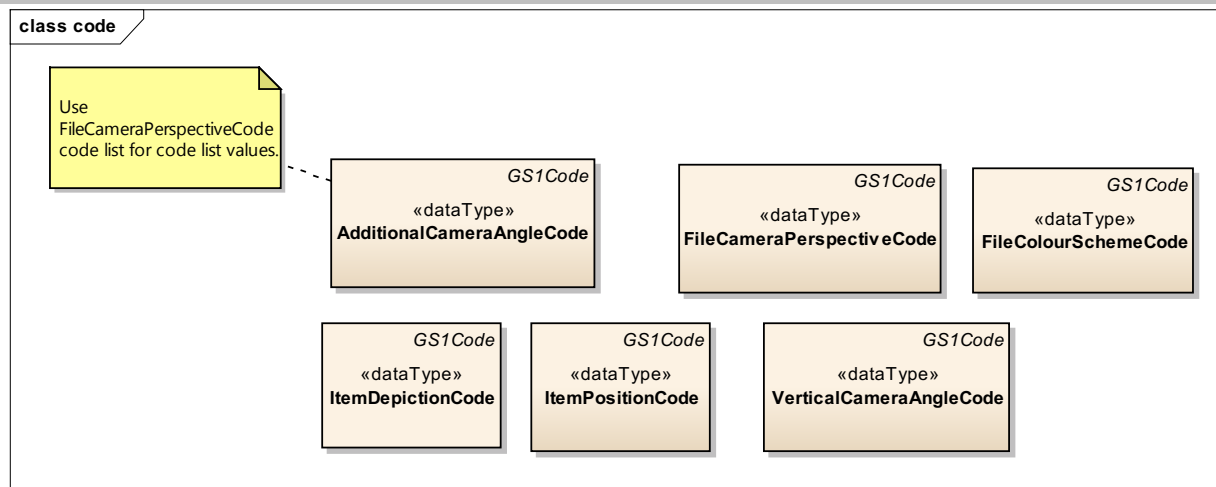


| content                      | attribute / role            | datatype /secondary class   | multiplicity | definition                                                                                                                                                                                                                                                                                                         |
|------------------------------|-----------------------------|-----------------------------|--------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| PublicationTitleRatingModule |                             |                             |              | A module containing information regarding the content viewer maturity rating for an entertainment product.                                                                                                                                                                                                         |
| Association                  |                             | PublicationTitleRating      | 0..*         | Information regarding the content viewer maturity rating for an entertainment product.                                                                                                                                                                                                                             |
| PublicationTitleRating       |                             |                             |              | Information regarding the content viewer maturity rating for an entertainment product.                                                                                                                                                                                                                             |
| Association                  | avpList                     | GS1_AttributeValuePairList  | 0..1         | Attribute value pair information.                                                                                                                                                                                                                                                                                  |
| Attribute                    | hasParentalAdvisorySticker  | NonBinaryLogicEnumeration   | 0..1         | Indication of the presence of parental advisory sticker.                                                                                                                                                                                                                                                           |
| Attribute                    | ratingContentDescriptorCode | ratingContentDescriptorCode | 0..*         | A code that identifies one or several elements that have triggered a particular rating and/or may be of interest or concern.                                                                                                                                                                                       |
| Attribute                    | titleRatingCodeReference    | Code                        | 0..1         | <p>A rating assigned to the title by a country, industry or volunteer organization that may be of interest or concern to the consumer.</p> <p>GS1 Code List used differs based on product type:</p> <ul style="list-style-type: none"> <li>Title Rating Code (Games)</li> <li>Title Rating Code (Film).</li> </ul> |



## 5.53 Referenced File Detail Information Module





| content                               | attribute / role | datatype /secondary class  | multipli city | definition                                                                                    |
|---------------------------------------|------------------|----------------------------|---------------|-----------------------------------------------------------------------------------------------|
| ReferencedFileDetailInformationModule |                  |                            |               | Information specifying a link to a file external to the message itself.                       |
| Association                           |                  | ReferencedFileHeader       | 0..*          | Information specifying a link to a file external to the message itself.                       |
| ReferencedFileHeader                  |                  |                            |               | Basic referenced file information.                                                            |
| Association                           | <Generalization> | ReferencedFileInformation  | 1..1          | Imports information contained in ReferencedFileInformationClass into the ReferencedFileHeader |
| Association                           |                  | ReferencedFileDetail       | 0..1          | Information specifying a link to a file external to the message itself.                       |
| ReferencedFileDetail                  |                  |                            |               | Information specifying a link to a file external to the message itself.                       |
| Association                           |                  | FileUsageInformation       | 0..1          | Information on usage of a referenced file.                                                    |
| Association                           |                  | FileContentInformation     | 0..1          | Information on the content of the referenced file.                                            |
| Association                           | avpList          | GS1_AttributeValuePairList | 0..1          | Attribute value pair information.                                                             |

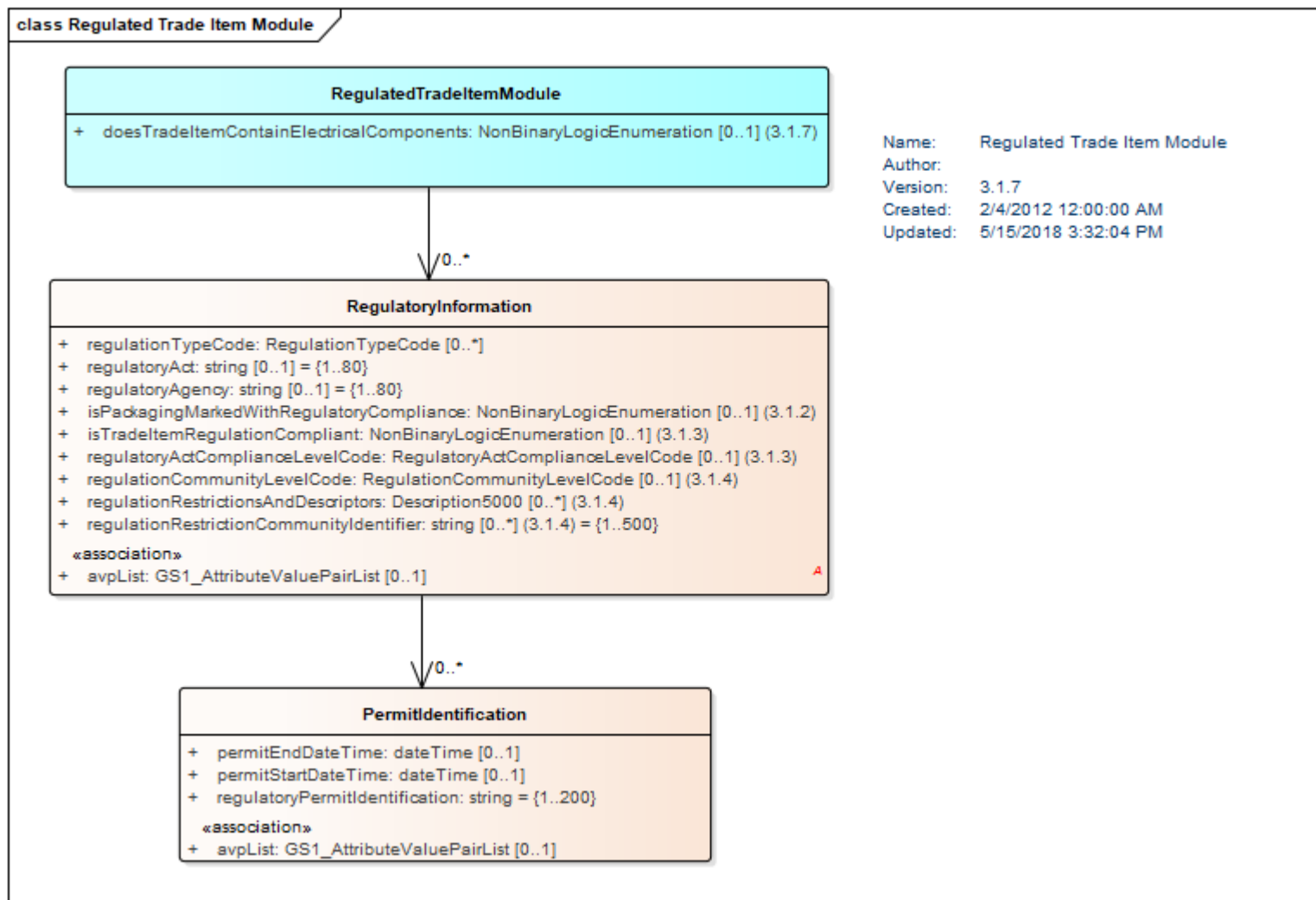
| content   | attribute / role                 | datatype /secondary class  | multipli city | definition                                                                                                                                                                                                                                         |
|-----------|----------------------------------|----------------------------|---------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Attribute | canFileStream                    | NonbinaryLogicEnu meration | 0..1          | An indicator that the digital asset is compressed to start displaying/running before fully uncompressing.                                                                                                                                          |
| Attribute | fileAspectRatio                  | string                     | 0..1          | A description of the aspect ratio used to determine how a digital asset fits on a page or monitor.                                                                                                                                                 |
| Attribute | fileBackgroundColour Description | Description70              | 0..*          | A description of the colour for the background in the digital asset. The background is the area in the asset which surrounds the item.                                                                                                             |
| Attribute | fileColourCalibration            | Description70              | 0..*          | The colour calibration fashion used in the creation of the digital asset for example: Kodak, Heidelberg CMM, Apple colourSync, etc.                                                                                                                |
| Attribute | fileColourSchemeCode             | FileColourSchemeC ode      | 0..1          | The type of colour scheme used in the digital asset.                                                                                                                                                                                               |
| Attribute | fileCompressionType              | Description70              | 0..*          | A description of the compression method used to reduce the file size stored at the link. This information is used to aid the user in choosing the correct program to extract the file. Examples include Quick Time, Real Player, mpg, WinZip, etc. |
| Attribute | fileContrast                     | string                     | 0..*          | The contrast used in the digital asset. Contrast is the difference in brightness between light and dark areas of an image. Contrast determines the number of shades in the image.                                                                  |
| Attribute | filePixelHeight                  | nonNegativeIntege r        | 0..1          | The number of pixels along the vertical axis of the image.                                                                                                                                                                                         |
| Attribute | filePixelWidth                   | nonNegativeIntege r        | 0..1          | The number of pixels along the horizontal axis of the image.                                                                                                                                                                                       |
| Attribute | filePlaybackRate                 | nonNegativeIntege r        | 0..1          | The targeted frame rate for the display of the digital asset, expressed as an integer representing the number of frames per second.                                                                                                                |
| Attribute | filePrintHeight                  | Measurement                | 0..*          | The number of pixels along the vertical axis of the image.                                                                                                                                                                                         |
| Attribute | filePrintWidth                   | Measurement                | 0..*          | The number of pixels along the horizontal axis of the image.                                                                                                                                                                                       |
| Attribute | fileResolutionDescript ion       | Description70              | 0..*          | The resolution of the file. Knowing the resolution will allow the user to be able to determine the best system with which to utilize the file.                                                                                                     |

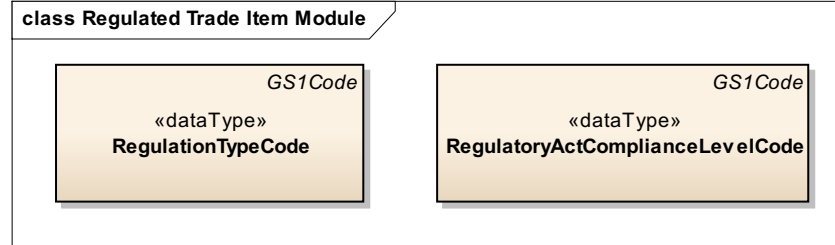
| content                | attribute / role             | datatype / secondary class | multipl<br>city | definition                                                                                                                                                                                                           |
|------------------------|------------------------------|----------------------------|-----------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Attribute              | fileRunTime                  | time                       | 0..1            | The playback or running length of time for the digital asset. This most common is in reference to video or audio files, but is not limited to them. This would be expressed in hours, minutes and second (hh:mm:ss). |
| Attribute              | fileSize                     | Measurement                | 0..*            | The size of the file as it is stored in an uncompressed format.                                                                                                                                                      |
| Attribute              | isFileBackgroundTransparent  | NonbinaryLogicEnumeration  | 0..1            | An indicator of whether or not the background used in the file is transparent. Having a transparent background would allow a recipient to place the file into any setting necessary.                                 |
| FileContentInformation |                              |                            |                 | Information on file content for an external file.                                                                                                                                                                    |
| Attribute              | additionalCameraAngleCode    | AdditionalCameraAngleCode  | 0..1            | An additional camera angle used to take a picture of the trade item for example ZOOM_VIEW. If this attribute is not populated, the assumption is a full trade item view. Uses FileCameraPerspectiveCode code list.   |
| Attribute              | areHumanModelsInFile         | NonbinaryLogicEnumeration  | 0..1            | An indicator whether or not the item is shown or depicted with human models.                                                                                                                                         |
| Attribute              | fileAuthorName               | string                     | 0..*            | The organization(s) or person(s) who is responsible for creating the digital asset.                                                                                                                                  |
| Attribute              | fileCameraPerspective        | Description70              | 0..*            | A description of the angle of perspective used by the camera in the capture of the digital asset.                                                                                                                    |
| Attribute              | fileCameraPerspectiveCode    | fileCameraPerspectiveCode  | 0..*            | A code describing the angle, perspective or the focal lens setting used by the camera in the capture of the digital asset.                                                                                           |
| Attribute              | fileDepictedSceneDescription | Description1000            | 0..*            | The scene or location used as a setting or backdrop in the digital asset.                                                                                                                                            |
| Attribute              | fileDepictedSeason           | Description70              | 0..*            | A description of the season shown or depicted within the digital asset. (e.g. Winter, Spring).                                                                                                                       |
| Attribute              | fileItemPositionCode         | ItemPositionCode           | 0..*            | A description of how the item is placed in the digital asset for example the item is propped (leaning against an object) or held (being held by a model).                                                            |
| Attribute              | fileLayerQuantity            | nonNegativeInteger         | 0..1            | The number of layers in the digital asset.                                                                                                                                                                           |
| Attribute              | fileLifestyleDescription     | Description70              | 0..*            | The lifestyles to which this digital asset can be used. For example psychographic, demographic, age, etc.                                                                                                            |

| content              | attribute / role            | datatype /secondary class | multipli city | definition                                                                                                                                                                                                                                                                       |
|----------------------|-----------------------------|---------------------------|---------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Attribute            | fileStoryDescription        | Description1000           | 0..*          | A description of the storyboard or plot of the digital file.                                                                                                                                                                                                                     |
| Attribute            | fileTalentDescription       | Description1000           | 0..*          | The specific identification of the talent used in the file. For example, may identify a celebrity as the spokesperson for the product as included in the asset.                                                                                                                  |
| Attribute            | itemDepictionTypeCode       | ItemDepictionCode         | 0..*          | The state of the item as it is being depicted in the digital assets for example gift wrapped or assembled.                                                                                                                                                                       |
| Attribute            | itemsInFileDescription      | Description70             | 0..*          | A description of the additional items shown or depicted in the digital asset.                                                                                                                                                                                                    |
| Attribute            | numberOfItemsInDigitalAsset | nonNegativeInteger        | 0..1          | The number of items in the digital asset, where the asset contains more than one item.                                                                                                                                                                                           |
| Attribute            | verticalCameraAngleCode     | verticalCameraAngleCode   | 0..1          | The vertical angle used to photograph an object expressed as a code for example PARALLEL.                                                                                                                                                                                        |
| FileUsageInformation |                             |                           |               | Information on usage for an external file.                                                                                                                                                                                                                                       |
| Attribute            | areFeesRequiredForUse       | NonbinaryLogicEnumeration | 0..1          | An indicator whether or not a fee is required for the use of this digital asset.                                                                                                                                                                                                 |
| Attribute            | canFilesBeEdited            | NonbinaryLogicEnumeration | 0..1          | An indicator of whether the user or recipient of the digital asset can edit it prior to use or as a function of using the asset. Some digital assets are designed such that the recipient can edit the asset to meet the needs of a final output.                                |
| Attribute            | fileCampaignDescription     | Description1000           | 0..*          | A reference to a specific communication project to which the digital asset is associated, such as the Back To School Campaign. A campaign is a marketing term used to describe the event, sale, promotion, or other program for which this digital asset is designed to be part. |
| Attribute            | fileCopyrightDescription    | Description1000           | 0..*          | A description of any Copyright notice which pertains to the digital asset.                                                                                                                                                                                                       |
| Attribute            | fileDisclaimerInformation   | Description1000           | 0..*          | A description expressing any disclaimers which pertain to the digital asset. (e.g. Item may be smaller than appears).                                                                                                                                                            |
| Attribute            | fileFeeDescription          | Description1000           | 0..*          | A description of the fees that are applicable to use of the digital asset. This attribute may be a list of actual fees, a description of the fee structure, or contact information to find out the fees.                                                                         |

| content   | attribute / role                        | datatype /secondary class | multipl<br>city | definition                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|-----------|-----------------------------------------|---------------------------|-----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Attribute | fileRecommendedUsageDescription         | Description1000           | 0..*            | <p>A textual description of the recommended use of the asset in an easy to understand fashion such that all parties, regardless of specific expertise, can understand use of the asset. This element's intention is to "translate" complicated characteristics into a simpler textual representation.</p> <p>Examples:</p> <ul style="list-style-type: none"> <li>If the characteristics of the external file are a resolution of 1775 x 1230 pixels, colour space RGB 8 bit by colour, format TIF or JPG compressed to maximum quality. Recommended Usage might be "print maximum quality" and/or "web publishing".</li> <li>If the characteristics of the external file are mpg, Recommended Usage might be "web publishing". As this value may not be the same for all digital assets, this attribute should be linked to a specific URL.</li> </ul> |
| Attribute | fileRightsDescription                   | Description1000           | 0..*            | The structure for Digital Rights Management (DRM) which is in place on the file. This could be ID and location of external Intellectual Property Management & Protection (IPMP) system for lookup of usage rights. Presence of a value for this attribute signifies that the file uses a DRM.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Attribute | fileUsageRestriction                    | Description1000           | 0..*            | A description of any restrictions on the ability of the recipient's to use of the asset.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Attribute | intendedPublicationCountryCode          | CountryCode               | 0..*            | The country/countries in which the digital asset is designed to be used.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Attribute | intendedPublicationMediaTypeDescription | Description1000           | 0..*            | The media types with which the digital asset was designed to be utilized, such as Web, Catalogue, Circular among others.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Attribute | isFileForInternalUseOnly                | NonBinaryLogicEnumeration | 0..1            | An indicator whether or not the file is intended for internal use only and not for general publication.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Attribute | isTalentReleaseOnFile                   | NonBinaryLogicEnumeration | 0..1            | An indicator whether or not the owner of the asset has a talent release on file. This applies to files where talent or a model is used.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |

## 5.54 Regulated Trade Item Module



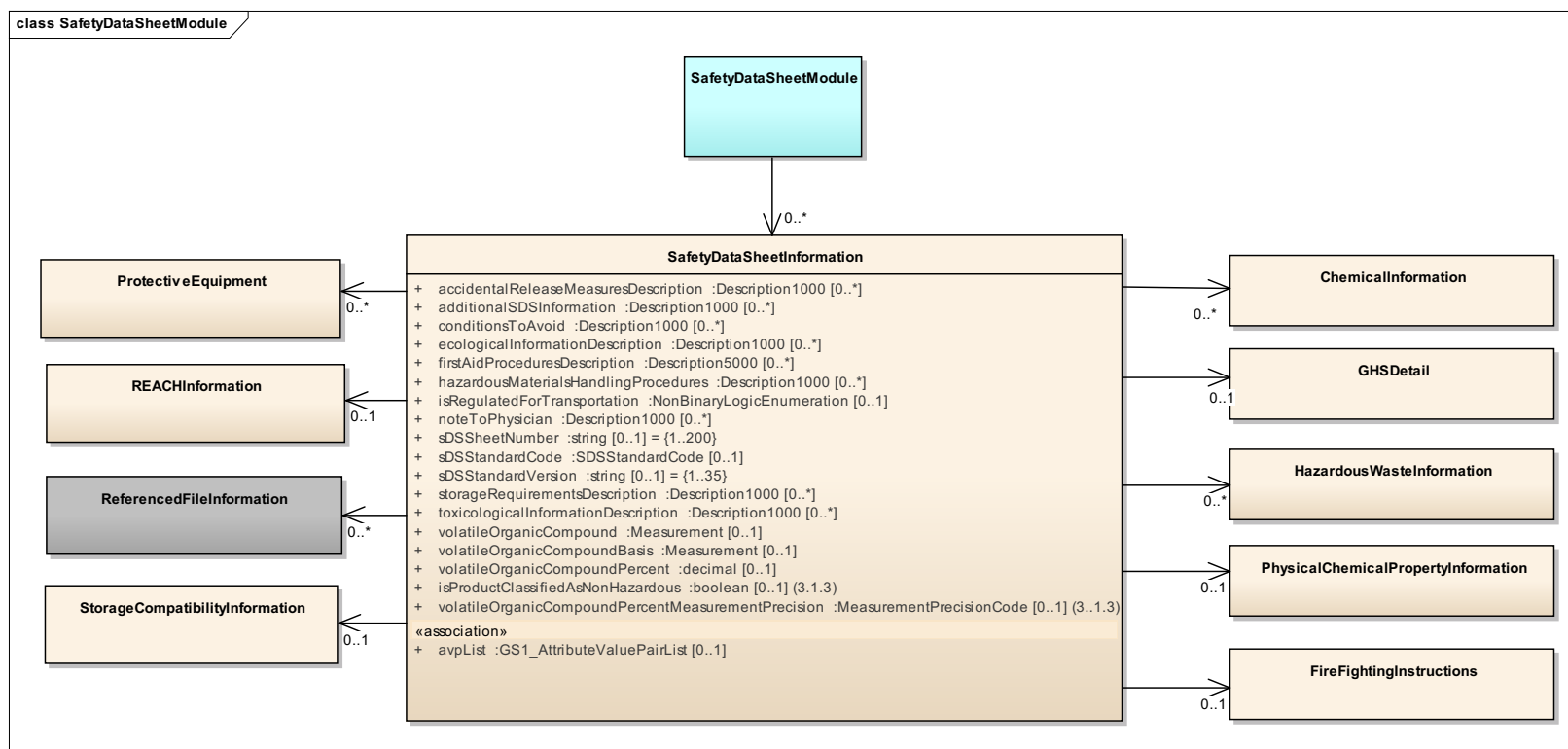


| content                  | attribute / role                          | datatype /secondary class  | multipl<br>city | definition                                                                                                                                                                                                                                                                                 |
|--------------------------|-------------------------------------------|----------------------------|-----------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| RegulatedTradeItemModule |                                           |                            |                 | A module containing Information on applicable government regulations a trade item is in compliance with.                                                                                                                                                                                   |
| Attribute                | doesTradeItemContainElectricalComponents  | NonBinaryLogicEnumeration  | 0..1            | An Indication for regulation purposes of the existence of wires, circuits, circuit boards, or other electrical components in the trade item. The trade item may be powered by many types of energy such as solar, electricity, fossil fuel, batteries and/or generate some form of energy. |
| Association              |                                           | RegulatoryInformation      | 0..*            | Information on applicable government regulations a trade item is in compliance with.                                                                                                                                                                                                       |
| PermitIdentification     |                                           |                            |                 | Contains the information regarding the permit identification.                                                                                                                                                                                                                              |
| Attribute                | permitEndDateTime                         | dateTime                   | 0..1            | The date on which the permit expires.                                                                                                                                                                                                                                                      |
| Attribute                | permitStartDateTime                       | dateTime                   | 0..1            | The start date on which the permit is effective.                                                                                                                                                                                                                                           |
| Attribute                | regulatoryPermitIdentification            | string                     | 1..1            | Identification of the permit or license given by the regulatory agency.                                                                                                                                                                                                                    |
| Association              | avpList                                   | GS1_AttributeValuePairList | 0..1            | Attribute value pair information.                                                                                                                                                                                                                                                          |
| RegulatoryInformation    |                                           |                            |                 | Information on applicable government regulations a trade item is in compliance with.                                                                                                                                                                                                       |
| Association              |                                           | PermitIdentification       | 0..*            | Permit information for a regulation.                                                                                                                                                                                                                                                       |
| Attribute                | isPackagingMarkedWithRegulatoryCompliance | NonBinaryLogicEnumeration  | 0..1            | Indicator of whether the packaging is marked with a regulatory compliance code.                                                                                                                                                                                                            |



| content     | attribute / role                             | datatype /secondary class                | multipl<br>city | definition                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|-------------|----------------------------------------------|------------------------------------------|-----------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Attribute   | regulatoryAct                                | string                                   | 0..1            | The name given to the requirement assigned by the regulatory agency.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Attribute   | regulatoryAgency                             | string                                   | 0..1            | The required information is the name of the specific entity in charge of issuing the permit to a company.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Attribute   | regulationTypeCode                           | RegulationTypeC<br>ode                   | 0..*            | A code that indicates that a trade item is in compliance with specific applicable government regulations.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Attribute   | isTradeItemRegulation<br>Compliant           | NonBinaryLogicE<br>numeration            | 0..1            | Signifies when a trade item is/is not compliant or not applicable to a regulation.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Attribute   | regulatoryActComplian<br>ceLevelCode         | RegulatoryActCo<br>mplianceLevelCo<br>de | 0..1            | Code signifying the level of containment of specific toxicants for a product which contains carcinogens and/or reproductive toxicants established in California's Proposition 65 (Prop 65), The Safe Drinking Water and Toxic Enforcement Act, enacted in 1986. This Act requires the state to publish a list of chemicals known to cause cancer or reproductive harm. Prop 65 applies to suppliers who sell products in the state if their products exceed safe harbor levels established in Prop 65. Safe harbor levels establish thresholds for no significant risk levels (NSRLs) for carcinogens and maximum allowable dose levels (MADLs) for chemicals that cause reproductive toxicity. |
| Attribute   | regulationCommunityL<br>evelCode             | RegulationComm<br>unityLevelCode         | 0..1            | The type of territory the regulation is issued by for example a nation or territory considered as an organized political community under a government. Examples include; UNION, MUNICIPALITY, PROVENCE OR STATE.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Attribute   | regulationRestrictionsA<br>ndDescriptors     | Description5000                          | 0..*            | A textual detail needed by trading partners that explains any restrictions and/or descriptors explaining any information helpful about a regulation.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Attribute   | regulationRestrictionCo<br>mmunityIdentifier | string                                   | 0..*            | An Identifier identifying the community like ISO country, ISO sub division, Municipal zip code for example 10001, 840, US-AR.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Association | avpList                                      | GS1_AttributeVal<br>uePairList           | 0..1            | Attribute value pair information.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |

## 5.55 Safety Data Sheet Module



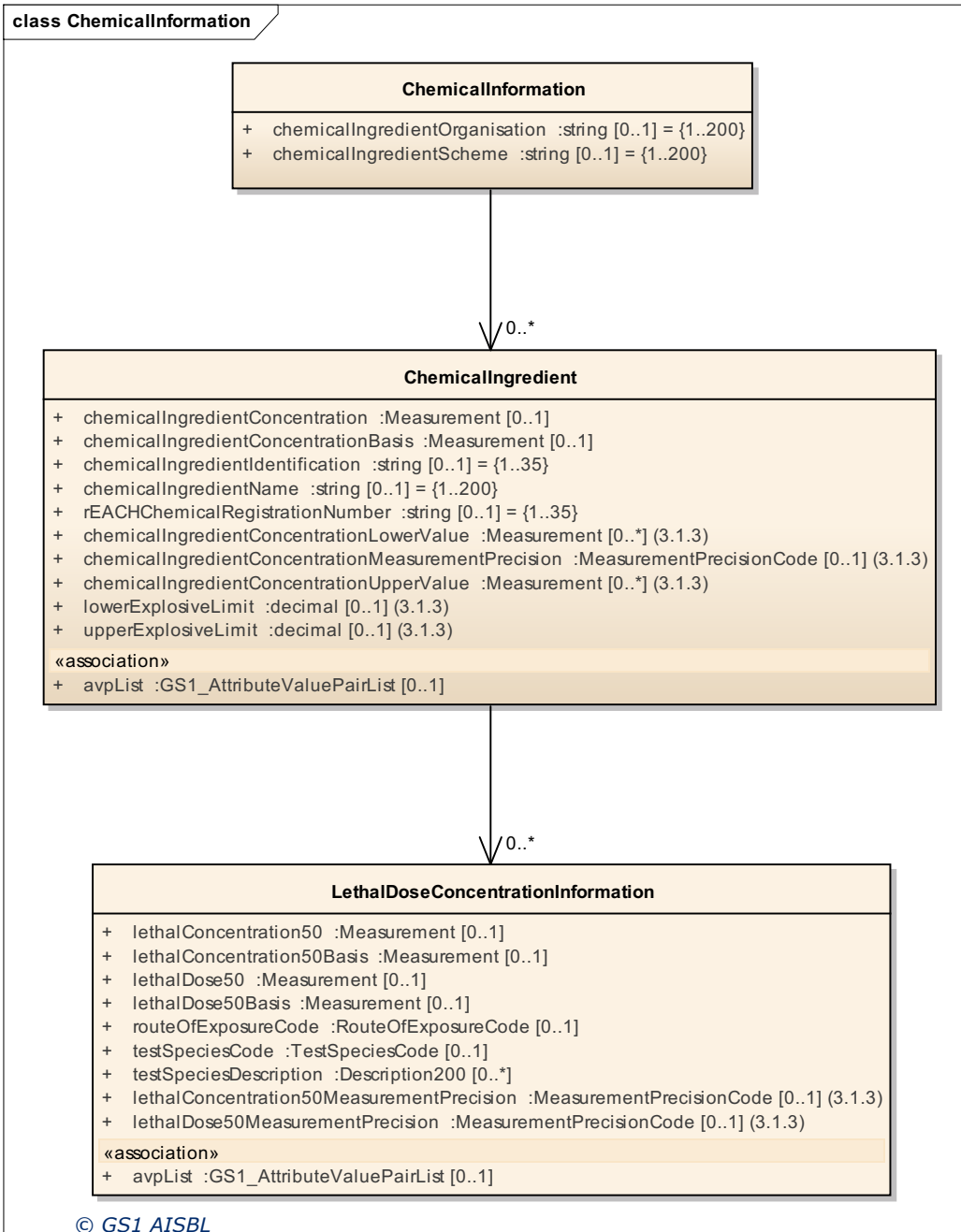
**Note:** Common class (in grey) is located in the GDSN Common Library.

| content               | attribute / role | datatype /secondary class  | multiplcity | definition                                                                                                                                               |
|-----------------------|------------------|----------------------------|-------------|----------------------------------------------------------------------------------------------------------------------------------------------------------|
| SafetyDataSheetModule |                  |                            |             | A module containing information usually contained on a safety data sheet or on a material safety data sheet as it is referred to in some target markets. |
| Association           |                  | SafetyDataSheetInformation | 0..*        | Trade item information usually contained on a safety data sheet or on a material safety data sheet as it is referred to in some target markets.          |

| content                    | attribute / role                     | datatype /secondary class           | multipl<br>city | definition                                                                                                                                                                                                                     |
|----------------------------|--------------------------------------|-------------------------------------|-----------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| SafetyDataSheetInformation |                                      |                                     |                 | Trade item information usually contained on a safety data sheet or on a material safety data sheet as it is referred to in some target markets.                                                                                |
| Association                |                                      | PhysicalChemicalPropertyInformation | 0..1            | Physical or chemical property information expressed on an SDS/MSDS.                                                                                                                                                            |
| Association                |                                      | ChemicalInformation                 | 0..*            | Chemical Information expressed on an SDS/MSDS.                                                                                                                                                                                 |
| Association                |                                      | GHSDetail                           | 0..1            | Information on GHS for a safety data sheet.                                                                                                                                                                                    |
| Association                |                                      | HazardousWasteInformation           | 0..*            | Hazardous waste information expressed on an SDS/MSDS.                                                                                                                                                                          |
| Association                |                                      | REACHInformation                    | 0..1            | REACH information expressed on an SDS/MSDS.                                                                                                                                                                                    |
| Association                |                                      | ProtectiveEquipment                 | 0..*            | Protective equipment recommended for a chemical.                                                                                                                                                                               |
| Association                |                                      | ReferencedFileInformation           | 0..*            | Referenced File information for an SDS/MSDS.                                                                                                                                                                                   |
| Association                |                                      | StorageCompatibilityInformation     | 0..1            | Storage compatibility information expressed on an SDS/MSDS.                                                                                                                                                                    |
| Association                |                                      | FireFightingInstructions            | 0..1            | Fire fighting information expressed on an SDS/MSDS.                                                                                                                                                                            |
| Association                | avpList                              | GS1_AttributeValuePairList          | 0..1            | Attribute value pair information.                                                                                                                                                                                              |
| Attribute                  | accidentalReleaseMeasuresDescription | Description1000                     | 0..*            | A description of the method of clean-up or pick up for example Chemtrack number in relation to any hazardous materials regulated by ADR (European Agreement concerning the International Carriage of Dangerous Goods by Road). |
| Attribute                  | additionalSDSInformation             | Description1000                     | 0..*            | A description field for other information regarding the MSDS that is not in the other sections. For example, additional contact information, or sustainability statement, other information.                                   |
| Attribute                  | conditionsToAvoid                    | Description1000                     | 0..*            | Conditions, environments, or other chemicals that when mixed with a product can cause an adverse reaction. For example exposing acids to bases.                                                                                |

| content   | attribute / role                     | datatype /secondary class | multiplcity | definition                                                                                                                                                                                                                                                                                                                                                       |
|-----------|--------------------------------------|---------------------------|-------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Attribute | ecologicalInformationDescription     | Description1000           | 0..*        | Any information required on the SDS/MSDS in relationship to any effect of the chemical on the environment.                                                                                                                                                                                                                                                       |
| Attribute | firstAidProceduresDescription        | Description5000           | 0..*        | A description of any first aid procedures necessary in case of exposure. Note: This is used in compliance with ADR (European Agreement concerning the International Carriage of Dangerous Goods by Road).                                                                                                                                                        |
| Attribute | hazardousMaterialsHandlingProcedures | Description1000           | 0..*        | Hazardous materials handling procedures are a description of how the product should be handled in relation to potential hazardous materials for example "do not handle around food, avoid contact with eyes, keep container closed.                                                                                                                              |
| Attribute | isRegulatedForTransportation         | NonBinaryLogicEnumeration | 0..1        | An indicator whether the Trade Item is regulated for shipment by any agency.                                                                                                                                                                                                                                                                                     |
| Attribute | noteToPhysician                      | Description1000           | 0..*        | A description of any measures a physician should take to treat patient for exposure for example "exposure may cause cardio irritability and what drugs not to be given in relation to any hazardous materials.<br>This requested for hazardous materials regulated by ADR (European Agreement concerning the International Carriage of Dangerous Goods by Road). |
| Attribute | sDSSheetNumber                       | string                    | 0..1        | Manufacturer's identification number for the safety data sheet for a trade item.                                                                                                                                                                                                                                                                                 |
| Attribute | sDSStandardCode                      | SDSStandardCode           | 0..1        | A code describing the standard used to create the MSDS that is pointed to in the SDS URL.                                                                                                                                                                                                                                                                        |
| Attribute | sDSStandardVersion                   | string                    | 0..1        | The version of the standard used to create the MSDS that is pointed to in the SDS URL.                                                                                                                                                                                                                                                                           |
| Attribute | storageRequirementsDescription       | Description1000           | 0..*        | A description how to safely store the Trade Item for example cool, dry, not near flame, adequate ventilation.                                                                                                                                                                                                                                                    |
| Attribute | toxicologicalInformationDescription  | Description1000           | 0..*        | A general description of any information on any toxic properties as included on the MSDS for example precautionary text on a label. This text should describe the key issues with the product in regards to toxicity.                                                                                                                                            |
| Attribute | volatileOrganicCompound              | Measurement               | 0..1        | Volatile Organic Compound is the amount of an item that is a volatile organic compound expressed as a measurement. Volatile is where the compound can evaporate or vaporize into the atmosphere.                                                                                                                                                                 |

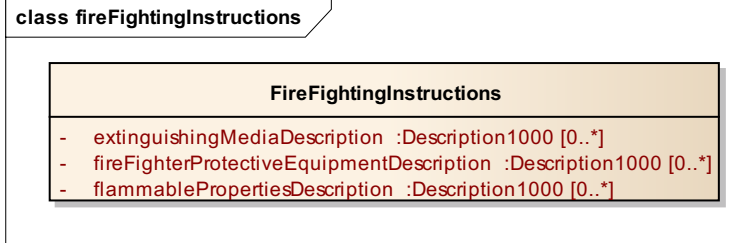
| content   | attribute / role                                   | datatype /secondary class | multipl<br>city | definition                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|-----------|----------------------------------------------------|---------------------------|-----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Attribute | volatileOrganicCompoundBasis                       | Measurement               | 0..1            | The basis measurement for a Volatile Organic Compound when expressed as an amount for example 1 L in the case of 5 ML per 1 LT.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Attribute | volatileOrganicCompoundPercent                     | decimal                   | 0..1            | Volatile Organic Compound by weight is the percentage of an item that is a volatile organic compound. Volatile is where the compound can evaporate or vaporize into the atmosphere.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Attribute | isProductClassifiedAsNonHazardous                  | Boolean                   | 0..1            | Indication that the product is classified, on its own or when aggregated, as non-hazardous waste according to EPA's Resource Conservation and Control ACT (RCRA) when disposed. Under RCRA (40 CFR 261.31-33) hazardous wastes are those determined by EPA to be hazardous including those classified as hazardous and if products exhibit one of the four characteristics (defined in 40 CFR Part 261.21-24). Hazardous wastes are divided into listed wastes, characteristic wastes, universal wastes, and mixed wastes. Specific procedures determine how waste is identified, classified, listed, and delisted. RCRA mandates strict controls over disposal of hazardous waste. These listed wastes are divided into three categories: K-list, F-list, and the P and U-Lists. Characteristic wastes include wastes that exhibit ignitability, corrosivity, reactivity or toxicity. Universal wastes include batteries, pesticides, mercury-containing products and lamps. Examples include computer equipment, lead-containing products, and applicable cleaning chemicals. |
| Attribute | volatileOrganicCompoundPercentMeasurementPrecision | Measurement PrecisionCode | 0..1            | The measurement precision used to determine the percentage of an item that is a volatile organic compound.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |



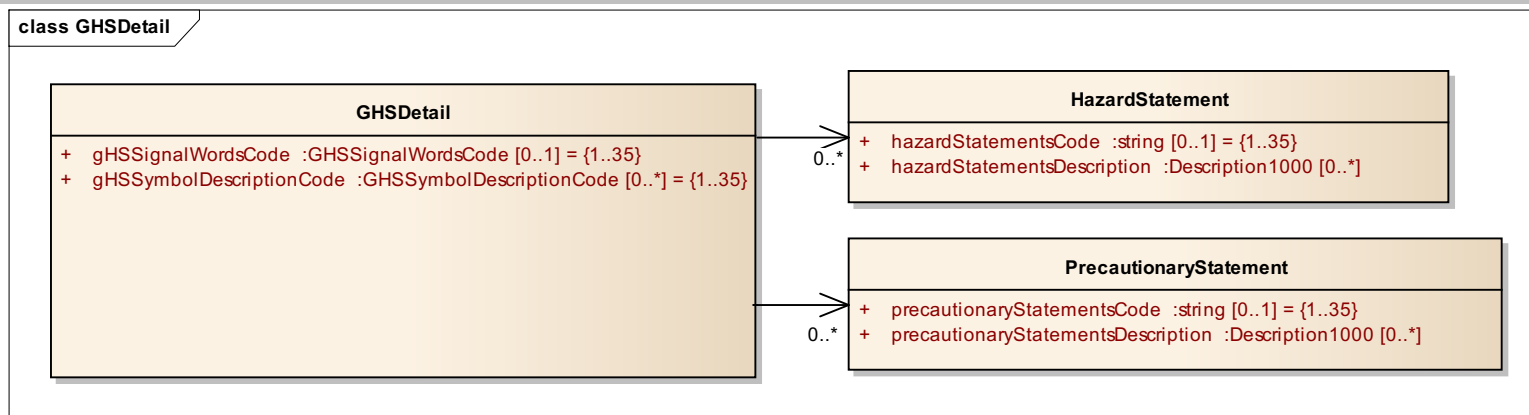
| content             | attribute / role                                    | datatype /secondary class          | multiplicity | definition                                                                                                                                   |
|---------------------|-----------------------------------------------------|------------------------------------|--------------|----------------------------------------------------------------------------------------------------------------------------------------------|
| ChemicalInformation |                                                     |                                    |              | Detailed information on any chemical ingredients contained within the trade item.                                                            |
| Association         |                                                     | ChemicalIngredient                 | 0..*         | Chemical ingredient details for a specific chemical ingredient.                                                                              |
| Attribute           | chemicalIngredientOrganisation                      | string                             | 0..1         | An organization managing a chemical ingredient identification scheme.                                                                        |
| Attribute           | chemicalIngredientScheme                            | string                             | 0..1         | A managed list of chemical ingredient identifications for example CAS.                                                                       |
| ChemicalIngredient  |                                                     |                                    |              | Chemical ingredient details for a specific chemical ingredient.                                                                              |
| Association         |                                                     | LethalDoseConcentrationInformation | 0..*         | Lethal Dose and lethal concentration details for a chemical ingredient.                                                                      |
| Attribute           | chemicalIngredientConcentration                     | Measurement                        | 0..1         | The percentage or amount of a chemical ingredient in relation to the total composition of the product.                                       |
| Attribute           | chemicalIngredientConcentrationBasis                | Measurement                        | 0..1         | The basis amount used to express the chemical ingredient concentration.                                                                      |
| Attribute           | chemicalIngredientIdentification                    | string                             | 0..1         | A unique number to identify a chemical used to cross reference regulated lists of chemicals for example CAS number.                          |
| Attribute           | chemicalIngredientName                              | string                             | 0..1         | The common name of the chemical ingredient.                                                                                                  |
| Attribute           | rEACHChemicalRegistrationNumber                     | string                             | 0..1         | A unique registration number for a chemical for a company. This is issued by the European Chemical Agency (ECHA) and is unique per chemical. |
| Attribute           | chemicalIngredientConcentrationLowerValue           | Measurement                        | 0..*         | The lower value of a range of a chemical ingredient concentration.                                                                           |
| Attribute           | chemicalIngredientConcentrationMeasurementPrecision | MeasurementPrecisionCode           | 0..1         | The measurement precision used to determine the concentration of a chemical ingredient for example EXACT.                                    |
| Attribute           | chemicalIngredientConcentrationUpperValue           | Measurement                        | 0..*         | The upper value of a range of a chemical ingredient concentration.                                                                           |
| Attribute           | lowerExplosiveLimit                                 | decimal                            | 0..1         | The low end value expressed as a percent by volume that the mixture is still flammable.                                                      |
| Attribute           | upperExplosiveLimit                                 | decimal                            | 0..1         | The high end value expressed as a percent by volume that the product will still explode.                                                     |

| content                            | attribute / role                          | datatype /secondary class  | multiplicity | definition                                                                                                                                                                                                                                                                 |
|------------------------------------|-------------------------------------------|----------------------------|--------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Association                        | avpList                                   | GS1_AttributeValuePairList | 0..1         | Attribute value pair information.                                                                                                                                                                                                                                          |
| LethalDoseConcentrationInformation |                                           |                            |              | Details on any lethal dose or concentration of a chemical in a trade item.                                                                                                                                                                                                 |
| Attribute                          | lethalConcentration50                     | Measurement                | 0..1         | Median Lethal Concentration is a statistically derived concentration of a substance that can be expected to cause death in 50% of test animals. It is usually expressed as the weight of substance per weight or volume of water, air or feed, e.g., mg/l, mg/kg or ppm.   |
| Attribute                          | lethalConcentration50Basis                | Measurement                | 0..1         | The basis measurement for the measurement of Median Lethal Concentration for example 1 LT in the ratio 10 MG/1 LT .                                                                                                                                                        |
| Attribute                          | lethalDose50                              | Measurement                | 0..1         | Lethal Dose 50 is a statistically derived single dose that can be expected to cause death in 50% of the test animals when administered by the route indicated (oral, dermal, inhalation). It is expressed as a weight of substance per unit weight of animal, e.g., mg/kg. |
| Attribute                          | lethalDose50Basis                         | Measurement                | 0..1         | The basis measurement for the measurement of a Lethal Dose for example 1 LT in the ratio 10 MG/1 LT.                                                                                                                                                                       |
| Attribute                          | routeOfExposureCode                       | RouteOfExposureCode        | 0..1         | The means by which living organisms can come into contact with a hazardous substance for example dermal, Inhalation, ingestion.                                                                                                                                            |
| Attribute                          | testSpeciesCode                           | TestSpeciesCode            | 0..1         | The species of animal that was used for determining LC and LD 50 expressed as a code for example RAT.                                                                                                                                                                      |
| Attribute                          | testSpeciesDescription                    | Description200             | 0..*         | A description of any species of animal that was used for determining LC and LD other than the norm.                                                                                                                                                                        |
| Attribute                          | lethalConcentration50MeasurementPrecision | MeasurementPrecisionCode   | 0..1         | The measurement precision used to determine the lethal concentration 50 for example EXACT.                                                                                                                                                                                 |
| Attribute                          | lethalDose50MeasurementPrecision          | MeasurementPrecisionCode   | 0..1         | The measurement precision used to determine the lethal dose for example EXACT.                                                                                                                                                                                             |
| Association                        | avpList                                   | GS1_AttributeValuePairList | 0..1         | Attribute value pair information.                                                                                                                                                                                                                                          |



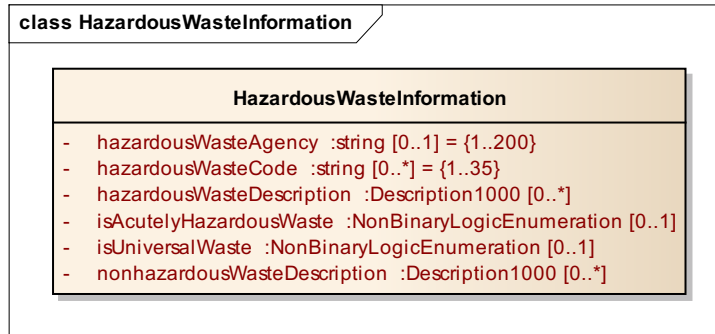


| content                  | attribute / role                          | datatype /secondary class | multiplicity | definition                                                                                                                                                                                                                                                                                                                                                                                                       |
|--------------------------|-------------------------------------------|---------------------------|--------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| FireFightingInstructions |                                           |                           |              | Any instructions on how to handle a fire related to a specific trade item.                                                                                                                                                                                                                                                                                                                                       |
| Attribute                | extinguishingMediaDescription             | Description1000           | 0..*         | A description of any substance that can be used to extinguish a fire, carbon dioxide, water etc in relation to any hazardous materials for example those regulated by ADR (European Agreement concerning the International Carriage of Dangerous Goods by Road). Allows for the representation of the same value in different languages but not multiple values.                                                 |
| Attribute                | fireFighterProtectiveEquipmentDescription | Description1000           | 0..*         | A description of any equipment recommended to be used by fire fighters for protection for example scuba gear, bunker gear, protective equipment in relation to any hazardous materials for example those regulated by ADR (European Agreement concerning the International Carriage of Dangerous Goods by Road). Allows for the representation of the same value in different languages but not multiple values. |
| Attribute                | flammablePropertiesDescription            | Description1000           | 0..*         | A description of any properties related to the ability of a substance to catch fire for example auto-ignition temperature, flashpoint, LEL, UEL in relation to any hazardous materials for example those regulated by ADR (European Agreement concerning the International Carriage of Dangerous Goods by Road).                                                                                                 |



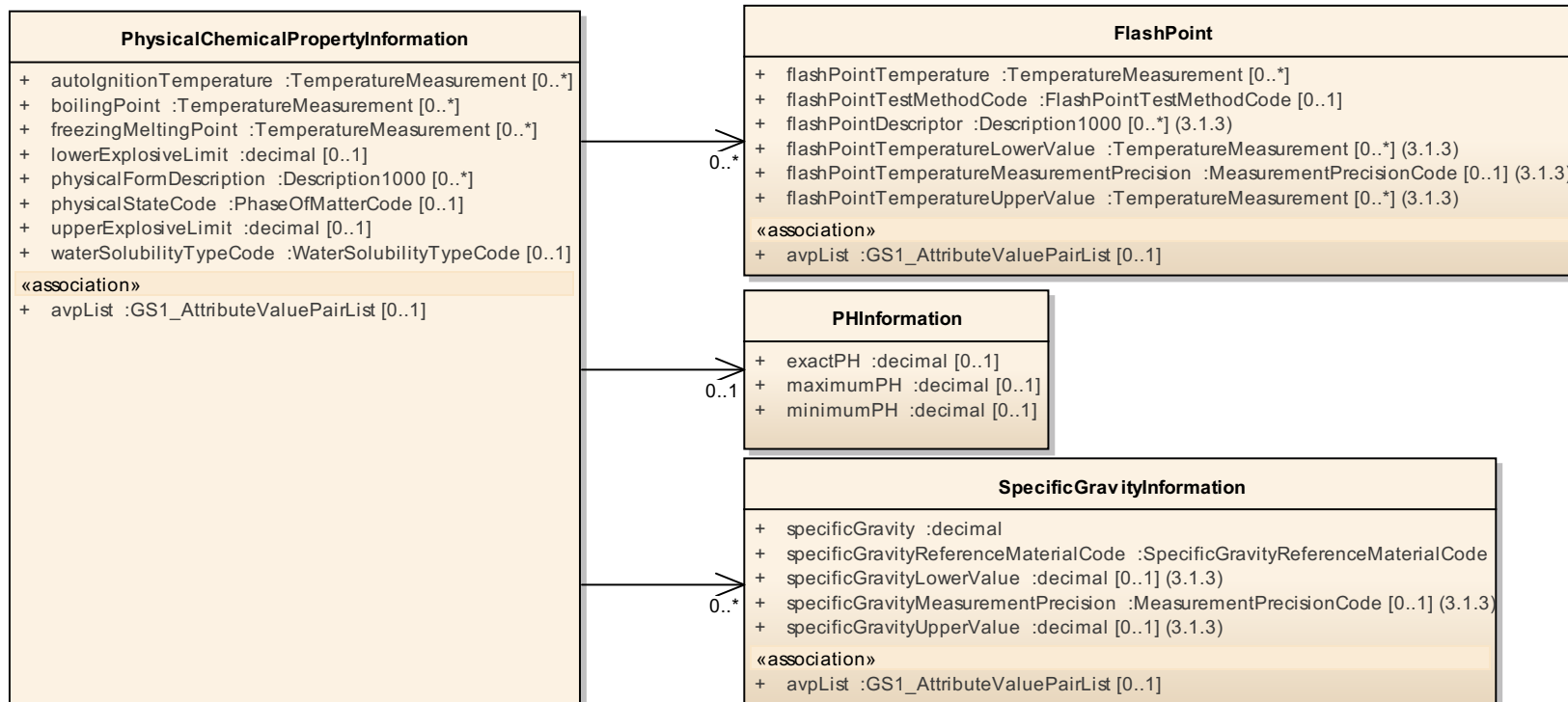
| content     | attribute / role         | datatype /secondary class | multiplicity | definition                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|-------------|--------------------------|---------------------------|--------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| GHSDetail   |                          |                           |              | Details related to the Globally Harmonized System of Classification and Labelling of Chemicals.                                                                                                                                                                                                                                                                                                                                                                      |
| Association |                          | HazardStatement           | 0..*         | Standard phrases describing the nature of a hazard per GHS. Recommend to use GHS Fifth Revised Edition.                                                                                                                                                                                                                                                                                                                                                              |
| Association |                          | PrecautionaryStatement    | 0..*         | Measures listed on a hazardous label to minimize or prevent adverse effects related to GHS. Recommend to use GHS Fifth Revised Edition.                                                                                                                                                                                                                                                                                                                              |
| Attribute   | gHSSignalWordsCode       | GHSSignalWordsCode        | 0..1         | Words such as "Danger" or "Warning" used to emphasize hazards and indicate the relative level of severity of the hazard.<br><br>For GHS these are assigned to a GHS hazard class and category. Some lower level hazard categories do not use signal words.                                                                                                                                                                                                           |
| Attribute   | gHSSymbolDescriptionCode | GHSSymbolDescriptionCode  | 0..*         | A code depicting the symbols which convey health, physical and environmental hazard information, assigned to a hazard class and category for example GHS.<br><br>Pictograms include the harmonized hazard symbols plus other graphic elements, such as borders, background patterns or colours that are intended to convey specific information.<br><br>Examples of all the pictograms and downloadable files for GHS can be accessed on the UN website for the GHS. |

| content                | attribute / role                   | datatype /secondary class | multiplicity | definition                                                                                                                                                                                                                                                                                                            |
|------------------------|------------------------------------|---------------------------|--------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| HazardStatement        |                                    |                           |              | Standard phrases describing the nature of a hazard per GHS.                                                                                                                                                                                                                                                           |
| Attribute              | hazardStatementCode                | string                    | 0..1         | Standard phrases assigned to a hazard class and category that describe the nature of the hazard for example H200.                                                                                                                                                                                                     |
| Attribute              | hazardStatementDescription         | Description1000           | 0..*         | A description of standard phrases assigned to a hazard class and category that describe the nature of the hazard.                                                                                                                                                                                                     |
| PrecautionaryStatement |                                    |                           |              | Measures listed on a hazardous label to minimize or prevent adverse effects related to GHS.                                                                                                                                                                                                                           |
| Attribute              | precautionaryStatementsCode        | string                    | 0..1         | Measures listed on a hazardous label to minimize or prevent adverse effects. For GHS, the precautionary statements have been linked to each GHS hazard statement and type of hazard. Precautionary statements for GHS cover prevention, response in cases of accidental spillage or exposure, storage, and disposal.. |
| Attribute              | precautionaryStatementsDescription | Description1000           | 0..*         | A description of the measures listed on a hazardous label to minimize or prevent adverse effects.                                                                                                                                                                                                                     |



| content                   | attribute / role     | datatype /secondary class | multiplicity | definition                                                                                                                                                                  |
|---------------------------|----------------------|---------------------------|--------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| HazardousWasteInformation |                      |                           |              | Information on the hazardous waste classification for a trade item.                                                                                                         |
| Attribute                 | hazardousWasteAgency | string                    | 0..1         | The Agency for the Classification of Hazardous Waste. The specific hazardous waste code for the federal or state regulation that applies to the product for example US EPA. |

| content   | attribute / role             | datatype /secondary class | multiplicity | definition                                                                                                                                                                                                              |
|-----------|------------------------------|---------------------------|--------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Attribute | hazardousWasteCode           | string                    | 0..*         | A classification of hazardous waste managed at the federal or state level for example EPA Hazardous Waste Code of D001 (Ignitable waste).                                                                               |
| Attribute | hazardousWasteDescription    | Description1000           | 0..*         | A description of the classification of hazardous waste managed at the federal or state level for example EPA Hazardous Waste Code of D001 ( Ignitable waste).                                                           |
| Attribute | isAcutelyHazardousWaste      | NonBinaryLogicEnumeration | 0..1         | An indicator whether or not the Trade Item contains wastes that would cause death, disabling personal injury, or serious illness. These wastes are more hazardous than ordinary hazardous wastes.                       |
| Attribute | isUniversalWaste             | NonBinaryLogicEnumeration | 0..1         | Indicates if a product can be considered universal waste. Universal waste is defined as "are wastes that do not meet the regulatory definition of hazardous waste, but are managed under special, tailored regulations" |
| Attribute | nonHazardousWasteDescription | Description1000           | 0..*         | A classification of non-hazardous waste managed at the federal or state level for example a code for disposal of latex paint.                                                                                           |

**class PhysicalChemicalPropertyInformation**


| content       | attribute / role | datatype /secondary class | multiplicity | definition                                                                                                                                                                                     |
|---------------|------------------|---------------------------|--------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| PHInformation |                  |                           |              | PH is defined as the acidity or alkalinity of an aqueous solution. It is defined as the logarithm of the reciprocal of the hydrogenion concentration of a solution. $pH = \log_{10} 1/[H^+]$ . |
| Attribute     | exactPH          | Decimal                   | 0..1         | The exact PH amount for a chemical ingredient (not a range).                                                                                                                                   |
| Attribute     | maximumPH        | Decimal                   | 0..1         | The maximum range for PH.                                                                                                                                                                      |
| Attribute     | minimumPH        | Decimal                   | 0..1         | The minimum range value for PH.                                                                                                                                                                |

| content                             | attribute / role        | datatype /secondary class  | multiplicity | definition                                                                                                                                                                                         |
|-------------------------------------|-------------------------|----------------------------|--------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| PhysicalChemicalPropertyInformation |                         |                            |              | Information on Physical or Chemical Properties for a trade item for example water solubility.                                                                                                      |
| Association                         |                         | PHInformation              | 0..1         | PH is defined as the acidity or alkalinity of an aqueous solution. It is defined as the logarithm of the reciprocal of the hydrogenion concentration of a solution. $pH = \log_{10} 1/[H^+]$ .     |
| Association                         |                         | Flashpoint                 | 0..*         | Details on the flash point for a trade item.                                                                                                                                                       |
| Association                         |                         | SpecificGravityInformation | 0..*         | Specific Gravity Information for a trade item.                                                                                                                                                     |
| Attribute                           | autoIgnitionTemperature | TemperatureMeasurement     | 0..*         | The lowest temperature at which it will spontaneously ignite in a normal atmosphere without an external source of ignition                                                                         |
| Attribute                           | boilingPoint            | TemperatureMeasurement     | 0..*         | The temperature of a liquid at which its vapour pressure is equal to or very slightly greater than the atmospheric pressure of the environment. Note: (For water at sea level it is 100°C (212°F). |
| Attribute                           | freezingMeltingPoint    | TemperatureMeasurement     | 0..*         | The temperature at which its crystals are in equilibrium with the liquid phase at atmospheric pressure.                                                                                            |
| Attribute                           | lowerExplosiveLimit     | Decimal                    | 0..1         | The low end value expressed as a percent by volume that the mixture is still flammable.                                                                                                            |
| Attribute                           | physicalFormDescription | Description1000            | 0..*         | A description of the form of the product for example gas, liquid, powder. Colorless, Fragrant, Liquid in relation to any hazardous materials.                                                      |
| Attribute                           | physicalStateCode       | PhaseOfMatterCode          | 0..1         | Any physical state a chemical ingredient may be in for example LIQUID.                                                                                                                             |
| Attribute                           | upperExplosiveLimit     | Decimal                    | 0..1         | The high end value expressed as a percent by volume that the product will still explode.                                                                                                           |
| Attribute                           | waterSolubilityTypeCode | WaterSolubilityTypeCode    | 0..1         | Water solubility is defined as a code indicating solubility in respect to water. Solubility is the ability of a given substance to dissolve in a solvent.                                          |
| Association                         | avpList                 | GS1_AttributeValuePairList | 0..1         | Attribute value pair information.                                                                                                                                                                  |
| FlashPoint                          |                         |                            |              | Details on the lowest temperature at which a substance gives off a sufficient vapor to support combustion.                                                                                         |

| content                     | attribute / role                          | datatype /secondary class            | multiplicity | definition                                                                                                                                                                                                                                                                                                                                                                  |
|-----------------------------|-------------------------------------------|--------------------------------------|--------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Attribute                   | flashPointTemperature                     | TemperatureMeasurement               | 0..*         | The temperature at which a substance gives off a sufficient vapour to support combustion. This uses a measurement consisting of a unit of measure and value. The flash point is not the lowest point but the point at which flash point occurs and it could be that temperature is lower for some products. The scientific Measurement Precision code would determine that. |
| Attribute                   | flashPointTestMethodCode                  | FlashPointTestMethodCode             | 0..1         | The test method used to determine the flash point temperature for example closed cup.                                                                                                                                                                                                                                                                                       |
| Attribute                   | flashPointDescriptor                      | Description1000                      | 0..*         | A descriptor that informs which action the trade item must be used under to achieve that flash point for example when dispensed.                                                                                                                                                                                                                                            |
| Attribute                   | flashPointTemperatureLowerValue           | TemperatureMeasurement               | 0..*         | A lower value of a possible range of flash point temperatures.                                                                                                                                                                                                                                                                                                              |
| Attribute                   | flashPointTemperatureMeasurementPrecision | MeasurementPrecisionCode             | 0..1         | The measurement precision used for calculating a flash point temperature for example EXACT.                                                                                                                                                                                                                                                                                 |
| Attribute                   | flashPointTemperatureUpperValue           | TemperatureMeasurement               | 0..*         | A upper value of a possible range of flash point temperatures.                                                                                                                                                                                                                                                                                                              |
| Association                 | avpList                                   | GS1_AttributeValuePairList           | 0..1         | Attribute value pair information.                                                                                                                                                                                                                                                                                                                                           |
| SpecificGravity Information |                                           |                                      |              | Specific Gravity is defined as the ratio of the density of a substance to the density of a reference substance. It is an abstract number that is unrelated to any units.                                                                                                                                                                                                    |
| Attribute                   | specificGravity                           | Decimal                              | 1..1         | Specific Gravity is defined as the ratio of the density of a substance to the density of a reference substance expressed as a float. It is an abstract number that is unrelated to any units.                                                                                                                                                                               |
| Attribute                   | specificGravityReferenceMaterialCode      | SpecificGravityReferenceMaterialCode | 1..1         | The reference material used within the ratio for specific gravity for example water or air.                                                                                                                                                                                                                                                                                 |
| Attribute                   | specificGravityLowerValue                 | decimal                              | 0..1         | The lower value in a range of specific gravity.                                                                                                                                                                                                                                                                                                                             |
| Attribute                   | specificGravityMeasurementPrecision       | MeasurementPrecisionCode             | 0..1         | The measurement precision used for the specific gravity for example EXACT.                                                                                                                                                                                                                                                                                                  |
| Attribute                   | specificGravityUpperValue                 | decimal                              | 0..1         | The upper value in a range of specific gravity.                                                                                                                                                                                                                                                                                                                             |
| Association                 | avpList                                   | GS1_AttributeValuePairList           | 0..1         | Attribute value pair information.                                                                                                                                                                                                                                                                                                                                           |

**class ProtectiveEquipment**
**ProtectiveEquipment**

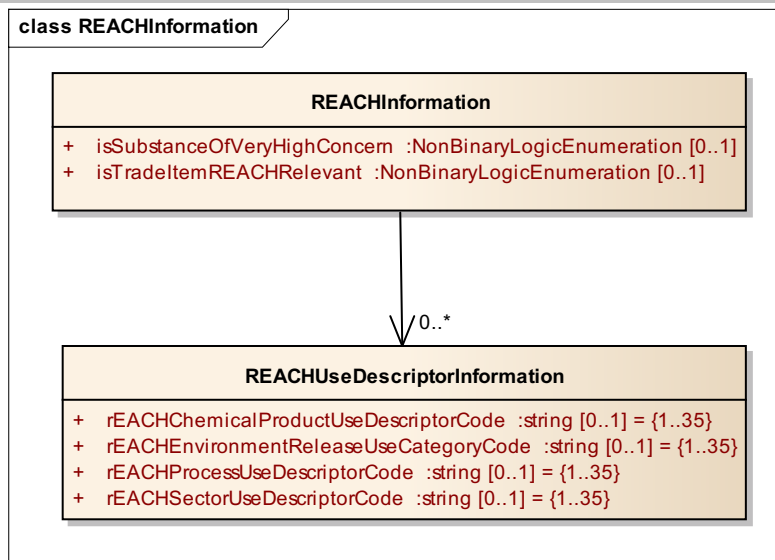
```

+ protectiveEquipmentAdditionalDescription :Description1000 [0..*]
+ protectiveEquipmentBodyAreaCode :ProtectiveEquipmentBodyAreaCode [0..*]
+ protectiveEquipment :Description1000 [0..*]
+ protectiveEquipmentStatusCode :RecommendedStatusCode [0..1]

```

| content             | attribute / role                         | datatype /secondary class       | multiplicity | definition                                                                                                                                                                          |
|---------------------|------------------------------------------|---------------------------------|--------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ProtectiveEquipment |                                          |                                 |              | Information on any recommended protective equipment.                                                                                                                                |
| Attribute           | protectiveEquipmentAdditionalDescription | Description1000                 | 0..*         | Additional information regarding when protective equipment is recommended or required.                                                                                              |
| Attribute           | protectiveEquipment                      | Description1000                 | 0..*         | The manufacturer recommended protective equipment for example protective clothing, helmets, goggles, or other garment designed to protect the wearer's body from chemical exposure. |
| Attribute           | protectiveEquipmentStatusCode            | RecommendedStatusCode           | 0..1         | A code determining whether the protective equipment is recommended or required.                                                                                                     |
| Attribute           | ProtectiveEquipmentBodyAreaCode          | ProtectiveEquipmentBodyAreaCode | 0..*         | A code determining the part of the body the protective equipment is meant to protect for example EYE                                                                                |

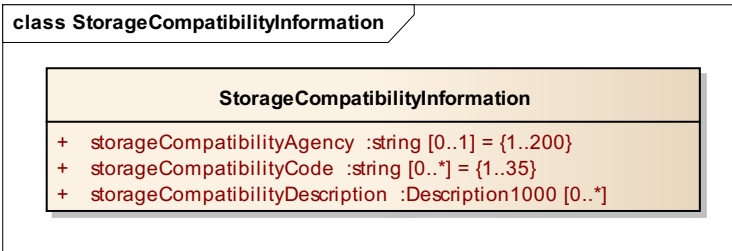




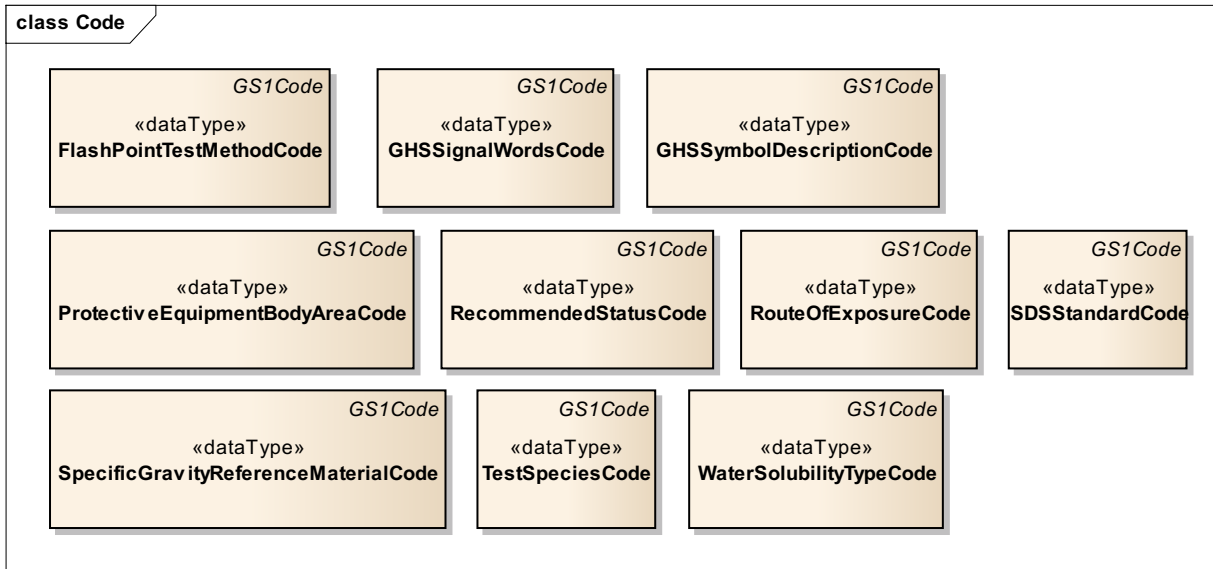
| content          | attribute / role | datatype /secondary class         | multiplic<br>ity | definition                                                                                                                                                                                                                                                                                 |
|------------------|------------------|-----------------------------------|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| REACHInformation |                  |                                   |                  | Information on the Directive on the restriction of the use of certain hazardous substances in electrical and electronic equipment.                                                                                                                                                         |
| Association      |                  | REACHUseDescriptor<br>Information | 0..*             | Details on the trade item in relation to REACH (Registration, Evaluation, Authorisation and Restriction of Chemicals). REACH is a European Union Regulation addressing the production and use of chemical substances and their potential impacts on both human health and the environment. |

| content                       | attribute / role                       | datatype /secondary class | multiplicity | definition                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|-------------------------------|----------------------------------------|---------------------------|--------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Attribute                     | isSubstanceOfVeryHighConcern           | NonBinaryLogicEnumeration | 0..1         | <p>An indicator that a trade item contains substances of very high concern (SVHC) according to REACH as defined in as defined in Article 57 of Regulation (EC) No 1907/2006. This indication does not mean the contained substance or substances have been added to the REACH Candidate List. Substances of very high concern (SVHC) are defined as:</p> <ul style="list-style-type: none"> <li>•Substances that are category 1 and 2 carcinogens, mutagens or toxic to the reproductive system (CMR)</li> <li>•Substances that are persistent, bio-accumulative and toxic (PBT) or very persistent and very bio-accumulative (vPvB)</li> <li>•Substances such as endocrine disrupters, which are demonstrated to be of equivalent concern. For these substances, there are specific requirements under the REACH Regulation.</li> </ul> |
| Attribute                     | isTradeItemREACHRelevant               | NonBinaryLogicEnumeration | 0..1         | An indicator that the trade item may have ingredients that subject it to REACH.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| REACHUseDescriptorInformation |                                        |                           |              | Details on the trade item in relation to REACH (Registration, Evaluation, Authorisation and Restriction of Chemicals). REACH is a European Union Regulation addressing the production and use of chemical substances and their potential impacts on both human health and the environment.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Attribute                     | rEACHChemicalProductUseDescriptorCode  | string                    | 0..1         | The types of preparations (mixtures) the substance is contained in end-use. An example of a Reach Chemical Product Descriptor is PC1: Adhesives, sealants.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Attribute                     | rEACHEnvironmentReleaseUseCategoryCode | string                    | 0..1         | The broad conditions of use from the environmental perspective. An example of a REACH Environment Release Category is ERC 3 Formulation in materials.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Attribute                     | rEACHProcessUseDescriptorCode          | string                    | 0..1         | The technical process or application in which the substance is used from an occupational perspective. An example of a REACH Process Use Descriptor is PROC 7 Industrial Spraying.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |

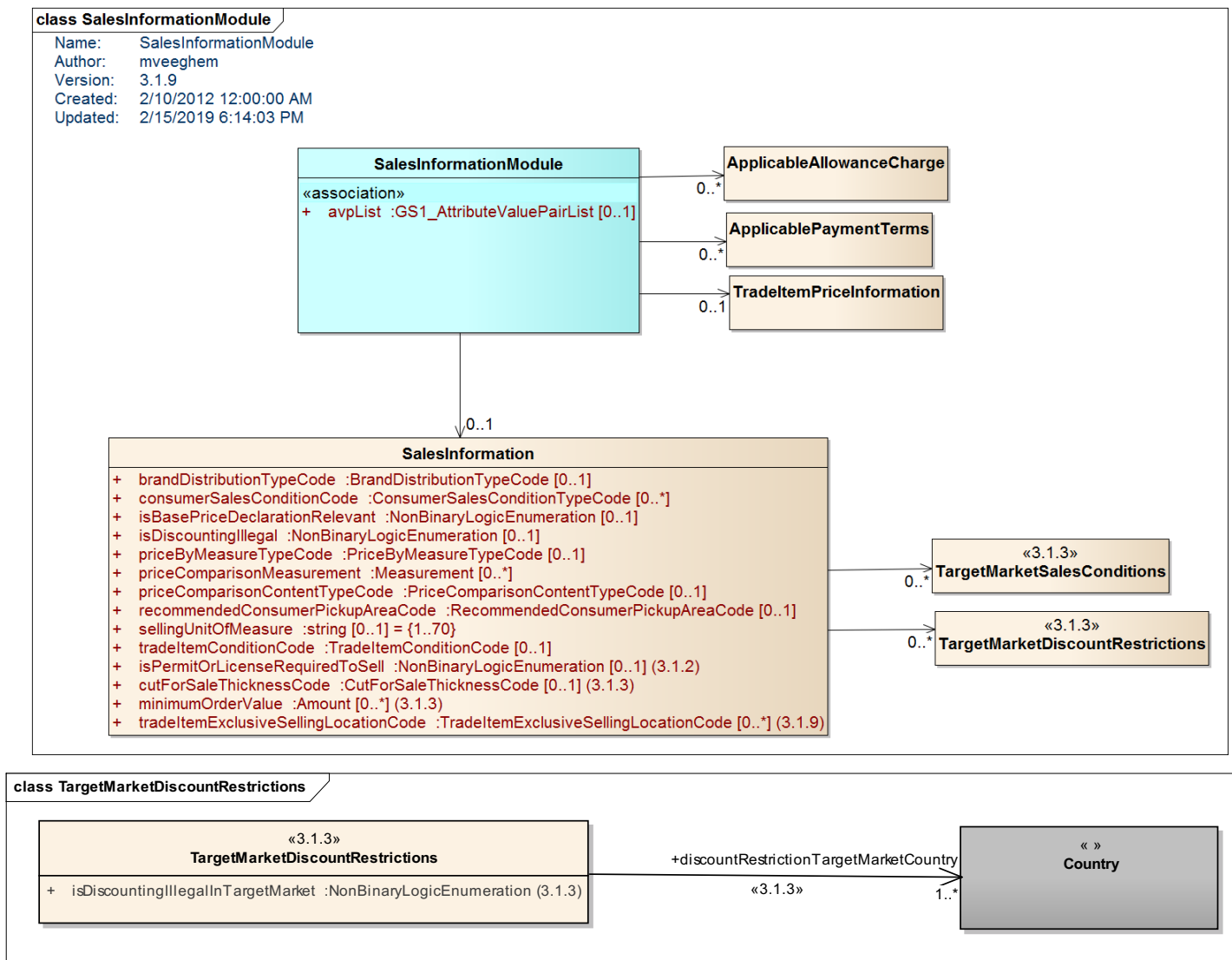
| content   | attribute / role             | datatype /secondary class | multiplicity | definition                                                                                                                                                                                                                                                                                 |
|-----------|------------------------------|---------------------------|--------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Attribute | rEACHSectorUseDescriptorCode | string                    | 0..1         | The sector of the economy the substance is used. Use includes manufacture in the chemical industry, mixing of substances at formulator's level as well as industrial, professional and consumer end-uses. An example of a REACH Sector Use Descriptor is SU4 Manufacture of food products. |

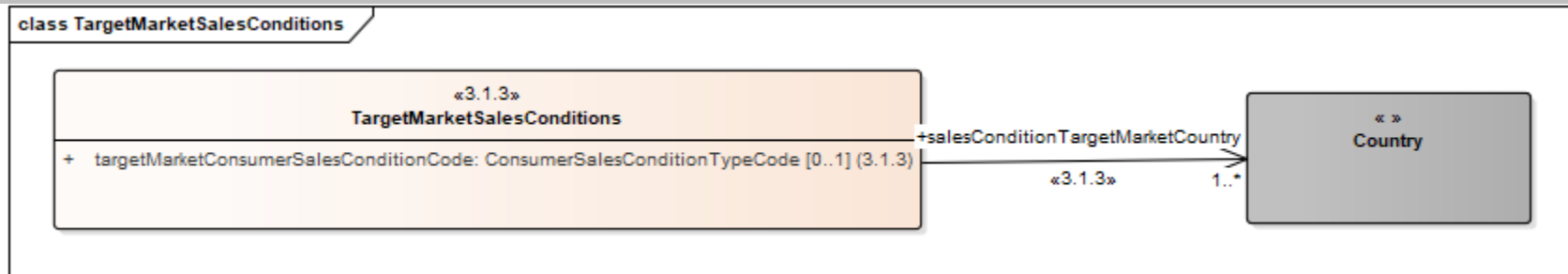


| content                         | attribute / role                | datatype /secondary class | multiplicity | definition                                                                                                                                                                                                                                                                                                 |
|---------------------------------|---------------------------------|---------------------------|--------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| StorageCompatibilityInformation |                                 |                           |              | Information on the types of materials that this product cannot be stored with.                                                                                                                                                                                                                             |
| Attribute                       | storageCompatibilityAgency      | string                    | 0..1         | The agency which maintains a list of storage compatibilities for example NFPA.                                                                                                                                                                                                                             |
| Attribute                       | storageCompatibilityCode        | string                    | 0..*         | A storage compatibilities expressed as a code.                                                                                                                                                                                                                                                             |
| Attribute                       | storageCompatibilityDescription | Description1000           | 0..*         | The types of materials that this product cannot be stored with. Incompatible chemicals give an undesired chemical reaction when mixed. This usually refers to substances that will react to cause an imminent threat to health and safety through an explosion, fire, and/or formation of toxic materials. |



## 5.56 Sales Information Module

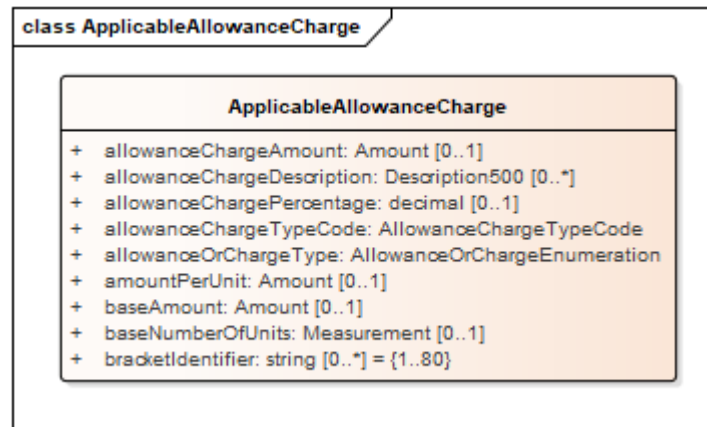




| content          | attribute / role                 | datatype /secondary class       | multipli city | definition                                                                                                                                                                                                                                                                                                      |
|------------------|----------------------------------|---------------------------------|---------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| SalesInformation |                                  |                                 |               | Restrictions or requirements on the retailer for sales of the Trade Item to the consumer.                                                                                                                                                                                                                       |
| Attribute        | brandDistributionType Code       | BrandDistributionT ypeCode      | 0..1          | Any restrictions imposed on the Trade Item on how it can be sold to the consumer or recipient trading partner.                                                                                                                                                                                                  |
| Attribute        | consumerSalesCondi tionCode      | ConsumerSalesCon ditionTypeCode | 0..*          | A code depicting restrictions imposed on the Trade Item regarding how it can be sold to the consumer for example age restrictions, selling restrictions.                                                                                                                                                        |
| Attribute        | isBasePriceDeclaratio nRelevant  | NonBinaryLogicEnu meration      | 0..1          | An indicator whether this item is mandated to have price comparison information included according to country specific pricing directives.                                                                                                                                                                      |
| Attribute        | isDiscountingIllegal             | NonBinaryLogicEnu meration      | 0..1          | An indicator whether or not the product is not legal to discount within a given target market (i.e. the product is subject to government regulation regarding either price floors or pricing practices).                                                                                                        |
| Attribute        | isPermitOrLicenseReq uiredToSell | NonBinaryLogicEnu meration      | 0..1          | Indicates if the recipient needs a permit or license to sell the product to consumer.                                                                                                                                                                                                                           |
| Attribute        | priceByMeasureTypeC ode          | PriceByMeasureTyp eCode         | 0..1          | Indicator to show how a product is sold.                                                                                                                                                                                                                                                                        |
| Attribute        | priceComparisonMeas urement      | Measurement                     | 0..*          | The quantity of the product at usage. Applicable for concentrated products and products where the comparison price is calculated based on a measurement other than netContent. This field is dependent on the population of priceComparisonContentType and is required when priceComparisonContentType is used. |
| Attribute        | priceComparisonCont entTypeCode  | PriceComparisonCo ntentTypeCode | 0..1          | Code indicating how the value in Price Comparison Measurement is used to calculate the comparative price, which is printed on shelf labels.                                                                                                                                                                     |

| content                | attribute / role                      | datatype / secondary class            | multipl<br>city | definition                                                                                                                                                                                                                                                                                                                                              |
|------------------------|---------------------------------------|---------------------------------------|-----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Attribute              | recommendedConsumerPickupAreaCode     | RecommendedConsumerPickupAreaCode     | 0..1            | The recommended placement for the consumer purchase decision point of the item and location within the retail store . For example a potato salad bulk my need to be portioned to a consumer at a service counter as the purchase amount is dependent on what the consumer would like to purchase.                                                       |
| Attribute              | sellingUnitOfMeasure                  | string                                | 0..1            | Describes the measurement used for selling unit of the Trade Item to the end consumer. A Trade Item may have only one Unit of Measure.                                                                                                                                                                                                                  |
| Attribute              | tradeItemConditionCode                | tradeItemConditionCode                | 0..1            | A code depicting the type of preparation that a trade item will have before being sold to the end consumer (e.g. cut for sale, portioned/pieced). This preparation can be done either by the supplier or the retailer or other parties involved. The style of preparation may be determined by either industry standards, the supplier or the retailer. |
| Attribute              | cutForSaleThicknessCode               | CutForSaleThicknessCode               | 0..1            | A code describing the cut for items for sale for example THICK. For presentation and shelf planning, the thickness in general terms of the slice are important.                                                                                                                                                                                         |
| Attribute              | minimumOrderValue                     | Amount                                | 0..*            | The minimum order value of the trade item expressed in a money amount that can be ordered. This attribute is to be used with a respective currency (e.g. 1000.00 USD).                                                                                                                                                                                  |
| Attribute              | tradeItemExclusiveSellingLocationCode | TradeItemExclusiveSellingLocationCode | 0..*            | A code Identifying the kind of selling location(s) in which the product can be sold for example BOAT . This can apply to both physical and digital locations.                                                                                                                                                                                           |
| Association            |                                       | TargetMarketSalesConditions           | 0..*            | Sales conditions that apply to a specific target market.                                                                                                                                                                                                                                                                                                |
| Association            |                                       | TargetMarketDiscountRestrictions      | 0..*            | Discount restrictions that apply to a specific target market.                                                                                                                                                                                                                                                                                           |
| SalesInformationModule |                                       |                                       |                 | Sales information regarding price and selling conditions/restrictions of the Trade Item to the consumer.                                                                                                                                                                                                                                                |
| Association            |                                       | ApplicableAllowanceCharge             | 0..*            | Specifies allowances and charges applicable to a trade item.                                                                                                                                                                                                                                                                                            |
| Association            |                                       | ApplicablePaymentTerms                | 0..*            | Payment terms and conditions by which a payment can be made for a trade item.                                                                                                                                                                                                                                                                           |
| Association            |                                       | SalesInformation                      | 0..1            | Restrictions or requirements on the retailer for sales of the Trade Item to the consumer.                                                                                                                                                                                                                                                               |
| Association            |                                       | TradeItemPriceInformation             | 0..1            | Provides Price details including effective dates.                                                                                                                                                                                                                                                                                                       |

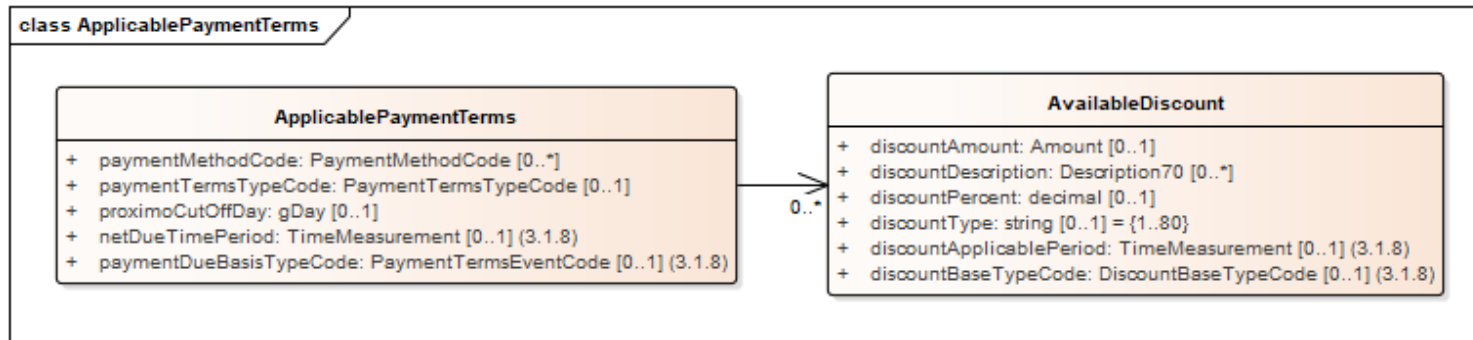
| content                          | attribute / role                       | datatype /secondary class      | multipli city | definition                                                                                                                                                                                               |
|----------------------------------|----------------------------------------|--------------------------------|---------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Association                      | avpList                                | GS1_AttributeValuePairList     | 0..1          | Attribute value pair information.                                                                                                                                                                        |
| TargetMarketDiscountRestrictions |                                        |                                |               | Determines whether an item requires a license or permit to sell within a specific target market.                                                                                                         |
| Association                      | discountRestrictionTargetMarketCountry | Country                        | 1..*          | The target market that any restrictions on a discount applies to.                                                                                                                                        |
| Attribute                        | isDiscountingIllegalInTargetMarket     | NonBinaryLogicEnumeration      | 1..1          | An indicator whether or not the product is not legal to discount within a given target market (i.e. the product is subject to government regulation regarding either price floors or pricing practices). |
| TargetMarketSalesConditions      |                                        |                                |               | Sales conditions which can differ based upon a target market.                                                                                                                                            |
| Association                      | salesConditionTargetMarketCountry      | Country                        | 1..*          | The target market country and or subdivision that a specific sales condition is relevant to.                                                                                                             |
| Attribute                        | targetMarketConsumerSalesConditionCode | ConsumerSalesConditionTypeCode | 0..1          | A code depicting restrictions imposed on the Trade Item regarding how it can be sold to the consumer for example age restrictions, selling restrictions.                                                 |



| content                   | attribute / role        | datatype /secondary class | multipli city | definition                                                                 |
|---------------------------|-------------------------|---------------------------|---------------|----------------------------------------------------------------------------|
| ApplicableAllowanceCharge |                         |                           |               | Specifies allowances and charges applicable to a trade item.               |
| Attribute                 | AllowanceChargeTypeCode | allowanceChargeTypeCode   | 1..1          | The identification of an allowance charge selected from a predefined list. |

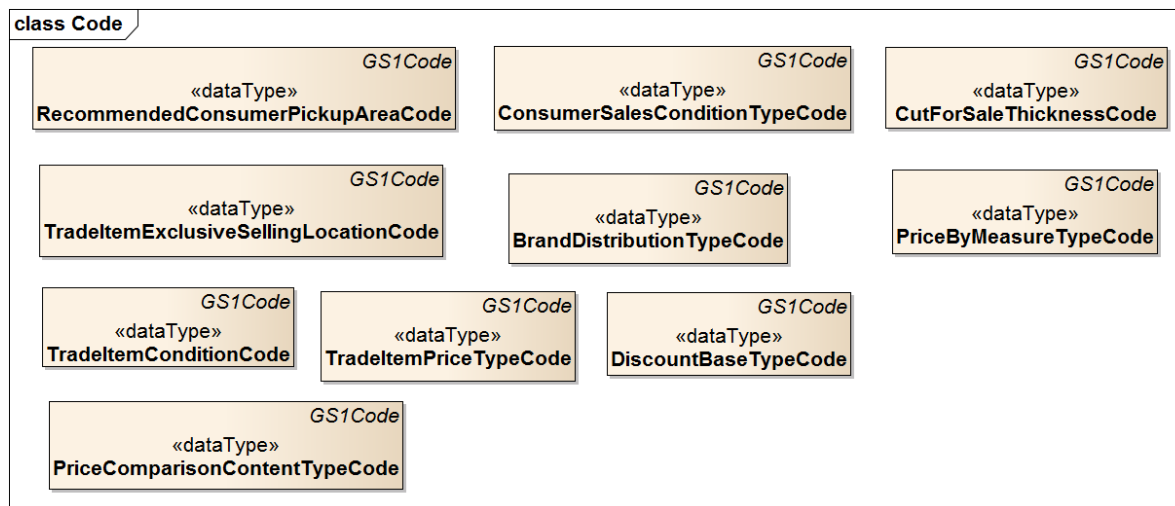
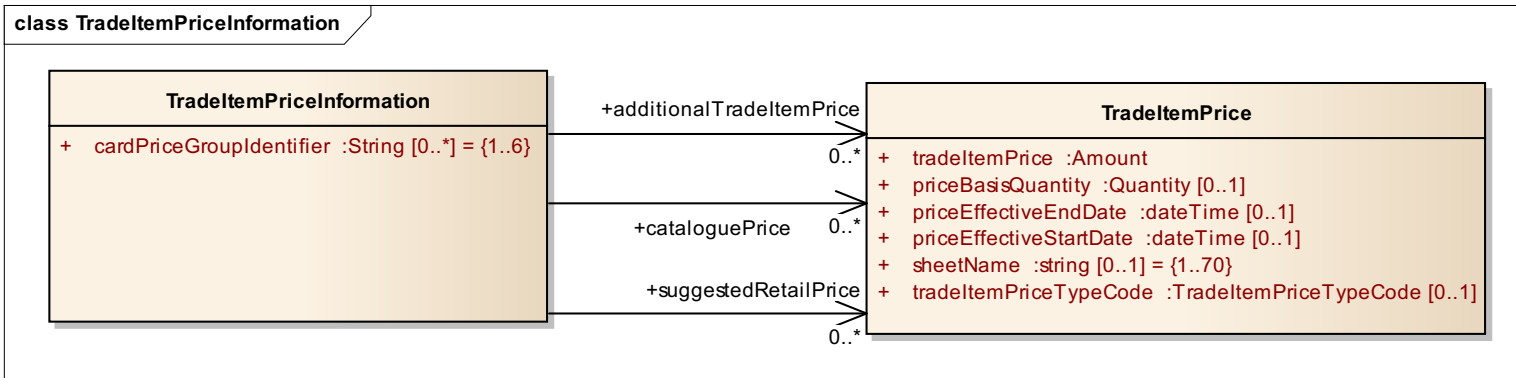


| content   | attribute / role           | datatype /secondary class        | multipl<br>city | definition                                                                                                                                                 |
|-----------|----------------------------|----------------------------------|-----------------|------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Attribute | AllowanceOrChargeType      | allowanceOrChargeTypeEnumeration | 1..1            | Code specifying whether this is an allowance or a charge.                                                                                                  |
| Attribute | allowanceChargeAmount      | Amount                           | 0..1            | Amount of allowance or charge applicable.                                                                                                                  |
| Attribute | allowanceChargeDescription | Description500                   | 0..*            | A text explanation of the allowance or charge.                                                                                                             |
| Attribute | allowanceChargePercentage  | Decimal                          | 0..1            | Allowance and charges can be expressed in different ways. By using percentage, they are expressed as a percentage of another amount, e.g. the base amount. |
| Attribute | amountPerUnit              | Amount                           | 0..1            | Allowance/charge per unit expressed as an amount.                                                                                                          |
| Attribute | baseAmount                 | Amount                           | 0..1            | The amount on which the calculation of the allowance or charge is based.                                                                                   |
| Attribute | baseNumberOfUnits          | Measurement                      | 0..1            | Number of units on which the allowance or charge is based.                                                                                                 |
| Attribute | bracketIdentifier          | String                           | 0..*            | Identification of the conditions that apply to the allowance or charge.                                                                                    |



| content                | attribute / role | datatype /secondary class | multipl<br>city | definition                                                                    |
|------------------------|------------------|---------------------------|-----------------|-------------------------------------------------------------------------------|
| ApplicablePaymentTerms |                  |                           |                 | Payment terms and conditions by which a payment can be made for a trade item. |

| content           | attribute / role         | datatype /secondary class | multipl<br>city | definition                                                                                                                                                                                                    |
|-------------------|--------------------------|---------------------------|-----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Association       |                          | AvailableDiscount         | 0..*            | Additional information on discounts that may be applied to the payment depending on the way the payment is being made for example "2 percent in 10 days, net 30".                                             |
| Attribute         | netDueTimePeriod         | TimeMeasurement           | 0..1            | Time period amount should be paid. For example: 30 DAY                                                                                                                                                        |
| Attribute         | paymentDueBasisTypeCode  | PaymentTermsEventCode     | 0..1            | The basis type on which the payment is due. For example, RECEIPT_OF_GOODS.                                                                                                                                    |
| Attribute         | paymentMethodCode        | PaymentMethodCode         | 0..*            | The payment method used in the payment terms.                                                                                                                                                                 |
| Attribute         | paymentTermsTypeCode     | PaymentTermsTypeCode      | 0..1            | The type of payment term expressed as a code for example DISCOUNT.                                                                                                                                            |
| Attribute         | proximoCutOffDay         | gDay                      | 0..1            | The day of the month the payment becomes due.                                                                                                                                                                 |
| AvailableDiscount |                          |                           |                 | Information on a discount specified in a payment term. Information on discounts that may be applied to the payment depending on the way the payment is being made for example "2 percent in 10 days, net 30". |
| Attribute         | discountAmount           | amount                    | 0..1            | The deduction represented as an amount .                                                                                                                                                                      |
| Attribute         | discountApplicablePeriod | TimeMeasurement           | 0..1            | Time period the discount is applicable.                                                                                                                                                                       |
| Attribute         | discountBaseTypeCode     | DiscountBaseTypeCode      | 0..1            | Describes the price base applicable to the discount. For example NET or GROSS.                                                                                                                                |
| Attribute         | discountDescription      | Description70             | 0..*            | A text field describing the discount.                                                                                                                                                                         |
| Attribute         | discountPercent          | decimal                   | 0..1            | The deduction represented as a percentage.                                                                                                                                                                    |
| Attribute         | discountType             | string                    | 0..1            | A string value that specifies the type of payment discount for example "2 percent in 10 days, net 30".                                                                                                        |

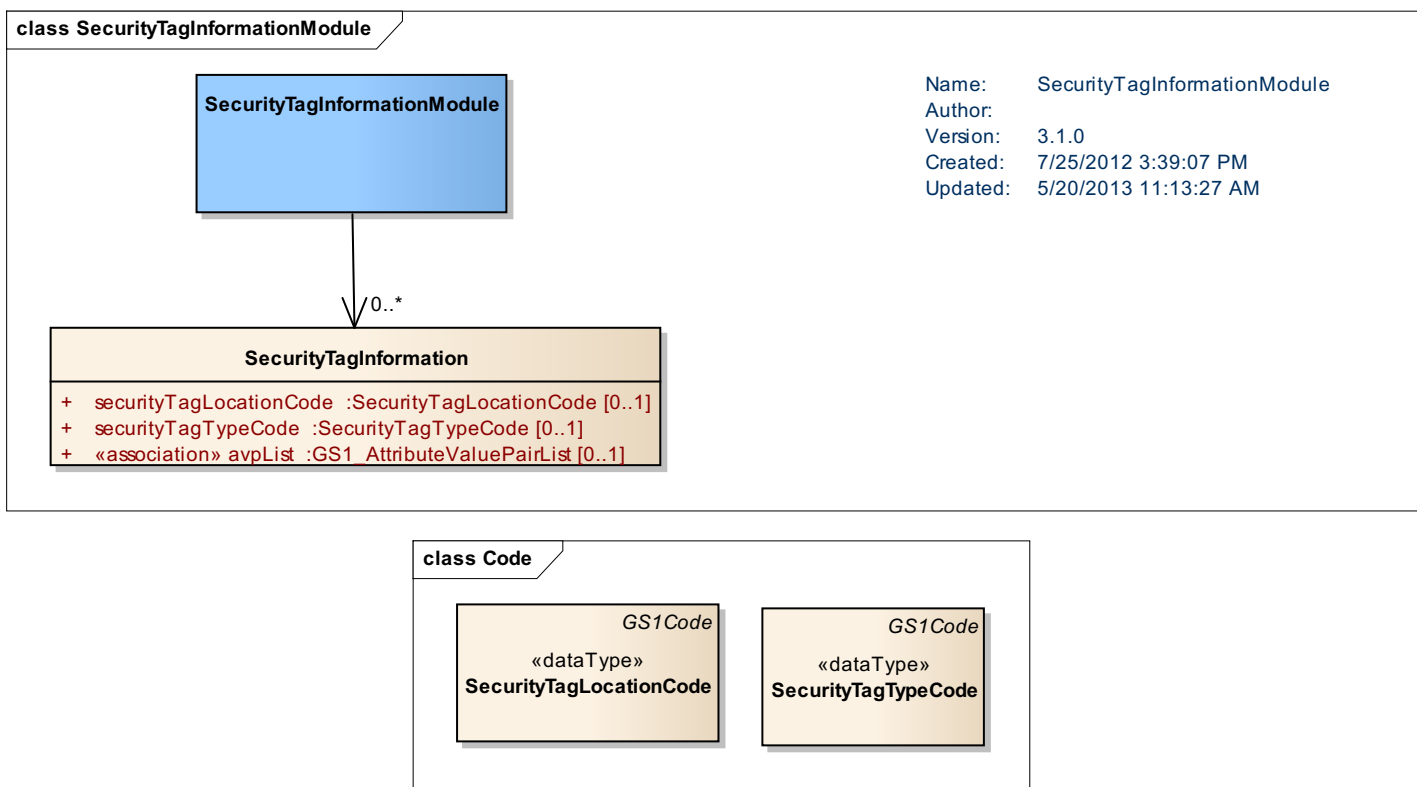


| content        | attribute / role   | datatype /secondary class | multipli<br>city | definition                                                                                    |
|----------------|--------------------|---------------------------|------------------|-----------------------------------------------------------------------------------------------|
| TradeItemPrice |                    |                           |                  | Provides Price details including effective dates.                                             |
| Attribute      | tradeItemPrice     | Amount                    | 1..1             | Provides the trade item price value.                                                          |
| Attribute      | priceBasisQuantity | quantity                  | 0..1             | The price basis quantity is the associated quantity of trade item for which a price is given. |

| content                   | attribute / role         | datatype / secondary class | multipl<br>city | definition                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|---------------------------|--------------------------|----------------------------|-----------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Attribute                 | priceEffectiveEndDate    | dateTime                   | 0..1            | The effective end date of the price is optional based upon the agreement by the trading partners. If an invalid end date is communicated, then it is implied that the price and its effective date are effective until further notice. Examples of invalid dates include 99/99/9999, 00/00/0000, blank, etc. These invalid end dates should not be communicated. Various types of dates may be pre-aligned between buyer and seller. For example, based upon a prior agreement between trading partners this date may relate to any of the following events, last order date, last ship date, and last arrival date. |
| Attribute                 | priceEffectiveStartDate  | dateTime                   | 0..1            | This is the effective start date of the price agreed to by the trading partners. This start date is mandatory and, if no end date is communicated, then implies that the price is effective until further notice. Various types of dates may be pre-aligned between buyer and seller. For example, based upon a prior agreement between trading partners this date may relate to any of the following events, first order date, first ship date, and first arrival date.                                                                                                                                             |
| Attribute                 | sheetName                | string                     | 0..1,           | The Price Sheet to which a price belongs. A price list is a list of prices of goods and services which are to be used or supplied during a period of time.                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Attribute                 | tradeItemPriceTypeCode   | TradeItemPriceTypeCode     | 0..1            | The type price for the item for example catalogue price                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| TradeItemPriceInformation |                          |                            |                 | Provides Price details including effective dates.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Association               | additionalTradeItemPrice | TradeItemPrice             | 0..*,           | Provides Price details including effective dates.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Association               | cataloguePrice           | TradeItemPrice             | 0..*            | The gross price before application of any discounts, allowances, charges, taxes, etcetera. The value represented is the price that the manufacturer expects to receive for the trade item or service from any buyer prior to any relationship specific negotiations (E.g. a public catalogue population).                                                                                                                                                                                                                                                                                                            |
| Association               | suggestedRetailPrice     | TradeItemPrice             | 0..*            | The retail (to consumer) price as suggested by the manufacturer. This is normally used to establish a proposed value for the trade item for marketing purposes. May or may not appear on the package.                                                                                                                                                                                                                                                                                                                                                                                                                |

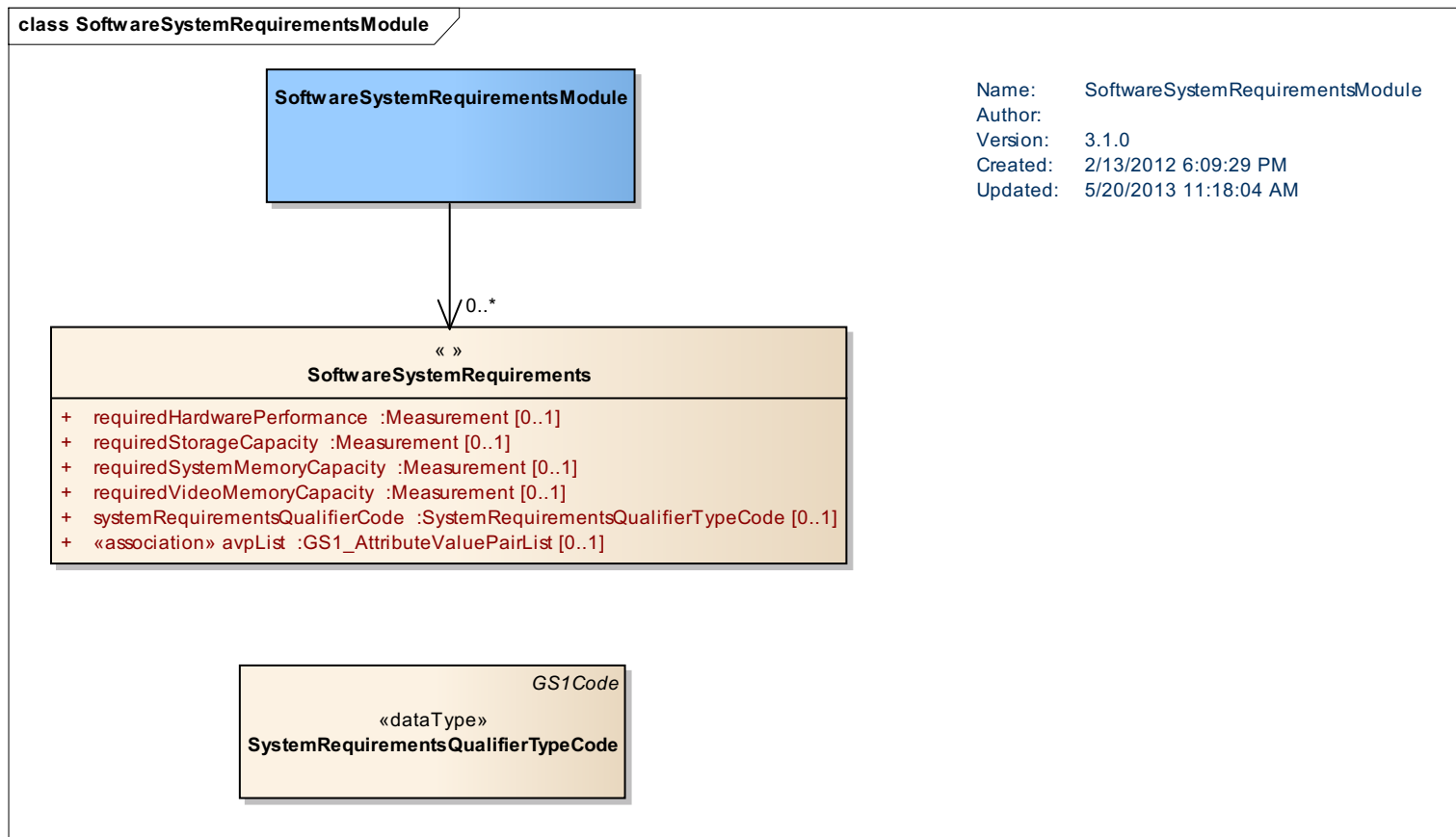
| content   | attribute / role             | datatype /secondary class | multipli<br>city | definition                      |
|-----------|------------------------------|---------------------------|------------------|---------------------------------|
| Attribute | cardPriceGroupIdentif<br>ier | string                    | 0..*             | A code that identifies a price. |

## 5.57 Security Tag Information Module



| content                      | attribute / role        | datatype /secondary class  | multiplicity | definition                                                                                                                                                                     |
|------------------------------|-------------------------|----------------------------|--------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| SecurityTagInformation       |                         |                            |              | Information on any security tags that may come with the trade item.                                                                                                            |
| Association                  | avpList                 | GS1_AttributeValuePairList | 0..1         | Attribute value pair information.                                                                                                                                              |
| Attribute                    | securityTagLocationCode | SecurityTagLocationCode    | 0..1         | This is a code to indicate where the EAS tag is located on the Trade Item. Values include On outside of Trade Item, Concealed inside Trade Item, Integrated Inside Trade Item. |
| Attribute                    | securityTagTypeCode     | SecurityTagTypeCode        | 0..1         | This is a code to indicate the type of EAS tag located on the Trade Item. Values include Acousto-Magnetic, Electro-Magnetic, Ink or dye, Microwave, Radio Frequency.           |
| SecurityTagInformationModule |                         |                            |              | Information on any security tags that may come with the trade item.                                                                                                            |
| Association                  |                         | SecurityTagInformation     | 0..*         | Information on any security tags that may come with the trade item.                                                                                                            |

## 5.58 Software System Requirements Module

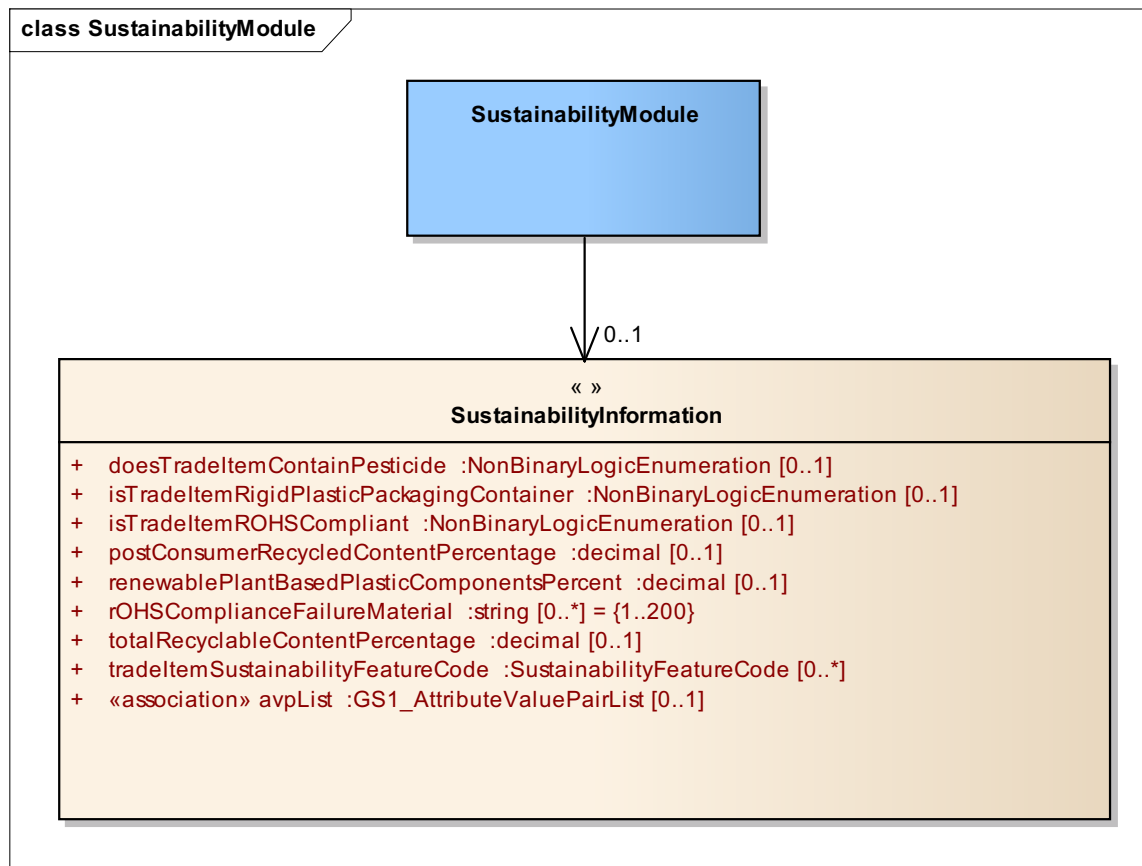


| Content                          | Attribute / Role | Datatype /Secondary class  | Multiplicity | Definition                                                                                    |
|----------------------------------|------------------|----------------------------|--------------|-----------------------------------------------------------------------------------------------|
| SoftwareSystemRequirementsModule |                  |                            |              | A Module with details on any required or recommended system capabilities to run the software. |
| Association                      |                  | SoftwareSystemRequirements | 0..*         | Details on any required or recommended system capabilities to run the software.               |
| Association                      | avpList          | GS1_AttributeValuePairList | 0..1         | Attribute value pair information.                                                             |

| Content                    | Attribute / Role                | Datatype /Secondary class           | Multiplicity | Definition                                                                                                                                                                                             |
|----------------------------|---------------------------------|-------------------------------------|--------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| SoftwareSystemRequirements |                                 |                                     |              | Details on any required or recommended system capabilities to run the software.                                                                                                                        |
| Association                | avpList                         | GS1_AttributeValuePairList          | 0..1         | Attribute value pair information.                                                                                                                                                                      |
| Attribute                  | requiredHardwarePerformance     | Measurement                         | 0..1         | The hardware performance required of the system to operate the software defined by the fundamental rate in cycles per second measured in hertz.                                                        |
| Attribute                  | requiredStorageCapacity         | Measurement                         | 0..1         | The required data storage capacity required of the system to store the software.                                                                                                                       |
| Attribute                  | requiredSystemMemoryCapacity    | Measurement                         | 0..1         | The temporary system memory capacity required of the system to run the software.                                                                                                                       |
| Attribute                  | requiredVideoMemoryCapacity     | Measurement                         | 0..1         | The video memory capacity required of the system to run the software expressed in megabytes. Video memory is memory dedicated to the purpose of holding the information necessary for a graphics card. |
| Attribute                  | systemRequirementsQualifierCode | SystemRequirementsQualifierTypeCode | 0..1         | A code that determines the type of system performance requirements for example minimum or recommended.                                                                                                 |



## 5.59 Sustainability Module

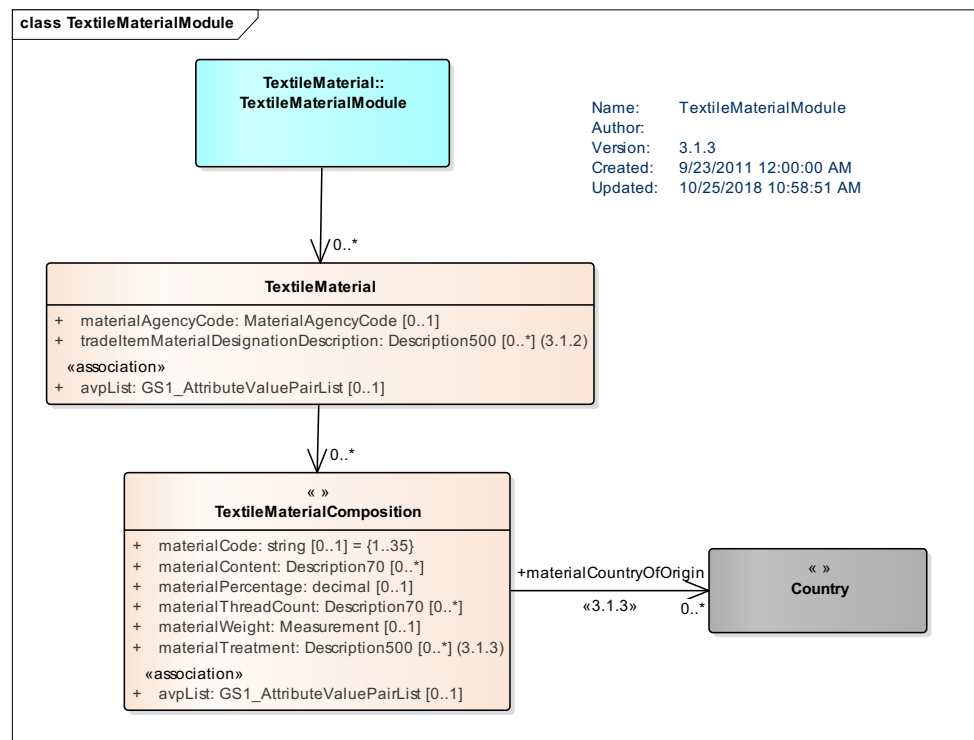


| content                    | attribute / role | datatype /secondary class   | multipli city | definition                                                                        |
|----------------------------|------------------|-----------------------------|---------------|-----------------------------------------------------------------------------------|
| SustainabilityInfo rmation |                  |                             |               | Properties of the trade item that can affect the ecological or human environment. |
| Association                | avpList          | GS1_AttributeValu ePairList | 0..1          | Attribute value pair information.                                                 |

| content   | attribute / role                            | datatype /secondary class | multipl<br>city | definition                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|-----------|---------------------------------------------|---------------------------|-----------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Attribute | doesTradeItemContainPesticide               | NonBinaryLogicEnumeration | 0..1            | Indicates if the trade item is advertised or labelled as a chemical or contains a chemical that is advertised or labelled to kill, repel or prevent the growth of any living organism.                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Attribute | isTradeItemRigidPlasticPackagingContainer   | NonBinaryLogicEnumeration | 0..1            | Indicates that a product is or is contained in a Rigid Plastic Packaging Container (RPPC) as defined by laws in the target market. A Rigid Plastic Packaging Container is a container that is made entirely of plastic, with a capacity between 8 fluid ounces and 5 gallons or the equivalent solid volume,maintains its shape while holding the product, and is capable of multiple re-closures.                                                                                                                                                                                                                       |
| Attribute | isTradeItemROHSCompliant                    | NonBinaryLogicEnumeration | 0..1            | Indicates if the product is compliant with the European Union RoHS Directive (the restriction of the use of certain hazardous substances in electrical and electronic equipment), a government regulated agency that sets guidelines for product not to contain certain hazardous substances. The RoHS (restriction of the use of certain hazardous substances) bans the placing on the EU market of new electrical and electronic equipment containing more than agreed levels of lead, cadmium, mercury, hexavalent chromium, polybrominated biphenyl (PBB) and polybrominated diphenyl ether (PBDE) flame retardants. |
| Attribute | postConsumerRecycledContentPercentage       | decimal                   | 0..1            | Indicates the percentage of post-consumer material used in the trade item. The post-consumer material is collected from recycle bins and used as pulp to make new items. The percentage of post-consumer material is needed to drive whether the recycled logo goes on the item. Some post-consumer material is collected from the recycle bins and used as pulp to make new items.                                                                                                                                                                                                                                      |
| Attribute | renewablePlantBasedPlasticComponentsPercent | decimal                   | 0..1            | The percentage of the plastic components only made from rapidly renewable plant-based material by net weight of product (excludes packaging).                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Attribute | rOHSComplianceFailureMaterial               | string                    | 0..*            | The material used in the trade item that does not comply with the ROHS Directives. ROHS is the "restriction of the use of certain hazardous substances in electrical and electronic equipment". This Directive bans the placing on the EU market of new electrical and electronic equipment containing more than agreed levels of lead, cadmium, mercury, hexavalent chromium, polybrominated biphenyl (PBB) and polybrominated diphenyl ether (PBDE) flame retardants. Use the ROHSComplianceFailureMaterialCode.                                                                                                       |

| content                | attribute / role                   | datatype /secondary class          | multipli city   | definition                                                                                                                                                                                                                                                                             |
|------------------------|------------------------------------|------------------------------------|-----------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Attribute              | totalRecyclableContentPercentage   | decimal                            | 0..1            | The percentage of all recycled material used to produce the trade item. Drives whether or not you can describe an item as recycled in advertising/marketing. This is the totalled recycled content including percentage of post consumer recycled. It excludes all packaging material. |
| Attribute              | tradeItemSustainabilityFeatureCode | SustainabilityFeatureCode          | 0..*            | A feature of the trade item that contributes to sustainability initiatives for example that it is made from renewable materials.                                                                                                                                                       |
| <del>Association</del> |                                    | <del>avpList</del>                 | <del>0..1</del> | <del>Attribute value pair information.</del>                                                                                                                                                                                                                                           |
| SustainabilityModule   |                                    |                                    |                 | Properties of the trade item that can affect the ecological or human environment.                                                                                                                                                                                                      |
| Association            |                                    | TradeItemSustainabilityInformation | 0..1            | Properties of the trade item that can affect the ecological or human environment.                                                                                                                                                                                                      |

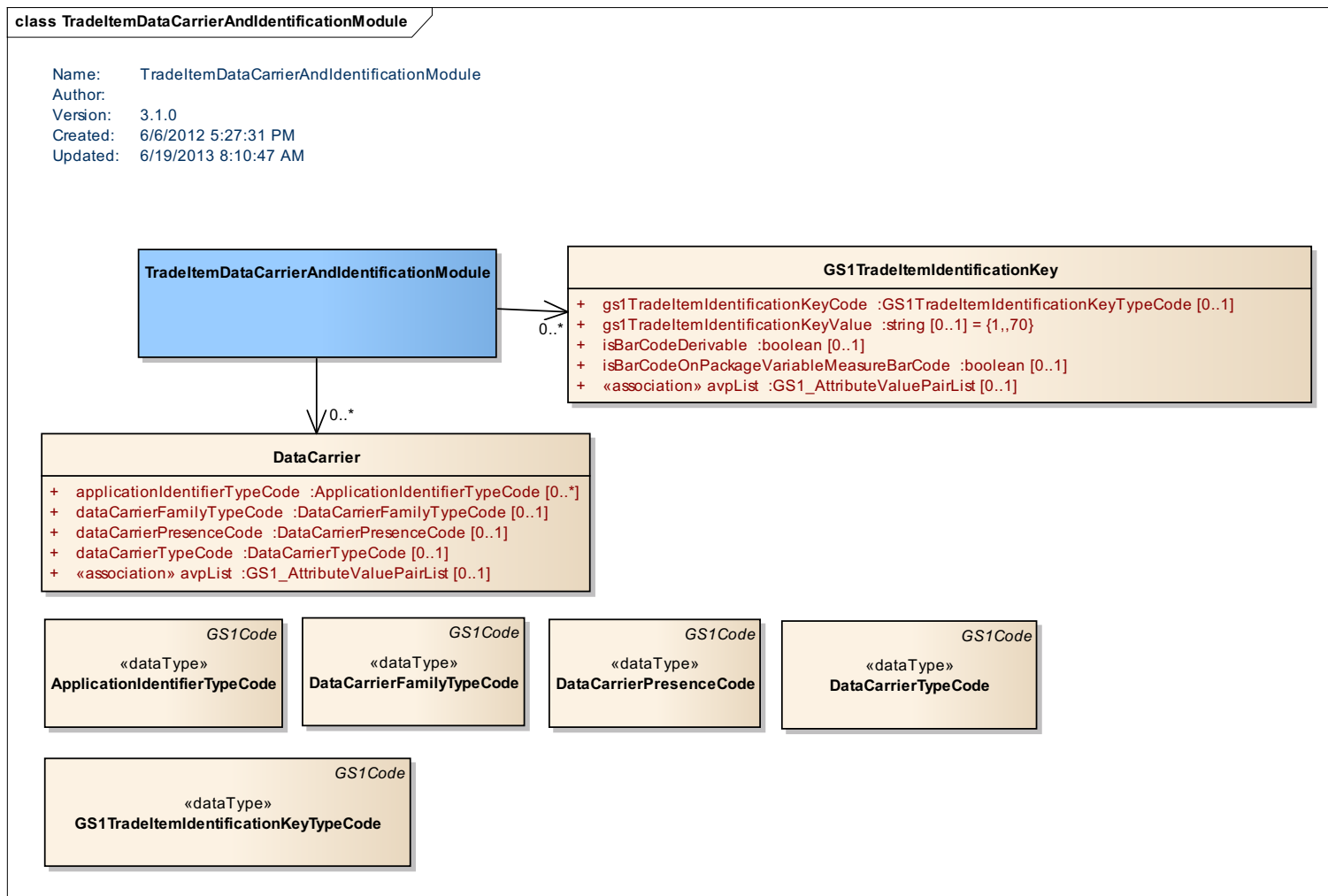
## 5.60 Textile Material Module



| content               | attribute / role                        | datatype /secondary class  | multiplicity | definition                                                                                                                                           |
|-----------------------|-----------------------------------------|----------------------------|--------------|------------------------------------------------------------------------------------------------------------------------------------------------------|
| TextileMaterialModule |                                         |                            |              | A module expressing details on the composition of any materials used to make a trade item using textiles for example clothing or furniture.          |
| TextileMaterial       |                                         |                            |              | Details on the composition of any materials used to make a trade item using textiles.                                                                |
| Association           |                                         | TextileMaterialComposition | 0..*         | Details on the composition of any materials used to make a trade item.                                                                               |
| Attribute             | tradeItemMaterialDesignationDescription | Description500             | 0..*         | The description of the element or place on the trade item, that the material information is being described for example: filling, outer, eyes, trim. |

| content                    | attribute / role        | datatype /secondary class  | multiplicity | definition                                                                                                                                                                                                                |
|----------------------------|-------------------------|----------------------------|--------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Association                | avpList                 | GS1_AttributeValuePairList | 0..1         | Attribute value pair information.                                                                                                                                                                                         |
| Attribute                  | materialAgencyCode      | MaterialAgencyCode         | 0..1         | This element indicates the agency that is maintaining the Trade Item Material codes. This may include a specific code list.                                                                                               |
| TextileMaterialComposition |                         |                            |              | Details on the composition of any materials used to make the trade item.                                                                                                                                                  |
| Attribute                  | materialCode            | string                     | 0..1         | This element indicates the product material code that gives the composition of the trade item's first main material up to six material short codes that can be given in descending order of their respective percentages. |
| Attribute                  | materialContent         | Description70              | 0..*         | This element is used to indicate the material composition. This element is used in conjunction with the percentage.                                                                                                       |
| Attribute                  | materialPercentage      | Decimal                    | 0..1         | Net weight percentage of a product material of the first main material. The percentages must add up to 100.                                                                                                               |
| Attribute                  | materialThreadCount     | Description70              | 0..*         | This element is used to specify the quality of material (fabric) of a trade item.                                                                                                                                         |
| Attribute                  | materialWeight          | Measurement                | 0..1         | The measured weight of the material expressed in ounces per square yard or grams per square meter.                                                                                                                        |
| Attribute                  | materialTreatment       | Description500             | 0..*         | Indicates how the material is treated for example natural (un-treated), painted, dyed, bleach, coloured, etc.                                                                                                             |
| Association                | materialCountryOfOrigin | Country                    | 0..*         | The country from which the material was sourced for production purposes.                                                                                                                                                  |
| Association                | avpList                 | GS1_AttributeValuePairList | 0..1         | Attribute value pair information.                                                                                                                                                                                         |

## 5.61 Trade Item Data Carrier And Identification Module

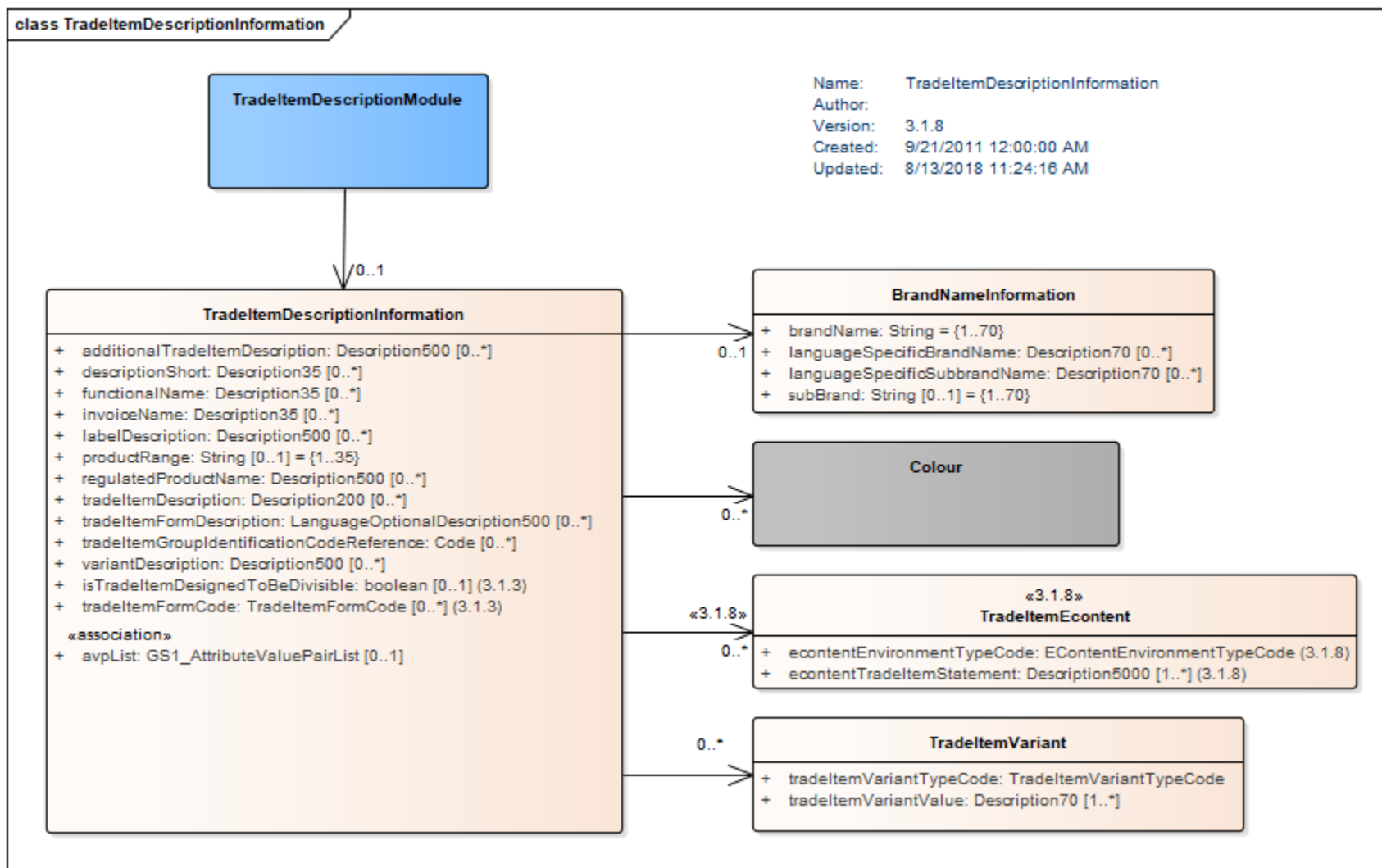


| Content                                     | Attribute / Role                   | Datatype / Secondary class        | Multiplicity | Definition                                                                                                                                                                     |
|---------------------------------------------|------------------------------------|-----------------------------------|--------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| TradeItemDataCarrierAndIdentificationModule |                                    |                                   |              | A module containing information on any Data Carriers or GS1 Application Identifiers associated with the trade item.                                                            |
| Association                                 |                                    | DataCarrier                       | 0..*         | A means to represent data in a machine readable form; used to enable automatic reading of the element strings.                                                                 |
| Association                                 |                                    | GS1TradeItemIdentificationKey     | 0..*         | Details on additional GS1 trade item identifiers present for the trade item.                                                                                                   |
| DataCarrier                                 |                                    |                                   |              | A means to represent data in a machine readable form; used to enable automatic reading of the element strings.                                                                 |
| Association                                 | avpList                            | GS1_AttributeValuePairList        | 0..1         | Attribute value pair information.                                                                                                                                              |
| Attribute                                   | applicationIdentifierTypeCode      | ApplicationIdentifierTypeCode     | 0..*         | Indication of which Application Identifier's (AI) presence is indicated for example 10 (batch number),15 (best-before-date),17 (expiry date), 310(n) (net weight in kilogram). |
| Attribute                                   | dataCarrierFamilyTypeCode          | DataCarrierFamilyTypeCode         | 0..1         | A high-level grouping of data carriers for example GS1 Data Bar.                                                                                                               |
| Attribute                                   | dataCarrierPresenceCode            | DataCarrierPresenceCode           | 0..1         | A code that indicates if the trade item has or could have a certain data carrier present.                                                                                      |
| Attribute                                   | dataCarrierTypeCode                | DataCarrierTypeCode               | 0..1         | A code indicating the type of data carrier physically present on the trade item.                                                                                               |
| GS1TradeItemIdentificationKey               |                                    |                                   |              | Details on additional GS1 trade item identifiers present for the trade item.                                                                                                   |
| Association                                 | avpList                            | GS1_AttributeValuePairList        | 0..1         | Attribute value pair information.                                                                                                                                              |
| Attribute                                   | gs1TradeItemIdentificationKeyCode  | gs1TradeItemIdentificationKeyCode | 0..1         | The Global Trade Item Number which is visible on the item or its packaging and can be used to identify a trade item.                                                           |
| Attribute                                   | gs1TradeItemIdentificationKeyValue | String                            | 0..1         | A value for the alternative means to the Global Trade Item Number to identify a trade item.                                                                                    |
| Attribute                                   | isBarcodeDerivable                 | Boolean                           | 0..1         | A boolean field determining that the data structure on the trade item can be derived from the GTIN.                                                                            |

| Content   | Attribute / Role                                 | Datatype / Secondary class | Multipl<br>city | Definition                                                                                                         |
|-----------|--------------------------------------------------|----------------------------|-----------------|--------------------------------------------------------------------------------------------------------------------|
| Attribute | isBarCodeOnPackage<br>VariableMeasureBarC<br>ode | Boolean                    | 0..1            | An indicator identifying if the bar code that is printed on the trade item package is a variable measure bar code. |



## 5.62 Trade Item Description Module





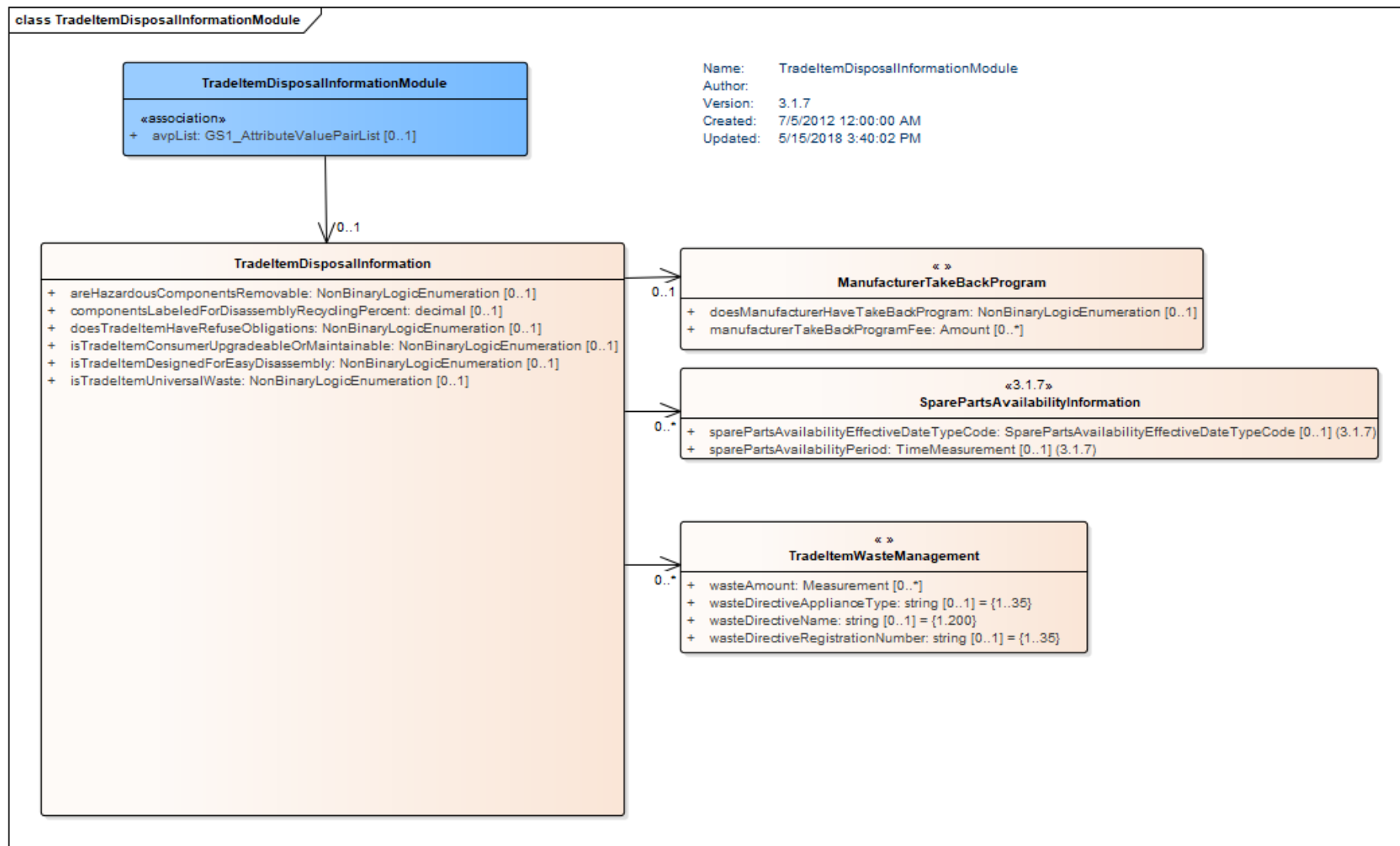
| content                             | attribute / role                   | datatype / secondary class          | multipl<br>city | definition                                                                                                                                                                                                                                                           |
|-------------------------------------|------------------------------------|-------------------------------------|-----------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| TradeItemDescrip<br>tionModule      |                                    |                                     |                 | A module carrying general descriptions of the trade item including brand, form, variant.                                                                                                                                                                             |
| Association                         |                                    | TradeItemDescripti<br>onInformation | 0..1            | Description Information for the trade item.                                                                                                                                                                                                                          |
| TradeItemDescrip<br>tionInformation |                                    |                                     |                 | Description Information for the trade item.                                                                                                                                                                                                                          |
| Association                         |                                    | BrandNameInform<br>ation            | 0..1            | Information on brands and sub-brands for a trade item.                                                                                                                                                                                                               |
| Association                         |                                    | Colour                              | 0..*            | Information specifying a colour in text and / or coded format.                                                                                                                                                                                                       |
| Association                         |                                    | TradeItemEcontent                   | 0..*            | Additional information relating to the trade item. This is specifically addressing website and mobile device content for consumers.                                                                                                                                  |
| Association                         |                                    | TradeItemVariant                    | 0..*            | Provides a code to identify the variant type and name of the product (e.g. Taste, Grape). Variants are the distinguishing characteristics that differentiate products with the same brand and size including such things as the particular flavor, fragrance, taste. |
| Association                         | avpList                            | GS1_AttributeValu<br>ePairList      | 0..1            | Attribute value pair information.                                                                                                                                                                                                                                    |
| Attribute                           | additionalTradeItemD<br>escription | Description500                      | 0..*            | Additional variants necessary to communicate to the industry to help define the product. Multiple variants can be established for each GTIN. This is a repeatable field, e.g. Style, Colour, and Fragrance.                                                          |
| Attribute                           | descriptionShort                   | Description35                       | 0..*            | A free form short length description of the trade item that can be used to identify the trade item at point of sale.                                                                                                                                                 |

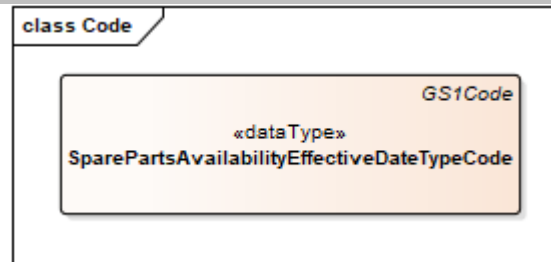
| content   | attribute / role         | datatype /secondary class      | multipli city | definition                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|-----------|--------------------------|--------------------------------|---------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Attribute | functionalName           | Description35                  | 0..*          | Describes use of the product or service by the consumer. Should help clarify the product classification associated with the GTIN.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Attribute | invoiceName              | Description35                  | 0..*          | Free form information provider assigned trade item description designed to match trade item/service description as noted on invoices.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Attribute | labelDescription         | Description500                 | 0..*          | A literal reproduction of the text featured on a product's label in the same word-by-word order in which it appears on the front of the product's packaging. This may not necessarily match the GTIN description as loaded by the supplier into the GTIN description field in GDSN.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Attribute | productRange             | string                         | 0..1          | A name, used by a BrandOwner, that span multiple consumer categories or uses. E.g. (Waist Watchers).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Attribute | regulatedProductName     | string                         | 0..*          | The prescribed, regulated or generic product name or denomination that describes the true nature of the item and is sufficiently precise to distinguish it from other products according to country specific regulation.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Attribute | tradeItemDescription     | Description200                 | 0..*          | <p>An understandable and useable description of a trade item using brand and other descriptors.</p> <p>This attribute is filled with as little abbreviation as possible while keeping to a reasonable length.</p> <p>This should be a meaningful description of the trade item with full spelling to facilitate message processing. Retailers can use this description as the base to fully understand the brand, flavour, scent etc. of the specific GTIN in order to accurately create a product description as needed for their internal systems.</p> <p>Examples:</p> <ul style="list-style-type: none"> <li>GS1 Brand Base Invisible Solid Deodorant AP Stick Spring Breeze</li> <li>GS1 Brand Laundry Detergent Liquid Compact Regular Instant Stain 1</li> <li>GS1 Brand Hair Colour Liquid Light to Medium Blonde.</li> </ul> |
| Attribute | tradeItemFormDescription | languageOptionalDescription500 | 0..*          | The physical form or shape of the product. Used, for example, in pharmaceutical industry to indicate the formulation of the trade item. Defines the form the trade item takes and is distinct from the form of the packaging.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |

| content              | attribute / role                          | datatype /secondary class   | multipli city | definition                                                                                                                                                                                                                                          |
|----------------------|-------------------------------------------|-----------------------------|---------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Attribute            | tradeItemGroupIdentificationCodeReference | Code                        | 0..*          | A code assigned by the supplier or manufacturer to logically group trade item independently from the Global trade item Classification.                                                                                                              |
| Attribute            | variantDescription                        | Description500              | 0..*          | Free text field used to identify the variant of the product. Variants are the distinguishing characteristics that differentiate products with the same brand and size including such things as the particular flavor, fragrance, taste.             |
| Attribute            | isTradeItemDesignedToBeDivisible          | boolean                     | 0..1          | Indicates whether the trade item or a single unit may be divided or separated into multiple pre-determined portions. A fraction or divisible amount of the total quantity of a trade item so as to obtain the desired amount.                       |
| Attribute            | tradeItemFormCode                         | TradeItemFormCode           | 0..*          | A code representation of the form of the actual trade item, not the packaging for example OBLONG.                                                                                                                                                   |
| BrandNameInformation |                                           |                             |               | Information on brands and sub-brands for a trade item.                                                                                                                                                                                              |
| Attribute            | brandName                                 | string                      | 1..1          | The recognisable name used by a brand owner to uniquely identify a line of trade item or services. This is recognizable by the consumer.                                                                                                            |
| Attribute            | languageSpecificBrandName                 | Description70               | 0..*          | The recognisable name used by a brand owner to uniquely identify a line of trade item or services expressed in a different language than the primary brand name (brandName).                                                                        |
| Attribute            | languageSpecificSubbrandName              | Description70               | 0..*          | A second level of brand expressed in a different language than the primary sub-brand name (subBrand).                                                                                                                                               |
| Attribute            | subBrand                                  | string                      | 0..1          | Second level of brand. Can be a trademark. It is the primary differentiating factor that a brand owner wants to communicate to the consumer or buyer. E.g. Yummy-Cola Classic. In this example Yummy-Cola is the brand and Classic is the subBrand. |
| TradeItemEcontent    |                                           |                             |               | Additional information relating to the trade item. This is specifically addressing website and mobile device content for consumers.                                                                                                                 |
| Attribute            | econtentEnvironmentTypeCode               | EcontentEnvironmentTypeCode | 1..1          | A code providing the digital medium, the eContent is targeted towards for example WEBSITE or MOBILE_DEVICE.                                                                                                                                         |
| Attribute            | econtentTradeItemStatement                | Description5000             | 1..*          | A free text field providing additional information relating to the trade item. This is specifically addressing website and mobile device content for consumers.                                                                                     |

| content          | attribute / role         | datatype /secondary class | multipli city | definition                                                                                                                                                                                                                                                           |
|------------------|--------------------------|---------------------------|---------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| TradeItemVariant |                          |                           |               | Provides a code to identify the variant type and name of the product (e.g. Taste, Grape). Variants are the distinguishing characteristics that differentiate products with the same brand and size including such things as the particular flavor, fragrance, taste. |
| Attribute        | tradeItemVariantTypeCode | TradeItemVariantTypeCode  | 1..1          | Provides a code to identify the variant type of the product (e.g. Flavour).                                                                                                                                                                                          |
| Attribute        | tradeItemVariantValue    | Description70             | 1..*          | The variant value for a variant type (e.g. Grape).                                                                                                                                                                                                                   |

## 5.63 Trade Item Disposal Information Module





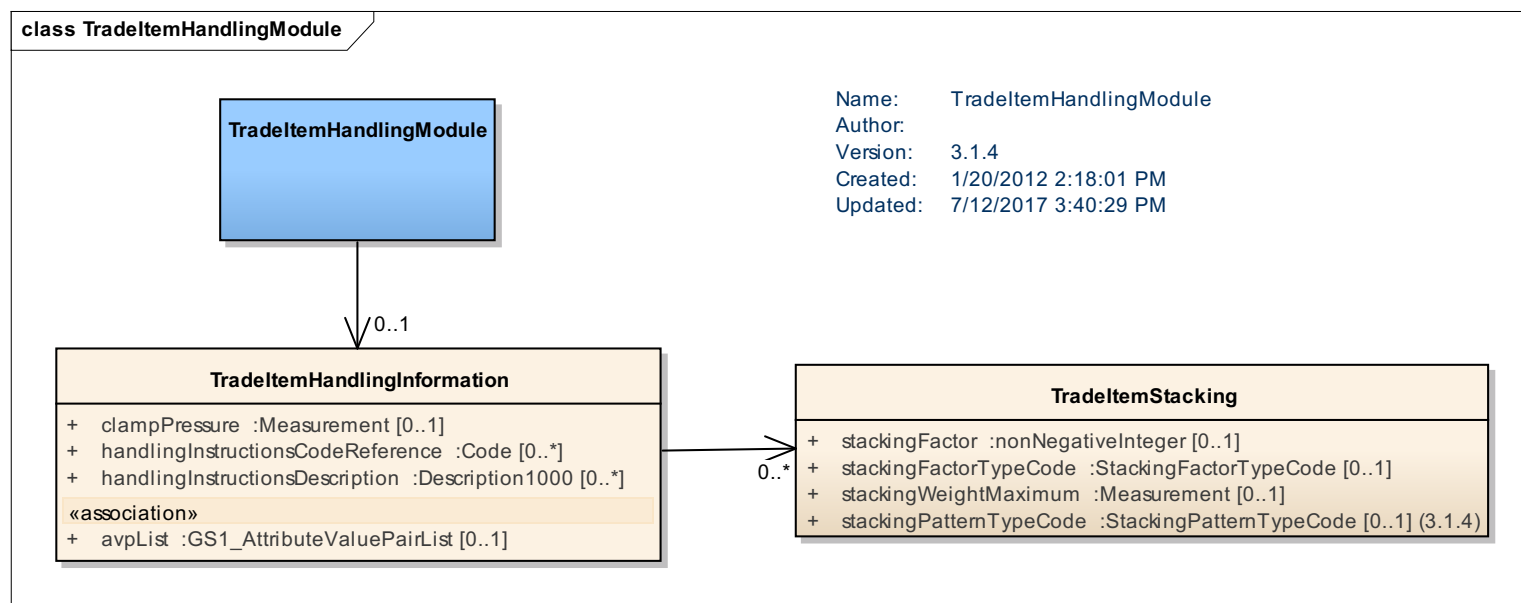
| content                           | attribute / role                            | datatype /secondary class                   | multipl<br>city | definition                                                                                                                                                                                                                        |
|-----------------------------------|---------------------------------------------|---------------------------------------------|-----------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ManufacturerTakeBackProgram       |                                             |                                             |                 | Details on any take back program offered to consumers for the product to be reused, re-manufactured or recycled by the manufacturer.                                                                                              |
| Attribute                         | doesManufacturerHaveTakeBackProgram         | NonbinaryLogicEnumeration                   | 0..1            | Indicates if the manufacturer of the trade item offers any take back programs to consumers for the product to be reused, re-manufactured or recycled by the manufacturer.                                                         |
| Attribute                         | manufacturerTakeBackProgramFee              | Amount                                      | 0..*            | The fee the consumer must pay the manufacturer to take back the product.                                                                                                                                                          |
| SparePartsAvailabilityInformation |                                             |                                             |                 | Details on whether or not spare parts are available for the product and the time period that they are available for.                                                                                                              |
| Attribute                         | sparePartsAvailabilityEffectiveDateTypeCode | SparePartsAvailabilityEffectiveDateTypeCode | 0..1            | The type of date expressed as a code associated with the period of availability of spare parts usually expressed as an event date for the item for example DATE_OF_PURCHASE_BY_CONSUMER, DATE_OF_MANUFACTURE or DATE_OF_DELIVERY. |
| Attribute                         | sparePartsAvailabilityPeriod                | TimeMeasurement                             | 0..1            | The period of availability of spare parts for a trade item associated with the sparePartsAvailabilityEffectiveDateTypeCode for example 24 MON.                                                                                    |
| TradeItemDisposalInformation      |                                             |                                             |                 | Information on the disposal of the trade item for the purposes of sustainability.                                                                                                                                                 |
| Association                       |                                             | ManufacturerTakeBackProgram                 | 0..1            | Details on any take back program offered to consumers for the product to be reused, re-manufactured or recycled by the manufacturer.                                                                                              |
| Association                       |                                             | SparePartsAvailabilityInformation           | 0..*            | Spare parts information for a trade item.                                                                                                                                                                                         |

| content                                | attribute / role                                        | datatype /secondary class                  | multipl<br>city | definition                                                                                                                                                                                                                                                            |
|----------------------------------------|---------------------------------------------------------|--------------------------------------------|-----------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Association                            |                                                         | TradeItemWasteMa<br>nagement               | 0..*            | Information on waste management for a trade item.                                                                                                                                                                                                                     |
| <del>Association</del>                 | <del>avpList</del>                                      | <del>GS1_AttributeValu<br/>ePairList</del> | <del>0..1</del> | <del>Attribute value pair information.</del>                                                                                                                                                                                                                          |
| Attribute                              | areHazardousCompo<br>nentsRemovable                     | NonbinaryLogicEnu<br>meration              | 0..1            | An indicator if any hazardous components contained within the trade item can easily be separated from the other materials to facilitate product recycling.                                                                                                            |
| Attribute                              | componentsLabeled<br>ForDisassemblyRecy<br>clingPercent | decimal                                    | 0..1            | The percentage of trade item components that clearly label how to facilitate product disassembly and recycling. For example if the product is a VCR and remote control and the remote control is labelled for recycling, but the VCR is not the percentage equals 50. |
| Attribute                              | doesTradeItemHave<br>RefuseObligations                  | NonbinaryLogicEnu<br>meration              | 0..1            | Indicates if there are special disposal obligations that apply to the trade item for example INTRASTAT.                                                                                                                                                               |
| Attribute                              | isTradeItemConsum<br>erUpgradeableOrMai<br>ntainable    | NonbinaryLogicEnu<br>meration              | 0..1            | Indicates if a product can be easily upgraded or have parts replaced by the consumer. For example, the ability to add additional memory/storage capacity or access and replace chargeable batteries.                                                                  |
| Attribute                              | isTradeItemDesign<br>edForEasyDisassembl<br>y           | NonbinaryLogicEnu<br>meration              | 0..1            | Indicates that the trade item is designed for easy disassembly by recycling facilities using standard industry tools.                                                                                                                                                 |
| Attribute                              | isTradeItemUniversa<br>lWaste                           | NonbinaryLogicEnu<br>meration              | 0..1            | Indicates if a product can be considered universal waste. Universal waste is defined as "wastes that do meet the regulatory definition of hazardous waste, but are managed under special, tailored regulations.                                                       |
| TradeItemDisposal<br>InformationModule |                                                         |                                            |                 | Information on the disposal of the trade item for the purposes of sustainability.                                                                                                                                                                                     |
| Association                            |                                                         | TradeItemDisposalI<br>nformation           | 0..1            | Information on the disposal of the trade item for the purposes of sustainability.                                                                                                                                                                                     |
| <del>Association</del>                 | <del>avpList</del>                                      | <del>GS1_AttributeValu<br/>ePairList</del> | <del>0..1</del> | <del>Attribute value pair information.</del>                                                                                                                                                                                                                          |
| TradeItemWasteMa<br>nagement           |                                                         |                                            |                 | Information on waste management for a trade item.                                                                                                                                                                                                                     |
| Attribute                              | wasteAmount                                             | Measurement                                | 0..*            | The amount of the components contained in the trade item that are covered by a waste directive for example WEEE.                                                                                                                                                      |



| content   | attribute / role                 | datatype /secondary class | multipl<br>city | definition                                                                                                               |
|-----------|----------------------------------|---------------------------|-----------------|--------------------------------------------------------------------------------------------------------------------------|
| Attribute | wasteDirectiveApplianceType      | string                    | 0..1            | The category of electrical and electronic equipment containing components covered by a waste directive for example WEEE. |
| Attribute | wasteDirectiveName               | string                    | 0..1            | The name of a waste directive for example WEEE.                                                                          |
| Attribute | wasteDirectiveRegistrationNumber | string                    | 0..1            | A registration number for a trade item required by a waste directive (e.g. WEEE).                                        |

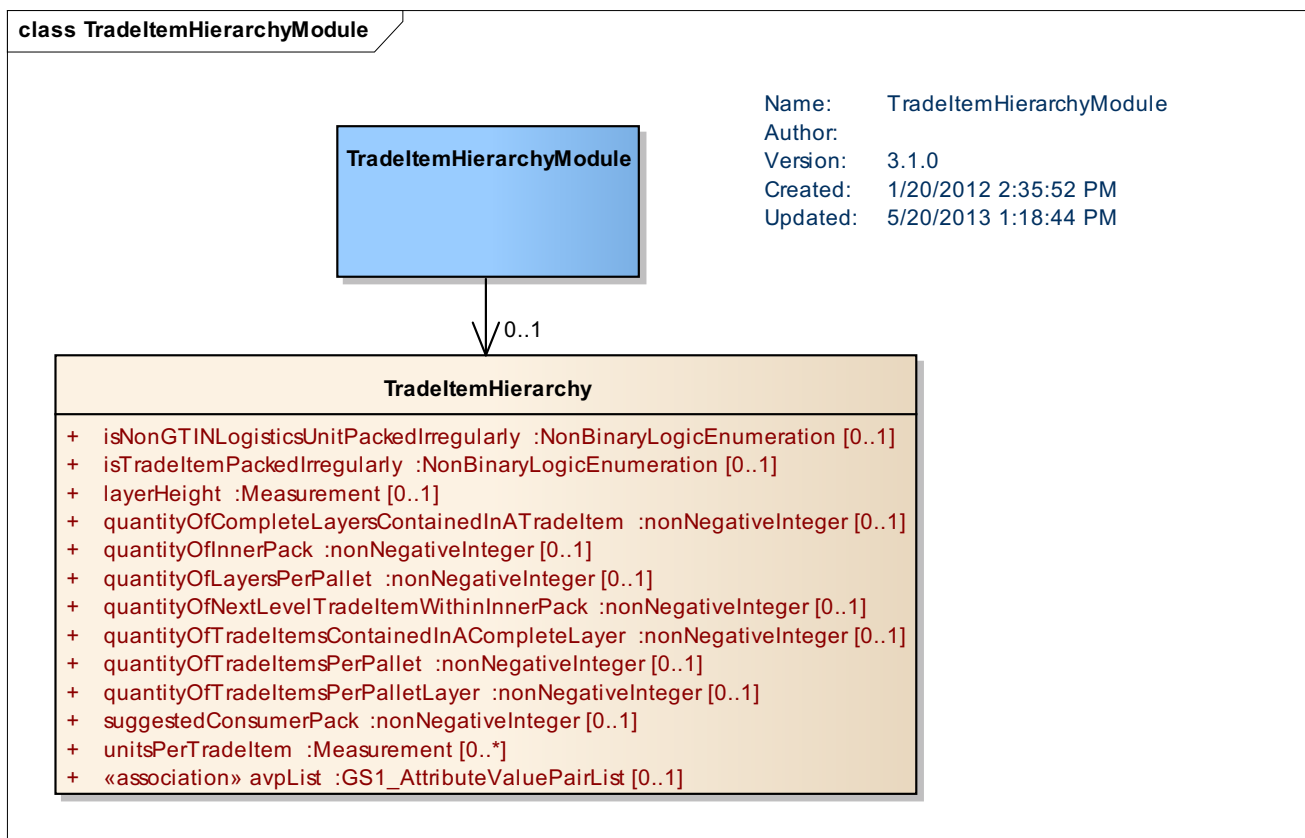
## 5.64 Trade Item Handling Module



| content           | attribute / role | datatype /secondary class | multipl<br>city | definition                                                         |
|-------------------|------------------|---------------------------|-----------------|--------------------------------------------------------------------|
| TradeItemStacking |                  |                           |                 | Information on the stacking for a trade item in the supply chain.. |

| content                      | attribute / role                  | datatype / secondary class   | multipl<br>city | definition                                                                                                                                                                                                                                                                                                                                                                                                        |
|------------------------------|-----------------------------------|------------------------------|-----------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Attribute                    | stackingFactor                    | nonNegativeInteger           | 0..1            | A factor that determines the maximum stacking for the product. Indicates the number of levels the product may be stacked.                                                                                                                                                                                                                                                                                         |
| Attribute                    | stackingFactorTypeCode            | StackingFactorTypeCode       | 0..1            | Indicates the supply chain process that the particular product may be stacked in. From a supply chain perspective, these values can differ from a storage perspective, truck transport, rail, etc. If a retailer is shipping between warehouses or store, they need the information to support their supply chain. For example a truck can only be stack 2 pallets high, but in a warehouse that can be 3 pallets |
| Attribute                    | stackingPatternTypeCode           | StackingPatternTypeCode      | 0..1            | Indicates the pattern the product is stacked on a logistics unit, for example column pattern or interlocking pattern.                                                                                                                                                                                                                                                                                             |
| Attribute                    | stackingWeightMaximum             | Measurement                  | 0..1            | The maximum admissible weight that can be stacked on the trade item. This uses a measurement consisting of a unit of measure and a value. This will be used for transport or storage to allow user to know by weight how to stack different trade item one on top of the other.                                                                                                                                   |
| TradeItemHandlingInformation |                                   |                              |                 | Instruction on the way to treat goods during transport and storage.                                                                                                                                                                                                                                                                                                                                               |
| Association                  |                                   | TradeItemStacking            | 0..*            | Information on the stacking for a trade item in the supply chain.                                                                                                                                                                                                                                                                                                                                                 |
| Association                  | avpList                           | GS1_AttributeValuePairList   | 0..1            | Attribute value pair information.                                                                                                                                                                                                                                                                                                                                                                                 |
| Attribute                    | clampPressure                     | Measurement                  | 0..1            | The pressure that should be applied by a clamp to the packaging around the product.                                                                                                                                                                                                                                                                                                                               |
| Attribute                    | handlingInstructionsCodeReference | Code                         | 0..*            | Defines the information and processes needed to safely handle the trade item. Use HandlingInstructionsCode_GDSN to populate.                                                                                                                                                                                                                                                                                      |
| Attribute                    | handlingInstructionsDescription   | Description1000              | 0..*            | Information and processes needed to safely handle the trade item. Intended to be sent when handling Instructions Code and agency have not been provided.                                                                                                                                                                                                                                                          |
| TradeItemHandlingModule      |                                   |                              |                 | A module containing instructions on the way to treat goods during transport and storage.                                                                                                                                                                                                                                                                                                                          |
| Association                  |                                   | TradeItemHandlingInformation | 0..1            | Instruction on the way to treat goods during transport and storage.                                                                                                                                                                                                                                                                                                                                               |

## 5.65 Trade Item Hierarchy Module

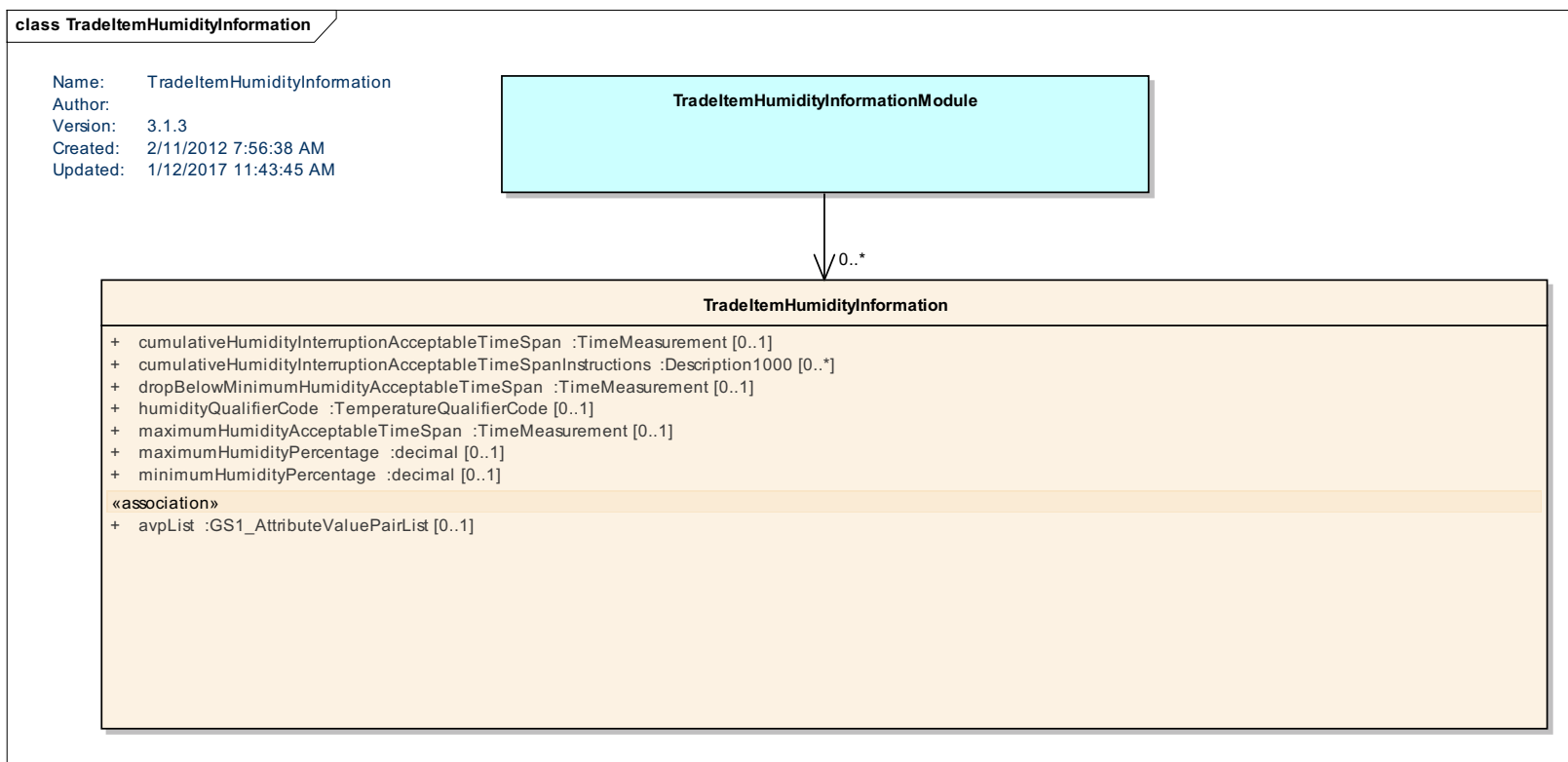


| content             | attribute / role                         | datatype /secondary class   | multipli city | definition                                                                                                                                                                         |
|---------------------|------------------------------------------|-----------------------------|---------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| TradeItemHierarc hy |                                          |                             |               | Information on how the hierarchical structure of a trade item for example number of layers on a pallet.                                                                            |
| Association         | avpList                                  | GS1_AttributeValu ePairList | 0..1          | Attribute value pair information.                                                                                                                                                  |
| Attribute           | isNonGTINLogisticsU nitPackedIrregularly | NonBinaryLogicEnu meration  | 0..1          | Indicates that the Non-GTIN Logistic Unit is packed in a non-rectilinear pattern such that it is not meaningful to send the number of child trade items in the width/depth/height. |

| content   | attribute / role                              | datatype /secondary class | multipli city | definition                                                                                                                                                                                                             |
|-----------|-----------------------------------------------|---------------------------|---------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Attribute | isTradeItemPackedIrregularly                  | NonBinaryLogicEnumeration | 0..1          | Indicates that the item is packed in a non-rectilinear pattern such that it is not meaningful to send the number of child trade items in the width/depth/height.                                                       |
| Attribute | layerHeight                                   | Measurement               | 0..1          | The height of each layer of child trade items when packed in layers. This attribute may be used when child items are packed in layers, but the child items are not packed on their natural base.                       |
| Attribute | quantityOfCompleteLayersContainedInATradeItem | nonNegativeInteger        | 0..1          | The number of layers of the base trade item found in a trade item. Does not apply to the base trade item unit.                                                                                                         |
| Attribute | quantityOfInnerPack                           | nonNegativeInteger        | 0..1          | Indicates the number of non-GTIN assigned inner-packs of next lower level trade items within the current GTIN level.                                                                                                   |
| Attribute | quantityOfLayersPerPallet                     | nonNegativeInteger        | 0..1          | The number of layers that a pallet contains. Only used if the pallet has no GTIN. It indicates the number of layers that a pallet contains, according to supplier or retailer preferences.                             |
| Attribute | quantityOfNextLevelTradeItemWithinInnerPack   | nonNegativeInteger        | 0..1          | Indicates the number of next lower level trade items contained within the physical non-GTIN assigned each or inner-packs (inner-pack).                                                                                 |
| Attribute | quantityOfTradeItemsContainedInACompleteLayer | nonNegativeInteger        | 0..1          | The number of trade items contained in a complete layer of a higher packaging configuration. Used in hierarchical packaging structure of a trade item. Cannot be used for trade item base unit.                        |
| Attribute | quantityOfTradeItemsPerPallet                 | nonNegativeInteger        | 0..1          | The number of trade items contained in a pallet. Only used if the pallet has no GTIN. It indicates the number of trade items placed on a pallet according to supplier or retailer preferences.                         |
| Attribute | quantityOfTradeItemsPerPalletLayer            | nonNegativeInteger        | 0..1          | The number of trade items contained on a single layer of a pallet. Only used if the pallet has no GTIN. It indicates the number of trade items placed on a pallet layer according to supplier or retailer preferences. |
| Attribute | suggestedConsumerPack                         | nonNegativeInteger        | 0..1          | The pack quantity of an item which aligns to the suggested consumer pack.                                                                                                                                              |
| Attribute | unitsPerTradeItem                             | Measurement               | 0..*          | Numeric value to indicate number of physical pieces used to make up the Consumer Unit. Used if there is more than one piece in one Trade Item.                                                                         |

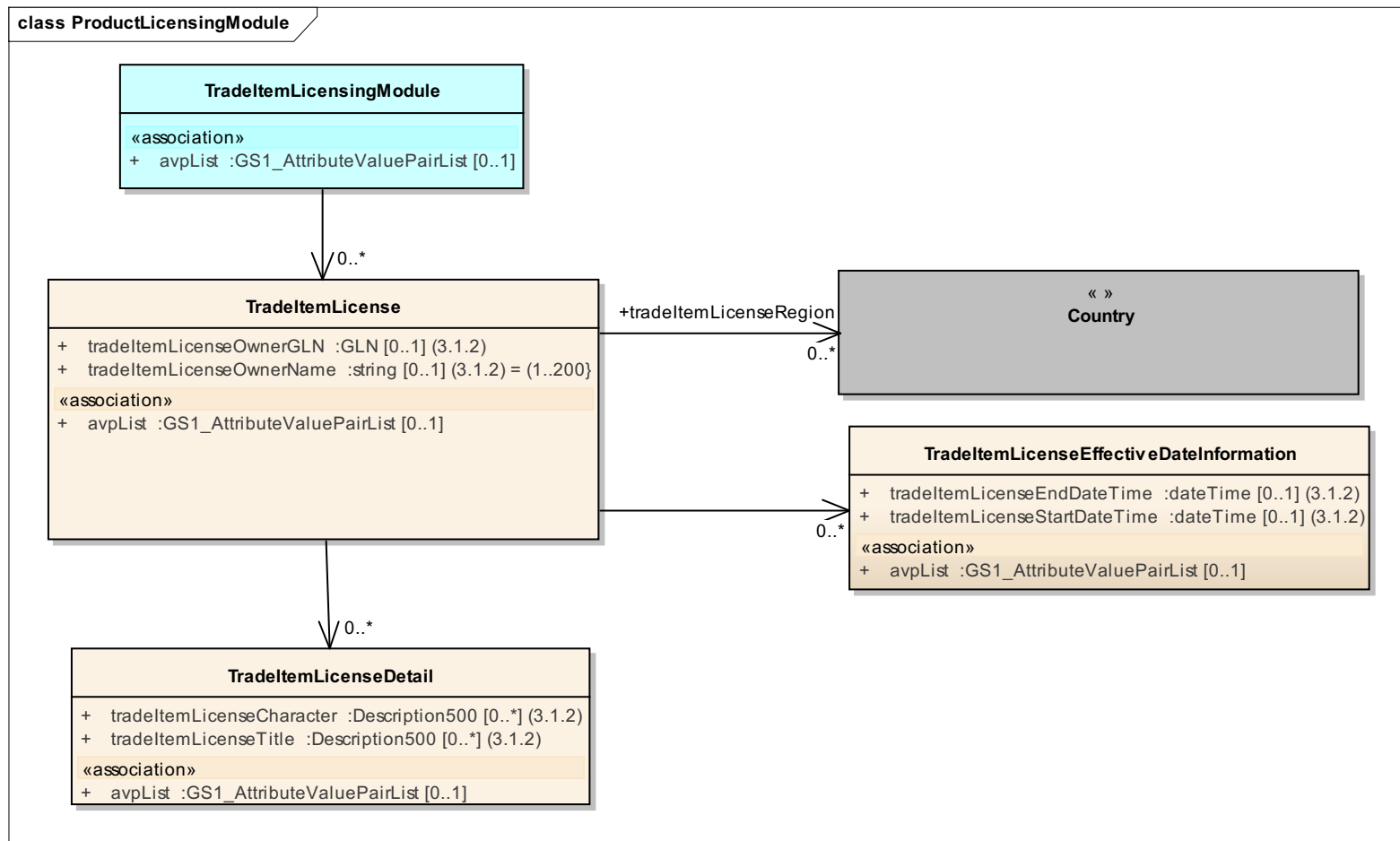
| content                      | attribute / role | datatype /secondary class | multipl<br>city | definition                                                                                                                  |
|------------------------------|------------------|---------------------------|-----------------|-----------------------------------------------------------------------------------------------------------------------------|
| TradeItemHierarc<br>hyModule |                  |                           |                 | A module containing information on how the hierarchical structure of a trade item for example number of layers on a pallet. |
| Association                  |                  | TradeItemHierarch<br>y    | 0..1            | Information on how the hierarchical structure of a trade item for example number of layers on a pallet.                     |

## 5.66 Trade Item Humidity Information Module



| content                            | attribute / role                                             | datatype /secondary class    | multipli city | definition                                                                                                                                                                                          |
|------------------------------------|--------------------------------------------------------------|------------------------------|---------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| TradeItemHumidityInformation       |                                                              |                              |               | Information on permissible humidity of a trade item during various points of the supply chain.                                                                                                      |
| Association                        | avpList                                                      | GS1_AttributeValuePairList   | 0..1          | Attribute value pair information.                                                                                                                                                                   |
| Attribute                          | cumulativeHumidityInterruptionAcceptableTimeSpan             | TimeMeasurement              | 0..1          | An expression of the maximum allowed cumulative time span of one or more humidity interruptions of a trade item as defined by the manufacturer.                                                     |
| Attribute                          | cumulativeHumidityInterruptionAcceptableTimeSpanInstructions | Description1000              | 0..*          | Instructions provided by the product manufacturer regarding the process, procedures, or handling instructions for trade items that has exceeded the cumulative time span of humidity interruptions. |
| Attribute                          | dropBelowMinimumHumidityAcceptableTimeSpan                   | TimeMeasurement              | 0..1          | The amount of time that a product can fall below the minimum humidity threshold as defined by the manufacturer without affecting product safety or quality.                                         |
| Attribute                          | humidityQualifierCode                                        | TemperatureTypeQualifierCode | 0..1          | Code qualifying the type of a humidity for example STORAGE.                                                                                                                                         |
| Attribute                          | maximumHumidityAcceptableTimeSpan                            | TimeMeasurement              | 0..1          | The amount of time that a product can safely rise above the maximum humidity threshold as defined by the manufacturer without affecting product safety or quality.                                  |
| Attribute                          | maximumHumidityPercentage                                    | Decimal                      | 0..1          | The maximum humidity in percentages that the goods should be stored in.                                                                                                                             |
| Attribute                          | minimumHumidityPercentage                                    | Decimal                      | 0..1          | The minimum humidity in percentages that the goods should be stored in                                                                                                                              |
| TradeItemHumidityInformationModule |                                                              |                              |               | A module containing information on permissible humidity of a trade item during various points of the supply chain.                                                                                  |
| Association                        |                                                              | TradeItemHumidityInformation | 0..*          | Information on permissible humidity of a trade item during various points of the supply chain.                                                                                                      |

## 5.67 Trade Item Licensing Module

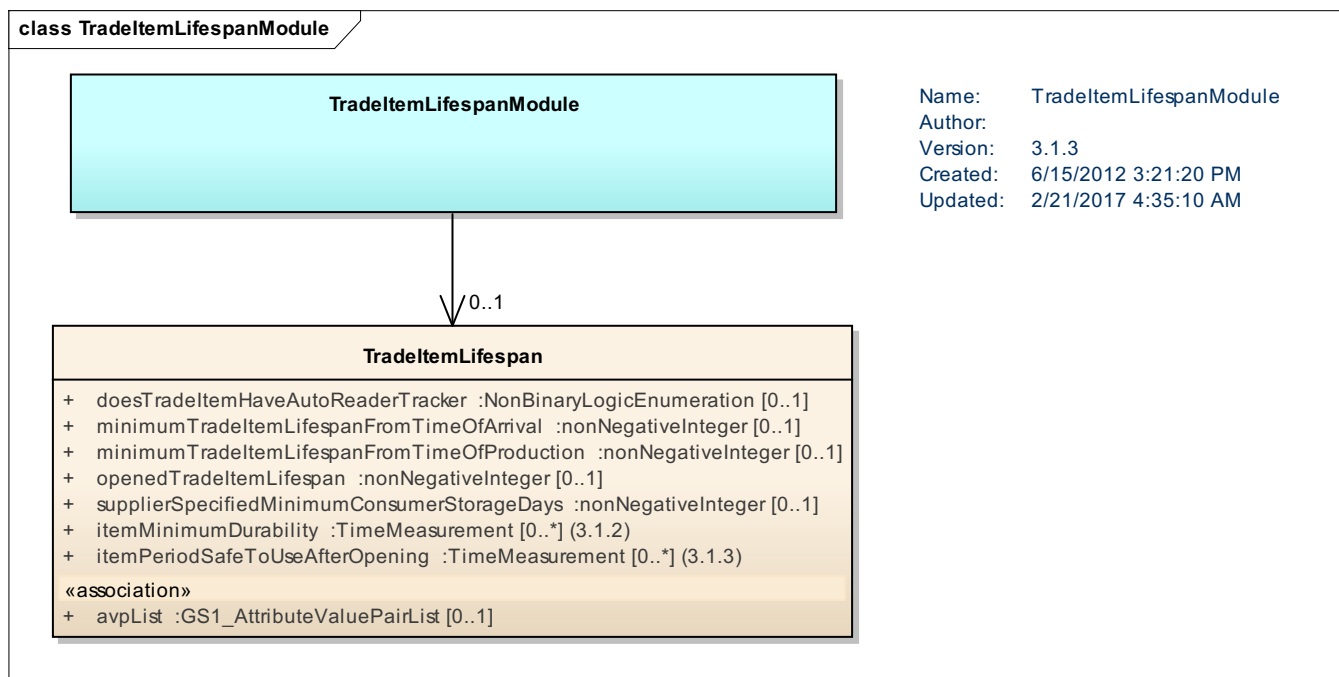


| content                                  | attribute / role              | datatype /secondary class                | multi<br>city | definition                                                                                                                          |
|------------------------------------------|-------------------------------|------------------------------------------|---------------|-------------------------------------------------------------------------------------------------------------------------------------|
| TradeItemLicense                         |                               |                                          |               | A license to use the title, character or any trademarked assets that are used on the trade item.                                    |
| Association                              |                               | TradeItemLicenseDetail                   | 0..*          | Licensing information for a trade item.                                                                                             |
| Association                              |                               | TradeItemLicenseEffectiveDateInformation | 0..*          | Provides the effective dates for a license to use the title, character or any trademarked assets that are used on the trade item.   |
| Association                              | tradeItemLicenseRegion        | Country                                  | 0..*          | The region the license to use the title, character or any trademarked assets that are used on the trade item is only valid in.      |
| Association                              | avpList                       | GS1_AttributeValuePairList               | 0..1          | Attribute value pair information.                                                                                                   |
| Attribute                                | tradeItemLicenseOwnerGLN      | GLN                                      | 0..1          | The GLN of the owner of the licensed product that is allowing the trading partner to use their licensed name and/or images.         |
| Attribute                                | tradeItemLicenseOwnerName     | string                                   | 0..1          | The name of the owner of the licensed product that is allowing the trading partner to use their licensed name and/or images.        |
| TradeItemLicenseDetail                   |                               |                                          |               | Provides detail on for a specific product license.                                                                                  |
| Association                              | avpList                       | GS1_AttributeValuePairList               | 0..1          | Attribute value pair information.                                                                                                   |
| Attribute                                | tradeItemLicenseCharacter     | Description500                           | 0..*          | The character of the licensed trademark asset that is used on the trade item.                                                       |
| Attribute                                | tradeItemLicenseTitle         | Description500                           | 0..*          | The title of the licensed trademark asset that is used on the trade item.                                                           |
| TradeItemLicenseEffectiveDateInformation |                               |                                          |               | Provides the effective dates for a license to use the title, character or any trademarked assets that are used on the trade item.   |
| Association                              | avpList                       | GS1_AttributeValuePairList               | 0..1          | Attribute value pair information.                                                                                                   |
| Attribute                                | tradeItemLicenseEndDateTime   | dateTime                                 | 0..1          | The effective end date of the license to use the title, character or any trademarked assets that are used on the trade item.        |
| Attribute                                | tradeItemLicenseStartDateTime | dateTime                                 | 0..1          | The effective start date of the license to use the title, character or any trademarked assets that are used on the trade item.      |
| TradeItemLicensingModule                 |                               |                                          |               | A module for sending license information in relation to title, character or any trademarked assets that are used on the trade item. |
| Association                              |                               | TradeItemLicense                         | 0..*          | License information in relation to title, character or any trademarked assets that are used on the trade item.                      |



| content     | attribute / role | datatype /secondary class   | multipl<br>icity | definition                        |
|-------------|------------------|-----------------------------|------------------|-----------------------------------|
| Association | avpList          | GS1_Attribute ValuePairList | 0..1             | Attribute value pair information. |

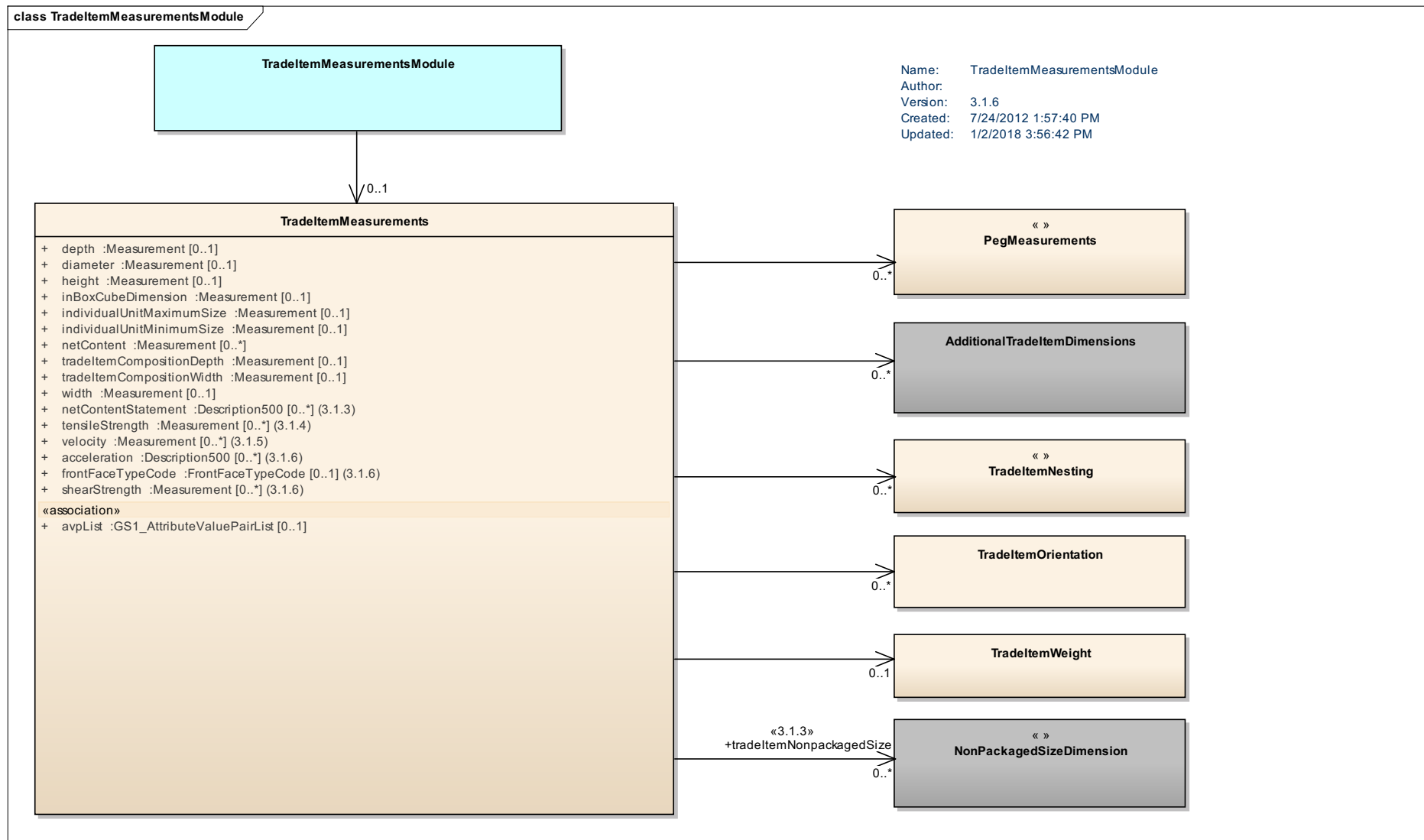
## 5.68 Trade Item Lifespan Module



| content           | attribute / role | datatype /secondary class  | multipli<br>city | definition                                                                   |
|-------------------|------------------|----------------------------|------------------|------------------------------------------------------------------------------|
| TradeItemLifespan |                  |                            |                  | Information on the amount of time the item can or should be used, sold, etc. |
| Association       | avpList          | GS1_AttributeValuePairList | 0..1             | Attribute value pair information.                                            |

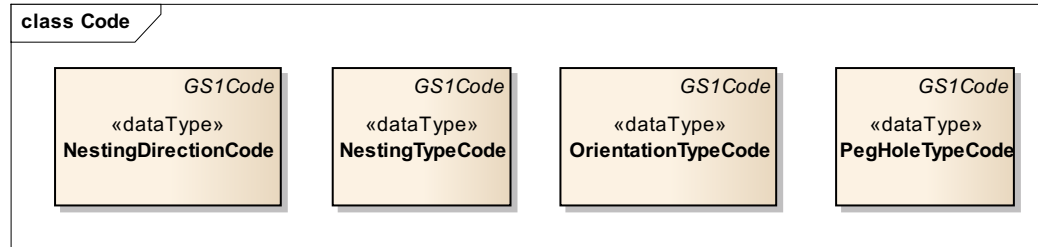
| content                     | attribute / role                                     | datatype /secondary class     | multipli city | definition                                                                                                                                                                                                                                                                  |
|-----------------------------|------------------------------------------------------|-------------------------------|---------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Attribute                   | doesTradeItemHaveA<br>utoReaderTracker               | NonBinaryLogicEnu<br>meration | 0..1          | Indication that the trade item has a device that identifies that the product has a limited number of reuses and is self tracked. Each time the device is used / plugged in it will decrement the count. When the counter reaches zero the trade item should be disposed of. |
| attribute                   | itemMinimumDurabili<br>ty                            | TimeMeasurement               | 0..*          | The length of time until which the product will continue to fulfill its initial function and remain safe, i.e. the length of time by which it is best to use the product.                                                                                                   |
| Attribute                   | minimumTradeItemLi<br>fespanFromTimeOfAr<br>rival    | nonNegativeIntege<br>r        | 0..1          | The period of days, guaranteed by the manufacturer, before the expiration date of the trade item, based on arrival to a mutually agreed to point in the buyers distribution system. Can be repeatable upon use of GLN.                                                      |
| Attribute                   | minimumTradeItemLi<br>fespanFromTimeOfPr<br>oduction | nonNegativeIntege<br>r        | 0..1          | The period of day, guaranteed by the manufacturer, before the expiration date of the product, based on the production.                                                                                                                                                      |
| Attribute                   | openedTradeItemLife<br>span                          | nonNegativeIntege<br>r        | 0..1          | The number of days the trade item that had been opened can remain on the shelf and must then be removed.                                                                                                                                                                    |
| Attribute                   | supplierSpecifiedMini<br>mumConsumerStora<br>geDays  | nonNegativeIntege<br>r        | 0..1          | Represents the number of days between a product's "sell by date" and its "use by date".                                                                                                                                                                                     |
| Attribute                   | itemPeriodSafeToUse<br>AfterOpening                  | timeMeasurement               | 0..*          | The period after the opening where the product is still safe to be used. the period of time after opening that the product may be used without any harm to the consumer. This mention MUST take the form of number of months or number of years for example 50 MON.         |
| TradeItemLifespa<br>nModule |                                                      |                               |               | A module containing information on the amount of time the item can or should be used, sold, etc.                                                                                                                                                                            |
| Association                 |                                                      | TradeItemLifespan             | 0..1          | Information on the amount of time the item can or should be used, sold, etc.                                                                                                                                                                                                |

## 5.69 Trade Item Measurements Module





**Note:** Common class (in grey) is located in the GDSN Common Library.



| content                | attribute / role          | datatype /secondary class      | multipli city | definition                                                                                                                                                                                                                  |
|------------------------|---------------------------|--------------------------------|---------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| TradeItemMeasur ements |                           |                                |               | Measurement information for the trade item.                                                                                                                                                                                 |
| Association            |                           | AdditionalTradeIte mDimensions | 0..*          | Measurements for a trade item including dimensions.                                                                                                                                                                         |
| Association            |                           | TradeItemOrientati on          | 0..*          | Orientation information for a trade item.                                                                                                                                                                                   |
| Association            |                           | TradeItemWeight                | 0..1          | Details on weight for a trade item.                                                                                                                                                                                         |
| Association            |                           | TradeItemNesting               | 0..*          | Details on how trade items nest with each other for the purpose of measurements.                                                                                                                                            |
| Association            |                           | PegMeasurements                | 0..*          | This class enables the description of multiple peg holes and their locations for a trade item.                                                                                                                              |
| Association            | tradeItemNonpackag edSize | NonpackagedSizeDi mension      | 0..*          | Provides non-packaged size information for non-apparel trade items.                                                                                                                                                         |
| Association            | avpList                   | GS1_AttributeValu ePairList    | 0..1          | Attribute value pair information.                                                                                                                                                                                           |
| Attribute              | acceleration              | Description500                 | 0..*          | The rate of change of velocity. For example: 0 - 60 mph / 4.3 s; 0 - 100 kph / 4.5 s.                                                                                                                                       |
| Attribute              | depth                     | Measurement                    | 0..1          | The depth of the trade item, as measured according to the GDSN Package Measurement Rules. If the trade item is a unit load, include the shipping platform unless it is excluded according to the Platform Type Code chosen. |

| content   | attribute / role          | datatype /secondary class | multipli city | definition                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|-----------|---------------------------|---------------------------|---------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Attribute | diameter                  | Measurement               | 0..1          | The measurement of the diameter of the trade item at its largest point. For example, 165 "mm", value - mm, diameter. Has to be associated with valid UoM.                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Attribute | frontFaceTypeCode         | frontFaceTypeCode         | 0..1          | The code used to indicate the front face of a shelf ready package (SRP) for the in-store shelf. E.g. WIDTH, DEPTH, DEPTH_OR_WIDTH).                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Attribute | height                    | Measurement               | 0..1          | The height of the trade item, as measured according to the GDSN Package Measurement Rules. If the trade item is a unit load, include the shipping platform unless it is excluded according to the Platform Type Code chosen.                                                                                                                                                                                                                                                                                                                                                             |
| Attribute | inBoxCubeDimension        | Measurement               | 0..1          | The dimensions of an imaginary cube which can be drawn around the trade item as defined in the formula of H X W X D (The linear dimensions multiplied to get a cubic result). This only applies to In-box dimensions. Level of Hierarchy applied to- All. Example- Bag of cabbage, Bag of Flour, Broom, Ham, or Case of Beer.                                                                                                                                                                                                                                                            |
| Attribute | individualUnitMaximumSize | Measurement               | 0..1          | Maximum size of the individual unit inside the lowest level of packaging.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Attribute | individualUnitMinimumSize | Measurement               | 0..1          | Minimum size of the individual unit inside the lowest level of packaging.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Attribute | netContent                | Measurement               | 0..*          | The amount of the trade item contained by a package, usually as claimed on the label. For example, Water 750ml - net content = "750 ML" ; 20 count pack of diapers, net content = "20 ea.". In case of multi-pack, indicates the net content of the total trade item. For fixed value trade items use the value claimed on the package, to avoid variable fill rate issue that arises with some trade item which are sold by volume or weight, and whose actual content may vary slightly from batch to batch. In case of variable quantity trade items, indicates the average quantity. |
| Attribute | netContentStatement       | Description500            | 0..*          | The statement corresponding to the net content descriptions as stated on the packaging (e.g. "4 x 100 gr = 400 gr").                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |

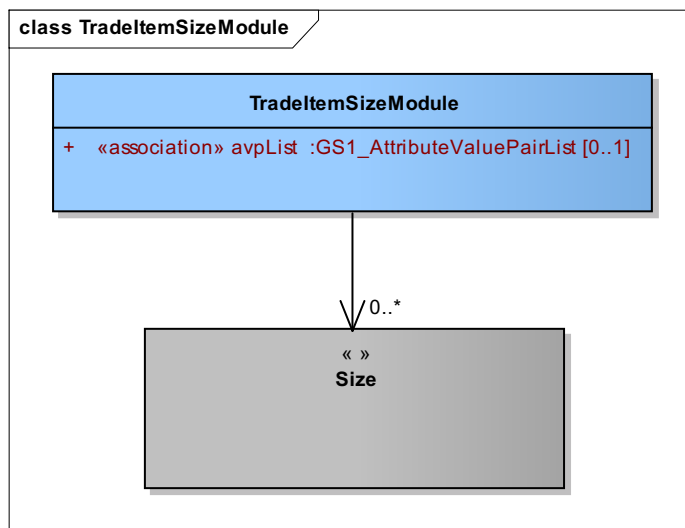
| content                      | attribute / role           | datatype /secondary class | multipli city | definition                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|------------------------------|----------------------------|---------------------------|---------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Attribute                    | shearStrength              | Measurement               | 0..*          | The strength of a material or component against the type of yield or structural failure where the material or component fails in shear. A shear load is a force that tends to produce a sliding failure on a material along a plane that is parallel to the direction of the force. When a paper is cut with scissors, the paper fails in shear. An example would be 7.82 KSI.                                                                                       |
| Attribute                    | tensileStrength            | Measurement               | 0..*          | The maximum stress it withstands before failing is its ultimate tensile strength. Ultimate tensile strength (UTS), often shortened to tensile strength (TS) or ultimate strength, is the maximum stress that a material can withstand while being stretched or pulled before failing or breaking. Example fishing line test, nylon rope.                                                                                                                             |
| Attribute                    | tradeItemCompositio nDepth | Measurement               | 0..1          | The number of child-items that are packaged from front to back in a trade unit. This information is used in the space process, especially when allocating whole Trade Units (intermediate) into the shelf.                                                                                                                                                                                                                                                           |
| Attribute                    | tradeItemCompositio nWidth | Measurement               | 0..1          | The number of child-items that are packaged beside each other in a trade unit (on the side facing the consumer). This information is used in the space process, especially when allocating whole Trade Units (intermediate) into the shelf. The Space Manager always allocates Base Units in the shelf. Usually there are no pictures of Trade Units available and for Hypermarkets/Big Supermarkets there is a need to allocate whole trade units into the shelves. |
| Attribute                    | width                      | Measurement               | 0..1          | The width of the trade item, as measured according to the GDSN Package Measurement Rules. If the trade item is a unit load, include the shipping platform unless it is excluded according to the Platform Type Code chosen.                                                                                                                                                                                                                                          |
| Attribute                    | velocity                   | Measurement               | 0..*          | The rate at which an object changes its position for example 5 metres per second (5 MTS).                                                                                                                                                                                                                                                                                                                                                                            |
| TradeItemMeasur ementsModule |                            |                           |               | A module containing measurement information for the trade item.                                                                                                                                                                                                                                                                                                                                                                                                      |
| Association                  |                            | TradeItemMeasure ments    | 0..1          | A module containing measurement information for the trade item.                                                                                                                                                                                                                                                                                                                                                                                                      |
| TradeItemOrientat ion        |                            |                           |               | Depicts one or many suggested orientations for the trade item for the purpose of display.                                                                                                                                                                                                                                                                                                                                                                            |

| content          | attribute / role               | datatype /secondary class | multipli city | definition                                                                                                                                                                                                                                                                                       |
|------------------|--------------------------------|---------------------------|---------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Attribute        | orientationPreference Sequence | nonNegativeInteger        | 0..1          | Depicts the preferred sequence of orientation used to communicate the manufacturers relative preferences of orientation.                                                                                                                                                                         |
| Attribute        | orientationTypeCode            | OrientationtypeCode       | 0..1          | Depicts via code a display orientation for a trade item.                                                                                                                                                                                                                                         |
| PegMeasurements  |                                |                           |               | This class enables the description of multiple peg holes and their locations for a trade item.                                                                                                                                                                                                   |
| Attribute        | pegHoleNumber                  | nonNegativeInteger        | 1..1          | Used to indicate the peg hole numbers when more than one hole is present in the product or packaging. Peg holes should be numbered from the upper left corner of the front of the package to the bottom right corner.                                                                            |
| Attribute        | pegHoleTypeCode                | PegHoleTypeCode           | 0..1          | A code depicting the type and shape of the peg hole used for the packaging.                                                                                                                                                                                                                      |
| Attribute        | pegHorizontal                  | Measurement               | 1..1          | Used to indicate the horizontal distance from the left edge of the trade item to the center of the hole into which the peg is inserted when the trade item is displayed on a pegboard. Example: "2 INH." Required if the trade item is displayed on a peg board.                                 |
| Attribute        | pegVertical                    | Measurement               | 1..1          | Used to indicate the vertical distance of a peg hole measured from the bottom edge of the trade item to the top of the peg hole. Peg holes are inserted when the trade item is displayed on a pegboard. Example: "2 INH." Information is required if the trade item is displayed on a peg board. |
| TradeItemNesting |                                |                           |               | Details on how trade items nest with each other for the purpose of measurements.                                                                                                                                                                                                                 |
| Attribute        | nestingDirectionCode           | NestingDirectionCode      | 0..1          | Depicts the arrangement of two items that nest together specifically whether they nest against each other or on top of each other.                                                                                                                                                               |
| Attribute        | nestingIncrement               | Measurement               | 0..*          | Indicates the incremental height of Trade Items nested together. In the case of two garbage cans nested together, this would be the height between the lip of the lower can and the lip on the upper can.                                                                                        |
| Attribute        | nestingTypeCode                | NestingTypeCode           | 0..1          | Depicts whether a nested item fits inside or over the other item in a nesting relationship.                                                                                                                                                                                                      |
| TradeItemWeight  |                                |                           |               | Information on the weight of a trade item.                                                                                                                                                                                                                                                       |

| content   | attribute / role | datatype /secondary class | multipli city | definition                                                                                                                                                                                                                                                                                                             |
|-----------|------------------|---------------------------|---------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Attribute | drainedWeight    | Measurement               | 0..1          | The weight of the trade item when drained of its liquid. For examples 225 "grm", Jar of pickles in vinegar. Applies to defined bricks of GCI Global trade item Classification - Mainly food trade item. Has to be associated with a valid UoM.                                                                         |
| Attribute | grossWeight      | Measurement               | 0..1          | Used to identify the gross weight of the trade item. The gross weight includes all packaging materials of the trade item. At pallet level the trade item, grossWeight includes the weight of the pallet itself. For example, "200 GRM", value - total pounds, total grams, etc. Has to be associated with a valid UOM. |
| Attribute | netWeight        | Measurement               | 0..1          | Used to identify the net weight of the trade item. Net weight excludes any packaging materials. Has to be associated with a valid UoM.                                                                                                                                                                                 |



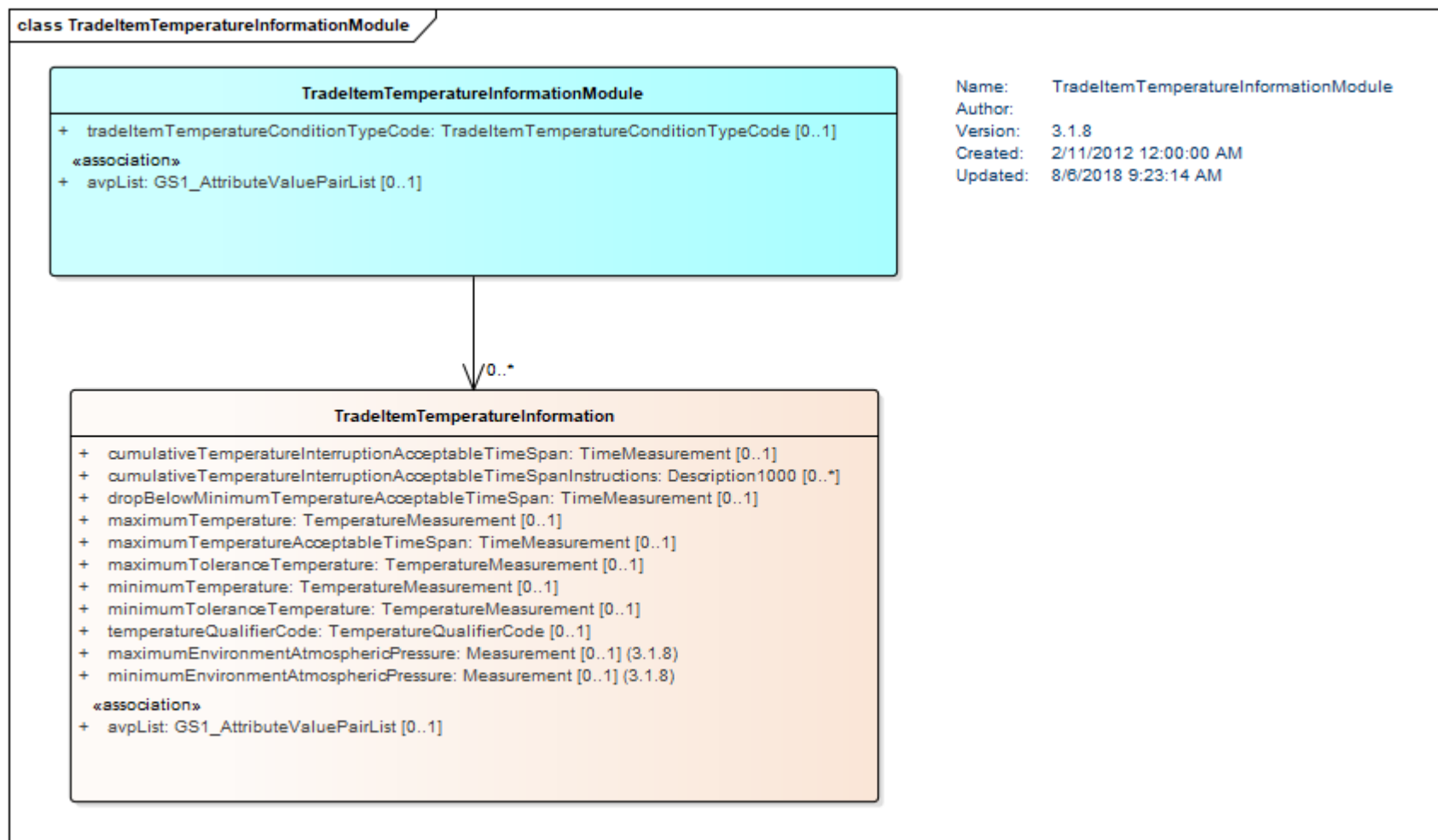
## 5.70 Trade Item Size Module



**Note:** Common class (in grey) is located in the Shared Common Library.

| content             | attribute / role | datatype /secondary class  | multipli city | definition                                                                                      |
|---------------------|------------------|----------------------------|---------------|-------------------------------------------------------------------------------------------------|
| TradeItemSizeModule |                  |                            |               | A module specifying the size of an object as a code or a description.                           |
| Association         |                  | Size                       | 0..*          | The size of an object and the size coding system being applied, for example L (buyer assigned). |
| Association         | avpList          | GS1_AttributeValuePairList | 0..1          | Attribute value pair information.                                                               |

## 5.71 Trade Item Temperature Information Module

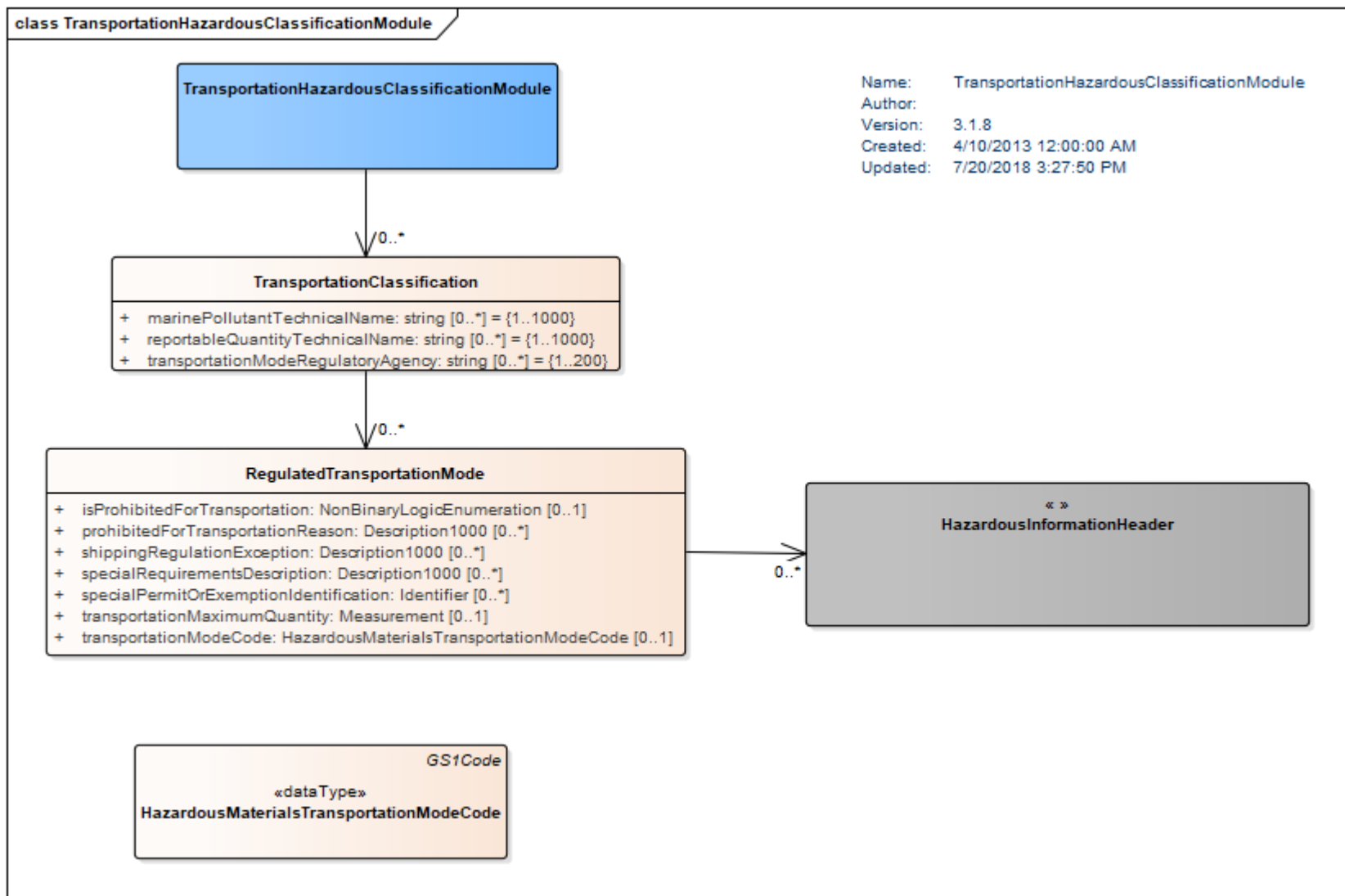


| content                                       | attribute / role | datatype /secondary class | multipl<br>icity | definition                                                 |
|-----------------------------------------------|------------------|---------------------------|------------------|------------------------------------------------------------|
| TradeItemTemper<br>atureInformationM<br>odule |                  |                           |                  | Information on temperatures considerations for trade item. |

| content                         | attribute / role                                                | datatype /secondary class             | multi<br>licity | definition                                                                                                                                                                                             |
|---------------------------------|-----------------------------------------------------------------|---------------------------------------|-----------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Association                     |                                                                 | TradeItemTemperatureInformation       | 0..*            | Details on permissible temperatures of a trade item during various points of the supply chain.                                                                                                         |
| Association                     | avpList                                                         | GS1_AttributeValuePairList            | 0..1            | Attribute value pair information.                                                                                                                                                                      |
| Attribute                       | tradeItemTemperatureConditionTypeCode                           | TradeItemTemperatureConditionTypeCode | 0..1            | The condition of the product sold to the end consumer for example thawed or frozen.                                                                                                                    |
| TradeItemTemperatureInformation |                                                                 |                                       |                 | Details on permissible temperatures of a trade item during various points of the supply chain.                                                                                                         |
| Association                     | avpList                                                         | GS1_AttributeValuePairList            | 0..1            | Attribute value pair information.                                                                                                                                                                      |
| Attribute                       | cumulativeTemperatureInterruptionAcceptableTimeSpan             | TimeMeasurement                       | 0..1            | An expression of the maximum allowed cumulative time span of one or more temperature interruptions of a trade item as defined by the manufacturer.                                                     |
| Attribute                       | cumulativeTemperatureInterruptionAcceptableTimeSpanInstructions | Description1000                       | 0..*            | Instructions provided by the product manufacturer regarding the process, procedures, or handling instructions for trade items that has exceeded the cumulative time span of temperature interruptions. |
| Attribute                       | dropBelowMinimumTemperatureAcceptableTimeSpan                   | TimeMeasurement                       | 0..1            | The amount of time that a product can drop below the minimum temperature threshold during storage as defined by the manufacturer without affecting product safety or quality.                          |
| Attribute                       | maximumEnvironmentAtmosphericPressure                           | Measurement                           | 0..1            | The maximum atmospheric pressure in which the item remains usable. This value is the value above which the trade item should not be subjected.                                                         |
| Attribute                       | maximumTemperature                                              | TemperatureMeasurement                | 0..1            | The maximum temperature that a trade item can not exceed as defined by the manufacturer without affecting product safety or quality.                                                                   |
| Attribute                       | maximumTemperatureAcceptableTimeSpan                            | TimeMeasurement                       | 0..1            | The amount of time that a product can safely rise above the maximum temperature threshold during storage as defined by the manufacturer without affecting product safety or quality.                   |
| Attribute                       | maximumToleranceTemperature                                     | TemperatureMeasurement                | 0..1            | The maximum temperature at which the item is still usable. The tolerated temperature indicates that the temperature of the trade item should never rise above the maximum temperature.                 |

| content   | attribute / role                      | datatype /secondary class | multipl<br>icity | definition                                                                                                                                                                             |
|-----------|---------------------------------------|---------------------------|------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Attribute | minimumEnvironmentAtmosphericPressure | Measurement               | 0..1             | The minimum atmospheric pressure in which the item remains usable. This value is the value below which the trade item should not be subjected.                                         |
| Attribute | minimumTemperature                    | TemperatureMeasurement    | 0..1             | The minimum temperature that a trade item can be held below defined by the manufacturer without affecting product safety or quality.                                                   |
| Attribute | minimumToleranceTemperature           | TemperatureMeasurement    | 0..1             | The minimum temperature at which the item is still usable. The tolerated temperature indicates that the temperature of the trade item should never fall below the minimum temperature. |
| Attribute | temperatureQualifierCode              | TemperatureQualifierCode  | 0..1             | Code qualifying the type of a temperature requirement for example Storage.                                                                                                             |

## 5.72 Transportation Hazardous Classification Module



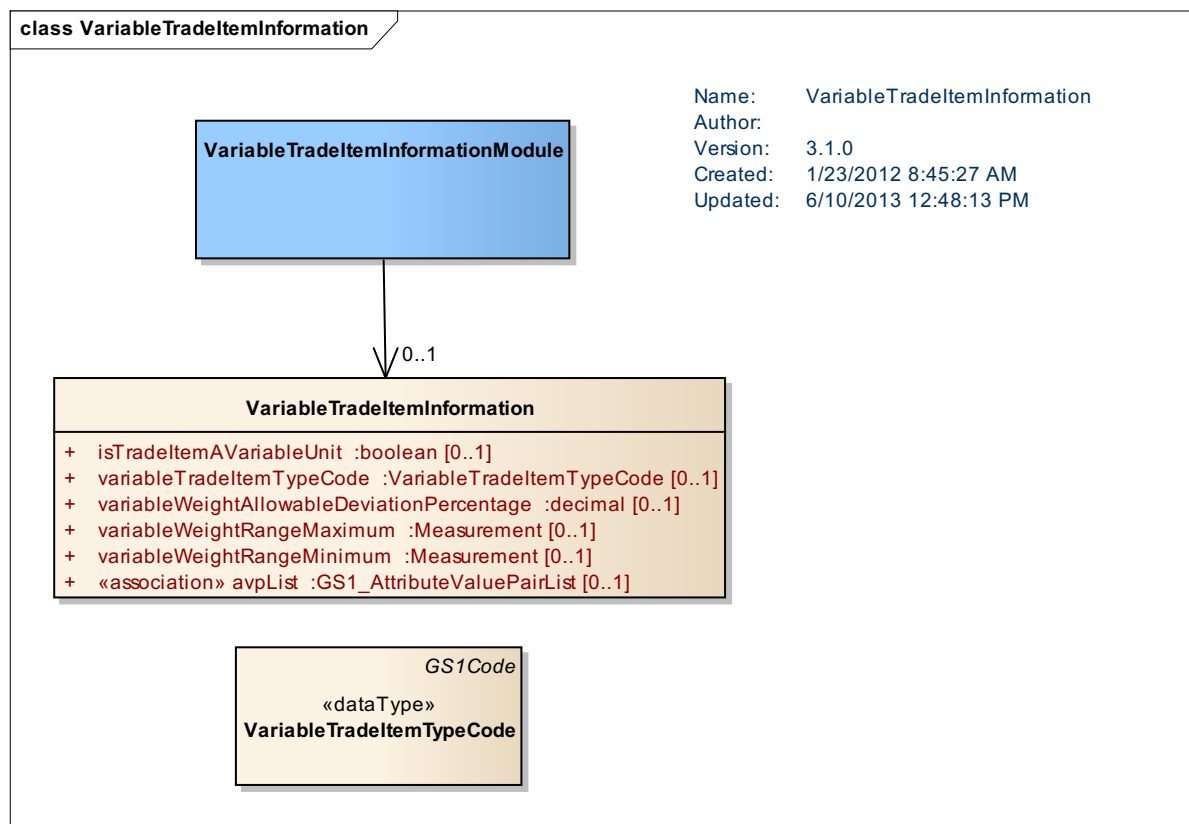


**Note:** Common class (in grey) is located in the GDSN Common Library.

| content                                     | attribute / role                   | datatype /secondary class    | multiplicity | definition                                                                                                                                                                                                                                               |
|---------------------------------------------|------------------------------------|------------------------------|--------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| TransportationHazardousClassificationModule |                                    |                              |              | A module containing information on hazardous information typically based on a specific mode of transportation as regulated by an agency for example ADR, IATA, DOT, IMDG.                                                                                |
| Association                                 |                                    | TransportationClassification | 0..*         | Information on hazardous information based on a specific mode of transportation as regulated by an agency for example ADR, IATA, DOT, IMDG.                                                                                                              |
| TransportationClassification                |                                    |                              |              | Information on hazardous information based on a specific mode of transportation as regulated by an agency for example ADR, IATA, DOT, IMDG.                                                                                                              |
| Association                                 |                                    | RegulatedTransportationMode  | 0..*         | Hazardous transportation information per mode of transportation.                                                                                                                                                                                         |
| Attribute                                   | marinePollutantTechnicalName       | string                       | 0..*         | The technical chemical name of any marine pollutant contained in the item or component.                                                                                                                                                                  |
| Attribute                                   | reportableQuantityTechnicalName    | string                       | 0..*         | A recognized chemical name or microbiological name currently used in scientific and technical handbooks, journals, and texts for a chemical that exists in the Trade Item in quantity viewed as reportable according to a regulation for example US EPA. |
| Attribute                                   | transportationModeRegulatoryAgency | string                       | 0..*         | The agency requiring information based on a specific mode of transportation for example ADR, IATA, DOT, IMDG.                                                                                                                                            |
| RegulatedTransportationMode                 |                                    |                              |              | Hazardous transportation information per mode of transportation.                                                                                                                                                                                         |
| Association                                 |                                    | HazardousInformationHeader   | 0..*         | Hazardous information for a hazardous class expressed for a transportation mode.                                                                                                                                                                         |
| Attribute                                   | isProhibitedForTransportation      | NonBinaryLogicEnumeration    | 0..1         | Indicates whether an item is prohibited for transportation via a specified mode.                                                                                                                                                                         |
| Attribute                                   | prohibitedForTransportationReason  | Description1000              | 0..*         | The reason that something is prohibited for transportation using a specific mode as a description.                                                                                                                                                       |
| Attribute                                   | shippingRegulationException        | Description1000              | 0..*         | A description of any reasons for excluding a trade item or component from a hazardous regulation for a mode of transportation.                                                                                                                           |

| content   | attribute / role                       | datatype /secondary class                | multiplicity | definition                                                                                                                                                                                                                                |
|-----------|----------------------------------------|------------------------------------------|--------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Attribute | specialRequirementsDescription         | Description1000                          | 0..*         | Any special requirements for storage or transportation in relation to any hazardous materials for example those regulated by ADR (European Agreement concerning the International Carriage of Dangerous Goods by Road).                   |
| Attribute | specialPermitOrExemptionIdentification | Identifier                               | 0..*         | An identifier (special permit number) for an exemption or special permit for a Trade Item. An identifier for an exception from a regulation specific to packaging for example DOT T, E, SP numbers, specialpermits for a packaging style. |
| Attribute | transportationMaximumQuantity          | Measurement                              | 0..1         | The maximum inner volume of receptacles or packages (inner pack of vendor pack) that can be safely transported for a specific transportation type (e.g. Air Cargo) according to a governing agency.                                       |
| Attribute | transportationModeCode                 | HazardousMaterialsTransportationModeCode | 0..1         | The type of vehicle used for the transportation of a hazardous material.                                                                                                                                                                  |

## 5.73 Variable Trade Item Information Module

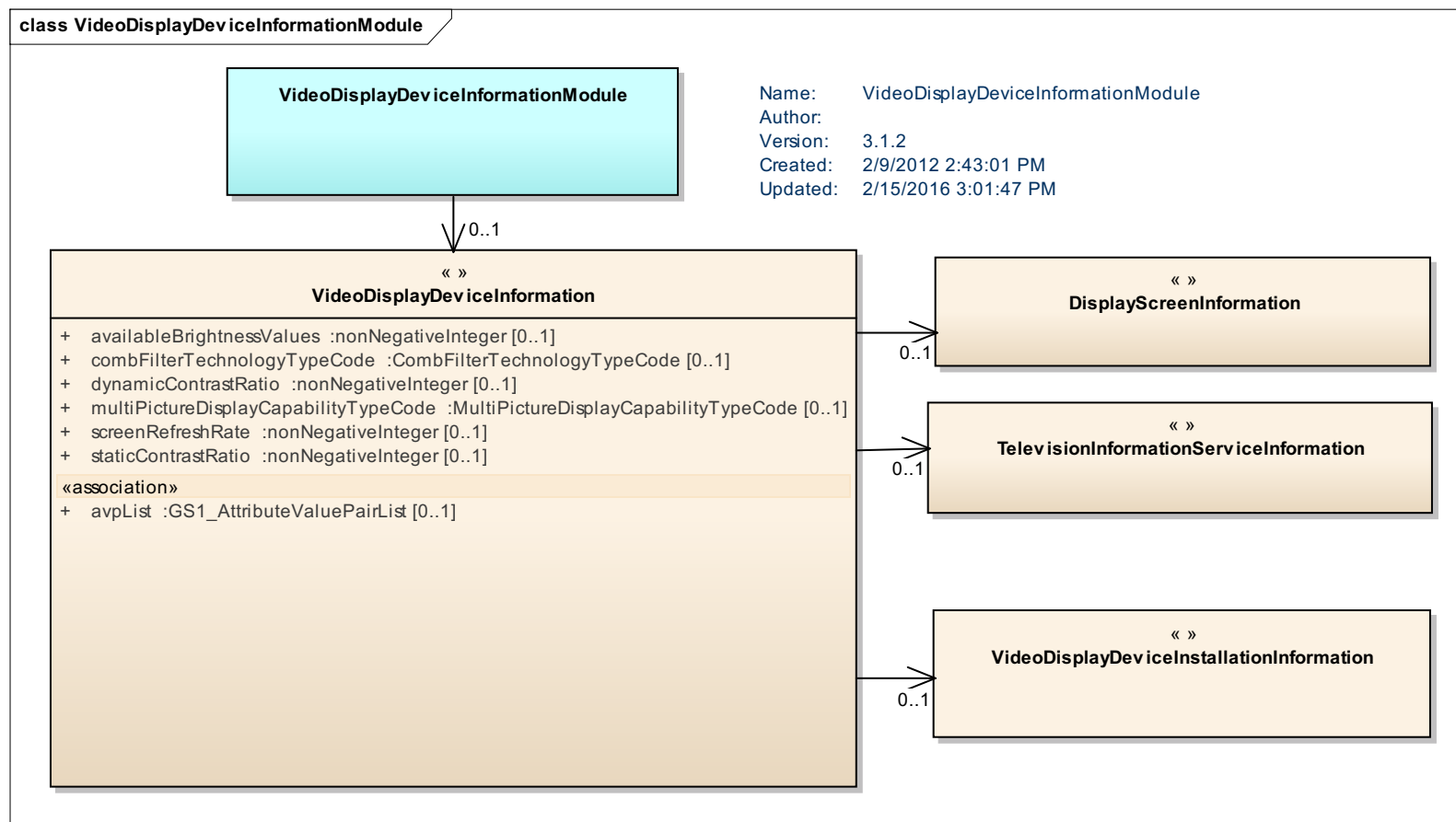


| content                       | attribute / role          | datatype /secondary class  | multipli city | definition                                                                                                                                                                                       |
|-------------------------------|---------------------------|----------------------------|---------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| VariableTradeItem Information |                           |                            |               | Information specific to variable weight or dimension trade items.                                                                                                                                |
| Association                   | avpList                   | GS1_AttributeValuePairList | 0..1          | Attribute value pair information.                                                                                                                                                                |
| Attribute                     | isTradeItemAVariable Unit | boolean                    | 0..1          | Indicates that an article is not a fixed quantity, but that the quantity is variable. Can be weight, length, volume, trade item is used or traded in continuous rather than discrete quantities. |



| content                                    | attribute / role                                   | datatype /secondary class        | multipli city | definition                                                                                                                                                                                                                                                                                                             |
|--------------------------------------------|----------------------------------------------------|----------------------------------|---------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Attribute                                  | variableTradeItemTy<br>peCode                      | VariableTradeItem<br>TypeCode    | 0..1          | Indicator to show whether product is loose or pre-packed.                                                                                                                                                                                                                                                              |
| Attribute                                  | variableWeightAllowa<br>bleDeviationPercenta<br>ge | decimal                          | 0..1          | Indication of the percentage value that the actual weight of the trade item may differ from the average or estimated weight given. For example, Roast beef off the bone 3.5 kg, Gross weight 3500 Grams, Range = 14 %. This means that this item may be produced with weight values ranging from 3.010 kg to 3.990 kg. |
| Attribute                                  | variableWeightRange<br>Maximum,                    | Measurement                      | 0..1          | Variable Weight Range Maximum (also called Catchweight Range Maximum) identifies the highest or ceiling weight of a variable weight product.                                                                                                                                                                           |
| Attribute                                  | variableWeightRange<br>Minimum                     | Measurement                      | 0..1          | Variable Weight Range Minimum (also called Catch weight Range Minimum) identifies the lowest weight of the variable weight product.                                                                                                                                                                                    |
| VariableTradeItem<br>InformationModul<br>e |                                                    |                                  |               | A module containing information specific to variable weight or dimension trade items.                                                                                                                                                                                                                                  |
| Association                                |                                                    | VariableTradeItemI<br>nformation | 0..1          | Information specific to variable weight or dimension trade items.                                                                                                                                                                                                                                                      |

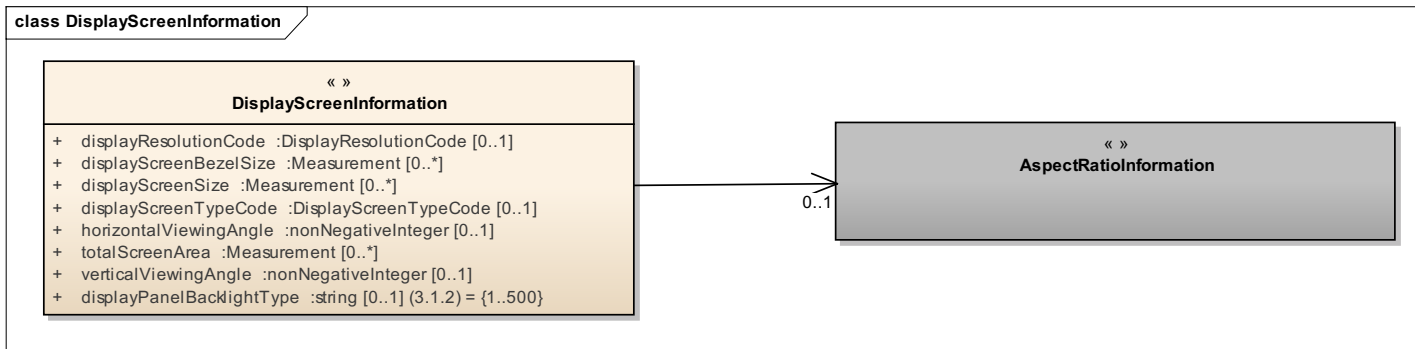
## 5.74 Video Display Device Information Module



| content                                         | attribute / role | datatype /secondary class | multipl<br>city | definition                                                                                                                                   |
|-------------------------------------------------|------------------|---------------------------|-----------------|----------------------------------------------------------------------------------------------------------------------------------------------|
| TelevisionInforma<br>tionServiceInform<br>ation |                  |                           |                 | A capability of the television to process text information service (subtitled or captioned) for example Teletext, Telidon, Antiope, Fastext. |

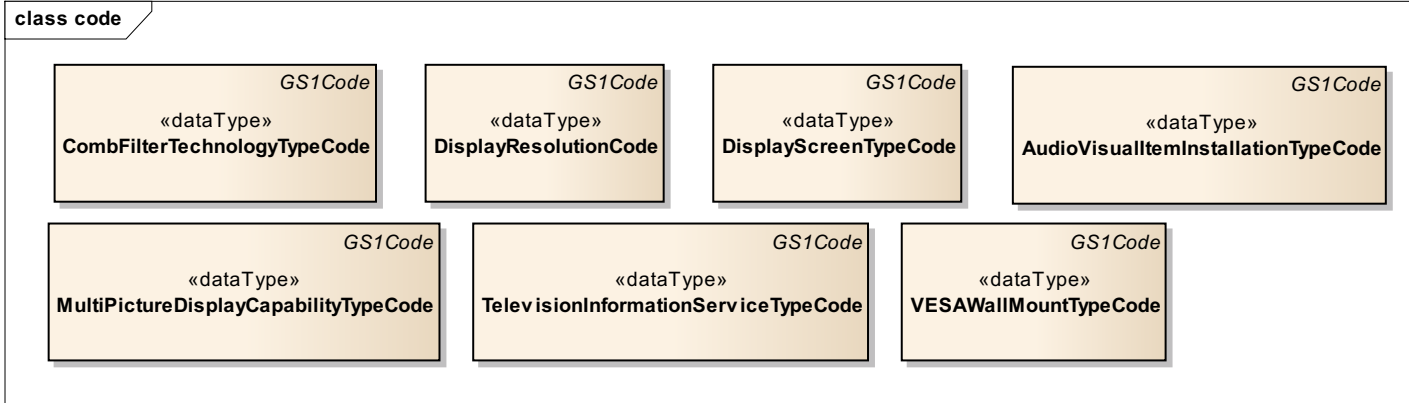
| content                                   | attribute / role                          | datatype /secondary class                 | multipl<br>city | definition                                                                                                                                                                  |
|-------------------------------------------|-------------------------------------------|-------------------------------------------|-----------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Attribute                                 | televisionInformationServiceTypeCode      | TelevisionInformationServiceTypeCode      | 0..*            | The type of text information services the unit can process expressed as a code for example ANTIOPE.                                                                         |
| Attribute                                 | televisionTextMemoryPageQuantity          | nonNegativeInteger                        | 0..1            | This is the quantity of pages expressed as an integer that the television memory maintains for previously viewed Teletext content.                                          |
| VideoDisplayDeviceInstallationInformation |                                           |                                           |                 | Installation information for a audio visual item.                                                                                                                           |
| Attribute                                 | audioVisualItemInstallationOptionTypeCode | AudioVisualItemInstallationTypeCode       | 0..1            | The way that the unit can be mounted or placed expressed as a code for example CEILING_MOUNT.                                                                               |
| Attribute                                 | vESAWallMountTypeCode                     | VESAWallMountTypeCode                     | 0..1            | The type of VESA wall mount the television is compatible with. VESA is a standard bracket which is a universal mount measured by the Video Electronic Standard Association. |
| VideoDisplayDeviceInformation             |                                           |                                           |                 | Information of the video capabilities of the trade item.                                                                                                                    |
| Association                               |                                           | TelevisionInformationServiceInformation   | 0..1            | A capability of the television to process text information service (subtitled or captioned) for example Teletext, Telidon, Antiope, Fastext.                                |
| Association                               |                                           | VideoDisplayDeviceInstallationInformation | 0..1            | Installation information for a audio visual item.                                                                                                                           |
| Association                               |                                           | DisplayScreenInformation                  | 0..1            | Details on television or monitor screens for a trade item.                                                                                                                  |
| Association                               | avpList                                   | GS1_AttributeValuePairList                | 0..1            | Attribute value pair information.                                                                                                                                           |
| Attribute                                 | availableBrightnessValues                 | nonNegativeInteger                        | 0..1            | The monitor brightness as a measurement. This is measured in candela per square meter (also known as Nits) or lumens per square meter, and Lux.                             |
| Attribute                                 | combFilterTechnologyTypeCode              | CombFilterTechnologyTypeCode              | 0..1            | A code depiction the type of software allowing the screen to show fine picture detail from channel broadcast or DVD source for example DIGITAL.                             |

| content                             | attribute / role                      | datatype /secondary class             | multipl<br>city | definition                                                                                                                                                                                                                                             |
|-------------------------------------|---------------------------------------|---------------------------------------|-----------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Attribute                           | dynamicContrastRatio                  | nonNegativeInteger                    | 0..1            | This is the ratio of luminosity of the brightest and darkest colour the system is capable of producing simultaneously over time. In the attribute the integer given is the first number in the ratio which is always to one, i.e. 550:1.               |
| Attribute                           | multiPictureDisplayCapabilityTypeCode | MultiPictureDisplayCapabilityTypeCode | 0..1            | The type of ability to simultaneously display multiple viewing windows on the same screen expressed as a code for example PICTURE_AND_TEXT.                                                                                                            |
| Attribute                           | screenRefreshRate                     | nonNegativeInteger                    | 0..1            | This is defined as the number of times a display's image is repainted or refreshed in per second measured in Hertz.                                                                                                                                    |
| Attribute                           | staticContrastRatio                   | nonNegativeInteger                    | 0..1            | This is the ratio of luminosity of the brightest and darkest colour the system is capable of producing simultaneously at any instance of time. In the attribute the integer given is the first number in the ratio which is always to one, i.e. 550:1. |
| VideoDisplayDeviceInformationModule |                                       |                                       |                 | A module containing Information of the capabilities of a trade item that displays visual images for example a television or a computer monitor.                                                                                                        |
| Association                         |                                       | VideoDisplayDeviceInformation         | 0..1            | Information of the video capabilities of the trade item.                                                                                                                                                                                               |

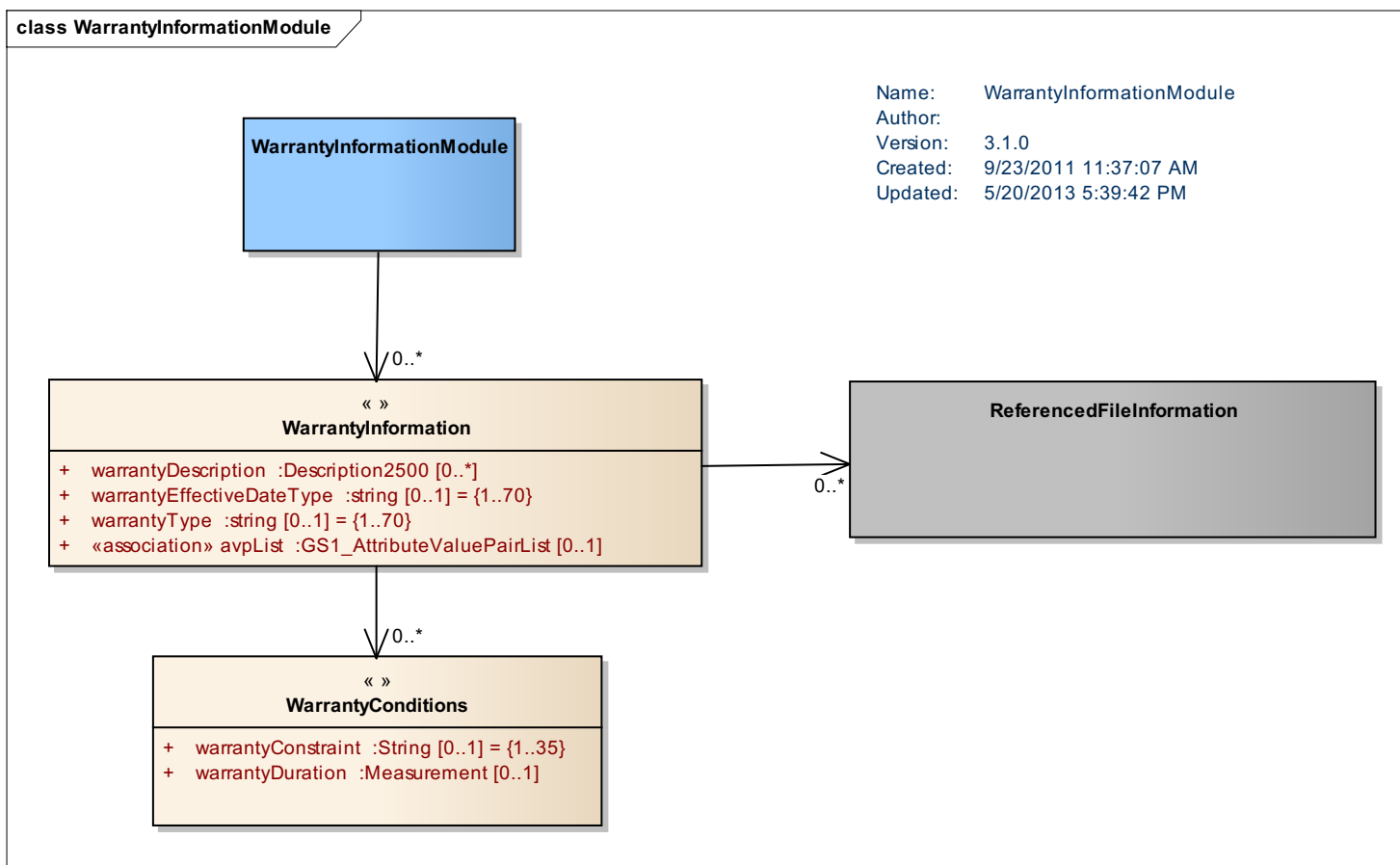


| content                  | attribute / role | datatype /secondary class | multipl<br>city | definition                                                 |
|--------------------------|------------------|---------------------------|-----------------|------------------------------------------------------------|
| DisplayScreenInformation |                  |                           |                 | Details on television or monitor screens for a trade item. |

| content     | attribute / role              | datatype /secondary class  | multipl<br>city | definition                                                                                                                                                                                      |
|-------------|-------------------------------|----------------------------|-----------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Association |                               | AspectRatioInform<br>ation | 0..1            | Aspect ratio information for a display screen.                                                                                                                                                  |
| Attribute   | displayPanelBacklight<br>Type | String                     | 0..1            | The backlighting utilized in the panel, most commonly Cold Cathode Fluorescent Lamps (CCFLs) or Light Emitting Diodes (LEDs).                                                                   |
| Attribute   | displayResolutionCod<br>e     | DisplayResolutionC<br>ode  | 0..1            | The display resolution of a television or computer display. This typically refers to the number of distinct pixels in each dimension that can be displayed for example 720x480, 1680x1050, etc. |
| Attribute   | displayScreenBezelSi<br>ze    | Measurement                | 0..*            | The measurement from the edge of physical screen to the frame.                                                                                                                                  |
| Attribute   | displayScreenSize             | Measurement                | 0..*            | The viewable display/screen size of the product expressed as a measurement (inches or centimetres).                                                                                             |
| Attribute   | displayScreenTypeCo<br>de     | DisplayScreenType<br>Code  | 0..1            | The type of output device for presentation of visual information.                                                                                                                               |
| Attribute   | horizontalViewingAng<br>le    | nonNegativeIntege<br>r     | 0..1            | The maximum angle that a picture can be viewed without distortion in the horizontal orientation expressed in degrees.                                                                           |
| Attribute   | totalScreenArea               | Measurement                | 0..*            | The area of a television or monitor screen typically measured as viewable screen height by viewable screen width.                                                                               |
| Attribute   | verticalViewingAngle          | nonNegativeIntege<br>r     | 0..1            | The maximum angle that a picture can be viewed without distortion in the vertical orientation expressed in degrees.                                                                             |



## 5.75 Warranty Information Module



| content                | attribute / role   | datatype /secondary class | multipl<br>city | definition                                                                                                                                                              |
|------------------------|--------------------|---------------------------|-----------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| WarrantyCondition<br>s |                    |                           |                 | Provides information on the usually written guarantee of the integrity of a product and of the maker's responsibility for the repair or replacement of defective parts. |
| Attribute              | warrantyConstraint | string                    | 0..1            | Determines the relationship between multiple warranty conditions for example "and", "or", "greatest", "least".                                                          |
| Attribute              | warrantyDuration   | Measurement               | 0..1            | The time period that the warranty is valid within.                                                                                                                      |

| content                    | attribute / role           | datatype /secondary class   | multipli city | definition                                                                                                                                                                                |
|----------------------------|----------------------------|-----------------------------|---------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| WarrantyInformat ion       |                            |                             |               | An assurance that the trade item is reliable and that repairs or replacement will be done free of charge within a given time limit and under certain conditions in the event of a defect. |
| Association                |                            | ReferencedFileInfor mation  | 0..*          | External file information for a warranty.                                                                                                                                                 |
| Association                |                            | WarrantyCondition s         | 0..*          | Warranty Conditions for this Trade Item Warranty.                                                                                                                                         |
| Association                | avpList                    | GS1_AttributeValu ePairList | 0..1          | Attribute value pair information.                                                                                                                                                         |
| Attribute                  | warrantyDescription        | Description2500             | 0..*          | The description of warranty available for the trade item.                                                                                                                                 |
| Attribute                  | warrantyEffectiveDat eType | String                      | 0..1          | The type of date associated with the warranty trade item usually expressed as an event date for the item for example date of purchase, date of manufacture or date of delivery.           |
| Attribute                  | warrantyType               | String                      | 0..1          | The type of warranty available for the trade item for example labour, distance, extended service.                                                                                         |
| WarrantyInformat ionModule |                            |                             |               | An assurance that the trade item is reliable and that repairs or replacement will be done free of charge within a given time limit and under certain conditions in the event of a defect. |
| Association                |                            | WarrantyInformati on        | 0..*          | A module containing any warranty information relevant to a trade item.                                                                                                                    |



## 6 Codes

### 6.1 GS1 Managed Codes

All GS1 managed codes applicable to GDSN can be found at the following link:

[GDSN Code List BMS](#)

### 6.2 Attributes with Code Lists Not Specified in Models

The following attributes do not specify the code list to be used using the data type. The following table lists the code lists to be used for these types of attributes.

| Attribute Name                    | Code List                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|-----------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| classOfDangerousGoods             | Recommend to use codes listed in the UN Recommendations on the Transport of Dangerous Goods.                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| colourCodeListCode                | Use ColourCodeListCode                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| codeListNameCode                  | AVPCodeListNameCode (GS1 Code List)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| countryCode                       | GDSN extends the ISO Country Code list with the value NON_EU. The Country Code List for GDSN is in this document.                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| dangerousGoodsRegulationCode      | DangerousGoodsRegulationCode                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| epubUsageStatus                   | ONIXUsageStatusCode                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| epubUsageType                     | ONIXUsageTypeCode                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| genreTypeCodeReference            | GS1 Code List used differs based on product: <ul style="list-style-type: none"> <li>Product Genre Type Code (Electronic Games)</li> <li>Product Genre Type Code (Film)</li> <li>Product Genre Type Code (Music)</li> </ul>                                                                                                                                                                                                                                                                                                                                    |
| handlingInstructionsCodeReference | Use HandlingInstructionsCode_GDSN in Code List BMS or GDD to populate.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| massEquivalentProtocolCode        | Based On MassEquivalentCode, use one of following: <ul style="list-style-type: none"> <li>Mass Equivalent Fresh Water Consumption Protocol Code</li> <li>Mass Equivalent Ionizing Radiation Human Protocol Code</li> <li>Mass Equivalent Land Use Protocol Code</li> <li>Mass Equivalent Nonrenewable Resource Depletion Protocol Code</li> <li>Mass Equivalent Ozone Depletion Protocol Code</li> <li>Mass Equivalent Particulate Respiratory Effects Protocol Code</li> <li>Mass Equivalent Photochemical Ozone Creation Potential Protocol Code</li> </ul> |

| Attribute Name                         | Code List                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|----------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| massEquivalentSubstanceCodeReference   | Based On MassEquivalentCode, use one of following: <ul style="list-style-type: none"> <li>Mass Equivalent Fresh Water Consumption Substance Code</li> <li>Mass Equivalent Ionizing Radiation Human Substance Code</li> <li>Mass Equivalent Land Use Substance Code</li> <li>Mass Equivalent Non Renewable Resource Depletion Substance Code</li> <li>Mass Equivalent Ozone Depletion Reference Substance Code</li> <li>Mass Equivalent Particulate Respiratory Effects Reference Substance Code</li> </ul> |
| onixExtentUnitTypeCode                 | Recommended to use ONIX List 24: Extent Unit Code.                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| ONIXProductAvailabilityCode            | Recommended to use ONIX List 65                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| productActivityRegionZoneCodeReference | Use CatchAreaCode when productActivityType = CATCH_ZONE                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| ratingContentDescriptorCode            | GS1 Code List used differs based on product: <ul style="list-style-type: none"> <li>Rating Content Descriptor Code (Music)</li> <li>Rating Content Descriptor Code (ESBR)</li> <li>Rating Content Descriptor Code (PEGI)</li> <li>Rating Content Descriptor Code (Film)</li> </ul>                                                                                                                                                                                                                         |
| rOHSComplianceFailureMaterial          | Use ROHSComplianceFailureMaterialCode.                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| sizeCodeListCode                       | Use SizeCodeListCode.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| titleRatingCodeReference               | GS1 Code List used differs based on product type: <ul style="list-style-type: none"> <li>Title Rating Code (Games)</li> <li>Title Rating Code (Film).</li> </ul>                                                                                                                                                                                                                                                                                                                                           |
| unnamedPersons                         | onixUnnamedPersonsCode                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| unitedNationsDangerousGoodsNumber      | UNDG Number: Recommend to use codes listed in the 16th edition of the UN Recommendations on the Transport of Dangerous Goods was published in 2009.                                                                                                                                                                                                                                                                                                                                                        |

## 7 Implementation Considerations

### 7.1 Attribute Variations

| Attribute Name                                        | Target Market Applicability | Trading Partner Neutral status | Multiple Values (Grey = N/A) | Multi Language/ Measurement / Currency |
|-------------------------------------------------------|-----------------------------|--------------------------------|------------------------------|----------------------------------------|
| acceleration                                          | Global/Local                | T.P.Neutral                    | Yes                          | Yes                                    |
| accidentalReleaseMeasuresDescription                  | Global/Local                | T.P.Neutral                    | No                           | Yes                                    |
| acidificationMeasurement                              | Global/Local                | T.P.Neutral                    | No                           | No                                     |
| acidificationMeasurementProtocolCode                  | Global/Local                | T.P.Neutral                    |                              |                                        |
| acidificationMeasurementProtocolDescription           | Global/Local                | T.P.Neutral                    | No                           | Yes                                    |
| acidificationMeasurementReferenceSubstanceCode        | Global/Local                | T.P.Neutral                    |                              |                                        |
| acidificationMeasurementReferenceSubstanceDescription | Global/Local                | T.P.Neutral                    | No                           | Yes                                    |
| additionalCameraAngleCode                             | Global/Local                | T.P.Neutral                    |                              |                                        |
| additionalCertificationOrganisationIdentifier         | Global/Local                | T.P.Neutral                    |                              |                                        |

| Attribute Name                                       | Target Market Applicability | Trading Partner Neutral status | Multiple Values (Grey = N/A) | Multi Language/ Measurement / Currency |
|------------------------------------------------------|-----------------------------|--------------------------------|------------------------------|----------------------------------------|
| additionalPartyIdentification                        | Global/Local                | T.P.Neutral & T.P.Dependent    |                              |                                        |
| additionalSDSInformation                             | Global/Local                | T.P.Neutral                    | No                           | Yes                                    |
| additionalTradeItemClassificationCodeDescription     | Global/Local                | T.P.Neutral                    | No                           | No                                     |
| additionalTradeItemClassificationCodeValue           | Global/Local                | T.P.Neutral                    |                              |                                        |
| additionalTradeItemClassificationPropertyCode        | Global/Local                | T.P.Neutral                    |                              |                                        |
| additionalTradeItemClassificationPropertyDescription | Global/Local                | T.P.Neutral                    | No                           | Yes                                    |
| additionalTradeItemClassificationSystemCode          | Global/Local                | T.P.Neutral                    |                              |                                        |
| additionalTradeItemClassificationVersion             | Global/Local                | T.P.Neutral                    |                              |                                        |
| additionalTradeItemDescription                       | Global/Local                | T.P.Neutral                    | No                           | Yes                                    |
| additionalTradeItemIdentification                    | Global/Local                | T.P.Neutral & T.P.Dependent    |                              |                                        |
| additiveName                                         | Global/Local                | T.P.Neutral                    |                              |                                        |
| additiveStatement                                    | Global/Local                | T.P.Neutral                    | No                           | Yes                                    |
| additiveTypeCodeReference                            | Global/Local                | T.P.Neutral                    |                              |                                        |
| aDRDangerousGoodsLimitedQuantitiesCode               | Global/Local                | T.P.Neutral                    |                              |                                        |
| aDRDangerousGoodsPackagingTypeCode                   | Global/Local                | T.P.Neutral                    |                              |                                        |
| aDRTunnelRestrictionCode                             | Global/Local                | T.P.Neutral                    |                              |                                        |
| ageRangeDescription                                  | Global/Local                | T.P.Neutral                    | No                           | Yes                                    |
| agreedMaximumBuyingQuantity                          | Global/Local                | T.P.Neutral                    |                              |                                        |
| agreedMinimumBuyingQuantity                          | Global/Local                | T.P.Neutral                    |                              |                                        |
| alcoholicBeverageSubregion                           | Global/Local                | T.P.Neutral                    |                              |                                        |
| alcoholicPermissionLevel                             | Global/Local                | T.P.Neutral                    |                              |                                        |
| alcoholProof                                         | Global/Local                | T.P.Neutral                    |                              |                                        |
| alcoholicBeverageSugarContent                        | Global/Local                | T.P.Neutral                    | No                           | Yes                                    |
| allergenRelevantDataProvidedDateTime                 | Global/Local                | T.P.Neutral & T.P.Dependent    |                              |                                        |
| allergenSpecificationAgency                          | Global/Local                | T.P.Neutral                    |                              |                                        |
| allergenSpecificationName                            | Global/Local                | T.P.Neutral                    |                              |                                        |
| allergenStatement                                    | Global/Local                | T.P.Neutral                    | No                           | Yes                                    |
| allergenTypeCode                                     | Global/Local                | T.P.Neutral                    |                              |                                        |
| allowanceChargeAmount                                | Global/Local                | T.P.Neutral & T.P.Dependent    | No                           | No                                     |
| allowanceChargeDescription                           | Global/Local                | T.P.Neutral & T.P.Dependent    | No                           | Yes                                    |
| allowanceChargePercentage                            | Global/Local                | T.P.Neutral & T.P.Dependent    |                              |                                        |
| allowanceChargeTypeCode                              | Global/Local                | T.P.Neutral & T.P.Dependent    |                              |                                        |
| allowanceOrChargeType                                | Global/Local                | T.P.Neutral & T.P.Dependent    |                              |                                        |
| alternativeName                                      | Global/Local                | T.P.Neutral                    |                              |                                        |
| alternativeNameType                                  | Global/Local                | T.P.Neutral                    |                              |                                        |
| alternativeReturnableAssetIdentification             | Global/Local                | T.P.Neutral                    |                              |                                        |
| amountPerUnit                                        | Global/Local                | T.P.Neutral                    | No                           | No                                     |
| animalNutrientExactPercentage                        | Global/Local                | T.P.Neutral                    |                              |                                        |
| animalNutrientMaximumPercentage                      | Global/Local                | T.P.Neutral                    |                              |                                        |
| animalNutrientMinimumPercentage                      | Global/Local                | T.P.Neutral                    |                              |                                        |
| animalNutrientQuantityContained                      | Global/Local                | T.P.Neutral                    | No                           | Yes                                    |
| animalNutrientQuantityContainedBasis                 | Global/Local                | T.P.Neutral                    | No                           | Yes                                    |
| animalNutrientTypeCode                               | Global/Local                | T.P.Neutral                    |                              |                                        |

| Attribute Name                                     | Target Market Applicability | Trading Partner Neutral status | Multiple Values (Grey = N/A) | Multi Language/ Measurement / Currency |
|----------------------------------------------------|-----------------------------|--------------------------------|------------------------------|----------------------------------------|
| animalNutritionalClaim                             | Global/Local                | T.P.Neutral                    | Yes                          | Yes                                    |
| applicationIdentifierTypeCode                      | Global/Local                | T.P.Neutral                    |                              |                                        |
| aquaticEutrophicationMeasurement                   | Global/Local                | T.P.Neutral                    | No                           | No                                     |
| aquaticEutrophicationModelCode                     | Global/Local                | T.P.Neutral                    |                              |                                        |
| aquaticEutrophicationModelDescription              | Global/Local                | T.P.Neutral                    | No                           | Yes                                    |
| aquaticEutrophicationReferenceSubstanceCode        | Global/Local                | T.P.Neutral                    |                              |                                        |
| aquaticEutrophicationReferenceSubstanceDescription | Global/Local                | T.P.Neutral                    | No                           | Yes                                    |
| aquaticEutrophicationWaterBodyDescription          | Global/Local                | T.P.Neutral                    | No                           | Yes                                    |
| aquaticEutrophicationWaterBodyTypeCode             | Global/Local                | T.P.Neutral                    |                              |                                        |
| areBatteriesBuiltIn                                | Global/Local                | T.P.Neutral                    |                              |                                        |
| areBatteriesIncluded                               | Global/Local                | T.P.Neutral                    |                              |                                        |
| areBatteriesRequired                               | Global/Local                | T.P.Neutral                    |                              |                                        |
| areFeesRequiredForUse                              | Global/Local                | T.P.Neutral                    |                              |                                        |
| areHazardousComponentsRemovable                    | Global                      | T.P.Neutral                    |                              |                                        |
| areHumanModelsInFile                               | Global/Local                | T.P.Neutral                    |                              |                                        |
| aspectRatioDescriptionCode                         | Global/Local                | T.P.Neutral                    |                              |                                        |
| aspectRatioDimensionCode                           | Global/Local                | T.P.Neutral                    |                              |                                        |
| audienceCodeValueCode                              | Global/Local                | T.P.Neutral                    |                              |                                        |
| audienceDescription                                | Global/Local                | T.P.Neutral                    | No                           | Yes                                    |
| audienceRangePrecision1Code                        | Global/Local                | T.P.Neutral                    |                              |                                        |
| audienceRangePrecision2Code                        | Global/Local                | T.P.Neutral                    |                              |                                        |
| audienceRangeQualifierCode                         | Global/Local                | T.P.Neutral                    |                              |                                        |
| audienceRangeValue1                                | Global/Local                | T.P.Neutral                    |                              |                                        |
| audienceRangeValue2                                | Global/Local                | T.P.Neutral                    |                              |                                        |
| audienceTypeCodeListCode                           | Global/Local                | T.P.Neutral                    |                              |                                        |
| audioSoundTypeCode                                 | Global/Local                | T.P.Neutral                    |                              |                                        |
| audioVisualConnectionInputDirectionCode            | Global/Local                | T.P.Neutral                    |                              |                                        |
| audioVisualConnectionLocationCode                  | Global/Local                | T.P.Neutral                    |                              |                                        |
| audioVisualConnectionQuantity                      | Global/Local                | T.P.Neutral                    |                              |                                        |
| audioVisualConnectionTypeCode                      | Global/Local                | T.P.Neutral                    |                              |                                        |
| audioVisualItemInstallationOptionTypeCode          | Global/Local                | T.P.Neutral                    |                              |                                        |
| audioVisualMediaDateTime                           | Global/Local                | T.P.Neutral                    |                              |                                        |
| audioVisualMediaDateTypeCode                       | Global/Local                | T.P.Neutral                    |                              |                                        |
| audioVisualMediaItemContributorName                | Global/Local                | T.P.Neutral                    |                              |                                        |
| audioVisualMediaItemContributorTypeCode            | Global/Local                | T.P.Neutral                    |                              |                                        |
| audioVisualMediaProductCollectionName              | Global/Local                | T.P.Neutral                    |                              |                                        |
| audioVisualMediaProductCollectionSeriesNumber      | Global/Local                | T.P.Neutral                    |                              |                                        |
| audioVisualMediaProductLabelName                   | Global/Local                | T.P.Neutral                    |                              |                                        |
| audioVisualMediaProductLine                        | Global/Local                | T.P.Neutral                    | Yes                          | Yes                                    |
| audioVisualMediaProductTitle                       | Global/Local                | T.P.Neutral                    |                              |                                        |
| autographedBy                                      | Global/Local                | T.P.Neutral                    |                              |                                        |
| autoIgnitionTemperature                            | Global/Local                | T.P.Neutral                    | No                           | Yes                                    |
| automaticPowerDownDefaultTimePeriod                | Global                      | T.P.Neutral                    |                              |                                        |
| availableBrightnessValues                          | Global/Local                | T.P.Neutral                    |                              |                                        |
| availableChannelStationQuantity                    | Global/Local                | T.P.Neutral                    |                              |                                        |
| availableLanguageCode                              | Global/Local                | T.P.Neutral                    |                              |                                        |
| availableTime                                      | Global/Local                | T.P.Neutral                    | No                           | Yes                                    |

| Attribute Name                                 | Target Market Applicability | Trading Partner Neutral status | Multiple Values (Grey = N/A) | Multi Language/ Measurement / Currency |
|------------------------------------------------|-----------------------------|--------------------------------|------------------------------|----------------------------------------|
| averageDistanceTravelledToPointOfPackagingCode | Global/Local                | T.P.Neutral                    |                              |                                        |
| awardPrizeCode                                 | Global/Local                | T.P.Neutral                    |                              |                                        |
| awardPrizeCountryCode                          | Global/Local                | T.P.Neutral                    |                              |                                        |
| awardPrizeDescription                          | Global/Local                | T.P.Neutral                    | No                           | Yes                                    |
| awardPrizeJury                                 | Global/Local                | T.P.Neutral                    |                              |                                        |
| awardPrizeName                                 | Global/Local                | T.P.Neutral                    |                              |                                        |
| awardPrizeYear                                 | Global/Local                | T.P.Neutral                    |                              |                                        |
| baseAmount                                     | Global/Local                | T.P.Neutral                    | No                           | No                                     |
| baseNumberOfUnits                              | Global/Local                | T.P.Neutral                    | No                           | No                                     |
| batteryTechnologyTypeCode                      | Global/Local                | T.P.Neutral                    |                              |                                        |
| batteryTypeCode                                | Global/Local                | T.P.Neutral                    |                              |                                        |
| batteryTypeQualifierCode                       | Global/Local                | T.P.Neutral                    |                              |                                        |
| batteryWattHourRating                          | Global/Local                | T.P.Neutral                    |                              |                                        |
| batteryWeight                                  | Global/Local                | T.P.Neutral                    | No                           | No                                     |
| bendAngleCode                                  | Global/Local                | T.P.Neutral                    |                              |                                        |
| biographicalNote                               | Global/Local                | T.P.Neutral                    | No                           | Yes                                    |
| boilingPoint                                   | Global/Local                | T.P.Neutral                    | No                           | Yes                                    |
| boxOfficeRevenueDomestic                       | Global/Local                | T.P.Neutral                    | No                           | No                                     |
| boxOfficeRevenueFirstWeekDomestic              | Global/Local                | T.P.Neutral                    | No                           | No                                     |
| boxOfficeRevenueUS                             | Global/Local                | T.P.Neutral                    | No                           | No                                     |
| boxOfficeRevenueWorldwideUSDollars             | Global/Local                | T.P.Neutral                    | No                           | No                                     |
| brandDistributionTypeCode                      | Global/Local                | T.P.Neutral                    |                              |                                        |
| brandMarketingDescription                      | Global/Local                | T.P.Neutral                    | No                           | Yes                                    |
| brandName                                      | Global                      | T.P.Neutral                    |                              |                                        |
| brandOwner                                     | Global                      | T.P.Neutral                    |                              |                                        |
| builtInProductType                             | Global                      | T.P.Neutral                    |                              |                                        |
| campaignEndDateTime                            | Global                      | T.P.Neutral                    |                              |                                        |
| campaignMediaTypeDescription                   | Global/Local                | T.P.Neutral                    | Yes                          | Yes                                    |
| campaignName                                   | Global                      | T.P.Neutral                    | No                           | Yes                                    |
| campaignStartDateTime                          | Global                      | T.P.Neutral                    |                              |                                        |
| cancelledDateTime                              | Global                      | T.P.Neutral                    |                              |                                        |
| canFilesBeEdited                               | Global/Local                | T.P.Neutral                    |                              |                                        |
| canFileStream                                  | Global/Local                | T.P.Neutral                    |                              |                                        |
| canTradeItemBeBackOrdered                      | Global/Local                | T.P.Neutral                    |                              |                                        |
| cardPriceGroupIdentifier                       | Global/Local                | T.P.Neutral                    |                              |                                        |
| caseDescription                                | Global/Local                | T.P.Neutral                    | No                           | Yes                                    |
| casingTareWeight                               | Global                      | T.P.Neutral                    | No                           | No                                     |
| cataloguePrice                                 | Global/Local                | T.P.Neutral                    | No                           | No                                     |
| catchAreaCode                                  | Global/Local                | T.P.Neutral                    |                              |                                        |
| catchDateTime                                  | Global/Local                | T.P.Neutral                    |                              |                                        |
| catchMethodCode                                | Global/Local                | T.P.Neutral                    |                              |                                        |
| certificateIssuanceDateTime                    | Global/Local                | T.P.Neutral                    |                              |                                        |
| certificationAgency                            | Global/Local                | T.P.Neutral                    |                              |                                        |
| certificationAssessmentDateTime                | Global/Local                | T.P.Neutral                    |                              |                                        |
| certificationEffectiveEndDateTime              | Global/Local                | T.P.Neutral                    |                              |                                        |
| certificationEffectiveStartDateTime            | Global/Local                | T.P.Neutral                    |                              |                                        |
| certificationIdentification                    | Global/Local                | T.P.Neutral                    |                              |                                        |
| certificationOrganisationIdentifier            | Global/Local                | T.P.Neutral                    |                              |                                        |
| certificationStandard                          | Global/Local                | T.P.Neutral                    |                              |                                        |

| Attribute Name                                      | Target Market Applicability | Trading Partner Neutral status | Multiple Values (Grey = N/A) | Multi Language/ Measurement / Currency |
|-----------------------------------------------------|-----------------------------|--------------------------------|------------------------------|----------------------------------------|
| certificationValue                                  | Global/Local                | T.P.Neutral                    |                              |                                        |
| channelSpecificMarketingMessage                     | Global/Local                | T.P.Neutral & T.P.Dependent    | Yes                          | Yes                                    |
| channelSpecificShortMarketingMessage                | Global/Local                | T.P.Neutral & T.P.Dependent    | Yes                          | Yes                                    |
| cheeseMaturationPeriodDescription                   | Global/Local                | T.P.Neutral                    | No                           | Yes                                    |
| cheeseMaturationProcessContainerTypeCode            | Global/Local                | T.P.Neutral                    |                              |                                        |
| chemicalIngredientConcentration                     | Global/Local                | T.P.Neutral                    | No                           | No                                     |
| chemicalIngredientConcentrationBasis                | Global/Local                | T.P.Neutral                    | No                           | No                                     |
| chemicalIngredientConcentrationLowerValue           | Global/Local                | T.P.Neutral                    |                              |                                        |
| chemicalIngredientConcentrationMeasurementPrecision | Global/Local                | T.P.Neutral                    |                              |                                        |
| chemicalIngredientConcentrationUpperValue           | Global/Local                | T.P.Neutral                    |                              |                                        |
| chemicalIngredientIdentification                    | Global/Local                | T.P.Neutral                    |                              |                                        |
| chemicalIngredientName                              | Global/Local                | T.P.Neutral                    |                              |                                        |
| chemicalIngredientOrganisation                      | Global/Local                | T.P.Neutral                    |                              |                                        |
| chemicalIngredientScheme                            | Global/Local                | T.P.Neutral                    |                              |                                        |
| chemicalPhysicalStateCode                           | Global/Local                | T.P.Neutral                    |                              |                                        |
| chemicalPropertyAdditionalDescription               | Global/Local                | T.P.Neutral                    | No                           | Yes                                    |
| chemicalPropertyCode                                | Global/Local                | T.P.Neutral                    |                              |                                        |
| chemicalPropertyName                                | Global/Local                | T.P.Neutral                    |                              |                                        |
| chemicalPropertyTypeCode                            | Global/Local                | T.P.Neutral                    |                              |                                        |
| chemicalRegulationAgency                            | Global/Local                | T.P.Neutral                    |                              |                                        |
| chemicalRegulationName                              | Global/Local                | T.P.Neutral                    |                              |                                        |
| childNutritionExpirationDateTime                    | Global/Local                | T.P.Neutral                    |                              |                                        |
| childNutritionLabelStatement                        | Global/Local                | T.P.Neutral                    | Yes                          | Yes                                    |
| childNutritionProductIdentification                 | Global/Local                | T.P.Neutral                    |                              |                                        |
| childNutritionQualifiedValue                        | Global/Local                | T.P.Neutral                    | No                           | Yes                                    |
| childNutritionQualifierCode                         | Global/Local                | T.P.Neutral                    |                              |                                        |
| childNutritionValue                                 | Global/Local                | T.P.Neutral                    | No                           | Yes                                    |
| city                                                | Global/Local                | T.P.Neutral & T.P.Dependent    |                              |                                        |
| clampPressure                                       | Global/Local                | T.P.Neutral                    | No                           | No                                     |
| classOfDangerousGoods                               | Global/Local                | T.P.Neutral                    |                              |                                        |
| clinicallyRelevantCharacteristicOfMedicalDevice     | Global/Local                | T.P.Neutral                    |                              |                                        |
| clinicalSizeDescription                             | Global/Local                | T.P.Neutral                    | No                           | Yes                                    |
| clinicalSizeTypeCode                                | Global/Local                | T.P.Neutral                    |                              |                                        |
| clinicalSizeValue                                   | Global/Local                | T.P.Neutral                    |                              |                                        |
| clinicalWarningAgencyCode                           | Global/Local                | T.P.Neutral                    |                              |                                        |
| clinicalWarningCode                                 | Global/Local                | T.P.Neutral                    |                              |                                        |
| closedCaptioningCode                                | Global/Local                | T.P.Neutral                    |                              |                                        |
| closureOrFastenerLocation                           | Global/Local                | T.P.Neutral                    | No                           | Yes                                    |
| closureOrFastenerTypeCode                           | Global/Local                | T.P.Neutral                    |                              |                                        |
| clothingCut                                         | Global/Local                | T.P.Neutral                    | No                           | Yes                                    |
| collarType                                          | Global/Local                | T.P.Neutral                    | No                           | Yes                                    |
| collectionIdentifier                                | Global/Local                | T.P.Neutral                    |                              |                                        |
| collectionIdentifierTypeCode                        | Global/Local                | T.P.Neutral                    |                              |                                        |
| collectionTypeCodeReference                         | Global/Local                | T.P.Neutral                    |                              |                                        |
| colourDescription                                   | Global                      | T.P.Neutral                    | No                           | Yes                                    |
| colourCode                                          | Global                      | T.P.Neutral                    |                              |                                        |
| combFilterTechnologyTypeCode                        | Global/Local                | T.P.Neutral                    |                              |                                        |

| Attribute Name                                   | Target Market Applicability | Trading Partner Neutral status | Multiple Values (Grey = N/A) | Multi Language/ Measurement / Currency |
|--------------------------------------------------|-----------------------------|--------------------------------|------------------------------|----------------------------------------|
| colourTemperature                                | Global/Local                | T.P.Neutral                    | No                           | Yes                                    |
| communityVisibilityDateTime                      | Local                       | T.P.Neutral                    |                              |                                        |
| componentDescription                             | Global/Local                | T.P.Neutral                    | No                           | Yes                                    |
| componentIdentification                          | Global/Local                | T.P.Neutral                    |                              |                                        |
| componentMultiplePackedQuantity                  | Global/Local                | T.P.Neutral                    |                              |                                        |
| componentNumber                                  | Global/Local                | T.P.Neutral                    |                              |                                        |
| componentQuantity                                | Global/Local                | T.P.Neutral                    | No                           | Yes                                    |
| componentsLabeledForDisassemblyRecycling Percent | Global                      | T.P.Neutral                    |                              |                                        |
| compulsoryAdditiveLabelInformation               | Global/Local                | T.P.Neutral                    | No                           | Yes                                    |
| conditionsToAvoid                                | Global/Local                | T.P.Neutral                    | Yes                          | Yes                                    |
| connectorFinishDescription                       | Global/Local                | T.P.Neutral                    | No                           | Yes                                    |
| consumerAssemblyInstructions                     | Global/Local                | T.P.Neutral                    | Yes                          | Yes                                    |
| consumerEndAvailabilityDateTime                  | Global/Local                | T.P.Neutral & T.P.Dependent    |                              |                                        |
| consumerFirstAvailabilityDateTime                | Global/Local                | T.P.Neutral & T.P.Dependent    |                              |                                        |
| consumerFirstDeliveryDate                        | Global/Local                | T.P.Neutral & T.P.Dependent    |                              |                                        |
| consumerFriendlyDateOnPackagingDescription       | Global/Local                | T.P.Neutral                    | No                           | Yes                                    |
| consumerPackageDisclaimer                        | Global/Local                | T.P.Neutral                    | Yes                          | Yes                                    |
| consumerProductVariantEndEffectiveDateTime       | Global/Local                | T.P.Neutral & T.P.Dependent    |                              |                                        |
| consumerProductVariantIdentification             | Global/Local                | T.P.Neutral & T.P.Dependent    |                              |                                        |
| consumerProductVariantReasonCode                 | Global/Local                | T.P.Neutral & T.P.Dependent    |                              |                                        |
| consumerSafetyInformation                        | Global/Local                | T.P.Neutral                    | Yes                          | Yes                                    |
| consumerSalesConditionCode                       | Global/Local                | T.P.Neutral                    |                              |                                        |
| consumerStorageInstructions                      | Global/Local                | T.P.Neutral                    | Yes                          | Yes                                    |
| consumerUsageInstructions                        | Global/Local                | T.P.Neutral                    | Yes                          | Yes                                    |
| consumerUsageLabelCode                           | Global/Local                | T.P.Neutral                    |                              |                                        |
| consumerWarningDescription                       | Global/Local                | T.P.Neutral                    | Yes                          | Yes                                    |
| consumerWarningTypeCode                          | Global/Local                | T.P.Neutral                    |                              |                                        |
| contactAddress                                   | Global/Local                | T.P.Neutral                    |                              |                                        |
| contactDescription                               | Global/Local                | T.P.Neutral                    | Yes                          | Yes                                    |
| contactName                                      | Global/Local                | T.P.Neutral                    |                              |                                        |
| contactTypeCode                                  | Global/Local                | T.P.Neutral                    |                              |                                        |
| containedAlternativeProteinPercent               | Global/Local                | T.P.Neutral                    |                              |                                        |
| contentDate                                      | Global/Local                | T.P.Neutral                    |                              |                                        |
| contentDateRoleTypeCode                          | Global/Local                | T.P.Neutral                    |                              |                                        |
| contentDescription                               | Global/Local                | T.P.Neutral                    | No                           | Yes                                    |
| contentsDescription                              | Global/Local                | T.P.Neutral                    | No                           | Yes                                    |
| controlledSubstanceCode                          | Global/Local                | T.P.Neutral                    |                              |                                        |
| contributorDate                                  | Global/Local                | T.P.Neutral                    |                              |                                        |
| contributorDescription                           | Global/Local                | T.P.Neutral                    | No                           | Yes                                    |
| contributorPlaceCountry                          | Global/Local                | T.P.Neutral                    |                              |                                        |
| contributorPlaceRegion                           | Global/Local                | T.P.Neutral                    |                              |                                        |
| contributorPlaceTypeCode                         | Global/Local                | T.P.Neutral                    |                              |                                        |
| contributorRoleCode                              | Global/Local                | T.P.Neutral                    |                              |                                        |
| contributorStatement                             | Global/Local                | T.P.Neutral                    | No                           | Yes                                    |

| Attribute Name                                                  | Target Market Applicability | Trading Partner Neutral status | Multiple Values (Grey = N/A) | Multi Language/ Measurement / Currency |
|-----------------------------------------------------------------|-----------------------------|--------------------------------|------------------------------|----------------------------------------|
| controlledSubstanceAmount                                       | Global/Local                | T.P.Neutral                    | No                           | No                                     |
| controlledSubstanceName                                         | Global/Local                | T.P.Neutral                    |                              |                                        |
| controlledSubstanceScheduleCodeReference                        | Global/Local                | T.P.Neutral                    |                              |                                        |
| controlOfHazardousSubstancesRegulationsAgency                   | Global/Local                | T.P.Neutral                    |                              |                                        |
| controlOfHazardousSubstancesRegulationsRegulationName           | Global/Local                | T.P.Neutral                    |                              |                                        |
| convenienceLevelPercent                                         | Global/Local                | T.P.Neutral                    |                              |                                        |
| copyrightFee                                                    | Global/Local                | T.P.Neutral                    | No                           | No                                     |
| copyrightOwnerIdentifier                                        | Global/Local                | T.P.Neutral                    |                              |                                        |
| copyrightOwnerIdentifierTypeCodeReference                       | Global/Local                | T.P.Neutral                    |                              |                                        |
| copyrightRate                                                   | Global/Local                | T.P.Neutral                    |                              |                                        |
| copyrightYear                                                   | Global/Local                | T.P.Neutral                    |                              |                                        |
| corporateName                                                   | Global/Local                | T.P.Neutral                    |                              |                                        |
| corporateNameInverted                                           | Global/Local                | T.P.Neutral                    |                              |                                        |
| countryOfOriginStatement                                        | Global/Local                | T.P.Neutral                    | Yes                          | Yes                                    |
| couponFamilyCode                                                | Local                       | T.P.Neutral                    |                              |                                        |
| countryCode                                                     | Global/Local                | T.P.Neutral & T.P.Dependent    |                              |                                        |
| creditableAlternativeProteinPerPortion                          | Global/Local                | T.P.Neutral                    | No                           | Yes                                    |
| creditableAmount                                                | Global/Local                | T.P.Neutral                    | No                           | Yes                                    |
| creditableGrainAmountPerPortion                                 | Global/Local                | T.P.Neutral                    | No                           | Yes                                    |
| creditableGrainGroupCode                                        | Global/Local                | T.P.Neutral                    |                              |                                        |
| creditableGrainStandard                                         | Global/Local                | T.P.Neutral                    |                              |                                        |
| creditableIngredientAmountPerRawPortion                         | Global/Local                | T.P.Neutral                    | No                           | Yes                                    |
| creditableIngredientDescription                                 | Global/Local                | T.P.Neutral                    | No                           | Yes                                    |
| creditableIngredientTypeCode                                    | Global/Local                | T.P.Neutral                    |                              |                                        |
| cumulativeEnergyDemand                                          | Global/Local                | T.P.Neutral                    | No                           | No                                     |
| cumulativeEnergyDemandDescription                               | Global/Local                | T.P.Neutral                    | No                           | Yes                                    |
| cumulativeEnergyDemandProtocolCode                              | Global/Local                | T.P.Neutral                    |                              |                                        |
| cumulativeEnergyDemandProtocolDescription                       | Global/Local                | T.P.Neutral                    | No                           | Yes                                    |
| cumulativeEnergyDemandReferenceSubstanceCode                    | Global/Local                | T.P.Neutral                    |                              |                                        |
| cumulativeEnergyDemandReferenceSubstanceDescription             | Global/Local                | T.P.Neutral                    | No                           | Yes                                    |
| cumulativeEnergyDemandTypeCode                                  | Global/Local                | T.P.Neutral                    |                              |                                        |
| cumulativeHumidityInterruptionAcceptableTimeSpan                | Global/Local                | T.P.Neutral                    |                              |                                        |
| cumulativeHumidityInterruptionAcceptableTimeSpanInstructions    | Global/Local                | T.P.Neutral                    | No                           | Yes                                    |
| cumulativeTemperatureInterruptionAcceptableTimeSpan             | Global/Local                | T.P.Neutral                    |                              |                                        |
| cumulativeTemperatureInterruptionAcceptableTimeSpanInstructions | Global/Local                | T.P.Neutral                    | No                           | Yes                                    |
| cutForSaleThicknessCode                                         | Global/Local                | T.P.Neutral                    |                              |                                        |
| dailyValueIntakePercent                                         | Global/Local                | T.P.Neutral                    |                              |                                        |
| dailyValueIntakePercentMeasurementPrecisionCode                 | Global/Local                | T.P.Neutral                    |                              |                                        |
| dailyValueIntakeReference                                       | Global/Local                | T.P.Neutral                    | No                           | Yes                                    |
| dangerousGoodsClassificationCode                                | Global/Local                | T.P.Neutral                    |                              |                                        |
| dangerousGoodsHazardousCode                                     | Global/Local                | T.P.Neutral                    |                              |                                        |
| dangerousGoodsLimitedQuantitiesCode                             | Global/Local                | T.P.Neutral                    |                              |                                        |
| dangerousGoodsLimitedQuantityIndex                              | Global/Local                | T.P.Neutral                    |                              |                                        |
| dangerousGoodsPackingGroup                                      | Global/Local                | T.P.Neutral                    |                              |                                        |



| Attribute Name                              | Target Market Applicability | Trading Partner Neutral status | Multiple Values (Grey = N/A) | Multi Language/ Measurement / Currency |
|---------------------------------------------|-----------------------------|--------------------------------|------------------------------|----------------------------------------|
| dangerousGoodsPackagingTypeCode             | Global/Local                | T.P.Neutral                    |                              |                                        |
| dangerousGoodsRegulationAgency              | Global/Local                | T.P.Neutral                    |                              |                                        |
| dangerousGoodsRegulationCode                | Global/Local                | T.P.Neutral                    |                              |                                        |
| dangerousGoodsShippingName                  | Global/Local                | T.P.Neutral                    | Yes                          | Yes                                    |
| dangerousGoodsSpecialProvisions             | Global/Local                | T.P.Neutral                    |                              |                                        |
| dangerousGoodsSubsidiaryClass               | Global/Local                | T.P.Neutral                    |                              |                                        |
| dangerousGoodsTechnicalName                 | Global/Local                | T.P.Neutral                    | No                           | Yes                                    |
| dangerousGoodsTransportCategoryCode         | Global/Local                | T.P.Neutral                    |                              |                                        |
| dangerousHazardousLabelNumber               | Global/Local                | T.P.Neutral                    |                              |                                        |
| dangerousHazardousLabelSequenceNumber       | Global/Local                | T.P.Neutral                    |                              |                                        |
| dangerousSubstanceGasDensity                | Global/Local                | T.P.Neutral                    | No                           | No                                     |
| dangerousSubstanceHazardSymbolCodeReference | Global/Local                | T.P.Neutral                    |                              |                                        |
| dangerousSubstanceHeatOfCombustion          | Global/Local                | T.P.Neutral                    | No                           | No                                     |
| dangerousSubstanceName                      | Global/Local                | T.P.Neutral                    |                              |                                        |
| dangerousSubstancePhaseOfMatterCode         | Global/Local                | T.P.Neutral                    |                              |                                        |
| dangerousSubstancesWaterSolubilityCode      | Global/Local                | T.P.Neutral                    |                              |                                        |
| dangerousSubstanceWasteCode                 | Global/Local                | T.P.Neutral                    |                              |                                        |
| dataCarrierFamilyTypeCode                   | Global                      | T.P.Neutral                    |                              |                                        |
| dataCarrierPresenceCode                     | Global/Local                | T.P.Neutral                    |                              |                                        |
| dataCarrierTypeCode                         | Global                      | T.P.Neutral                    |                              |                                        |
| dateOfCatchProcessTypeCode                  | Global/Local                | T.P.Neutral                    |                              |                                        |
| degreeOfOriginalWort                        | Global/Local                | T.P.Neutral                    |                              |                                        |
| depositValueEffectiveDateTime               | Global/Local                | T.P.Neutral                    |                              |                                        |
| depositValueEndDateTime                     | Global/Local                | T.P.Neutral                    |                              |                                        |
| depth (AdditionalTradeItemDimension)        | Global/Local                | T.P.Neutral & T.P.Dependent    | No                           | No                                     |
| depth (TradeItemMeasurements)               | Global/Local                | T.P.Neutral                    | No                           | No                                     |
| depth(NonGTINLogisticsUnitInformation)      | Global/Local                | T.P.Neutral & T.P.Dependent    | No                           | No                                     |
| descriptionOnANutrient                      | Global/Local                | T.P.Neutral                    | Yes                          | Yes                                    |
| descriptionOnNutrientQualifier              | Global/Local                | T.P.Neutral                    |                              |                                        |
| descriptionShort                            | Global                      | T.P.Neutral                    | No                           | Yes                                    |
| descriptionSource                           | Global/Local                | T.P.Neutral                    |                              |                                        |
| descriptiveSize                             | Global                      | T.P.Neutral                    | No                           | No                                     |
| descriptiveSizeDimension                    | Global                      | T.P.Neutral                    | No                           | Yes                                    |
| designer                                    | Global/Local                | T.P.Neutral                    | Yes                          | Yes                                    |
| detachableSpeakerTypeCode                   | Global/Local                | T.P.Neutral                    |                              |                                        |
| dexterityUsageCode                          | Global/Local                | T.P.Neutral                    |                              |                                        |
| diameter                                    | Global/Local                | T.P.Neutral                    | No                           | No                                     |
| dietCertification                           | Global/Local                | T.P.Neutral                    |                              |                                        |
| dietTypeCode                                | Global/Local                | T.P.Neutral                    |                              |                                        |
| dietTypeDescription                         | Global/Local                | T.P.Neutral                    | No                           | Yes                                    |
| dietTypeSubcode                             | Global/Local                | T.P.Neutral                    |                              |                                        |
| digitalisationLevelCode                     | Global/Local                | T.P.Neutral                    |                              |                                        |
| dimensionTypeCode                           | Global/Local                | T.P.Neutral                    |                              |                                        |
| directPartMarkingIdentifier                 | Global/Local                | T.P.Neutral                    |                              |                                        |
| discNumber                                  | Global/Local                | T.P.Neutral                    |                              |                                        |
| discountApplicablePeriod                    | Global/Local                | T.P.Neutral & T.P.Dependent    |                              |                                        |
| discountBaseTypeCode                        | Global/Local                | T.P.Neutral & T.P.Dependent    |                              |                                        |

| Attribute Name                                   | Target Market Applicability | Trading Partner Neutral status | Multiple Values (Grey = N/A) | Multi Language/ Measurement / Currency |
|--------------------------------------------------|-----------------------------|--------------------------------|------------------------------|----------------------------------------|
| discontinuedDateTime                             | Global/Local                | T.P.Neutral                    |                              |                                        |
| discountAmount                                   | Global/Local                | T.P.Neutral & T.P.Dependent    | No                           | No                                     |
| discountDescription                              | Global/Local                | T.P.Neutral & T.P.Dependent    | No                           | Yes                                    |
| discountPercent                                  | Global/Local                | T.P.Neutral & T.P.Dependent    |                              |                                        |
| discountRestrictionTargetMarketCountry           | Global/Local                | T.P.Neutral                    |                              |                                        |
| discountType                                     | Global/Local                | T.P.Neutral & T.P.Dependent    |                              |                                        |
| displayPanelBacklightType                        | Global/Local                | T.P.Neutral                    |                              |                                        |
| displayResolutionCode                            | Global/Local                | T.P.Neutral                    |                              |                                        |
| displayScreenBezelSize                           | Global/Local                | T.P.Neutral                    | No                           | Yes                                    |
| displayScreenSize                                | Global/Local                | T.P.Neutral                    | No                           | Yes                                    |
| displayScreenTypeCode                            | Global/Local                | T.P.Neutral                    |                              |                                        |
| displayTypeCode                                  | Global/Local                | T.P.Neutral                    |                              |                                        |
| distributionMediaCount                           | Global/Local                | T.P.Neutral                    |                              |                                        |
| distributionMediaTypeCode                        | Global/Local                | T.P.Neutral                    |                              |                                        |
| distributionMethodCode                           | Global/Local                | T.P.Neutral & T.P.Dependent    |                              |                                        |
| doesItemComeWithHanger                           | Global/Local                | T.P.Neutral                    |                              |                                        |
| doesItemContainAControlledSubstance              | Global/Local                | T.P.Neutral                    |                              |                                        |
| doesManufacturerHaveTakeBackProgram              | Global/Local                | T.P.Neutral                    |                              |                                        |
| doesPackagingHaveWheels                          | Global/Local                | T.P.Neutral                    |                              |                                        |
| doesPackagingRecoveryRateTypeCodeMeetTheStandard | Global/Local                | T.P.Neutral                    |                              |                                        |
| doesSaleOfTradeItemRequireGovernmentalReporting  | Global/Local                | T.P.Neutral                    |                              |                                        |
| doesTradeItemCompositionIncludeLatex             | Global/Local                | T.P.Neutral                    |                              |                                        |
| doesTradeItemContainHumanBloodDerivative         | Global/Local                | T.P.Neutral                    |                              |                                        |
| doesTradeItemContainHumanTissue                  | Global/Local                | T.P.Neutral                    |                              |                                        |
| doesTradeItemContainElectricalComponents         | Global/Local                | T.P.Neutral & T.P.Dependent    |                              |                                        |
| doesTradeItemContainLatex                        | Global/Local                | T.P.Neutral                    |                              |                                        |
| doesTradeItemContainNoncreditableGrains          | Global/Local                | T.P.Neutral                    |                              |                                        |
| doesTradeItemContainPesticide                    | Global                      | T.P.Neutral                    |                              |                                        |
| doesTradeItemContainPropellant                   | Global                      | T.P.Neutral                    |                              |                                        |
| doesTradeItemHaveAutoReaderTracker               | Global/Local                | T.P.Neutral                    |                              |                                        |
| doesTradeItemHaveRefuseObligations               | Global/Local                | T.P.Neutral                    |                              |                                        |
| doesTradeItemMeetWholeGrainRichCriteria          | Global/Local                | T.P.Neutral                    |                              |                                        |
| doPackagingMaterialsContainLatex                 | Global/Local                | T.P.Neutral                    |                              |                                        |
| dosageFormType                                   | Global/Local                | T.P.Neutral                    |                              |                                        |
| dosageRecommendation                             | Global/Local                | T.P.Neutral                    | Yes                          | Yes                                    |
| dosageRestrictionLimits                          | Global/Local                | T.P.Neutral                    | Yes                          | Yes                                    |
| drainedWeight                                    | Global/Local                | T.P.Neutral                    | No                           | No                                     |
| dropBelowMinimumHumidityAcceptableTimeSpan       | Global/Local                | T.P.Neutral                    |                              |                                        |
| dropBelowMinimumTemperatureAcceptableTimeSpan    | Global/Local                | T.P.Neutral                    |                              |                                        |
| drugInteractions                                 | Global/Local                | T.P.Neutral                    | Yes                          | Yes                                    |
| drugPreparations                                 | Global/Local                | T.P.Neutral                    | Yes                          | Yes                                    |
| drugSideEffectsAndWarnings                       | Global/Local                | T.P.Neutral                    | Yes                          | Yes                                    |
| dubbedLanguageCode                               | Global/Local                | T.P.Neutral                    |                              |                                        |
| dubbedSubtitledCode                              | Global/Local                | T.P.Neutral                    |                              |                                        |

| Attribute Name                           | Target Market Applicability | Trading Partner Neutral status | Multiple Values (Grey = N/A) | Multi Language/ Measurement / Currency |
|------------------------------------------|-----------------------------|--------------------------------|------------------------------|----------------------------------------|
| dutyFeeTaxAgencyCode                     | Global/Local                | T.P.Neutral                    |                              |                                        |
| dutyFeeTaxAgencyName                     | Global/Local                | T.P.Neutral                    |                              |                                        |
| dutyFeeTaxAmount                         | Global/Local                | T.P.Neutral                    | No                           | No                                     |
| dutyFeeTaxBasis                          | Global/Local                | T.P.Neutral                    | Yes                          | Yes                                    |
| dutyFeeTaxBasisPrice                     | Global/Local                | T.P.Neutral                    | No                           | Yes                                    |
| dutyFeeTaxCategoryCode                   | Global/Local                | T.P.Neutral                    |                              |                                        |
| dutyFeeTaxClassificationCode             | Global/Local                | T.P.Neutral                    |                              |                                        |
| dutyFeeTaxCountryCode                    | Global/Local                | T.P.Neutral                    |                              |                                        |
| dutyFeeTaxCountrySubdivisionCode         | Global/Local                | T.P.Neutral                    |                              |                                        |
| dutyFeeTaxCountrySubdivisionShipFromCode | Global/Local                | T.P.Neutral                    |                              |                                        |
| dutyFeeTaxCountrySubdivisionShipToCode   | Global/Local                | T.P.Neutral                    |                              |                                        |
| dutyFeeTaxEffectiveEndDateTime           | Global/Local                | T.P.Neutral                    |                              |                                        |
| dutyFeeTaxEffectiveStartDateTime         | Global/Local                | T.P.Neutral                    |                              |                                        |
| dutyFeeTaxExemptPartyRoleCode            | Global/Local                | T.P.Neutral                    |                              |                                        |
| dutyFeeTaxLegalProvision                 | Global/Local                | T.P.Neutral                    | No                           | Yes                                    |
| dutyFeeTaxRate                           | Global/Local                | T.P.Neutral                    |                              |                                        |
| dutyFeeTaxReductionCriteriaDescription   | Global/Local                | T.P.Neutral                    | No                           | Yes                                    |
| dutyFeeTaxTypeCode                       | Global/Local                | T.P.Neutral                    |                              |                                        |
| dutyFeeTaxTypeDescription                | Global/Local                | T.P.Neutral                    | No                           | Yes                                    |
| dvdRegionCode                            | Global/Local                | T.P.Neutral                    |                              |                                        |
| dynamicContrastRatio                     | Global/Local                | T.P.Neutral                    |                              |                                        |
| ecologicalInformationDescription         | Global/Local                | T.P.Neutral                    | No                           | Yes                                    |
| econtentEnvironmentTypeCode              | Global/Local                | T.P.Neutral & T.P.Dependent    |                              |                                        |
| econtentTradeItemStatement               | Global/Local                | T.P.Neutral & T.P.Dependent    | No                           | Yes                                    |
| editionDescription                       | Global/Local                | T.P.Neutral                    | No                           | Yes                                    |
| editionNumber                            | Global/Local                | T.P.Neutral                    |                              |                                        |
| editionStatement                         | Global/Local                | T.P.Neutral                    | No                           | Yes                                    |
| editionTypeCode                          | Global/Local                | T.P.Neutral                    |                              |                                        |
| editionVersionNumber                     | Global/Local                | T.P.Neutral                    |                              |                                        |
| educationalFocusDescription              | Global/Local                | T.P.Neutral                    | No                           | Yes                                    |
| effectiveDateTime                        | Global/Local                | T.P.Neutral                    |                              |                                        |
| electronicProgrammingGuideDaysAvailable  | Global/Local                | T.P.Neutral                    |                              |                                        |
| endAvailabilityDateTime                  | Global/Local                | T.P.Neutral & T.P.Dependent    |                              |                                        |
| endDateTimeOfExclusivity                 | Global/Local                | T.P.Neutral & T.P.Dependent    |                              |                                        |
| endMaximumBuyingQuantityDateTime         | Global/Local                | T.P.Neutral & T.P.Dependent    |                              |                                        |
| endMinimumBuyingQuantityDateTime         | Global/Local                | T.P.Neutral & T.P.Dependent    |                              |                                        |
| enumerationValue                         | Global/Local                | T.P.Neutral                    |                              |                                        |
| enumerationValueDefinition               | Global/Local                | T.P.Neutral                    | No                           | Yes                                    |
| enumerationValueDescription              | Global/Local                | T.P.Neutral                    | No                           | Yes                                    |
| epubTechnicalProtectionTypeCode          | Global/Local                | T.P.Neutral                    |                              |                                        |
| epubUsageLimit                           | Global/Local                | T.P.Neutral                    |                              |                                        |
| epubUsageStatus                          | Global/Local                | T.P.Neutral                    |                              |                                        |
| epubUsageType                            | Global/Local                | T.P.Neutral                    |                              |                                        |
| equalizerControlFeatures                 | Global/Local                | T.P.Neutral                    | No                           | Yes                                    |
| eRGNumber                                | Global/Local                | T.P.Neutral                    |                              |                                        |
| exactPH                                  | Global                      | T.P.Neutral                    |                              |                                        |

| Attribute Name                                 | Target Market Applicability | Trading Partner Neutral status | Multiple Values (Grey = N/A) | Multi Language/ Measurement / Currency |
|------------------------------------------------|-----------------------------|--------------------------------|------------------------------|----------------------------------------|
| exhibitGroup                                   | Global/Local                | T.P.Neutral                    |                              |                                        |
| expectedResultsTime                            | Global                      | T.P.Neutral                    | No                           | Yes                                    |
| experienceLevel                                | Global/Local                | T.P.Neutral                    | No                           | Yes                                    |
| exposureMode                                   | Global/Local                | T.P.Neutral                    |                              |                                        |
| extentTypeCode                                 | Global/Local                | T.P.Neutral                    |                              |                                        |
| extentUnitCode                                 | Global/Local                | T.P.Neutral                    |                              |                                        |
| extentValue                                    | Global/Local                | T.P.Neutral                    |                              |                                        |
| extentValueRoman                               | Global/Local                | T.P.Neutral                    |                              |                                        |
| externalAgencyName                             | Global/Local                | T.P.Neutral                    |                              |                                        |
| externalCodeListName                           | Global/Local                | T.P.Neutral                    |                              |                                        |
| externalCodeListVersion                        | Global/Local                | T.P.Neutral                    |                              |                                        |
| externalMemoryTypeCode                         | Global/Local                | T.P.Neutral                    |                              |                                        |
| extinguishingMediaDescription                  | Global/Local                | T.P.Neutral                    | No                           | Yes                                    |
| extremelyHazardousSubstanceQuantity            | Global/Local                | T.P.Neutral                    | No                           | No                                     |
| facilitiesInStressedWaterAreaCalculationMethod | Global/Local                | T.P.Neutral                    | No                           | Yes                                    |
| facilitiesInStressedWaterAreaPercent           | Global/Local                | T.P.Neutral                    |                              |                                        |
| fatInMilkContent                               | Global/Local                | T.P.Neutral                    |                              |                                        |
| fatPercentageInDryMatter                       | Global/Local                | T.P.Neutral                    |                              |                                        |
| feedingAmount                                  | Global/Local                | T.P.Neutral                    | No                           | Yes                                    |
| feedingAmountBasisDescription                  | Global/Local                | T.P.Neutral                    | No                           | Yes                                    |
| feedingInstructions                            | Global/Local                | T.P.Neutral                    | No                           | Yes                                    |
| feedAdditiveStatement                          | Global/Local                | T.P.Neutral                    | No                           | Yes                                    |
| feedAnalyticalConstituentsStatement            | Global/Local                | T.P.Neutral                    | No                           | Yes                                    |
| feedCompositionStatement                       | Global/Local                | T.P.Neutral                    | No                           | Yes                                    |
| feedLifestage                                  | Global/Local                | T.P.Neutral                    | No                           | Yes                                    |
| feedType                                       | Global/Local                | T.P.Neutral                    |                              |                                        |
| fieldOfView                                    | Global/Local                | T.P.Neutral                    | Yes                          | Yes                                    |
| fileAspectRatio                                | Global                      | T.P.Neutral                    |                              |                                        |
| fileAuthorName                                 | Global                      | T.P.Neutral                    |                              |                                        |
| fileBackgroundColourDescription                | Global                      | T.P.Neutral                    | Yes                          | Yes                                    |
| fileCameraPerspective                          | Global                      | T.P.Neutral                    | Yes                          | Yes                                    |
| fileCameraPerspectiveCode                      | Global/Local                | T.P.Neutral                    |                              |                                        |
| fileCampaignDescription                        | Global                      | T.P.Neutral                    | Yes                          | Yes                                    |
| fileColourCalibration                          | Global                      | T.P.Neutral                    | Yes                          | Yes                                    |
| fileColourSchemeCode                           | Global                      | T.P.Neutral                    |                              |                                        |
| fileCompressionType                            | Global                      | T.P.Neutral                    | Yes                          | Yes                                    |
| fileContrast                                   | Global                      | T.P.Neutral                    |                              |                                        |
| fileCopyrightDescription                       | Global                      | T.P.Neutral                    | Yes                          | Yes                                    |
| fileCreationProgram                            | Global                      | T.P.Neutral                    |                              |                                        |
| fileDepictedSceneDescription                   | Global                      | T.P.Neutral                    | Yes                          | Yes                                    |
| fileDepictedSeason                             | Global                      | T.P.Neutral                    | Yes                          | Yes                                    |
| fileDisclaimerInformation                      | Global/Local                | T.P.Neutral                    | Yes                          | Yes                                    |
| fileEffectiveEndDateTime                       | Global/Local                | T.P.Neutral                    |                              |                                        |
| fileEffectiveStartDateTime                     | Global/Local                | T.P.Neutral                    |                              |                                        |
| fileFeeDescription                             | Global/Local                | T.P.Neutral                    | Yes                          | Yes                                    |
| fileFormatDescription                          | Global/Local                | T.P.Neutral                    | No                           | Yes                                    |
| fileFormatName                                 | Global/Local                | T.P.Neutral                    |                              |                                        |
| fileItemPositionCode                           | Global                      | T.P.Neutral                    |                              |                                        |
| fileLanguageCode                               | Global                      | T.P.Neutral                    |                              |                                        |

| Attribute Name                            | Target Market Applicability | Trading Partner Neutral status | Multiple Values (Grey = N/A) | Multi Language/ Measurement / Currency |
|-------------------------------------------|-----------------------------|--------------------------------|------------------------------|----------------------------------------|
| fileLayerQuantity                         | Global                      | T.P.Neutral                    |                              |                                        |
| fileLifeStyleDescription                  | Global                      | T.P.Neutral                    | Yes                          | Yes                                    |
| fileName                                  | Global/Local                | T.P.Neutral                    |                              |                                        |
| fileOptimalViewerName                     | Global                      | T.P.Neutral                    |                              |                                        |
| fileOriginCountryCode                     | Global/Local                | T.P.Neutral                    |                              |                                        |
| filePixelHeight                           | Global/Local                | T.P.Neutral                    |                              |                                        |
| filePixelWidth                            | Global/Local                | T.P.Neutral                    |                              |                                        |
| filePlaybackRate                          | Global                      | T.P.Neutral                    |                              |                                        |
| filePrintHeight                           | Global                      | T.P.Neutral                    | No                           | Yes                                    |
| filePrintWidth                            | Global                      | T.P.Neutral                    | No                           | Yes                                    |
| fileRecommendedUsageDescription           | Global                      | T.P.Neutral                    | Yes                          | Yes                                    |
| fileResolutionDescription                 | Global                      | T.P.Neutral                    | No                           | Yes                                    |
| fileRightsDescription                     | Global/Local                | T.P.Neutral                    | Yes                          | Yes                                    |
| fileRunTime                               | Global                      | T.P.Neutral                    |                              |                                        |
| fileSize                                  | Global                      | T.P.Neutral                    | Yes                          | Yes                                    |
| fileStoryDescription                      | Global                      | T.P.Neutral                    | Yes                          | Yes                                    |
| fileTalentDescription                     | Global                      | T.P.Neutral                    | Yes                          | Yes                                    |
| fileUsageRestriction                      | Global                      | T.P.Neutral                    | Yes                          | Yes                                    |
| fileVersion                               | Global                      | T.P.Neutral                    |                              |                                        |
| fireFighterProtectiveEquipmentDescription | Global/Local                | T.P.Neutral                    | No                           | Yes                                    |
| firstAidProceduresDescription             | Global/Local                | T.P.Neutral                    | No                           | Yes                                    |
| firstdeliverydatetime                     | Global/Local                | T.P.Neutral & T.P.Dependent    |                              |                                        |
| firstOrderDateTime                        | Global/Local                | T.P.Neutral & T.P.Dependent    |                              |                                        |
| firstReturnableDateTime                   | Global/Local                | T.P.Neutral & T.P.Dependent    |                              |                                        |
| firstShipDateTime                         | Global/Local                | T.P.Neutral & T.P.Dependent    |                              |                                        |
| fishMeatPoultryTypeCodeReference          | Global/Local                | T.P.Neutral                    |                              |                                        |
| fixedSpeakerLocationCode                  | Global/Local                | T.P.Neutral                    |                              |                                        |
| flammableAerosolContainmentCode           | Global/Local                | T.P.Neutral                    |                              |                                        |
| flammableGasWeight                        | Global/Local                | T.P.Neutral                    | No                           | No                                     |
| flammablePropertiesDescription            | Global/Local                | T.P.Neutral                    | No                           | Yes                                    |
| flammableSubstanceMaximumPercent          | Global/Local                | T.P.Neutral                    |                              |                                        |
| flammableSubstanceMinimumPercent          | Global/Local                | T.P.Neutral                    |                              |                                        |
| flashPointDescriptor                      | Global/Local                | T.P.Neutral                    | No                           | Yes                                    |
| flashPointTemperature                     | Global/Local                | T.P.Neutral                    | No                           | Yes                                    |
| flashPointTemperatureLowerValue           | Global/Local                | T.P.Neutral                    | No                           | Yes                                    |
| flashPointTemperatureMeasurementPrecision | Global/Local                | T.P.Neutral                    |                              |                                        |
| flashPointTemperatureUpperValue           | Global/Local                | T.P.Neutral                    | No                           | Yes                                    |
| flashPointTestMethodCode                  | Global/Local                | T.P.Neutral                    |                              |                                        |
| foodBeverageCompositionCode               | Global/Local                | T.P.Neutral                    |                              |                                        |
| foodBeverageCompositionDatabaseCode       | Global/Local                | T.P.Neutral                    |                              |                                        |
| foodBeverageCompositionDescription        | Global/Local                | T.P.Neutral                    |                              |                                        |
| freeQuantityOfNextLowerLevelTradeItem     | Global/Local                | T.P.Neutral                    | No                           | Yes                                    |
| freeQuantityOfProduct                     | Global/Local                | T.P.Neutral                    | No                           | Yes                                    |
| freezingMeltingPoint                      | Global/Local                | T.P.Neutral                    | No                           | Yes                                    |
| freshWaterEcotoxicityMeasurement          | Global/Local                | T.P.Neutral                    | No                           | No                                     |
| freshWaterEcotoxicityModelCode            | Global/Local                | T.P.Neutral                    |                              |                                        |
| freshWaterEcotoxicityModelDescription     | Global/Local                | T.P.Neutral                    | No                           | Yes                                    |

| Attribute Name                                        | Target Market Applicability | Trading Partner Neutral status | Multiple Values (Grey = N/A) | Multi Language/ Measurement / Currency |
|-------------------------------------------------------|-----------------------------|--------------------------------|------------------------------|----------------------------------------|
| freshWaterEcotoxicityReferenceSubstanceCode           | Global/Local                | T.P.Neutral                    |                              |                                        |
| freshWaterEcotoxicityReferenceSubstanceDescription    | Global/Local                | T.P.Neutral                    | No                           | Yes                                    |
| fromLanguage                                          | Global/Local                | T.P.Neutral                    |                              |                                        |
| frontFaceTypeCode                                     | Global/Local                | T.P.Neutral                    |                              |                                        |
| functionalBasisUnitCode                               | Global/Local                | T.P.Neutral                    |                              |                                        |
| functionalBasisUnitDescription                        | Global/Local                | T.P.Neutral                    | No                           | Yes                                    |
| functionalName                                        | Global/Local                | T.P.Neutral                    | No                           | Yes                                    |
| gameFormatCode                                        | Global/Local                | T.P.Neutral                    |                              |                                        |
| geneticallyModifiedDeclarationCode                    | Global/Local                | T.P.Neutral                    |                              |                                        |
| genreTypeCodeReference                                | Global/Local                | T.P.Neutral                    |                              |                                        |
| genus                                                 | Global                      | T.P.Neutral                    |                              |                                        |
| gHSSignalWordsCode                                    | Global/Local                | T.P.Neutral                    |                              |                                        |
| gHSSymbolDescriptionCode                              | Global/Local                | T.P.Neutral                    |                              |                                        |
| globalWarmingPotentialEquivalent                      | Global/Local                | T.P.Neutral                    | No                           | No                                     |
| globalWarmingPotentialEquivalentBasisYearsCode        | Global/Local                | T.P.Neutral                    |                              |                                        |
| globalWarmingPotentialEquivalentBasisYearsDescription | Global/Local                | T.P.Neutral                    | No                           | Yes                                    |
| globalWarmingPotentialEquivalentProtocolCode          | Global/Local                | T.P.Neutral                    |                              |                                        |
| globalWarmingPotentialEquivalentProtocolDescription   | Global/Local                | T.P.Neutral                    | No                           | Yes                                    |
| globalWarmingPotentialEquivalentSubstanceCode         | Global/Local                | T.P.Neutral                    |                              |                                        |
| globalWarmingPotentialEquivalentSubstanceDescription  | Global/Local                | T.P.Neutral                    | No                           | Yes                                    |
| goodsPickUpLeadTime                                   | Global/Local                | T.P.Neutral                    | No                           | No                                     |
| gpcAttributeTypeCode                                  | Global                      | T.P.Neutral                    |                              |                                        |
| gpcAttributeTypeDefinition                            | Global                      | T.P.Neutral                    |                              |                                        |
| gpcAttributeTypeName                                  | Global                      | T.P.Neutral                    |                              |                                        |
| gpcAttributeValueCode                                 | Global                      | T.P.Neutral                    |                              |                                        |
| gpcAttributeValueName                                 | Global                      | T.P.Neutral                    |                              |                                        |
| gpcCategoryCode                                       | Global                      | T.P.Neutral                    |                              |                                        |
| gpcCategoryDefinition                                 | Global                      | T.P.Neutral                    |                              |                                        |
| gpcCategoryName                                       | Global                      | T.P.Neutral                    |                              |                                        |
| gradeCodeReference                                    | Global/Local                | T.P.Neutral                    |                              |                                        |
| grai                                                  | Global                      | T.P.Neutral                    |                              |                                        |
| grapeVarietyCode                                      | Global/Local                | T.P.Neutral                    |                              |                                        |
| grossWeight (AdditionalTradeItemDimensions)           | Global/Local                | T.P.Neutral & T.P.Dependent    | No                           | No                                     |
| grossWeight (TradeItemMeasurements)                   | Global/Local                | T.P.Neutral                    | No                           | No                                     |
| grossWeight (NonGTINLogisticsUnitInformation)         | Global/Local                | T.P.Neutral & T.P.Dependent    | No                           | No                                     |
| growingMethodCode                                     | Global/Local                | T.P.Neutral                    |                              |                                        |
| gs1TradeItemIdentificationKeyCode                     | Global/Local                | T.P.Neutral                    |                              |                                        |
| gs1TradeItemIdentificationKeyValue                    | Global/Local                | T.P.Neutral                    |                              |                                        |
| gtin                                                  | Global                      | T.P.Neutral                    |                              |                                        |
| handlingInstructionsCodeReference                     | Global                      | T.P.Neutral                    |                              |                                        |
| handlingInstructionsDescription                       | Global                      | T.P.Neutral                    | No                           | Yes                                    |
| hasBatchNumber                                        | Local                       | T.P.Neutral                    |                              |                                        |
| hasCancerousProperties                                | Global/Local                | T.P.Neutral                    |                              |                                        |
| hasDisplayReadyPackaging                              | Global/Local                | T.P.Neutral                    |                              |                                        |

| Attribute Name                                       | Target Market Applicability | Trading Partner Neutral status | Multiple Values (Grey = N/A) | Multi Language/ Measurement / Currency |
|------------------------------------------------------|-----------------------------|--------------------------------|------------------------------|----------------------------------------|
| hasParentalAdvisorySticker                           | Global/Local                | T.P.Neutral                    |                              |                                        |
| haveYouMinimizedHazardousSubstance                   | Global/Local                | T.P.Neutral                    |                              |                                        |
| hazardousClassSubsidiaryRiskCode                     | Global/Local                | T.P.Neutral                    |                              |                                        |
| hazardousMaterialAdditionalInformation               | Global/Local                | T.P.Neutral                    | No                           | Yes                                    |
| hazardousMaterialsHandlingProcedures                 | Global/Local                | T.P.Neutral                    | Yes                          | Yes                                    |
| hazardousSubstancesMinimizationCode                  | Global/Local                | T.P.Neutral                    |                              |                                        |
| hazardousWasteAgency                                 | Global/Local                | T.P.Neutral                    |                              |                                        |
| hazardousWasteCode                                   | Global/Local                | T.P.Neutral                    |                              |                                        |
| hazardousWasteDescription                            | Global/Local                | T.P.Neutral                    | No                           | Yes                                    |
| hazardStatementsCode                                 | Global/Local                | T.P.Neutral                    |                              |                                        |
| hazardStatementsDescription                          | Global/Local                | T.P.Neutral                    | No                           | Yes                                    |
| hDMITestingAgencyCode                                | Global/Local                | T.P.Neutral                    |                              |                                        |
| healthClaimCode                                      | Global/Local                | T.P.Neutral                    |                              |                                        |
| healthClaimDescription                               | Global/Local                | T.P.Neutral                    | Yes                          | Yes                                    |
| healthcareItemMaximumUsageAge                        | Global/Local                | T.P.Neutral & T.P.Dependent    |                              |                                        |
| healthcareItemMinimumUsageAge                        | Global/Local                | T.P.Neutral & T.P.Dependent    |                              |                                        |
| healthcareItemUsageAgeDescription                    | Global/Local                | T.P.Neutral & T.P.Dependent    | No                           | Yes                                    |
| healthcareGroupedProductCode                         | Global/Local                | T.P.Neutral                    |                              |                                        |
| height (AdditionalTradeItemDimensions)               | Global/Local                | T.P.Neutral & T.P.Dependent    | No                           | No                                     |
| height (TradeItemMeasurements)                       | Global/Local                | T.P.Neutral                    | No                           | No                                     |
| height(NonGTINLogisticsUnitInformation)              | Global/Local                | T.P.Neutral & T.P.Dependent    | No                           | No                                     |
| horizontalViewingAngle                               | Global/Local                | T.P.Neutral                    |                              |                                        |
| humidityQualifierCode                                | Global/Local                | T.P.Neutral                    |                              |                                        |
| illegalToAdvertiseTargetMarket                       | Global/Local                | T.P.Neutral                    |                              |                                        |
| illustrationNote                                     | Global/Local                | T.P.Neutral                    | No                           | Yes                                    |
| illustrationTypeCode                                 | Global/Local                | T.P.Neutral                    |                              |                                        |
| importClassificationCountrySubdivisionRegionOfOrigin | Global/Local                | T.P.Neutral                    |                              |                                        |
| importClassificationTypeCode                         | Global/Local                | T.P.Neutral                    |                              |                                        |
| importClassificationValue                            | Global/Local                | T.P.Neutral                    |                              |                                        |
| inBoxCubeDimension                                   | Global/Local                | T.P.Neutral                    | No                           | No                                     |
| includedOperatingSystem                              | Global/Local                | T.P.Neutral                    |                              |                                        |
| incotermCode                                         | Global/Local                | T.P.Neutral                    |                              |                                        |
| incotermCodeLocation                                 | Global/Local                | T.P.Neutral                    |                              |                                        |
| incotermCountryCode                                  | Global/Local                | T.P.Neutral                    |                              |                                        |
| individualUnitMaximumSize                            | Global/Local                | T.P.Neutral                    | No                           | No                                     |
| individualUnitMinimumSize                            | Global/Local                | T.P.Neutral                    | No                           | No                                     |
| industrySpecificPackagingTypeCodeReference           | Global/Local                | T.P.Neutral                    |                              |                                        |
| informationProviderOfTradeItem                       | Global                      | T.P.Neutral                    |                              |                                        |
| ingredientContentPercentage                          | Global/Local                | T.P.Neutral                    |                              |                                        |
| ingredientContentPercentageMeasurementPrecisionCode  | Global/Local                | T.P.Neutral                    |                              |                                        |
| ingredientCountryOfOriginCode                        | Global/Local                | T.P.Neutral                    |                              |                                        |
| ingredientDefinition                                 | Global/Local                | T.P.Neutral                    | No                           | Yes                                    |
| ingredientGeneticallyModifiedDeclarationCode         | Global/Local                | T.P.Neutral                    |                              |                                        |
| ingredientGrowingMethodCode                          | Global/Local                | T.P.Neutral                    |                              |                                        |
| ingredientIrradiatedCode                             | Global/Local                | T.P.Neutral                    |                              |                                        |



| Attribute Name                           | Target Market Applicability | Trading Partner Neutral status | Multiple Values (Grey = N/A) | Multi Language/ Measurement / Currency |
|------------------------------------------|-----------------------------|--------------------------------|------------------------------|----------------------------------------|
| ingredientName                           | Global/Local                | T.P.Neutral                    | No                           | Yes                                    |
| ingredientOfConcernCode                  | Global/Local                | T.P.Neutral                    |                              |                                        |
| ingredientPurpose                        | Global/Local                | T.P.Neutral                    |                              |                                        |
| ingredientSequence                       | Global/Local                | T.P.Neutral                    |                              |                                        |
| ingredientSourceAnimalCode               | Global/Local                | T.P.Neutral                    |                              |                                        |
| ingredientStatement                      | Global/Local                | T.P.Neutral                    | No                           | Yes                                    |
| ingredientStrength                       | Global/Local                | T.P.Neutral                    | No                           | No                                     |
| ingredientStrengthBasis                  | Global/Local                | T.P.Neutral                    | No                           | No                                     |
| initialManufacturerSterilisationCode     | Global/Local                | T.P.Neutral                    |                              |                                        |
| initialSterilisationPriorToUseCode       | Global/Local                | T.P.Neutral                    |                              |                                        |
| intendedPublicationCountryCode           | Global/Local                | T.P.Neutral                    |                              |                                        |
| intendedPublicationMediaTypeDescription  | Global/Local                | T.P.Neutral                    | Yes                          | Yes                                    |
| internalMemoryTypeCode                   | Global/Local                | T.P.Neutral                    |                              |                                        |
| invoiceName                              | Global                      | T.P.Neutral                    | No                           | Yes                                    |
| irradiatedCode                           | Global/Local                | T.P.Neutral                    |                              |                                        |
| isAcutelyHazardousWaste                  | Global/Local                | T.P.Neutral                    |                              |                                        |
| isAllergenRelevantDataProvided           | Global/Local                | T.P.Neutral                    |                              |                                        |
| isAssemblyRequired                       | Global                      | T.P.Neutral                    |                              |                                        |
| isBarCodeDerivable                       | Global                      | T.P.Neutral                    |                              |                                        |
| isBarCodeOnPackageVariableMeasureBarCode | Global                      | T.P.Neutral                    |                              |                                        |
| isBasePriceDeclarationRelevant           | Global/Local                | T.P.Neutral                    |                              |                                        |
| isCertificateRequired                    | Global/Local                | T.P.Neutral & T.P.Dependent    |                              |                                        |
| isChemicalRegulationCompliant            | Global/Local                | T.P.Neutral                    |                              |                                        |
| isDangerousSubstance                     | Global/Local                | T.P.Neutral                    |                              |                                        |
| isDangerousSubstanceAMixture             | Global/Local                | T.P.Neutral                    |                              |                                        |
| isDigitalDownloadAvailable               | Global/Local                | T.P.Neutral                    |                              |                                        |
| isDiscountingIllegal                     | Global/Local                | T.P.Neutral                    |                              |                                        |
| isDiscountingIllegalInTargetMarket       | Global/Local                | T.P.Neutral                    |                              |                                        |
| isDistributionMethodPrimary              | Global/Local                | T.P.Neutral                    |                              |                                        |
| isEligibleForRevenueShare                | Global/Local                | T.P.Neutral                    |                              |                                        |
| isExemptFromPremarketAuthorisation       | Global/Local                | T.P.Neutral                    |                              |                                        |
| isFileBackgroundTransparent              | Global                      | T.P.Neutral                    |                              |                                        |
| isFileForInternalUseOnly                 | Global                      | T.P.Neutral                    |                              |                                        |
| isHomogenised                            | Global/Local                | T.P.Neutral                    |                              |                                        |
| isImitationOrSubstitute                  | Global/Local                | T.P.Neutral                    |                              |                                        |
| isIngredientActive                       | Global/Local                | T.P.Neutral                    |                              |                                        |
| isIngredientEmphasised                   | Global/Local                | T.P.Neutral                    |                              |                                        |
| isIngredientGeneric                      | Global/Local                | T.P.Neutral                    |                              |                                        |
| isIngredientRelevantDataProvided         | Global/Local                | T.P.Neutral                    |                              |                                        |
| isNetContentDeclarationIndicated         | Global/Local                | T.P.Neutral                    |                              |                                        |
| isNonfoodIngredientEmphasized            | Global/Local                | T.P.Neutral                    |                              |                                        |
| isNonGTINLogisticsUnitPackedIrregularly  | Global/Local                | T.P.Neutral                    |                              |                                        |
| isNonSoldTradeItemReturnable             | Global/Local                | T.P.Neutral                    |                              |                                        |
| isNutrientRelevantDataProvided           | Global/Local                | T.P.Neutral                    |                              |                                        |
| isOneTimeBuy                             | Global/Local                | T.P.Neutral                    |                              |                                        |
| isOrphanDrug                             | Global/Local                | T.P.Neutral                    |                              |                                        |
| isPackagingExemptFromRefuseObligation    | Global/Local                | T.P.Neutral                    |                              |                                        |
| isPackagingLabelledWithDrugFacts         | Global/Local                | T.P.Neutral                    |                              |                                        |



| Attribute Name                                     | Target Market Applicability | Trading Partner Neutral status | Multiple Values (Grey = N/A) | Multi Language/ Measurement / Currency |
|----------------------------------------------------|-----------------------------|--------------------------------|------------------------------|----------------------------------------|
| isPackagingMarkedReturnable                        | Global                      | T.P.Neutral                    |                              |                                        |
| isPackagingMarkedWithIngredients                   | Local                       | T.P.Neutral                    |                              |                                        |
| isPackagingMarkedWithRegulatoryCompliance          | Global/Local                | T.P.Neutral                    |                              |                                        |
| isPackagingMaterialRecoverable                     | Global/Local                | T.P.Neutral                    |                              |                                        |
| isPackagingReturnable                              | Global/Local                | T.P.Neutral                    |                              |                                        |
| isPackagingSuitableForAirShipment                  | Global/Local                | T.P.Neutral                    |                              |                                        |
| isPermitOrLicenseRequiredToSell                    | Global/Local                | T.P.Neutral                    |                              |                                        |
| isPriceOnPack                                      | Global                      | T.P.Neutral                    |                              |                                        |
| isPrimaryFile                                      | Global/Local                | T.P.Neutral                    |                              |                                        |
| isPrimaryMaterial                                  | Global/Local                | T.P.Neutral                    |                              |                                        |
| isProductClassifiedAsNonHazardous                  | Global/Local                | T.P.Neutral                    |                              |                                        |
| isProductCustomizable                              | Global/Local                | T.P.Neutral                    |                              |                                        |
| isProhibitedForTransportation                      | Global/Local                | T.P.Neutral                    |                              |                                        |
| isRadioFrequencyIDOnPackaging                      | Global/Local                | T.P.Neutral                    |                              |                                        |
| isRegulatedForTransportation                       | Global/Local                | T.P.Neutral                    |                              |                                        |
| isReturnableAssetEmpty                             | Global/Local                | T.P.Neutral                    |                              |                                        |
| isRindEdible                                       | Global/Local                | T.P.Neutral                    |                              |                                        |
| isSizeTypeVariant                                  | Global/Local                | T.P.Neutral & T.P.Dependent    |                              |                                        |
| isSubstanceOfVeryHighConcern                       | Global/Local                | T.P.Neutral                    |                              |                                        |
| isTalentReleaseOnFile                              | Global                      | T.P.Neutral                    |                              |                                        |
| isTradeItemABaseUnit                               | Global                      | T.P.Neutral                    |                              |                                        |
| isTradeItemACombinationItem                        | Global/Local                | T.P.Neutral                    |                              |                                        |
| isTradeItemAConsumerUnit                           | Global                      | T.P.Neutral                    |                              |                                        |
| isTradeItemADespatchUnit                           | Global/Local                | T.P.Neutral & T.P.Dependent    |                              |                                        |
| isTradeItemADisplayUnit                            | Global                      | T.P.Neutral                    |                              |                                        |
| isTradeItemAnInvoiceUnit                           | Global/Local                | T.P.Neutral & T.P.Dependent    |                              |                                        |
| isTradeItemAnOrderableUnit                         | Global/Local                | T.P.Neutral & T.P.Dependent    |                              |                                        |
| isTradeItemAQualityVintageAlcoholProduct           | Global/Local                | T.P.Neutral & T.P.Dependent    |                              |                                        |
| isTradeItemAService                                | Global                      | T.P.Neutral                    |                              |                                        |
| isTradeItemAutomaticPowerDownEnabled               | Global                      | T.P.Neutral                    |                              |                                        |
| isTradeItemAVariableUnit                           | Global                      | T.P.Neutral                    |                              |                                        |
| isTradeItemChemicalNotIntendedForHuman Consumption | Global                      | T.P.Neutral                    |                              |                                        |
| isTradeItemConsideredCollectibleOrMemorable        | Global/Local                | T.P.Neutral                    |                              |                                        |
| isTradeItemConsideredDopingProduct                 | Global/Local                | T.P.Neutral                    |                              |                                        |
| isTradeItemConsideredGeneric                       | Global/Local                | T.P.Neutral                    |                              |                                        |
| isTradeItemConsumerUpgradeableOrMaintainable       | Global                      | T.P.Neutral                    |                              |                                        |
| isTradeItemDesignedForEasyDisassembly              | Global                      | T.P.Neutral                    |                              |                                        |
| isTradeItemDesignedToBeDivisible                   | Global/Local                | T.P.Neutral                    |                              |                                        |
| isTradeItemExemptFromDirectPartMarking             | Global/Local                | T.P.Neutral                    |                              |                                        |
| isTradeItemExemptFromSerialisation                 | Global/Local                | T.P.Neutral                    |                              |                                        |
| isTradeItemHanging                                 | Global/Local                | T.P.Neutral                    |                              |                                        |
| isTradeItemImplantable                             | Global                      | T.P.Neutral                    |                              |                                        |
| isTradeItemMarkedAsRecyclable                      | Global/Local                | T.P.Neutral                    |                              |                                        |
| isTradeItemMarkedNoShake                           | Global/Local                | T.P.Neutral                    |                              |                                        |
| isTradeItemNonphysical                             | Global                      | T.P.Neutral                    |                              |                                        |

| Attribute Name                            | Target Market Applicability | Trading Partner Neutral status | Multiple Values (Grey = N/A) | Multi Language/ Measurement / Currency |
|-------------------------------------------|-----------------------------|--------------------------------|------------------------------|----------------------------------------|
| isTradeItemPackedIrregularly              | Global                      | T.P.Neutral                    |                              |                                        |
| isTradeItemAPromotionalUnit               | Global/Local                | T.P.Neutral & T.P.Dependent    |                              |                                        |
| isTradeItemREACHRelevant                  | Local                       | T.P.Neutral                    |                              |                                        |
| isTradeItemRecalled                       | Global/Local                | T.P.Neutral                    |                              |                                        |
| isTradeItemReconditioned                  | Global                      | T.P.Neutral                    |                              |                                        |
| isTradeItemRegulatoryCompliant            | Global/Local                | T.P.Neutral                    |                              |                                        |
| isTradeItemReinstated                     | Global/Local                | T.P.Neutral                    |                              |                                        |
| isTradeItemReorderable                    | Global/Local                | T.P.Neutral                    |                              |                                        |
| isTradeItemRequiredToRemainSterile        | Global                      | T.P.Neutral                    |                              |                                        |
| isTradeItemRigidPlasticPackagingContainer | Global                      | T.P.Neutral                    |                              |                                        |
| isTradeItemROHSCompliant                  | Global                      | T.P.Neutral                    |                              |                                        |
| isTradeItemSeasonal                       | Local                       | T.P.Neutral                    |                              |                                        |
| isTradeItemShippedInMultipleContainers    | Local                       | T.P.Neutral                    |                              |                                        |
| isTradeItemSizeBasedPricing               | Global/Local                | T.P.Neutral                    |                              |                                        |
| isTradeItemUniversalWaste                 | Global                      | T.P.Neutral                    |                              |                                        |
| isUniversalWaste                          | Global/Local                | T.P.Neutral                    |                              |                                        |
| itemDepictionTypeCode                     | Global                      | T.P.Neutral                    |                              |                                        |
| itemMinimumDurability                     | Global/Local                | T.P.Neutral                    | No                           | Yes                                    |
| itemsInFileDescription                    | Global                      | T.P.Neutral                    | Yes                          | Yes                                    |
| itemPeriodSafeToUseAfterOpening           | Global/Local                | T.P.Neutral                    | No                           | Yes                                    |
| juiceContentPercent                       | Global/Local                | T.P.Neutral                    |                              |                                        |
| keyNames                                  | Global/Local                | T.P.Neutral                    |                              |                                        |
| labelDescription                          | Global/Local                | T.P.Neutral                    | Yes                          | Yes                                    |
| languageSpecificBrandName                 | Global/Local                | T.P.Neutral                    | No                           | Yes                                    |
| languageSpecificSubBrandName              | Global/Local                | T.P.Neutral                    | No                           | Yes                                    |
| lastChangeDateTime                        | Global/Local                | T.P.Neutral                    |                              |                                        |
| lastOrderDateTime                         | Global/Local                | T.P.Neutral                    |                              |                                        |
| lastReturnableDateTime                    | Global/Local                | T.P.Neutral                    |                              |                                        |
| lastShipDateTime                          | Global/Local                | T.P.Neutral                    |                              |                                        |
| layerHeight                               | Global                      | T.P.Neutral                    | No                           | No                                     |
| lensCoatingTypeDescription                | Global/Local                | T.P.Neutral                    | Yes                          | Yes                                    |
| lensFilterTypeDescription                 | Global/Local                | T.P.Neutral                    | Yes                          | Yes                                    |
| lensTypeDescription                       | Global/Local                | T.P.Neutral                    | Yes                          | Yes                                    |
| lethalConcentration50                     | Global/Local                | T.P.Neutral                    | No                           | No                                     |
| lethalConcentration50Basis                | Global/Local                | T.P.Neutral                    | No                           | No                                     |
| lethalConcentration50MeasurementPrecision | Global/Local                | T.P.Neutral                    |                              |                                        |
| lethalDose50                              | Global/Local                | T.P.Neutral                    | No                           | No                                     |
| lethalDose50Basis                         | Global/Local                | T.P.Neutral                    | No                           | No                                     |
| lethalDose50MeasurementPrecision          | Global/Local                | T.P.Neutral                    |                              |                                        |
| lettersAfterNames                         | Local                       | T.P.Neutral                    |                              |                                        |
| levelOfContainmentCode                    | Global/Local                | T.P.Neutral                    |                              |                                        |
| lightBulbBaseType                         | Global/Local                | T.P.Neutral                    |                              |                                        |
| lightBulbDiameterValue                    | Global/Local                | T.P.Neutral                    | No                           | Yes                                    |
| lightBulbFilamentTypeCode                 | Global/Local                | T.P.Neutral                    |                              |                                        |
| lightBulbLampTypeCode                     | Global/Local                | T.P.Neutral                    |                              |                                        |
| lightBulbShapeCode                        | Global/Local                | T.P.Neutral                    |                              |                                        |
| lightBulbTypeDescription                  | Global/Local                | T.P.Neutral                    | Yes                          | Yes                                    |
| lightOutput                               | Global/Local                | T.P.Neutral                    | No                           | Yes                                    |

| Attribute Name                                      | Target Market Applicability | Trading Partner Neutral status | Multiple Values (Grey = N/A) | Multi Language/ Measurement / Currency |
|-----------------------------------------------------|-----------------------------|--------------------------------|------------------------------|----------------------------------------|
| localPackagingMarkedLabelAccreditationCodeReference | Global/Local                | T.P.Neutral                    |                              |                                        |
| logisticsUnitCubeDimension                          | Global/Local                | T.P.Neutral & T.P.Dependent    | No                           | Yes                                    |
| logisticsUnitStackingFactor                         | Global                      | T.P.Neutral & T.P.Dependent    |                              |                                        |
| longSynopsis                                        | Global/Local                | T.P.Neutral                    | No                           | Yes                                    |
| lowerExplosiveLimit                                 | Global                      | T.P.Neutral                    |                              |                                        |
| mainSubject                                         | Global/Local                | T.P.Neutral                    |                              |                                        |
| manufacturerDeclaredReusabilityTypeCode             | Global/Local                | T.P.Neutral                    |                              |                                        |
| manufacturerOfTradeItem                             | Global                      | T.P.Neutral                    |                              |                                        |
| manufacturerPreparationTypeCode                     | Global/Local                | T.P.Neutral                    |                              |                                        |
| manufacturerSpecifiedAcceptableResterilisationCode  | Global/Local                | T.P.Neutral                    |                              |                                        |
| manufacturerTakeBackProgramFee                      | Global/Local                | T.P.Neutral                    | No                           | Yes                                    |
| mapScale                                            | Global/Local                | T.P.Neutral                    |                              |                                        |
| marinePollutantTechnicalName                        | Global/Local                | T.P.Neutral                    |                              |                                        |
| marketingTradeChannel                               | Global/Local                | T.P.Neutral                    |                              |                                        |
| massEquivalentCode                                  | Global/Local                | T.P.Neutral                    |                              |                                        |
| massEquivalentMeasurement                           | Global/Local                | T.P.Neutral                    | No                           | No                                     |
| massEquivalentProtocolCode                          | Global/Local                | T.P.Neutral                    |                              |                                        |
| massEquivalentProtocolDescription                   | Global/Local                | T.P.Neutral                    | No                           | Yes                                    |
| massEquivalentSubstanceCodeReference                | Global/Local                | T.P.Neutral                    |                              |                                        |
| massEquivalentSubstanceDescription                  | Global/Local                | T.P.Neutral                    | No                           | Yes                                    |
| materialAgencyCode                                  | Global                      | T.P.Neutral                    |                              |                                        |
| materialCode                                        | Global                      | T.P.Neutral                    |                              |                                        |
| materialContent                                     | Global                      | T.P.Neutral                    | No                           | Yes                                    |
| materialCountryOfOrigin                             | Global/Local                | T.P.Neutral                    |                              |                                        |
| materialPercentage                                  | Global                      | T.P.Neutral                    |                              |                                        |
| materialThreadCount                                 | Global/Local                | T.P.Neutral                    | No                           | Yes                                    |
| materialTreatment                                   | Global/Local                | T.P.Neutral                    | Yes                          | Yes                                    |
| materialWeight                                      | Global/Local                | T.P.Neutral                    | No                           | No                                     |
| maturationMethodCode                                | Global/Local                | T.P.Neutral                    |                              |                                        |
| maximumAge                                          | Global/Local                | T.P.Neutral                    |                              |                                        |
| maximumAvailableStorageCapacity                     | Global/Local                | T.P.Neutral                    | No                           | Yes                                    |
| maximumBatteryLife                                  | Global/Local                | T.P.Neutral                    | No                           | No                                     |
| maximumCyclesReusable                               | Global                      | T.P.Neutral                    |                              |                                        |
| maximumEnvironmentAtmosphericPressure               | Global/Local                | T.P.Neutral                    | No                           | No                                     |
| maximumFeedingAmount                                | Global/Local                | T.P.Neutral                    | No                           | Yes                                    |
| maximumHumidityAcceptableTimeSpan                   | Global/Local                | T.P.Neutral                    |                              |                                        |
| maximumHumidityPercentage                           | Global/Local                | T.P.Neutral                    |                              |                                        |
| maximumNumberOfPlayers                              | Global/Local                | T.P.Neutral                    |                              |                                        |
| maximumNumberOfSmallestUnitsPerPackage              | Global/Local                | T.P.Neutral                    |                              |                                        |
| maximumOptimumConsumptionTemperature                | Global/Local                | T.P.Neutral                    | No                           | Yes                                    |
| maximumPH                                           | Global                      | T.P.Neutral                    |                              |                                        |
| maximumResolution                                   | Global/Local                | T.P.Neutral                    | No                           | Yes                                    |
| maximumReusableDays                                 | Global/Local                | T.P.Neutral                    |                              |                                        |
| maximumTemperature                                  | Global/Local                | T.P.Neutral                    | No                           | No                                     |
| maximumTemperatureAcceptableTimeSpan                | Global/Local                | T.P.Neutral                    |                              |                                        |

| Attribute Name                                     | Target Market Applicability | Trading Partner Neutral status | Multiple Values (Grey = N/A) | Multi Language/ Measurement / Currency |
|----------------------------------------------------|-----------------------------|--------------------------------|------------------------------|----------------------------------------|
| maximumToleranceTemperature                        | Global/Local                | T.P.Neutral                    | No                           | No                                     |
| maximumWeightOfAnimalBeingFed                      | Global/Local                | T.P.Neutral                    | No                           | Yes                                    |
| measurementPrecisionCode                           | Global/Local                | T.P.Neutral                    |                              |                                        |
| meshMaterialCode                                   | Global/Local                | T.P.Neutral                    |                              |                                        |
| meshSizeCode                                       | Global/Local                | T.P.Neutral                    |                              |                                        |
| microbiologicalOrganismCode                        | Global/Local                | T.P.Neutral                    |                              |                                        |
| microbiologicalOrganismMaximumValue                | Global/Local                | T.P.Neutral                    | No                           | Yes                                    |
| microbiologicalOrganismMaximumValueBasis           | Global/Local                | T.P.Neutral                    | No                           | Yes                                    |
| microbiologicalOrganismMaximumValuePrecisionCode   | Global/Local                | T.P.Neutral                    |                              |                                        |
| microbiologicalOrganismReferenceValue              | Global/Local                | T.P.Neutral                    | No                           | Yes                                    |
| microbiologicalOrganismReferenceValueBasis         | Global/Local                | T.P.Neutral                    | No                           | Yes                                    |
| microbiologicalOrganismReferenceValuePrecisionCode | Global/Local                | T.P.Neutral                    |                              |                                        |
| microbiologicalOrganismWarningValue                | Global/Local                | T.P.Neutral                    | No                           | Yes                                    |
| microbiologicalOrganismWarningValueBasis           | Global/Local                | T.P.Neutral                    | No                           | Yes                                    |
| microbiologicalOrganismWarningValuePrecisionCode   | Global/Local                | T.P.Neutral                    |                              |                                        |
| microphoneTypeCode                                 | Global/Local                | T.P.Neutral                    |                              |                                        |
| minimumAge                                         | Global/Local                | T.P.Neutral                    |                              |                                        |
| minimumEnvironmentAtmosphericPressure              | Global/Local                | T.P.Neutral                    | No                           | No                                     |
| minimumFeedingAmount                               | Global/Local                | T.P.Neutral                    | No                           | Yes                                    |
| minimumFishMeatPoultryContent                      | Global/Local                | T.P.Neutral                    | No                           | Yes                                    |
| minimumHumidityPercentage                          | Global/Local                | T.P.Neutral                    |                              |                                        |
| minimumNumberOfPlayers                             | Global/Local                | T.P.Neutral                    |                              |                                        |
| minimumOptimumConsumptionTemperature               | Global/Local                | T.P.Neutral                    | No                           | Yes                                    |
| minimumOrderValue                                  | Global/Local                | T.P.Neutral & T.P.Dependent    | No                           | Yes                                    |
| minimumPH                                          | Global                      | T.P.Neutral                    |                              |                                        |
| minimumTemperature                                 | Global/Local                | T.P. Neutral                   | No                           | No                                     |
| minimumToleranceTemperature                        | Global/Local                | T.P.Neutral                    | No                           | No                                     |
| minimumTradeItemLifespanFromTimeOfArrival          | Global/Local                | T.P.Neutral & T.P.Dependent    |                              |                                        |
| minimumTradeItemLifespanFromTimeOfProduction       | Global/Local                | T.P.Neutral & T.P.Dependent    |                              |                                        |
| minimumWeightOfAnimalBeingFed                      | Global/Local                | T.P.Neutral                    | No                           | Yes                                    |
| mountLocationDescription                           | Global/Local                | T.P.Neutral                    | Yes                          | Yes                                    |
| mountTypeDescription                               | Global/Local                | T.P.Neutral                    | Yes                          | Yes                                    |
| mRICompatibilityCode                               | Global                      | T.P.Neutral                    |                              |                                        |
| multiPictureDisplayCapabilityTypeCode              | Global/Local                | T.P.Neutral                    |                              |                                        |
| multipleContainerQuantity                          | Global/Local                | T.P.Neutral                    |                              |                                        |
| musicPerformanceType                               | Global/Local                | T.P.Neutral                    |                              |                                        |
| nameAsSubject                                      | Global/Local                | T.P.Neutral                    |                              |                                        |
| namesAfterKey                                      | Global/Local                | T.P.Neutral                    |                              |                                        |
| namesBeforeKey                                     | Global/Local                | T.P.Neutral                    |                              |                                        |
| nameTypeCode                                       | Global/Local                | T.P.Neutral                    |                              |                                        |
| necessaryTradeItemToUseDescription                 | Global/Local                | T.P.Neutral                    | No                           | Yes                                    |
| nestingDirectionCode                               | Global                      | T.P.Neutral                    |                              |                                        |
| nestingIncrement                                   | Global                      | T.P.Neutral                    | Yes                          | Yes                                    |
| nestingTypeCode                                    | Global                      | T.P.Neutral                    |                              |                                        |
| netContent                                         | Global                      | T.P.Neutral                    | No                           | Yes                                    |
| netContentStatement                                | Global/Local                | T.P.Neutral                    | No                           | Yes                                    |

| Attribute Name                                     | Target Market Applicability | Trading Partner Neutral status | Multiple Values (Grey = N/A) | Multi Language/ Measurement / Currency |
|----------------------------------------------------|-----------------------------|--------------------------------|------------------------------|----------------------------------------|
| netDueTimePeriod                                   | Global/Local                | T.P.Neutral & T.P.Dependent    | No                           | No                                     |
| netMassOfExplosives                                | Global/Local                | T.P.Neutral                    | No                           | No                                     |
| netWeight (NonGTINLogisticsUnitInformation)        | Global/Local                | T.P.Neutral & T.P.Dependent    | No                           | No                                     |
| netWeight (TradeItemWeight)                        | Global/Local                | T.P.Neutral                    | No                           | No                                     |
| nominalInsideDiameter                              | Global/Local                | T.P.Neutral                    | No                           | No                                     |
| nominalOutsideDiameter                             | Global/Local                | T.P.Neutral                    | No                           | No                                     |
| noncreditableGrainAmount                           | Global/Local                | T.P.Neutral                    | No                           | Yes                                    |
| noncreditableGrainDescription                      | Global/Local                | T.P.Neutral                    | No                           | Yes                                    |
| nonfoodIngredientCodeReference                     | Global/Local                | T.P.Neutral                    |                              |                                        |
| nonfoodIngredientDefinition                        | Global/Local                | T.P.Neutral                    | Yes                          | Yes                                    |
| nonfoodIngredientName                              | Global/Local                | T.P.Neutral                    |                              |                                        |
| nonfoodIngredientOfConcernCode                     | Global/Local                | T.P.Neutral                    |                              |                                        |
| nonfoodIngredientPurpose                           | Global/Local                | T.P.Neutral                    | Yes                          | Yes                                    |
| nonfoodIngredientStatement                         | Global/Local                | T.P.Neutral                    | No                           | Yes                                    |
| nonhazardousWasteDescription                       | Global/Local                | T.P.Neutral                    | Yes                          | Yes                                    |
| nonMarkedTradeItemComponents                       | Global/Local                | T.P.Neutral                    | No                           | Yes                                    |
| nonPromotionalTradeItem                            | Global/Local                | T.P.Neutral                    |                              |                                        |
| noteToPhysician                                    | Global/Local                | T.P.Neutral                    | No                           | Yes                                    |
| numberOfCyclesPriorToWithdrawal                    | Global/Local                | T.P.Neutral                    |                              |                                        |
| numberOfDividersHorizontal                         | Global/Local                | T.P.Neutral                    |                              |                                        |
| numberOfDividersVertical                           | Global/Local                | T.P.Neutral                    |                              |                                        |
| numberOfEpisodes                                   | Global/Local                | T.P.Neutral                    |                              |                                        |
| numberOfFacilitiesInStressedWaterArea              | Global/Local                | T.P.Neutral                    |                              |                                        |
| numberOfIllustratedPages                           | Global/Local                | T.P.Neutral                    |                              |                                        |
| numberOfIllustrations                              | Global/Local                | T.P.Neutral                    |                              |                                        |
| numberOfItemsInDigitalAsset                        | Global                      | T.P.Neutral                    |                              |                                        |
| numberOfPackagesForSetPiecesGTIN                   | Global/Local                | T.P.Neutral                    |                              |                                        |
| numberOfPiecesInSet                                | Global/Local                | T.P.Neutral                    |                              |                                        |
| numberOfServingsPerPackage                         | Global/Local                | T.P.Neutral                    |                              |                                        |
| numberOfServingsPerPackageMeasurementPrecisionCode | Global/Local                | T.P.Neutral                    |                              |                                        |
| numberOfServingsRangeDescription                   | Global/Local                | T.P.Neutral                    | No                           | Yes                                    |
| numberOfSmallestUnitsPerPackage                    | Global/Local                | T.P.Neutral                    |                              |                                        |
| numberOfWheels                                     | Global/Local                | T.P.Neutral                    |                              |                                        |
| nutrientBasisQuantity                              | Global/Local                | T.P.Neutral                    | No                           | No                                     |
| nutrientBasisQuantityDescription                   | Global/Local                | T.P.Neutral                    | No                           | Yes                                    |
| nutrientBasisQuantityTypeCode                      | Global/Local                | T.P.Neutral                    |                              |                                        |
| nutrientFormatTypeCodeReference                    | Global/Local                | T.P.Neutral                    |                              |                                        |
| nutrientRelevantDataProvidedDateTime               | Global/Local                | T.P.Neutral                    |                              |                                        |
| nutrientSource                                     | Global/Local                | T.P.Neutral & T.P.Dependent    | No                           | Yes                                    |
| nutrientTypeCode                                   | Global/Local                | T.P.Neutral                    |                              |                                        |
| nutrientValueDerivationCode                        | Global/Local                | T.P.Neutral                    |                              |                                        |
| nutritionalClaim                                   | Global/Local                | T.P.Neutral                    | Yes                          | Yes                                    |
| nutritionalClaimNutrientElementCode                | Global/Local                | T.P.Neutral                    |                              |                                        |
| nutritionalClaimTypeCode                           | Global/Local                | T.P.Neutral                    |                              |                                        |
| nutritionalLabelTypeCode                           | Global/Local                | T.P.Neutral                    |                              |                                        |
| nutritionalProgramCode                             | Global/Local                | T.P.Neutral                    |                              |                                        |
| nutritionalProgramDetail                           | Global/Local                | T.P.Neutral                    | Yes                          | Yes                                    |

| Attribute Name                             | Target Market Applicability | Trading Partner Neutral status | Multiple Values (Grey = N/A) | Multi Language/ Measurement / Currency |
|--------------------------------------------|-----------------------------|--------------------------------|------------------------------|----------------------------------------|
| <b>nutritionalScore</b>                    | <b>Global/Local</b>         | <b>T.P.Neutral</b>             |                              |                                        |
| offerOnPack                                | Local                       | T.P.Neutral                    |                              |                                        |
| onixPartNumber                             | Global/Local                | T.P.Neutral                    | No                           | Yes                                    |
| onixProductAvailabilityCode                | Global/Local                | T.P.Neutral                    |                              |                                        |
| openedTradeItemLifeSpan                    | Global                      | T.P.Neutral                    |                              |                                        |
| orderableReturnableConditionsCode          | Global/Local                | T.P.Neutral                    |                              |                                        |
| orderingLeadTime                           | Global/Local                | T.P.Neutral & T.P.Dependent    | No                           | Yes                                    |
| orderingUnitOfMeasure                      | Global/Local                | T.P.Neutral & T.P.Dependent    |                              |                                        |
| orderQuantityMaximum                       | Global/Local                | T.P.Neutral & T.P.Dependent    |                              |                                        |
| orderQuantityMinimum                       | Global/Local                | T.P.Neutral & T.P.Dependent    |                              |                                        |
| orderQuantityMultiple                      | Global/Local                | T.P.Neutral & T.P.Dependent    |                              |                                        |
| orderSizingFactor                          | Global/Local                | T.P.Neutral & T.P.Dependent    | No                           | Yes                                    |
| organicCertificationIdentification         | Global/Local                | T.P.Neutral                    |                              |                                        |
| organicCertificationEffectiveEndDateTime   | Global/Local                | T.P.Neutral                    |                              |                                        |
| organicCertificationEffectiveStartDateTime | Global/Local                | T.P.Neutral                    |                              |                                        |
| organicClaimAgencyCode                     | Global/Local                | T.P.Neutral                    |                              |                                        |
| <b>organicClaimAgencyName</b>              | <b>Global/Local</b>         | <b>T.P.Neutral</b>             |                              |                                        |
| organicClaimAgencyTypeCode                 | Global/Local                | T.P.Neutral                    |                              |                                        |
| organicPercentClaim                        | Global/Local                | T.P.Neutral                    |                              |                                        |
| organicProductPlaceOfFarmingCode           | Global/Local                | T.P.Neutral                    |                              |                                        |
| organicTradeItemCode                       | Global/Local                | T.P.Neutral                    |                              |                                        |
| orientationPreferenceSequence              | Global                      | T.P.Neutral                    |                              |                                        |
| orientationTypeCode                        | Global                      | T.P.Neutral                    |                              |                                        |
| originalLanguageCode                       | Global/Local                | T.P.Neutral                    |                              |                                        |
| packagedProductWastagePercent              | Global/Local                | T.P.Neutral                    |                              |                                        |
| packagedUnpackagedShelfLifeRatio           | Global/Local                | T.P.Neutral                    |                              |                                        |
| packagingChainOfCustodyEventSequenceNumber | Global/Local                | T.P.Neutral                    |                              |                                        |
| packagingChainOfCustodySourceCertifiedCode | Global/Local                | T.P.Neutral                    |                              |                                        |
| packagingComponentDescription              | Global/Local                | T.P.Neutral                    | No                           | Yes                                    |
| packagingCompositeMaterialDescription      | Global/Local                | T.P.Neutral                    | No                           | Yes                                    |
| packagingConstituent                       | Global/Local                | T.P.Neutral                    | No                           | Yes                                    |
| packagingCubeUtilisationRatio              | Global/Local                | T.P.Neutral                    |                              |                                        |
| packagingDepth                             | Global/Local                | T.P.Neutral                    | No                           | No                                     |
| packagingFeatureCode                       | Global/Local                | T.P.Neutral                    |                              |                                        |
| packagingFunctionCode                      | Global/Local                | T.P.Neutral                    |                              |                                        |
| packagingGeneratedMaterialWaste            | Global/Local                | T.P.Neutral                    | No                           | No                                     |
| packagingHeight                            | Global/Local                | T.P.Neutral                    | No                           | No                                     |
| packagingLevel                             | Global/Local                | T.P.Neutral                    |                              |                                        |
| packagingLevelTypeCode                     | Global/Local                | T.P.Neutral                    |                              |                                        |
| packagingMarkedDietAllergenCode            | Local                       | T.P.Neutral                    |                              |                                        |
| packagingMarkedFreeFromCode                | Local                       | T.P.Neutral                    |                              |                                        |
| packagingMarkedLabelAccreditationCode      | Global/Local                | T.P.Neutral                    |                              |                                        |
| packagingMarkedLanguageCode                | Global/Local                | T.P.Neutral                    |                              |                                        |
| packagingMarkedNutritionLabelCode          | Global/Local                | T.P.Neutral                    |                              |                                        |
| packagingMarkedRecyclableScheme            | Local                       | T.P.Neutral                    |                              |                                        |

| Attribute Name                               | Target Market Applicability | Trading Partner Neutral status | Multiple Values (Grey = N/A) | Multi Language/ Measurement / Currency |
|----------------------------------------------|-----------------------------|--------------------------------|------------------------------|----------------------------------------|
| packagingMaterialAppliedProcessCode          | Global/Local                | T.P.Neutral                    |                              |                                        |
| packagingMaterialClassificationCodeReference | Global/Local                | T.P.Neutral                    |                              |                                        |
| packagingMaterialCoatingTypeDescription      | Global/Local                | T.P.Neutral                    | Yes                          | Yes                                    |
| packagingMaterialColourCodeReference         | Global/Local                | T.P.Neutral                    |                              |                                        |
| packagingMaterialCompositionQuantity         | Global/Local                | T.P.Neutral                    | No                           | Yes                                    |
| packagingMaterialDescription                 | Global/Local                | T.P.Neutral                    | No                           | Yes                                    |
| packagingMaterialLaunchDateTime              | Global/Local                | T.P.Neutral                    |                              |                                        |
| packagingMaterialPerformanceCode             | Global/Local                | T.P.Neutral                    |                              |                                        |
| packagingMaterialThickness                   | Global/Local                | T.P.Neutral                    | No                           | No                                     |
| packagingMaterialTypeCode                    | Global/Local                | T.P.Neutral                    |                              |                                        |
| packagingOwnerIdentification                 | Global/Local                | T.P.Neutral                    |                              |                                        |
| packagingOwnerName                           | Global/Local                | T.P.Neutral                    |                              |                                        |
| packagingRecoveryRate                        | Global/Local                | T.P.Neutral                    |                              |                                        |
| packagingRecoveryRateDescription             | Global/Local                | T.P.Neutral                    | No                           | Yes                                    |
| packagingRecoveryRateTypeCode                | Global/Local                | T.P.Neutral                    |                              |                                        |
| packagingRecycledContentDescription          | Global/Local                | T.P.Neutral                    | No                           | Yes                                    |
| packagingRecycledContentRatio                | Global/Local                | T.P.Neutral                    |                              |                                        |
| packagingRecycledContentTypeCode             | Global/Local                | T.P.Neutral                    |                              |                                        |
| packagingRecyclingProcessTypeCode            | Global/Local                | T.P.Neutral                    |                              |                                        |
| packagingRecyclingSchemeCode                 | Global/Local                | T.P.Neutral                    |                              |                                        |
| packagingRefundObligationName                | Global/Local                | T.P.Neutral                    |                              |                                        |
| packagingRefuseObligationName                | Global/Local                | T.P.Neutral                    |                              |                                        |
| packagingRenewableContentDescription         | Global/Local                | T.P.Neutral                    | No                           | Yes                                    |
| packagingRenewableContentRatio               | Global/Local                | T.P.Neutral                    |                              |                                        |
| packagingRenewableContentTypeCode            | Global/Local                | T.P.Neutral                    |                              |                                        |
| packagingReusabilityStandardCode             | Global/Local                | T.P.Neutral                    |                              |                                        |
| packagingReusabilityStandardDescription      | Global/Local                | T.P.Neutral                    | No                           | Yes                                    |
| packagingReuseRate                           | Global/Local                | T.P.Neutral                    |                              |                                        |
| packagingShapeCode                           | Global/Local                | T.P.Neutral                    |                              |                                        |
| packagingSustainabilityFeatureCode           | Global/Local                | T.P.Neutral                    |                              |                                        |
| packagingSustainabilityStatement             | Global/Local                | T.P.Neutral                    | Yes                          | Yes                                    |
| packagingTermsAndConditionsCode              | Global                      | T.P.Neutral                    |                              |                                        |
| packagingToTradeItemWeightRatio              | Global/Local                | T.P.Neutral                    |                              |                                        |
| packagingTypeCode                            | Global                      | T.P.Neutral                    |                              |                                        |
| packagingTypeDescription                     | Global                      | T.P.Neutral                    | No                           | Yes                                    |
| packagingWeight                              | Global/Local                | T.P.Neutral                    | No                           | No                                     |
| packagingWeightPerConsumerUse                | Global/Local                | T.P.Neutral                    | No                           | Yes                                    |
| packagingWeightReduction                     | Global/Local                | T.P.Neutral                    | No                           | No                                     |
| packagingWeightReductionProtocolName         | Global/Local                | T.P.Neutral                    | No                           | Yes                                    |
| packagingWidth                               | Global/Local                | T.P.Neutral                    | No                           | No                                     |
| partyRole                                    | Global/Local                | T.P.Neutral                    |                              |                                        |
| paymentDueBasisTypeCode                      | Global/Local                | T.P.Neutral & T.P.Dependent    |                              |                                        |
| paymentMethodCode                            | Global/Local                | T.P.Neutral & T.P.Dependent    |                              |                                        |
| paymentTermsTypeCode                         | Global/Local                | T.P.Neutral & T.P.Dependent    |                              |                                        |
| payPerViewWindow                             | Global/Local                | T.P.Neutral                    |                              |                                        |
| pegHoleNumber                                | Global/Local                | T.P.Neutral                    |                              |                                        |
| pegHoleTypeCode                              | Global/Local                | T.P.Neutral                    |                              |                                        |



| Attribute Name                                          | Target Market Applicability | Trading Partner Neutral status | Multiple Values (Grey = N/A) | Multi Language/ Measurement / Currency |
|---------------------------------------------------------|-----------------------------|--------------------------------|------------------------------|----------------------------------------|
| pegHorizontal                                           | Global/Local                | T.P.Neutral                    | No                           | No                                     |
| pegVertical                                             | Global/Local                | T.P.Neutral                    | No                           | No                                     |
| percentageOfAlcoholByVolume                             | Global/Local                | T.P.Neutral                    |                              |                                        |
| permitEndDateTime                                       | Global/Local                | T.P.Neutral                    |                              |                                        |
| permitStartDateTime                                     | Global/Local                | T.P.Neutral                    |                              |                                        |
| personName                                              | Global/Local                | T.P.Neutral                    |                              |                                        |
| personNameInverted                                      | Global/Local                | T.P.Neutral                    |                              |                                        |
| physicalFormDescription                                 | Global                      | T.P.Neutral                    | No                           | Yes                                    |
| physicalResourceTypeCode                                | Global/Local                | T.P.Neutral                    |                              |                                        |
| physicalResourceUsage                                   | Global/Local                | T.P.Neutral                    | No                           | No                                     |
| physicalResourceUsageAgencyCodeReference                | Global/Local                | T.P.Neutral                    |                              |                                        |
| physicalResourceUsageClassificationCodeReference        | Global/Local                | T.P.Neutral                    |                              |                                        |
| physicalResourceUsageMeasurementBasis                   | Global/Local                | T.P.Neutral                    | No                           | No                                     |
| physicalResourceUsageMeasurementTypeCode                | Global/Local                | T.P.Neutral                    |                              |                                        |
| physicalResourceUsageSubclassificationCodeReference     | Global/Local                | T.P.Neutral                    |                              |                                        |
| physicalStateCode                                       | Global/Local                | T.P.Neutral                    |                              |                                        |
| physiochemicalCharacteristicCode                        | Global/Local                | T.P.Neutral                    |                              |                                        |
| physiochemicalCharacteristicReferenceValue              | Global/Local                | T.P.Neutral                    | No                           | Yes                                    |
| physiochemicalCharacteristicReferenceValueBasis         | Global/Local                | T.P.Neutral                    | No                           | Yes                                    |
| physiochemicalCharacteristicReferenceValuePrecisionCode | Global/Local                | T.P.Neutral                    |                              |                                        |
| physiochemicalCharacteristicValue                       | Global/Local                | T.P.Neutral                    | No                           | Yes                                    |
| physiochemicalCharacteristicValueBasis                  | Global/Local                | T.P.Neutral                    | No                           | Yes                                    |
| physiochemicalCharacteristicValuePrecisionCode          | Global/Local                | T.P.Neutral                    |                              |                                        |
| physiochemicalCharacteristicWarningValue                | Global/Local                | T.P.Neutral                    | No                           | Yes                                    |
| physiochemicalCharacteristicWarningValueBasis           | Global/Local                | T.P.Neutral                    | No                           | Yes                                    |
| physiochemicalCharacteristicWarningValuePrecisionCode   | Global/Local                | T.P.Neutral                    |                              |                                        |
| pipeScheduleIdentification                              | Global/Local                | T.P.Neutral                    |                              |                                        |
| placementOfDivider                                      | Global/Local                | T.P.Neutral                    |                              |                                        |
| platformTermsAndConditionsCode                          | Global/Local                | T.P.Neutral                    |                              |                                        |
| platformTypeCode                                        | Global/Local                | T.P.Neutral                    |                              |                                        |
| plumbingControlTypeCode                                 | Global/Local                | T.P.Neutral                    |                              |                                        |
| plumbingHVACConnectionAgencyCode                        | Global/Local                | T.P.Neutral                    |                              |                                        |
| plumbingHVACConnectionCode                              | Global/Local                | T.P.Neutral                    |                              |                                        |
| plumbingHVACConnectionTypeCode                          | Global/Local                | T.P.Neutral                    |                              |                                        |
| postConsumerRecycledContentPercentage                   | Global/Local                | T.P.Neutral                    |                              |                                        |
| postHarvestTreatmentCode                                | Global/Local                | T.P.Neutral                    |                              |                                        |
| postProcessTradeItemTreatmentPhysicalCode               | Global/Local                | T.P.Neutral                    |                              |                                        |
| postalCode                                              | Global/Local                | T.P.Neutral & T.P.Dependent    |                              |                                        |
| powerSupplyTypeCode                                     | Global/Local                | T.P.Neutral                    |                              |                                        |
| precautionaryStatementsCode                             | Global/Local                | T.P.Neutral                    |                              |                                        |
| precautionaryStatementsDescription                      | Global/Local                | T.P.Neutral                    | No                           | Yes                                    |
| prefixToKey                                             | Global/Local                | T.P.Neutral                    |                              |                                        |
| preliminaryItemStatusCode                               | Global/Local                | T.P.Neutral                    |                              |                                        |
| preparationConsumptionPrecautions                       | Global/Local                | T.P.Neutral                    | No                           | Yes                                    |



| Attribute Name                                     | Target Market Applicability | Trading Partner Neutral status | Multiple Values (Grey = N/A) | Multi Language/ Measurement / Currency |
|----------------------------------------------------|-----------------------------|--------------------------------|------------------------------|----------------------------------------|
| preparationInstructions                            | Global/Local                | T.P.Neutral                    | No                           | Yes                                    |
| preparationStateCode                               | Global/Local                | T.P.Neutral                    |                              |                                        |
| prescriptionTypeCode                               | Global/Local                | T.P.Neutral                    |                              |                                        |
| preservationTechniqueCode                          | Global/Local                | T.P.Neutral                    |                              |                                        |
| previousPackagingWeight                            | Global/Local                | T.P.Neutral                    | No                           | No                                     |
| priceBasisQuantity                                 | Global/Local                | T.P.Neutral                    | No                           | No                                     |
| priceByMeasureTypeCode                             | Global/Local                | T.P.Neutral & T.P.Dependent    |                              |                                        |
| priceComparisonContentTypeCode                     | Global/Local                | T.P.Neutral                    |                              |                                        |
| priceComparisonMeasurement                         | Global/Local                | T.P.Neutral                    | No                           | Yes                                    |
| priceEffectiveEndDate                              | Global/Local                | T.P.Neutral                    |                              |                                        |
| priceEffectiveStartDate                            | Global/Local                | T.P.Neutral                    |                              |                                        |
| productActivityRegionDescription                   | Global/Local                | T.P.Neutral                    | Yes                          | Yes                                    |
| productActivityRegionZoneCodeReference             | Global/Local                | T.P.Neutral                    |                              |                                        |
| productActivityTypeCode                            | Global/Local                | T.P.Neutral                    |                              |                                        |
| productCharacteristicCode                          | Global/Local                | T.P.Neutral                    |                              |                                        |
| productCharacteristicValueAmount                   | Global/Local                | T.P.Neutral                    | No                           | Yes                                    |
| productCharacteristicValueCode                     | Global/Local                | T.P.Neutral                    |                              |                                        |
| productCharacteristicValueDateTime                 | Global/Local                | T.P.Neutral                    |                              |                                        |
| productCharacteristicValueDescription              | Global/Local                | T.P.Neutral                    | No                           | Yes                                    |
| productCharacteristicValueInteger                  | Global/Local                | T.P.Neutral                    |                              |                                        |
| productCharacteristicValueMeasurement              | Global/Local                | T.P.Neutral                    | No                           | Yes                                    |
| productCharacteristicValueNumeric                  | Global/Local                | T.P.Neutral                    |                              |                                        |
| productCharacteristicValueString                   | Global/Local                | T.P.Neutral                    |                              |                                        |
| productFormulationStatementDescription             | Global/Local                | T.P.Neutral                    | Yes                          | Yes                                    |
| productFormulationStatementRegulatoryBodyCode      | Global/Local                | T.P.Neutral                    |                              |                                        |
| productInformationLegalDisclaimer                  | Global/Local                | T.P.Neutral                    | No                           | Yes                                    |
| productionMethodForFishAndSeafoodCode              | Global/Local                | T.P.Neutral                    |                              |                                        |
| productionVariantCancelledDateTime                 | Global/Local                | T.P.Neutral & T.P.Dependent    |                              |                                        |
| productionVariantDescription                       | Global/Local                | T.P.Neutral & T.P.Dependent    | No                           | Yes                                    |
| productionVariantDiscontinuedDateTime              | Global/Local                | T.P.Neutral & T.P.Dependent    |                              |                                        |
| productionVariantEffectiveDateTime                 | Global/Local                | T.P.Neutral & T.P.Dependent    |                              |                                        |
| productRange                                       | Global                      | T.P.Neutral                    |                              |                                        |
| productUsageBodyLocationCode                       | Global/Local                | T.P.Neutral & T.P.Dependent    |                              |                                        |
| productYield                                       | Global/Local                | T.P.Neutral                    | No                           | No                                     |
| productYieldTypeCode                               | Global/Local                | T.P.Neutral                    |                              |                                        |
| productYieldVariationPercentage                    | Global/Local                | T.P.Neutral                    |                              |                                        |
| professionalAffiliation                            | Global/Local                | T.P.Neutral                    |                              |                                        |
| prohibitedForTransportationReason                  | Global/Local                | T.P.Neutral                    | Yes                          | Yes                                    |
| promotionTypeCode                                  | Global/Local                | T.P.Neutral                    |                              |                                        |
| proofOfOptimizedPackagingWeightStandardCode        | Global/Local                | T.P.Neutral                    |                              |                                        |
| proofOfOptimizedPackagingWeightStandardDescription | Global/Local                | T.P.Neutral                    | No                           | Yes                                    |
| proofOfPackagingWeightReductionDescription         | Global/Local                | T.P.Neutral                    | No                           | Yes                                    |
| propertyAmount                                     | Global/Local                | T.P.Neutral                    | No                           | No                                     |
| propertyCode                                       | Global/Local                | T.P.Neutral                    |                              |                                        |
| propertyDateTime                                   | Global/Local                | T.P.Neutral                    |                              |                                        |

| Attribute Name                                | Target Market Applicability | Trading Partner Neutral status | Multiple Values (Grey = N/A) | Multi Language/ Measurement / Currency |
|-----------------------------------------------|-----------------------------|--------------------------------|------------------------------|----------------------------------------|
| propertyDescription                           | Global/Local                | T.P.Neutral                    | No                           | Yes                                    |
| propertyFloat                                 | Global/Local                | T.P.Neutral                    |                              |                                        |
| propertyInteger                               | Global/Local                | T.P.Neutral                    |                              |                                        |
| propertyMeasurement                           | Global/Local                | T.P.Neutral                    | No                           | Yes                                    |
| propertyString                                | Global/Local                | T.P.Neutral                    |                              |                                        |
| protectiveEquipment                           | Global/Local                | T.P.Neutral                    | No                           | Yes                                    |
| protectiveEquipmentAdditionalDescription      | Global/Local                | T.P.Neutral                    | No                           | Yes                                    |
| protectiveEquipmentBodyAreaCode               | Global/Local                | T.P.Neutral                    |                              |                                        |
| protectiveEquipmentStatusCode                 | Global/Local                | T.P.Neutral                    |                              |                                        |
| provinceStateCode                             | Global/Local                | T.P.Neutral & T.P.Dependent    |                              |                                        |
| provenanceStatement                           | Global/Local                | T.P.Neutral                    | Yes                          | Yes                                    |
| proximoCutOffDay                              | Global/Local                | T.P.Neutral & T.P.Dependent    |                              |                                        |
| psychotropicSubstance                         | Global/Local                | T.P.Neutral                    |                              |                                        |
| publicationDateTime                           | Global/Local                | T.P.Neutral & T.P.Dependent    |                              |                                        |
| publicationDateTypeCode                       | Global/Local                | T.P.Neutral                    |                              |                                        |
| publicationDescriptionTypeCode                | Global/Local                | T.P.Neutral                    |                              |                                        |
| publicationLocation                           | Global/Local                | T.P.Neutral & T.P.Dependent    |                              |                                        |
| publisherName                                 | Global/Local                | T.P.Neutral                    |                              |                                        |
| publishingRoleCode                            | Global/Local                | T.P.Neutral                    |                              |                                        |
| publishingStatusCode                          | Global/Local                | T.P.Neutral                    |                              |                                        |
| quantityContained                             | Global/Local                | T.P.Neutral                    | No                           | Yes                                    |
| quantityOfBatteriesBuiltIn                    | Global/Local                | T.P.Neutral                    |                              |                                        |
| quantityOfBatteriesRequired                   | Global/Local                | T.P.Neutral                    |                              |                                        |
| quantityOfChildren                            | Global                      | T.P.Neutral                    |                              |                                        |
| quantityOfCompleteLayersContainedInATradeItem | Global                      | T.P.Neutral                    |                              |                                        |
| quantityOfFunctionalBasisUnit                 | Global/Local                | T.P.Neutral                    | No                           | No                                     |
| quantityOfInnerPack                           | Global                      | T.P.Neutral                    |                              |                                        |
| quantityOfLayersPerPallet                     | Global/Local                | T.P.Neutral & T.P.Dependent    |                              |                                        |
| quantityOfNextLevelTradeItemWithinInnerPack   | Global                      | T.P.Neutral                    |                              |                                        |
| quantityOfNextLowerLevelTradeItem             | Global                      | T.P.Neutral                    |                              |                                        |
| quantityOfTradeItemsContainedInACompleteLayer | Global                      | T.P.Neutral                    |                              |                                        |
| quantityOfTradeItemsPerPallet                 | Global/Local                | T.P.Neutral & T.P.Dependent    |                              |                                        |
| quantityOfTradeItemsPerPalletLayer            | Global/Local                | T.P.Neutral & T.P.Dependent    |                              |                                        |
| rankBelowSpecies                              | Global                      | T.P.Neutral                    |                              |                                        |
| ratingContentDescriptorCode                   | Global/Local                | T.P.Neutral                    |                              |                                        |
| rawMaterialIrradiatedCode                     | Global/Local                | T.P.Neutral                    |                              |                                        |
| rawMaterialUsedInPreparationWeight            | Global/Local                | T.P.Neutral                    | No                           | No                                     |
| rEACHChemicalProductUseDescriptorCode         | Local                       | T.P.Neutral                    |                              |                                        |
| reachChemicalRegistrationNumber               | Local                       | T.P.Neutral                    |                              |                                        |
| rEACHEnvironmentReleaseUseCategoryCode        | Local                       | T.P.Neutral                    |                              |                                        |
| rEACHProcessUseDescriptorCode                 | Local                       | T.P.Neutral                    |                              |                                        |
| rEACHSectorUseDescriptorCode                  | Local                       | T.P.Neutral                    |                              |                                        |
| recipe                                        | Global/Local                | T.P.Neutral                    | Yes                          | Yes                                    |
| recommendedConsumerPickupAreaCode             | Global/Local                | T.P.Neutral                    |                              |                                        |

| Attribute Name                                    | Target Market Applicability | Trading Partner Neutral status | Multiple Values (Grey = N/A) | Multi Language/ Measurement / Currency |
|---------------------------------------------------|-----------------------------|--------------------------------|------------------------------|----------------------------------------|
| recommendedFrequencyOfFeeding                     | Global/Local                | T.P.Neutral                    | No                           | Yes                                    |
| recommendedUsageLocation                          | Global/Local                | T.P.Neutral                    | No                           | Yes                                    |
| referencedFileTypeCode                            | Global/Local                | T.P.Neutral                    |                              |                                        |
| referencedTradeItemTypeCode                       | Global/Local                | T.P.Neutral & T.P.Dependent    |                              |                                        |
| registrationAgency                                | Global/Local                | T.P.Neutral                    |                              |                                        |
| registrationEndDateTime                           | Global/Local                | T.P.Neutral                    |                              |                                        |
| registrationNumber                                | Global/Local                | T.P.Neutral                    |                              |                                        |
| regulatedChemicalDescription                      | Global/Local                | T.P.Neutral                    | No                           | Yes                                    |
| regulatedChemicalIdentifierCodeReference          | Global/Local                | T.P.Neutral                    |                              |                                        |
| regulatedChemicalName                             | Global/Local                | T.P.Neutral                    |                              |                                        |
| regulatedChemicalSunsetDateTime                   | Global/Local                | T.P.Neutral                    |                              |                                        |
| regulatedProductName                              | Global/Local                | T.P.Neutral                    | Yes                          | Yes                                    |
| regulationCommunityLevelCode                      | Global/Local                | T.P.Neutral                    |                              |                                        |
| regulationRestrictionCommunityIdentifier          | Global/Local                | T.P.Neutral                    |                              |                                        |
| regulationRestrictionsAndDescriptors              | Global/Local                | T.P.Neutral                    | Yes                          | Yes                                    |
| regulationTypeCode                                | Global/Local                | T.P.Neutral                    |                              |                                        |
| regulatoryAct                                     | Global/Local                | T.P.Neutral                    |                              |                                        |
| regulatoryActComplianceLevelCode                  | Global/Local                | T.P.Neutral                    |                              |                                        |
| regulatoryAgency                                  | Global/Local                | T.P.Neutral                    |                              |                                        |
| regulatoryPermitIdentification                    | Global/Local                | T.P.Neutral                    |                              |                                        |
| relevantSupportingSubstanceHazardousDocumentation | Global/Local                | T.P.Neutral                    | No                           | Yes                                    |
| remoteControlTypeCode                             | Global/Local                | T.P.Neutral                    |                              |                                        |
| renewablePlantBasedPlasticComponentsPercent       | Global                      | T.P.Neutral                    |                              |                                        |
| rennetTypeCode                                    | Global/Local                | T.P.Neutral                    |                              |                                        |
| reportableQuantityTechnicalName                   | Global/Local                | T.P.Neutral                    |                              |                                        |
| requiredHardwarePerformance                       | Global/Local                | T.P.Neutral                    | No                           | No                                     |
| requiredStorageCapacity                           | Global/Local                | T.P.Neutral                    | No                           | No                                     |
| requiredSystemMemoryCapacity                      | Global/Local                | T.P.Neutral                    | No                           | No                                     |
| requiredVideoMemoryCapacity                       | Global/Local                | T.P.Neutral                    | No                           | No                                     |
| resolutionTypeCode                                | Global/Local                | T.P.Neutral                    |                              |                                        |
| restOfWorldSalesRightsType                        | Global/Local                | T.P.Neutral                    |                              |                                        |
| restrictionDescription                            | Global/Local                | T.P.Neutral                    | No                           | Yes                                    |
| returnableAssetCapacityContent                    | Global/Local                | T.P.Neutral                    | No                           | Yes                                    |
| returnableAssetOwnerId                            | Global/Local                | T.P.Neutral                    |                              |                                        |
| returnableAssetOwnerName                          | Global/Local                | T.P.Neutral                    |                              |                                        |
| returnableAssetsContainedQuantity                 | Global/Local                | T.P.Neutral                    | No                           | Yes                                    |
| returnablePackageDepositAmount                    | Global/Local                | T.P.Neutral                    | No                           | No                                     |
| returnablePackageDepositIdentification            | Global/Local                | T.P.Neutral                    |                              |                                        |
| returnablePackageDepositRegion                    | Global/Local                | T.P.Neutral                    |                              |                                        |
| returnGoodsPolicyCode                             | Global/Local                | T.P.Neutral & T.P.Dependent    |                              |                                        |
| reuseInstructions                                 | Global/Local                | T.P.Neutral                    | No                           | No                                     |
| ripeningTimePeriod                                | Global/Local                | T.P.Neutral                    | No                           | No                                     |
| riskPhraseCode                                    | Global/Local                | T.P.Neutral                    |                              |                                        |
| roHSComplianceFailureMaterial                     | Local                       | T.P.Neutral                    |                              |                                        |
| routeOfAdministration                             | Global/Local                | T.P.Neutral                    |                              |                                        |
| routeOfExposureCode                               | Global/Local                | T.P.Neutral                    |                              |                                        |
| runModeCode                                       | Global                      | T.P.Neutral                    |                              |                                        |

| Attribute Name                               | Target Market Applicability | Trading Partner Neutral status | Multiple Values (Grey = N/A) | Multi Language/ Measurement / Currency |
|----------------------------------------------|-----------------------------|--------------------------------|------------------------------|----------------------------------------|
| runTimeMinutes                               | Global/Local                | T.P.Neutral                    |                              |                                        |
| safetyPhraseCode                             | Global/Local                | T.P.Neutral                    |                              |                                        |
| salesConditionTargetMarketCountry            | Global/Local                | T.P.Neutral                    |                              |                                        |
| salesRightsTypeCode                          | Global/Local                | T.P.Neutral                    |                              |                                        |
| salesTerritory                               | Global/Local                | T.P.Neutral                    |                              |                                        |
| screenRefreshRate                            | Global/Local                | T.P.Neutral                    |                              |                                        |
| sDSSheetNumber                               | Global                      | T.P.Neutral                    |                              |                                        |
| sDSStandardCode                              | Global/Local                | T.P.Neutral                    |                              |                                        |
| sDSStandardVersion                           | Global/Local                | T.P.Neutral                    |                              |                                        |
| seasonalAvailabilityEndDateTime              | Local                       | T.P.Neutral                    |                              |                                        |
| seasonalAvailabilityStartDateTime            | Local                       | T.P.Neutral                    |                              |                                        |
| seasonCalendarYear                           | Local                       | T.P.Neutral                    |                              |                                        |
| seasonName                                   | Local                       | T.P.Neutral                    | Yes                          | Yes                                    |
| seasonParameterCode                          | Local                       | T.P.Neutral                    |                              |                                        |
| securityTagLocationCode                      | Local                       | T.P.Neutral                    |                              |                                        |
| securityTagTypeCode                          | Local                       | T.P.Neutral                    |                              |                                        |
| selfTimerDelay                               | Global/Local                | T.P.Neutral                    | Yes                          | No                                     |
| sellingUnitOfMeasure                         | Global/Local                | T.P.Neutral                    |                              |                                        |
| sequenceNumber                               | Local                       | T.P.Neutral                    |                              |                                        |
| serialNumberLocationCode                     | Global                      | T.P.Neutral                    |                              |                                        |
| servingSize                                  | Global/Local                | T.P.Neutral                    | No                           | Yes                                    |
| servingSizeDescription                       | Global/Local                | T.P.Neutral                    | No                           | Yes                                    |
| servingsPerPackageDescription                | Global/Local                | T.P.Neutral                    | No                           | Yes                                    |
| servingSuggestion                            | Global/Local                | T.P.Neutral                    | No                           | Yes                                    |
| shearStrength                                | Global/Local                | T.P.Neutral                    | No                           | Yes                                    |
| sheetName                                    | Global/Local                | T.P.Neutral                    |                              |                                        |
| shippingContainerQuantity                    | Global/Local                | T.P.Neutral & T.P.Dependent    | No                           | Yes                                    |
| shippingContainerQuantityDescription         | Global/Local                | T.P.Neutral                    | Yes                          | Yes                                    |
| shippingContainerTypeCode                    | Global/Local                | T.P.Neutral                    |                              |                                        |
| shippingQuantityMinimum                      | Global/Local                | T.P.Neutral & T.P.Dependent    |                              |                                        |
| shippingRegulationException                  | Global/Local                | T.P.Neutral                    | No                           | Yes                                    |
| shortSynopsis                                | Global/Local                | T.P.Neutral                    | No                           | Yes                                    |
| shortTradeItemMarketingMessage               | Global/Local                | T.P.Neutral & T.P.Dependent    | Yes                          | Yes                                    |
| signalProcessingTypeCode                     | Global/Local                | T.P.Neutral                    |                              |                                        |
| sizeCode                                     | Global                      | T.P.Neutral                    |                              |                                        |
| sizeDimension                                | Global                      | T.P.Neutral                    | No                           | No                                     |
| sizeGroupCode                                | Global                      | T.P.Neutral                    |                              |                                        |
| sizeSystemCode                               | Global                      | T.P.Neutral                    |                              |                                        |
| sizeTermDescription                          | Global/Local                | T.P.Neutral                    | No                           | Yes                                    |
| sizeTypeCode                                 | Global                      | T.P.Neutral                    |                              |                                        |
| sleeveType                                   | Global/Local                | T.P.Neutral                    | No                           | Yes                                    |
| softwareCategoryTypeDescription              | Global/Local                | T.P.Neutral                    | Yes                          | Yes                                    |
| sourceAnimalCode                             | Global/Local                | T.P.Neutral                    |                              |                                        |
| sourceCertificationSystemProtocolCode        | Global/Local                | T.P.Neutral                    |                              |                                        |
| sourceCertificationSystemProtocolDescription | Global/Local                | T.P.Neutral                    | No                           | Yes                                    |
| sourceName                                   | Global/Local                | T.P.Neutral                    |                              |                                        |
| sparePartsAvailabilityEffectiveDateTypeCode  | Global/Local                | T.P.Neutral & T.P.Dependent    |                              |                                        |

| Attribute Name                               | Target Market Applicability | Trading Partner Neutral status | Multiple Values (Grey = N/A) | Multi Language/ Measurement / Currency |
|----------------------------------------------|-----------------------------|--------------------------------|------------------------------|----------------------------------------|
| sparePartsAvailabilityPeriod                 | Global/Local                | T.P.Neutral & T.P.Dependent    |                              |                                        |
| specialFeatures                              | Global/Local                | T.P.Neutral                    | Yes                          | Yes                                    |
| specialItemCode                              | Global/Local                | T.P.Neutral                    |                              |                                        |
| specialPermitOrExemptionIdentification       | Global/Local                | T.P.Neutral                    |                              |                                        |
| specialRequirementsDescription               | Global/Local                | T.P.Neutral                    | No                           | Yes                                    |
| species                                      | Global                      | T.P.Neutral                    |                              |                                        |
| speciesForFisheryStatisticsPurposesCode      | Global/Local                | T.P.Neutral                    |                              |                                        |
| speciesForFisheryStatisticsPurposesName      | Global/Local                | T.P.Neutral                    |                              |                                        |
| specificGravity                              | Global                      | T.P.Neutral                    |                              |                                        |
| specificGravityLowerValue                    | Global                      | T.P.Neutral                    |                              |                                        |
| specificGravityMeasurementPrecision          | Global                      | T.P.Neutral                    |                              |                                        |
| specificGravityReferenceMaterialCode         | Global                      | T.P.Neutral                    |                              |                                        |
| specificGravityUpperValue                    | Global                      | T.P.Neutral                    |                              |                                        |
| stackingFactor                               | Global                      | T.P.Neutral                    |                              |                                        |
| stackingFactorTypeCode                       | Global                      | T.P.Neutral                    |                              |                                        |
| stackingPatternTypeCode                      | Global/Local                | T.P.Neutral & T.P.Dependent    |                              |                                        |
| stackingWeightMaximum                        | Global/Local                | T.P.Neutral                    | No                           | No                                     |
| standardTypeHangerAgencyCode                 | Global/Local                | T.P.Neutral                    |                              |                                        |
| startAvailabilityDateTime                    | Global/Local                | T.P.Neutral & T.P.Dependent    |                              |                                        |
| startDateMaximumBuyingQuantity               | Global/Local                | T.P.Neutral & T.P.Dependent    |                              |                                        |
| startDateMinimumBuyingQuantity               | Global/Local                | T.P.Neutral & T.P.Dependent    |                              |                                        |
| startDateTimeOfExclusivity                   | Global/Local                | T.P.Neutral & T.P.Dependent    |                              |                                        |
| staticContrastRatio                          | Global/Local                | T.P.Neutral                    |                              |                                        |
| statisticalReportingMeasurement              | Global/Local                | T.P.Neutral                    | No                           | No                                     |
| streetAddress                                | Global/Local                | T.P.Neutral & T.P.Dependent    |                              |                                        |
| storageCompatibilityAgency                   | Global/Local                | T.P.Neutral                    |                              |                                        |
| storageCompatibilityCode                     | Global/Local                | T.P.Neutral                    |                              |                                        |
| storageCompatibilityDescription              | Global/Local                | T.P.Neutral                    | No                           | Yes                                    |
| storageRequirementsDescription               | Global/Local                | T.P.Neutral                    | No                           | Yes                                    |
| storageStateCode                             | Global/Local                | T.P.Neutral                    |                              |                                        |
| studioName                                   | Global/Local                | T.P.Neutral                    |                              |                                        |
| styleDescription                             | Global/Local                | T.P.Neutral                    | No                           | Yes                                    |
| subBrand                                     | Global                      | T.P.Neutral                    |                              |                                        |
| subjectCode                                  | Global/Local                | T.P.Neutral                    |                              |                                        |
| subjectHeadingText                           | Global/Local                | T.P.Neutral                    |                              |                                        |
| subjectSchemeIdentifierCode                  | Global/Local                | T.P.Neutral                    |                              |                                        |
| subjectSchemeName                            | Global/Local                | T.P.Neutral                    |                              |                                        |
| subjectSchemeVersion                         | Global/Local                | T.P.Neutral                    |                              |                                        |
| subTitle                                     | Global/Local                | T.P.Neutral                    |                              |                                        |
| subtitledLanguageCode                        | Global/Local                | T.P.Neutral                    |                              |                                        |
| suffixToKey                                  | Global/Local                | T.P.Neutral                    |                              |                                        |
| suggestedConsumerPack                        | Global/Local                | T.P.Neutral                    |                              |                                        |
| suggestedRetailPrice                         | Global/Local                | T.P.Neutral                    | No                           | No                                     |
| sunProtectionFactor                          | Global/Local                | T.P.Neutral                    |                              |                                        |
| supplierSpecifiedMinimumConsumerStorage Days | Global/Local                | T.P.Neutral                    |                              |                                        |

| Attribute Name                                   | Target Market Applicability | Trading Partner Neutral status | Multiple Values (Grey = N/A) | Multi Language/ Measurement / Currency |
|--------------------------------------------------|-----------------------------|--------------------------------|------------------------------|----------------------------------------|
| supportedHDMIFeatureCode                         | Global/Local                | T.P.Neutral                    |                              |                                        |
| surfaceOfCheeseAtEndOfRipeningCode               | Global/Local                | T.P.Neutral                    |                              |                                        |
| surroundSoundDigitalDecoderTypeCode              | Global/Local                | T.P.Neutral                    |                              |                                        |
| systemRequirementsQualifierCode                  | Global/Local                | T.P.Neutral                    |                              |                                        |
| targetAudience                                   | Global/Local                | T.P.Neutral                    | No                           | Yes                                    |
| targetConsumerAge                                | Local                       | T.P.Neutral                    | No                           | Yes                                    |
| targetConsumerAgeGroup                           | Global/Local                | T.P.Neutral                    | Yes                          | Yes                                    |
| targetConsumerAgeGroupCode                       | Global/Local                | T.P.Neutral                    |                              |                                        |
| targetConsumerGender                             | Local                       | T.P.Neutral                    |                              |                                        |
| targetedConsumptionBy                            | Global/Local                | T.P.Neutral                    |                              |                                        |
| targetMarketCountryCode                          | Global                      | T.P.Neutral                    |                              |                                        |
| targetMarketSubdivisionCode                      | Global                      | T.P.Neutral                    |                              |                                        |
| targetMarketConsumerSalesConditionCode           | Global/Local                | T.P.Neutral                    |                              |                                        |
| targetOccasionOrTheme                            | Global/Local                | T.P.Neutral                    | Yes                          | Yes                                    |
| tastingNotes                                     | Global/Local                | T.P.Neutral                    | No                           | Yes                                    |
| technicalChemicalName                            | Global/Local                | T.P.Neutral                    |                              |                                        |
| televisionInformationServiceTypeCode             | Global/Local                | T.P.Neutral                    |                              |                                        |
| televisionTextMemoryPageQuantity                 | Global/Local                | T.P.Neutral                    |                              |                                        |
| temperatureTypeQualifierCode                     | Global/Local                | T.P.Neutral                    |                              |                                        |
| tensileStrength                                  | Global/Local                | T.P.Neutral                    | No                           | Yes                                    |
| testCriteriaDescription                          | Global/Local                | T.P.Neutral                    | No                           | Yes                                    |
| testSpeciesCode                                  | Global/Local                | T.P.Neutral                    |                              |                                        |
| testSpeciesDescription                           | Global/Local                | T.P.Neutral                    | No                           | Yes                                    |
| textAuthor                                       | Global/Local                | T.P.Neutral                    |                              |                                        |
| threadTypeCode                                   | Global/Local                | T.P.Neutral                    |                              |                                        |
| titleElementLevel                                | Global/Local                | T.P.Neutral                    |                              |                                        |
| titlePrefixType                                  | Global/Local                | T.P.Neutral                    |                              |                                        |
| titleRatingCodeReference                         | Global/Local                | T.P.Neutral                    |                              |                                        |
| titlesAfterNames                                 | Global/Local                | T.P.Neutral                    |                              |                                        |
| titlesBeforeNames                                | Global/Local                | T.P.Neutral                    |                              |                                        |
| titleText                                        | Global/Local                | T.P.Neutral                    |                              |                                        |
| titleTypeCode                                    | Global/Local                | T.P.Neutral                    |                              |                                        |
| titleWithoutPrefix                               | Global/Local                | T.P.Neutral                    |                              |                                        |
| toLanguage                                       | Global/Local                | T.P.Neutral                    |                              |                                        |
| totalAudioPowerOutput                            | Global/Local                | T.P.Neutral                    | No                           | Yes                                    |
| totalCreditableIngredientTypeAmount              | Global/Local                | T.P.Neutral                    | No                           | Yes                                    |
| totalNumberOfComponents                          | Global/Local                | T.P.Neutral                    |                              |                                        |
| totalPackagingEconomicCostAmount                 | Global/Local                | T.P.Neutral                    | No                           | Yes                                    |
| totalPackagingEconomicCostAmountBasis            | Global/Local                | T.P.Neutral                    | No                           | No                                     |
| totalPackagingEconomicCostMeasurementCode        | Global/Local                | T.P.Neutral                    |                              |                                        |
| totalPackagingEconomicCostMeasurementDescription | Global/Local                | T.P.Neutral                    | No                           | Yes                                    |
| totalPackagingRecoveryRate                       | Global/Local                | T.P.Neutral                    |                              |                                        |
| totalPortionWeightAsPurchased                    | Global/Local                | T.P.Neutral                    | No                           | Yes                                    |
| totalQuantityOfNextLowerLevelTradeItem           | Global                      | T.P.Neutral                    |                              |                                        |
| totalRecyclableContentPercentage                 | Global/Local                | T.P.Neutral                    |                              |                                        |
| totalScreenArea                                  | Global/Local                | T.P.Neutral                    | No                           | Yes                                    |
| totalVegetableSubgroupAmount                     | Global/Local                | T.P.Neutral                    | No                           | Yes                                    |
| toxicityMeasurement                              | Global/Local                | T.P.Neutral                    | No                           | No                                     |

| Attribute Name                            | Target Market Applicability | Trading Partner Neutral status | Multiple Values (Grey = N/A) | Multi Language/ Measurement / Currency |
|-------------------------------------------|-----------------------------|--------------------------------|------------------------------|----------------------------------------|
| toxicityMeasurementProtocolCode           | Global/Local                | T.P.Neutral                    |                              |                                        |
| toxicityMeasurementProtocolDescription    | Global/Local                | T.P.Neutral                    | No                           | Yes                                    |
| toxicityReferenceSubstanceCode            | Global/Local                | T.P.Neutral                    |                              |                                        |
| toxicityReferenceSubstanceDescription     | Global/Local                | T.P.Neutral                    | No                           | Yes                                    |
| toxicologicalInformationDescription       | Global/Local                | T.P.Neutral                    | No                           | Yes                                    |
| trackNumber                               | Global/Local                | T.P.Neutral                    |                              |                                        |
| trackTime                                 | Global/Local                | T.P.Neutral                    |                              |                                        |
| trackTitle                                | Global/Local                | T.P.Neutral                    | No                           | Yes                                    |
| tradeItemCompositionDepth                 | Global                      | T.P.Neutral                    | No                           | No                                     |
| tradeItemCompositionWidth                 | Global                      | T.P.Neutral                    | No                           | No                                     |
| tradeItemConditionCode                    | Global/Local                | T.P.Neutral                    |                              |                                        |
| tradeItemDateOnPackagingFormatName        | Global/Local                | T.P.Neutral                    |                              |                                        |
| tradeItemDateOnPackagingFormatTypeCode    | Global/Local                | T.P.Neutral                    |                              |                                        |
| tradeItemDateOnPackagingLocation          | Global/Local                | T.P.Neutral                    |                              |                                        |
| tradeItemDateOnPackagingTypeCode          | Global/Local                | T.P.Neutral                    |                              |                                        |
| tradeItemDescription                      | Global                      | T.P.Neutral                    | Yes                          | Yes                                    |
| tradeItemExclusiveSellingLocationCode     | Global/Local                | T.P.Neutral & T.P.Dependent    |                              |                                        |
| tradeItemFeatureBenefit                   | Global                      | T.P.Neutral                    | Yes                          | Yes                                    |
| tradeItemFeatureCodeReference             | Global                      | T.P.Neutral                    |                              |                                        |
| tradeItemFinishDescription                | Global                      | T.P.Neutral                    | No                           | Yes                                    |
| tradeItemFormCode                         | Global/Local                | T.P.Neutral                    |                              |                                        |
| tradeItemFormDescription                  | Global                      | T.P.Neutral                    | Yes                          | Yes                                    |
| tradeItemGroupIdentificationCodeReference | Global                      | T.P.Neutral                    |                              |                                        |
| tradeItemIdentificationMarkingTypeCode    | Global/Local                | T.P.Neutral                    |                              |                                        |
| tradeItemIdentificationMarkingValue       | Global/Local                | T.P.Neutral                    |                              |                                        |
| tradeItemIncludedAccessories              | Global/Local                | T.P.Neutral                    | No                           | Yes                                    |
| tradeItemIntroductionYear                 | Global/Local                | T.P.Neutral                    |                              |                                        |
| tradeItemKeyWords                         | Global/Local                | T.P.Neutral                    | Yes                          | Yes                                    |
| tradeItemLicenseCharacter                 | Global/Local                | T.P.Neutral                    | Yes                          | Yes                                    |
| tradeItemLicenseEndDateTime               | Global/Local                | T.P.Neutral                    |                              |                                        |
| tradeItemLicenseOwnerGLN                  | Global/Local                | T.P.Neutral                    |                              |                                        |
| tradeItemLicenseOwnerName                 | Global/Local                | T.P.Neutral                    |                              |                                        |
| tradeItemLicenseRegion                    | Global/Local                | T.P.Neutral                    |                              |                                        |
| tradeItemLicenseStartDateTime             | Global/Local                | T.P.Neutral                    |                              |                                        |
| tradeItemLicenseTitle                     | Global/Local                | T.P.Neutral                    | No                           | Yes                                    |
| tradeItemMarketingMessage                 | Global/Local                | T.P.Neutral                    | Yes                          | Yes                                    |
| tradeItemMarkingsDescription              | Global/Local                | T.P.Neutral                    | Yes                          | Yes                                    |
| tradeItemMaterialDesignationDescription   | Global/Local                | T.P.Neutral                    | No                           | Yes                                    |
| tradeItemOperatingEnvironment             | Global/Local                | T.P.Neutral                    |                              |                                        |
| tradeItemPrice                            | Global/Local                | T.P.Neutral & T.P.Dependent    | No                           | No                                     |
| tradeItemPriceTypeCode                    | Global/Local                | T.P.Neutral & T.P.Dependent    |                              |                                        |
| tradeItemSustainabilityFeatureCode        | Global/Local                | T.P.Neutral                    |                              |                                        |
| tradeItemTechnologyDescription            | Global/Local                | T.P.Neutral                    | Yes                          | Yes                                    |
| tradeItemTemperatureConditionTypeCode     | Global/Local                | T.P.Neutral                    |                              |                                        |
| tradeItemTradeChannelCode                 | Global/Local                | T.P.Neutral & T.P.Dependent    |                              |                                        |
| tradeItemUnitDescriptorCode               | Global                      | T.P.Neutral                    |                              |                                        |
| tradeItemUVRating                         | Global/Local                | T.P.Neutral                    |                              |                                        |



| Attribute Name                                     | Target Market Applicability | Trading Partner Neutral status | Multiple Values (Grey = N/A) | Multi Language/ Measurement / Currency |
|----------------------------------------------------|-----------------------------|--------------------------------|------------------------------|----------------------------------------|
| tradeItemVariantTypeCode                           | Global                      | T.P.Neutral                    |                              |                                        |
| tradeItemVariantValue                              | Global                      | T.P.Neutral                    | No                           | Yes                                    |
| transportationMaximumQuantity                      | Global/Local                | T.P.Neutral                    | No                           | No                                     |
| transportationModeCode                             | Global/Local                | T.P.Neutral                    |                              |                                        |
| transportationModeRegulatoryAgency                 | Global/Local                | T.P.Neutral                    |                              |                                        |
| tunerTypeCode                                      | Global/Local                | T.P.Neutral                    |                              |                                        |
| udidDeviceCount                                    | Global/Local                | T.P.Neutral                    |                              |                                        |
| udidFirstPublicationDateTime                       | Global/Local                | T.P.Neutral & T.P.Dependent    |                              |                                        |
| uniformResourceIdentifier                          | Global/Local                | T.P.Neutral                    |                              |                                        |
| unitedNationsDangerousGoodsNumber                  | Global                      | T.P.Neutral                    |                              |                                        |
| unitsPerTradeItem                                  | Global/Local                | T.P.Neutral                    | No                           | Yes                                    |
| unnamedPersons                                     | Global/Local                | T.P.Neutral                    |                              |                                        |
| upperExplosiveLimit                                | Global                      | T.P.Neutral                    |                              |                                        |
| upperExplosiveLimit                                | Global                      | T.P.Neutral                    |                              |                                        |
| usableProductVolume                                | Global                      | T.P.Neutral                    | No                           | No                                     |
| usageColourDescription                             | Global                      | T.P.Neutral                    | Yes                          | Yes                                    |
| usageDuringBreastFeedingCode                       | Global/Local                | T.P.Neutral & T.P.Dependent    |                              |                                        |
| usageDuringPregnancyCode                           | Global/Local                | T.P.Neutral & T.P.Dependent    |                              |                                        |
| variableTradeItemTypeCode                          | Global/Local                | T.P.Neutral                    |                              |                                        |
| variableWeightAllowableDeviationPercentage         | Global/Local                | T.P.Neutral                    |                              |                                        |
| variableWeightRangeMaximum                         | Global/Local                | T.P.Neutral                    | No                           | No                                     |
| variableWeightRangeMinimum                         | Global/Local                | T.P.Neutral                    | No                           | No                                     |
| variantDescription                                 | Global                      | T.P.Neutral                    | Yes                          | Yes                                    |
| vegetableSubgroupCode                              | Global/Local                | T.P.Neutral                    |                              |                                        |
| velocity                                           | Global/Local                | T.P.Neutral                    | No                           | Yes                                    |
| verticalCameraAngleCode                            | Global/Local                | T.P.Neutral                    |                              |                                        |
| verticalViewingAngle                               | Global/Local                | T.P.Neutral                    |                              |                                        |
| vESAWallMountTypeCode                              | Global/Local                | T.P.Neutral                    |                              |                                        |
| vintage                                            | Global                      | T.P.Neutral                    |                              |                                        |
| vintner                                            | Global                      | T.P.Neutral                    |                              |                                        |
| visibleLight                                       | Global/Local                | T.P.Neutral                    | No                           | Yes                                    |
| visualMediaColourCode                              | Global/Local                | T.P.Neutral                    |                              |                                        |
| volatileOrganicCompound                            | Global                      | T.P.Neutral                    | No                           | No                                     |
| volatileOrganicCompoundBasis                       | Global                      | T.P.Neutral                    | No                           | No                                     |
| volatileOrganicCompoundPercent                     | Global                      | T.P.Neutral                    |                              |                                        |
| volatileOrganicCompoundPercentMeasurementPrecision | Global                      | T.P.Neutral                    |                              |                                        |
| warningCopyDescription                             | Global/Local                | T.P.Neutral                    | Yes                          | Yes                                    |
| warrantyConstraint                                 | Global/Local                | T.P.Neutral                    |                              |                                        |
| warrantyDescription                                | Global/Local                | T.P.Neutral                    | No                           | Yes                                    |
| warrantyDuration                                   | Global/Local                | T.P.Neutral                    | No                           | No                                     |
| warrantyEffectiveDateType                          | Global/Local                | T.P.Neutral                    |                              |                                        |
| warrantyType                                       | Global/Local                | T.P.Neutral                    |                              |                                        |
| wasteAmount                                        | Global/Local                | T.P.Neutral                    | Yes                          | Yes                                    |
| wasteDirectiveApplianceType                        | Global/Local                | T.P.Neutral                    |                              |                                        |
| wasteDirectiveName                                 | Global/Local                | T.P.Neutral                    |                              |                                        |
| wasteDirectiveRegistrationNumber                   | Global/Local                | T.P.Neutral                    |                              |                                        |
| waterHazardCode                                    | Global/Local                | T.P.Neutral                    |                              |                                        |



| Attribute Name                          | Target Market Applicability | Trading Partner Neutral status | Multiple Values (Grey = N/A) | Multi Language/ Measurement / Currency |
|-----------------------------------------|-----------------------------|--------------------------------|------------------------------|----------------------------------------|
| waterSolubilityTypeCode                 | Global/Local                | T.P.Neutral                    |                              |                                        |
| width (AdditionalTradeItemDimensions)   | Global/Local                | T.P.Neutral & T.P.Dependent    | No                           | No                                     |
| width (NonGTINLogisticsUnitInformation) | Global/Local                | T.P.Neutral & T.P.Dependent    | No                           | No                                     |
| width (TradeItemMeasurements)           | Global/Local                | T.P.Neutral                    | No                           | No                                     |
| workingPressureRatingClassCode          | Global/Local                | T.P.Neutral                    |                              |                                        |
| workingPressureRatingMaximum            | Global/Local                | T.P.Neutral                    | No                           | Yes                                    |
| workingPressureRatingMinimum            | Global/Local                | T.P.Neutral                    | No                           | Yes                                    |
| yearOfAnnual                            | Global/Local                | T.P.Neutral                    |                              |                                        |
| yearOfProduction                        | Global/Local                | T.P.Neutral                    |                              |                                        |
| yieldServingsPerUnit                    | Global/Local                | T.P.Neutral                    |                              |                                        |
| zoomTimesFactor                         | Global/Local                | T.P.Neutral                    |                              |                                        |
| zoomTypeCode                            | Global/Local                | T.P.Neutral                    |                              |                                        |

## 7.2 Measurement Rules (Music and Film Publishing Industries)

### CubiScan<sup>®</sup> 30

The music and film publishing industries have a long history of utilizing a specific measurement orientation for CDs and DVDs. The method of measurement and orientation of these trade items has been incorporated into a measurement tool manufactured by Quantronix, Inc. The tool is called CubiScan<sup>®</sup> 30. This tool has emerged as a standard for these industries and is consistent with the National Association of Recording Merchandisers (NARM) method of measurement.

In this measurement system, the dimensional measurements of CDs and DVDs are derived as follows:

The trade item is laid flat in the upper left corner of the CubiScan<sup>®</sup> 30, with the spine along the left edge of the CubiScan<sup>®</sup> 30, and the front of the CD or DVD facing up.

NARM Height = Thickness

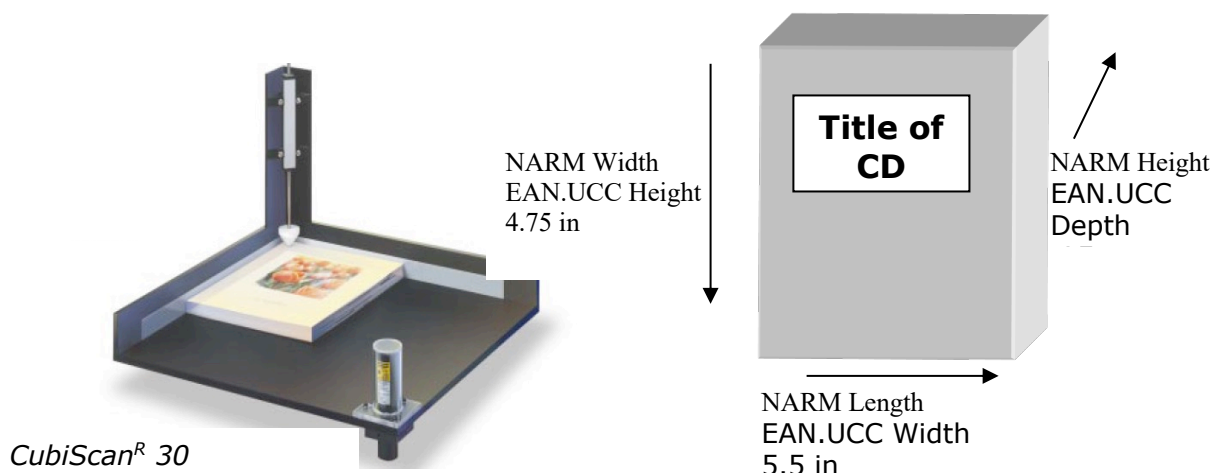
NARM Length = Bottom left to bottom right

NARM Width = Top left to bottom left

The information providers are expected to populate the appropriate EAN.UCC dimensional attributes per the chart below. Standard measurements for CDs and DVDs:

| CubiScan <sup>®</sup> 30 | GS1    | CD      | DVD      |
|--------------------------|--------|---------|----------|
| NARM Height              | Depth  | .25 in  | .375 in  |
| NARM Width               | Height | 4.75 in | 5.375 in |
| NARM Length              | Width  | 5.50 in | 7.000 in |

The illustrations below show how the product is oriented and measured:



### Peg Hole Measurements

Please use the following method for populating peg hole information for those trade items for which the packaging has more than one peg hole (this example is for a package with two peg holes):

| Attribute              | Value |
|------------------------|-------|
| Peg Hole Number        | 1     |
| Peg Horizontal and UOM | 1 in  |
| Peg Vertical and UOM   | 2 in  |
| Peg Hole Number        | 2     |
| Peg Horizontal and UOM | 4 in  |
| Peg Vertical and UOM   | 2 in  |

Horizontal measurement is from left edge to the centre of the hole

Vertical measurement is from the top to the centre of the hole

Note: While the GS1 standard was revised to identify that a package may have more than one peg hole, at this time it incorrectly prohibits multiple iterations of these attributes. A request has been submitted to Align Data to consider an errata revision to correct this in the published standard.

## 7.3 GTIN Allocation Rules for Ingredient and Allergen Information

### Breaking down ingredient information and allergy statements

Not all suppliers are currently able to break down the ingredient declaration or the allergy statement. That is why ingredients can also be specified in the 'ingredientStatement' attribute and allergen statement in the 'allergenStatement' attribute.

The ingredient (and allergen) split however is needed:

To enable structured searches

To enable specification of related information per ingredient, such as the content percentage and country of origin.

### Production variant, GTIN allocation rules and minor ingredient changes

The GTIN Allocation rules state (<http://www.gs1.org/gtinrules/>) that:

The following changes warrant the allocation of a new GTIN:

1. Formulation change where the consumer is expected to distinguish the new from the old product and order accordingly.

2. Where regulations or other requirements dictate the ability to distinguish the old formulation from the new, e.g. healthcare
3. Where the changes alter the fundamental consumer benefit, e.g. new flavour, aroma, etc
4. Changes that result in a different description (declaration to the consumer)

**The following changes do not warrant the allocation of a new GTIN:**

5. Minor formulation or characteristic changes that will replace the existing trade item and does not involve any change in the declaration to the consumer (e.g. is not covered by legislation). Examples include: changes for cost reduction reasons without changing the trade item characteristics (e.g. taste, viscosity, minor ingredients change, etc.); changes to the button colour used on fashion items, etc
6. Changes to ingredients as a result of seasonal variations, e.g. yoghurt with seasonal fruit, where the actual fruits within are dependent on the season

The theory of changing a GTIN for every change in product formulation is sound and logical. However it must be remembered that changing a GTIN also requires a change to packaging with subsequent design/packaging and write off consequences. Many formulation changes might not actually require a change to packaging design other than to change the barcode. For instance one might change the technical specification of an ingredient such that the product might now exceed or fail a current allergen claim. This would require a change to a products declaration through GDS but not to packaging. A manufacturer will need to decide whether such a change warrants a change to GTIN with its subsequent costs.

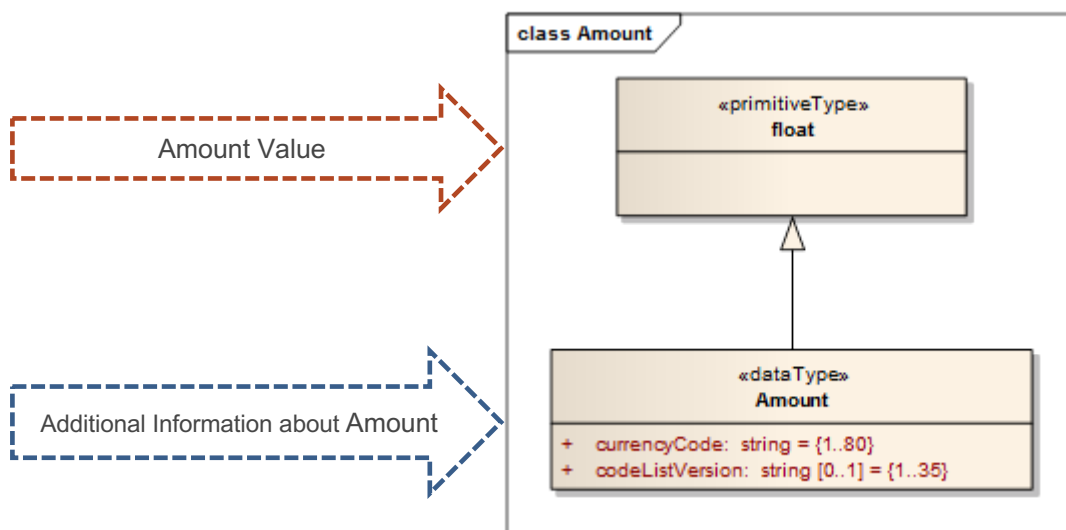
The buyer of a particular product will also need to be able to manage changes of GTINs through their systems carefully. Buyers (in a GDS sense) rightly or wrongly do not like changes to GTINS and tend to treat them all as new listings with subsequent costs and the hassles of introducing the product and changing many systems to accommodate.

The best practice is to use the best before date of a product to distinguish between different variants of the same product. If manufacturers get calls from consumers about allergens etc and manufacturers know that they have multiple variants then they have to ask the consumer to tell the best before date on the consumer unit as well as the GTIN.

## 8 Appendices

### 8.1 Understanding Data Type Class Diagrams

To reduce nesting in XML Schemas, all code and compound data types (e.g. description, measurement, amount) in 3.x are designed to inherit the value for the data type (e.g. Amount Value, Description Text). In other words, the class diagrams do not specifically identify the value as a distinct attribute as before.



In XML representation, an amount would look like this:

```
<dutyFeeTaxBasisAmount currencyCode="EUR">500</dutyFeeTaxBasisAmount>
```

In the example, 500 represents the value for the `dutyFeeTaxBasisAmount`.

## 9 Summary of Changes

| Change                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | BMS Doc Version | Associated CR Number                                                                                                                                                                                                                                                                                                                                       |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> <li>ApparelInformationModule: <ul style="list-style-type: none"> <li>Updated definition of StyleDescription.</li> <li>Added closureOrFastenerTypeCode, closureOrFastenerLocation, and sizeTermDescription.</li> </ul> </li> <li>AudioVisualMediaContentInformationModule: Added softwareCategoryTypeDescription</li> <li>AudienceOrPlayerInformationModule: Added experienceLevel.</li> <li>ConsumerInstructionsModule: Added recommendedUsageLocation</li> <li>DutyFeeTaxInformationModule: Added dutyFeeTaxBasisPrice, dutyFeeTaxCountrySubdivisionShipFromCode, dutyFeeTaxCountrySubdivisionShipToCode, dutyFeeTaxLegalProvision</li> <li>ElectronicDeviceCharacteristicsInformationModule: Added maximumResolution, resolutionTypeCode, microphoneTypeCode, includedOperatingSystem, connectorFinishDescription</li> <li>FoodAndBeverageIngredientInformation: Updated definition for ingredientSequence</li> <li>FoodAndBeveragePreparationServingModule: Updated definition for manufacturerPreparationTypeCode</li> <li>HealthRelatedInformationModule: Added in definition for isTradeItemChemicalNotIntendedForHumanConsumption</li> <li>MarketingInformationModule: Added campaignMediaTypeDescription, designer, educationalFocusDescription, targetOccasionOrTheme, targetConsumerAgeGroup</li> <li>NonfoodIngredientModule: <ul style="list-style-type: none"> <li>Added isNonfoodIngredientEmphasized, nonfoodIngredientDefinition, nonfoodIngredientPurpose</li> <li>Updated definition for ingredientStrength.</li> </ul> </li> <li>NonGTINLogisticsUnitInformationModule <ul style="list-style-type: none"> <li>NonGTINLogisticsUnitInformation/depth: Updated definition.</li> <li>NonGTINLogisticsUnitInformation/width: Updated definition.</li> <li>NonGTINLogisticsUnitInformation/height: Updated definition.</li> </ul> </li> <li>NutritionalInformationModule: Added nutrientAdditionalInformationDescription and nutrientFormatTypeCodeReference.</li> <li>ONIXPublicationFileInformationModule: <ul style="list-style-type: none"> <li>Added onixPartNumber, Created class ONIXSupplyDetail and attribute onixProductAvailabilityCode.</li> <li>Updated definitions for epubUsageStatus, epubUsageType and unnamedPersons to specify code list.</li> <li>Updated definition to unNamedPersons to specify code list.</li> </ul> </li> <li>PackagingInformationModule <ul style="list-style-type: none"> <li>PackagingDimension/packagingDepth: Updated definition.</li> </ul> </li> </ul> | 3.1.2           | 12-241<br>12-242<br>12-243<br>12-289<br>13-019<br>14-146<br>14-189<br>15-003<br>15-015<br>15-017<br>15-024<br>15-121<br>15-122<br>15-194<br>15-220<br>15-222<br>15-240<br>15-248<br>15-257<br>15-298<br>15-304<br>15-312<br>15-322<br>15-323<br>15-325<br>15-328<br>15-330<br>15-349<br>15-354<br>16-005<br>16-123<br>16-135<br>16-185<br>16-186<br>16-149 |

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |  |  |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|
| <ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>○ PackagingDimension/packagingHeight: Updated definition.</li> <li>○ PackagingDimension/packagingWidth: Updated definition.</li> <li>○ PackagingLevel: Updated definition</li> <li>○ Added isPackagingReturnable</li> </ul> </li> <li>• PackagingSustainabilityModule <ul style="list-style-type: none"> <li>○ Deleted redundant association to Packaging Recovery in GDD report.</li> </ul> </li> <li>• PlaceOfProductActivityModule: <ul style="list-style-type: none"> <li>○ countryOfOriginStatement: Updated definition.</li> <li>○ productActivityRegionZoneCodeReference: Updated definition.</li> </ul> </li> <li>• ReferencedFileDetailInformationModule: Added additionalCameraAngleCode, fileCameraPerspectiveCode, verticalCameraAngleCode</li> <li>• RegulatedTradeItemModule: Added isPackagingMarkedWithRegulatoryCompliance</li> <li>• SalesInformationModule: <ul style="list-style-type: none"> <li>○ Added isPermitOrLicenseRequiredToSell.</li> <li>○ Changed definition for</li> </ul> </li> <li>• SafetyDataSheetModule: Updated definition of chemicalIngredientConcentration.</li> <li>• SustainabilityModule <ul style="list-style-type: none"> <li>○ physicalResourceUsage: Updated definition.</li> <li>○ runModeCode: Updated definition.</li> </ul> </li> <li>• TextileMaterialModule: Added tradeItemMaterialDesignationDescription</li> <li>• TradeItem <ul style="list-style-type: none"> <li>○ ChildTradeItem: Clarified that the generalization to TradeItemIdentification brings the GTIN into the class in the schema.</li> <li>○ tradeItemUnitDescriptorCode: Updated definition.</li> <li>○ AdditionalTradeItemDimensions/depth: Updated definition.</li> <li>○ AdditionalTradeItemDimensions/width: Updated definition.</li> <li>○ AdditionalTradeItemDimensions/height: Updated definition.</li> <li>○ Updated definitions for numberOfPiecesInSet, totalNumberOfComponents</li> </ul> </li> <li>• TradeItemDataCarrierAndIdentificationModule <ul style="list-style-type: none"> <li>○ gs1TradeItemIdentificationKeyCode: Updated definition</li> </ul> </li> <li>• TradeItemLifespanModule: Added itemMinimumDurability.</li> <li>• TradeItemMeasurementsModule <ul style="list-style-type: none"> <li>○ TradeItemMeasurements/depth: Updated definition.</li> <li>○ TradeItemMeasurements/width: Updated definition.</li> <li>○ TradeItemMeasurements/height: Updated definition.</li> </ul> </li> <li>• TransportationHazardousClassificationModule: <ul style="list-style-type: none"> <li>○ shippingRegulationException: Updated definition.</li> </ul> </li> </ul> |  |  |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |         |                                       |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|---------------------------------------|
| <ul style="list-style-type: none"> <li>○ specialRequirementsDescription: Updated definition.</li> <li>• Section 7.1: <ul style="list-style-type: none"> <li>○ tradeItemFormDescription: Removed details on repeatable language since it is a string value.</li> <li>○ tradeItemPrice: Changed to single value to match model.</li> <li>○ foodBeverageCompositionDescription: removed values for value and language repeatability.</li> </ul> </li> <li>• Added TradeItemLicensingModule (New Module)</li> <li>• Added AnimalFeedingModule (New Module)</li> <li>• VideoDisplayDeviceInformationModule: Added displayPanelBacklightType</li> <li>• Removed section 7.2 since it is also in the implementation guide.</li> <li>• Updated definition of growingMethodCode.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |         |                                       |
| <ul style="list-style-type: none"> <li>• Changed section 7.1 to label the attribute “designer” as repeatable for language.</li> <li>• Fixed model for AnimalFeedingModule to change references of 3.2 to 3.1.2.</li> <li>• Fixed table of contents.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 3.1.2   | Errata                                |
| <ul style="list-style-type: none"> <li>• AdditionalCameraAngleCode data type and GDD report: added note to use FileCameraPerspective Code List.</li> <li>• Section 7.1, specified that onixPartNumber is repeatable for language only.</li> <li>• NutrientFormatTypeCodeReference, corrected GDD report for cardinality.</li> <li>• Corrected definition of animalNutrientMaximumPercent</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 3.1.2   | Errata (1.1.5)                        |
| <ul style="list-style-type: none"> <li>• nutrientBasisQuantity: Updated definition.</li> <li>• servingSize: Updated definition.</li> <li>• packagingTypeDescription: Updated definition.</li> <li>• additionalTradeItemIdentification: Changed attribute to Trading Partner Neutral and Tradeing Partner Dependent.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 3.1.2.1 | (1.1.6)<br>16-184<br>16-262<br>16-325 |
| <ul style="list-style-type: none"> <li>• Moved NonpackagedSizeDimension class to GDSN Common.</li> <li>• Moved Textile Material Class to GDSN Common</li> <li>• AlcoholInformationModule: <ul style="list-style-type: none"> <li>○ Added vintage</li> <li>○ Added alcoholProof</li> </ul> </li> <li>• Allergen Related Information Module: <ul style="list-style-type: none"> <li>○ Added allergenRelevantDataProvidedDateTime</li> <li>○ Added isAllergenRelevantDataProvided</li> </ul> </li> <li>• AnimalFeedingModule: <ul style="list-style-type: none"> <li>○ Added feedType</li> <li>○ Added targetedConsumptionBy</li> </ul> </li> <li>• ApparelInformationModule: <ul style="list-style-type: none"> <li>○ styleDescription: Changed Cardinality to 0..* to handle multiple languages.</li> <li>○ collarType: Changed Cardinality to 0..* to handle multiple languages.</li> <li>○ sleeveType: Changed Cardinality to 0..* to handle multiple languages.</li> <li>○ descriptiveSizeDimension: Changed Cardinality to 0..* to handle multiple languages.</li> </ul> </li> <li>• AudienceOrPlayerInformationModule: <ul style="list-style-type: none"> <li>○ ageRangeDescription: Made repeatable for language</li> <li>○ targetAudience: Made repeatable for language</li> </ul> </li> <li>• AudioVisualMediaContentInformationModule: <ul style="list-style-type: none"> <li>○ trackTitle: Made repeatable for language</li> </ul> </li> <li>• AudioVisualMediaProductDescriptionInformationModule:</li> </ul> | 3.1.3   |                                       |



|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |  |  |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|
| <ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>○ payPerViewWindow: Data type change from integer to nonnegativeInteger</li> <li>○ editionDescription: Made repeatable for language</li> <li>○ longSynopsis: Made repeatable for language</li> <li>○ shortSynopsis: Made repeatable for language</li> </ul> </li> <li>• Award Prize Module: <ul style="list-style-type: none"> <li>○ awardPrizeDescription: Changed Cardinality to 0..* to handle multiple languages.</li> </ul> </li> <li>• BatteryInformationModule: <ul style="list-style-type: none"> <li>○ Added maximumBatteryLife</li> <li>○ Added batteryTypeQualifierCode</li> <li>○ Added TextileMaterial</li> <li>○ Added batteryWattHourRating</li> <li>○ Added powerSupplyTypeCode</li> </ul> </li> <li>• ChemicalRegulationInformationModule: <ul style="list-style-type: none"> <li>○ Added isChemicalRegulationCompliant</li> </ul> </li> <li>• ConsumerInstructionsModule: <ul style="list-style-type: none"> <li>○ Added consumerUsageLabelCode</li> <li>○ Added consumerAssemblyInstructions</li> </ul> </li> <li>• DairyFishMeatPoultryItemModule: <ul style="list-style-type: none"> <li>○ cheeseMaturationPeriodDescription: Made repeatable for language</li> <li>○ Added catchMethodCode</li> <li>○ Added productionMethodForFishAndSeafoodCode</li> <li>○ Added dateOfCatchProcessTypeCode</li> <li>○ Added storageStateCode</li> <li>○ Added speciesForFisheryStatisticsPurposesCode</li> <li>○ Added speciesForFisheryStatisticsPurposesName</li> </ul> </li> <li>• DangerousSubstanceInformationModule: Added dangerousSubstanceHazardSymbolCodeReference</li> <li>• Delivery Purchasing Information Module: <ul style="list-style-type: none"> <li>○ orderQuantityMultiple: Integer to nonnegativeInteger</li> <li>○ orderQuantityMinimum: Integer to nonnegativeInteger</li> <li>○ orderQuantityMultiple: Integer to nonnegativeInteger</li> <li>○ Added consumerFirstDeliveryDate</li> <li>○ Added consumerEndAvailabilityDateTime</li> </ul> </li> <li>• DurableGoodsCharacteristicsModule: <ul style="list-style-type: none"> <li>○ tradeItemFinishDescription Made repeatable for language</li> <li>○ Added numberOfWheels</li> <li>○ Added mountLocationDescription</li> <li>○ Added mountTypeDescription</li> </ul> </li> <li>• DutyFeeTaxInformationModule: <ul style="list-style-type: none"> <li>○ dutyFeeTaxAgencyCode: Made Optional</li> <li>○ dutyFeeTaxTypeDescription: Made repeatable for language</li> <li>○ dutyFeeTaxReductionCriteriaDescription: Made repeatable for language</li> </ul> </li> <li>• ElectronicDeviceCharacteristicsInformationModule: <ul style="list-style-type: none"> <li>○ Added maximumAvailableStorageCapacity</li> <li>○ requiredSystemMemoryCapacity: Data type change</li> <li>○ requiredStorageCapacity: Data type change from integer to nonnegativeInteger</li> <li>○ totalAudioPowerOutput: Data type change from integer to nonnegativeInteger</li> </ul> </li> <li>• FarmingProcessingInformation <ul style="list-style-type: none"> <li>○ Added postHarvestTreatmentCode</li> </ul> </li> </ul> |  |  |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |  |  |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|
| <ul style="list-style-type: none"> <li>○ Added<br/>postProcessTradeItemTreatmentPhysicalCode</li> <li>• FoodAndBeverageIngredientModule: <ul style="list-style-type: none"> <li>○ Added<br/>ingredientContentPercentageMeasurementPrecisionCode</li> <li>○ Added ingredientDefinition</li> <li>○ Added isIngredientEmphasised</li> </ul> </li> <li>• FoodAndBeveragePreparationServingModule: <ul style="list-style-type: none"> <li>○ maximumNumberOfSmallestUnitsPerPackage: Changed Data type change from integer to nonnegativeInteger</li> <li>○ numberOfSmallestUnitsPerPackage Data type change from integer to nonnegativeInteger</li> <li>○ Added numberOfServingsRangeDescription</li> </ul> </li> <li>• FoodAndBeveragePropertiesModule: <ul style="list-style-type: none"> <li>○ microbiologicalOrganismMaximumValue: Changed definition</li> <li>○ physiochemicalCharacteristicValue Data type change from Measurement to Quantity</li> <li>○ microbiologicalOrganismMaximumValue</li> <li>○ microbiologicalOrganismReferenceValue: Made repeatable for Measurement</li> <li>○ microbiologicalOrganismWarningValue: Made Repeatable for Measurement</li> <li>○ Added<br/>microbiologicalOrganismMaximumValueBasis</li> <li>○ Added<br/>microbiologicalOrganismMaximumValuePrecisionCode</li> <li>○ Added<br/>microbiologicalOrganismReferenceValueBasis</li> <li>○ Added<br/>microbiologicalOrganismReferenceValuePrecisionCode</li> <li>○ Added<br/>microbiologicalOrganismWarningValueBasis</li> <li>○ Added<br/>microbiologicalOrganismWarningValuePrecisionCode</li> <li>○ Added physiochemicalCharacteristicValueBasis</li> <li>○ Added<br/>physiochemicalCharacteristicValuePrecisionCode</li> <li>○ Added<br/>physiochemicalCharacteristicReferenceValue</li> <li>○ Added<br/>physiochemicalCharacteristicReferenceValueBasis</li> <li>○ Added<br/>physiochemicalCharacteristicReferenceValuePrecisionCode</li> <li>○ Added physiochemicalCharacteristicWarningValue</li> <li>○ AddedphysiochemicalCharacteristicWarningValueBasis</li> <li>○ Added<br/>physiochemicalCharacteristicWarningValuePrecisionCode</li> </ul> </li> <li>• GDSN Common <ul style="list-style-type: none"> <li>○ Added organicClaimCertification</li> <li>○ enumerationValueDefinitionMade 0..* from 1..*</li> <li>○ enumerationValueDescription: Changed Cardinality to 0..* to handle multiple languages.</li> </ul> </li> </ul> |  |  |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |  |  |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|
| <ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>○ Added Description4000</li> <li>○ hazardousMaterialAdditionalInformation;<br/>Changed cardinality to 0..*.</li> <li>○ Added isPrimaryFile</li> <li>○ contentDescription: Changed Cardinality to 0..*</li> <li>○ fileFormatDescription: Changed Cardinality to 0..* to handle multiple languages.</li> <li>○ Added FormattedDescription250es.</li> <li>○ Added FormattedDescription4000</li> <li>○ Added FormattedDescription5000</li> </ul> </li> <li>• ChildNutritionInformationModule: New module</li> <li>• HealthRelatedInformationModule: <ul style="list-style-type: none"> <li>○ Added nutritionalProgramDetail</li> <li>○ Added sunProtectionFactor</li> <li>○ Added tradeItemUVRating</li> </ul> </li> <li>• HealthWellnessPackagingMarkingModule: <ul style="list-style-type: none"> <li>○ Added packagingMarkedNutritionLabelCode</li> <li>○ Added isPackagingLabelledWithDrugFacts</li> <li>○ packagingMarkedFreeFromCode: Definition change.</li> </ul> </li> <li>• LightingDeviceModule: New module</li> <li>• MarketingInformationModule: <ul style="list-style-type: none"> <li>○ Added channelSpecificMarketingMessage</li> <li>○ Added marketingTradeChannel</li> <li>○ Added channelSpecificShortMarketingMessage</li> <li>○ campaignName: Changed Cardinality to 0..* to handle multiple languages.</li> <li>○ couponFamilyCode: Changed Cardinality to 0..* to handle multiple languages.</li> <li>○ tradeItemMarketingMessage: Changed Cardinality to 0..* to handle multiple languages.</li> <li>○ tradeItemIncludedAccessories: Changed Cardinality to 0..* to handle multiple languages.</li> <li>○ targetConsumerAge: Changed Cardinality to 0..* to handle multiple languages.</li> <li>○ Added shortTradeItemMarketingMessage</li> <li>○ tradeItemMarketingMessage: Changed data Type to FormattedDescription4000</li> <li>○ Added tradeItemKeyWords</li> <li>○ Added necessaryTradeItemToUseDescription</li> <li>○ Added tradeItemTechnologyDescription</li> </ul> </li> <li>• MedicalDeviceTradeItemModule: <ul style="list-style-type: none"> <li>○ Added isTradeItemExemptFromDirectPartMarking</li> <li>○ Added uDIDDeviceCount</li> </ul> </li> <li>• NonfoodIngredientModule: <ul style="list-style-type: none"> <li>○ Added nonfoodIngredientOfConcernCode</li> <li>○ Added nonFoodIngredientStatement</li> </ul> </li> <li>• NutritionalInformationModule: <ul style="list-style-type: none"> <li>○ Added nutrientValueDerivationCode</li> <li>○ Added dailyValueIntakeReference</li> <li>○ servingSize: Made repeatable for multiMeasurement</li> <li>○ Added descriptionOnANutrient</li> <li>○ Added isNutrientRelevantDataProvided</li> <li>○ Added nutrientRelevantDataProvidedDateTime</li> </ul> </li> <li>• ONIXPublicationFileInformationModule: <ul style="list-style-type: none"> <li>○ AdditionalPublicationDescription: Made repeatable for language</li> <li>○ biographicalNote: Made repeatable for language</li> <li>○ contributorDescription: Made repeatable for language</li> <li>○ illustrationNote: Made repeatable for language</li> </ul> </li> </ul> |  |  |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |  |  |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|
| <ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>○ audienceDescription: Made repeatable for language</li> <li>○ editionStatement: Made repeatable for language</li> <li>○ contributorStatement: Made repeatable for language</li> </ul> </li> <li>• PackagingInformationModule: <ul style="list-style-type: none"> <li>○ Added packagingMaterialClassificationCodeReference</li> <li>○ Added packagingMaterialColourCodeReference</li> <li>○ Added packagingRefundObligationName</li> <li>○ Added PackagingDividerInformation</li> <li>○ Added numberOfDividersHorizontal</li> <li>○ Added numberOfDividersVertical</li> <li>○ Added placementOfDivider</li> <li>○ Added shippingContainerTypeCode</li> <li>○ Added packagingMaterialClassificationCodeReference</li> <li>○ Added packagingMaterialColourCodeReference</li> </ul> </li> <li>• PackagingMarkingModule: <ul style="list-style-type: none"> <li>○ Added consumerWarningTypeCode</li> <li>○ Added consumerWarningDescription</li> <li>○ Added tradeItemIdentificationMarkingTypeCode</li> <li>○ Added localPackagingMarkedLabelAccreditationCodeReference</li> <li>○ Added ConsumerWarningInformation</li> <li>○ Added tradeItemMarkingsDescription</li> </ul> </li> <li>• PackagingSustainabilityModule: <ul style="list-style-type: none"> <li>○ acidificationMeasurement: Data type change from Measurement to Quantity</li> <li>○ aquaticEutrophicationMeasurement: Data type change from Measurement to Quantity</li> <li>○ aquaticEutrophicationModelDescription: Made repeatable for language</li> <li>○ cumulativeEnergyDemand: Data type change from Measurement to Quantity</li> <li>○ freshWaterEcotoxicityMeasurement: Data type change from Measurement to Quantity</li> <li>○ globalWarmingPotentialEquivalent: Data type change from Measurement to Quantity</li> <li>○ massEquivalentMeasurement: Data type change from Measurement to Quantity</li> <li>○ quantityOfFunctionalBasisUnit: Data type change from Measurement to Quantity</li> <li>○ packagingWeightPerConsumerUse: Made repeatable for multiMeasurement</li> </ul> </li> <li>• PharmaceuticalItemInformationModule: <ul style="list-style-type: none"> <li>○ Added dosageRecommendation</li> <li>○ Added dosageFormType</li> <li>○ Added drugSideEffectsAndWarnings</li> <li>○ Added drugInteractions</li> <li>○ Added drugPreparations</li> </ul> </li> <li>• PhysicalResourceUsageInformationModule: <ul style="list-style-type: none"> <li>○ Changed class definition.</li> <li>○ physicalResourceUsage: Changed definition.</li> <li>○ physicalResourceUsageMeasurementTypeCode: Changed definition.</li> <li>○ physicalResourceUsage: Changed definition.</li> </ul> </li> <li>• ProductFormulationModule: New module</li> <li>• ReferencedFileDetailInformationModule: <ul style="list-style-type: none"> <li>○ fileResolutionDescription: Made repeatable for language</li> </ul> </li> <li>• RegulatedTradeItemModule:</li> </ul> |  |  |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |  |  |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|
| <ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>○ Added regulatoryActComplianceLevelCode</li> <li>○ Added isTradeItemRegulatoryCompliant</li> </ul> </li> <li>• SafetyDataSheetInformationModule: <ul style="list-style-type: none"> <li>○ Added lowerExplosiveLimit</li> <li>○ Added upperExplosiveLimit</li> <li>○ Added chemicalIngredientConcentrationLowerValue</li> <li>○ Added chemicalIngredientConcentrationMeasurementPrecision</li> <li>○ Added chemicalIngredientConcentrationUpperValue</li> <li>○ Added flashPointDescriptor</li> <li>○ Added flashPointTemperatureLowerValue</li> <li>○ Added flashPointTemperatureUpperValue</li> <li>○ Added flashPointTemperatureMeasurementPrecision</li> <li>○ Added flashPointTemperature</li> <li>○ Added lethalConcentration50MeasurementPrecision</li> <li>○ Added lethalDose50MeasurementPrecision</li> <li>○ physicalFormDescription: Made repeatable for language</li> <li>○ Added volatileOrganicCompoundPercentMeasurementPrecision</li> <li>○ firstAidProceduresDescription: Data type change from Description1000 to Description5000</li> <li>○ Added: isProductClassifiedAsNonHazardous</li> <li>○ Added specificGravityLowerValue</li> <li>○ Added specificGravityMeasurementPrecision</li> <li>○ Added specificGravityUpperValue</li> </ul> </li> <li>• SalesInformationModule: <ul style="list-style-type: none"> <li>○ Added TargetMarketSalesConditions</li> <li>○ Added TargetMarketDiscountRestrictions</li> <li>○ Added cutForSaleThicknessCode</li> <li>○ Added minimumOrderValue</li> <li>○ Added isDiscountingIllegal</li> <li>○ Added SalesInformation</li> <li>○ Added consumerSalesConditionCode</li> <li>○ Added SalesInformation</li> </ul> </li> <li>• TextileMaterialModule: <ul style="list-style-type: none"> <li>○ materialContent: Made repeatable for language</li> <li>○ materialThreadCount: Made repeatable for language</li> <li>○ Added materialCountryOfOrigin</li> <li>○ Added materialTreatment</li> </ul> </li> <li>• Trade Item <ul style="list-style-type: none"> <li>○ additionalTradeItemClassificationPropertyDescription: Made repeatable for language</li> <li>○ propertyMeasurement: Made repeatable for measurement</li> <li>○ propertyDescriptionMade: repeatable for language</li> <li>○ Added componentQuantity</li> <li>○ Added componentMultiplePackedQuantity</li> <li>○ Added GDSNTradeItemClassificationAttribute</li> <li>○ Added productInformationLegalDisclaimer</li> <li>○ Added isTradeItemReinstated</li> <li>○ nonMarkedTradeItemComponents: Made repeatable for language</li> <li>○ contentsDescription: Made repeatable for language</li> <li>○ Added multipleContainerQuantity</li> </ul> </li> </ul> |  |  |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                 |  |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------|--|
| <ul style="list-style-type: none"> <li>○ availableTime: Made repeatable for language</li> <li>○ Added productionVariantCancelledDateTime</li> <li>○ Added productionVariantDiscontinuedDateTime</li> <li>○ productionVariantDescription: Made repeatable for language</li> <li>○ Added udidFirstPublicationDate</li> <li>• TradeItemDescriptionModule: <ul style="list-style-type: none"> <li>○ tradeItemVariantValue: Changed Data Type to Description70.</li> <li>○ Added tradeItemFormCode</li> <li>○ Added isTradeItemDesignedToBeDivisible</li> <li>○ regulatedProductName: Made repeatable for language</li> </ul> </li> <li>• TradeItemHumidityInformationModule: <ul style="list-style-type: none"> <li>○ cumulativeHumidityInterruptionAcceptableTimeSpanInstructions: Repeatable for language and values</li> </ul> </li> <li>• TradeItemMeasurementsModule: <ul style="list-style-type: none"> <li>○ Added netContentStatement</li> <li>○ Added NonpackagedSizeDimension</li> </ul> </li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                 |  |
| <ul style="list-style-type: none"> <li>• AlcoholInformationModule <ul style="list-style-type: none"> <li>○ Added alcoholicBeverageSugarContent</li> </ul> </li> <li>• AnimalFeedingModule <ul style="list-style-type: none"> <li>○ Added example code to targetedConsumptionBy attribute since definition was unclear.</li> </ul> </li> <li>• BatteryInformationModule <ul style="list-style-type: none"> <li>○ Changed association from BatteryDetail to TextileMaterial to new class TradeItemMaterial (located in GDSN Common).</li> </ul> </li> <li>• Child Nutrition Information Module <ul style="list-style-type: none"> <li>○ Deleted attribute childNutritionApprovalDateTime</li> <li>○ Deleted attribute childNutritionProductIdentificationAgencyCode</li> <li>○ Updated definition for childNutritionExpirationDateTime</li> <li>○ Updated definition for childNutritionProductIdentification.</li> <li>○ Updated definition for childNutritionQualifierCode</li> <li>○ Updated definition for childNutritionQualifiedValue</li> <li>○ Updated definition for childNutritionValue</li> </ul> </li> <li>• DairyFishMeatPoultryInformation <ul style="list-style-type: none"> <li>○ Moved isImitationOrSubstitute to MarketingInformation.</li> <li>○ Added catchDateTime</li> <li>○ Changed length of speciesForFisheryStatisticsPurposesCode to 1..80.</li> <li>○ dateOfCatchProcessTypeCode</li> </ul> </li> <li>• ElectronicDeviceTechnicalCharacteristicsModule <ul style="list-style-type: none"> <li>○ Added maximumAvailableStorageCapacity to GDD Report.</li> </ul> </li> <li>• HealthRelatedInformationModule <ul style="list-style-type: none"> <li>○ Made tradeItemUVRating 0..1</li> </ul> </li> <li>• MedicalDeviceTradeItemModule <ul style="list-style-type: none"> <li>○ Changed uDIDDeviceCount to udidDeviceCount.</li> </ul> </li> <li>• NutritionalInformationModule <ul style="list-style-type: none"> <li>○ Updated GDD Report to make dailyValueIntakeReference a Description500.</li> </ul> </li> <li>• OrganicClaim <ul style="list-style-type: none"> <li>○ Deleted the reference to CertificationInformation</li> <li>○ Added and association to AVPList to handle Certification Requirement.</li> </ul> </li> </ul> | 3.1.3<br>Comment<br>Review.<br>Version<br>1.1.5 |  |

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |  |  |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|
| <ul style="list-style-type: none"> <li>• PackagingInformationModule <ul style="list-style-type: none"> <li>◦ Added ShippingContainerTypeCode to GDD Report</li> </ul> </li> <li>• PackagingMarkingModule <ul style="list-style-type: none"> <li>◦ Changed data type for localPackagingMarkedLabelAccreditationCodeReference to string {1..200}.</li> <li>◦ Changed consumerWarningTypeCode to 0..1</li> <li>◦ Changed definition of consumerWarningDescription to refer to correct attributes.</li> </ul> </li> <li>• PhysicalResourceUsageInformationModule <ul style="list-style-type: none"> <li>◦ Updated definition for PhysicalResourceUsage and PhysicalResourceUsageModule class.</li> </ul> </li> <li>• ProductFormulationStatementModule <ul style="list-style-type: none"> <li>◦ Changed attribute name, totalVegetableAmount, to totalVegetableSubgroupAmount.</li> <li>◦ Changed definition for creditableIngredientDescription.</li> <li>◦ Changed nonCreditableGrainAmount and nonCreditableGrainDescription to noncreditableGrainAmount and noncreditableGrainDescription</li> </ul> </li> <li>• PromotionalItemInformationModule <ul style="list-style-type: none"> <li>◦ Added isTradeItemAPromotionalUnit</li> </ul> </li> <li>• GDSN Common <ul style="list-style-type: none"> <li>◦ Removed TextileMaterial from GDSN Common. Moved it back to the TextileMaterialModule.</li> <li>◦ Created a new class TradeItemMaterial and TradeItemMaterialComposition.</li> <li>◦ Updated definition of productActivityTypeCode.</li> <li>◦ Updated the definition for countryOfOrigin to reference ISO country code.</li> <li>◦ Changed definition of attributeCode to reflect MLT as and example (Rec 20 code).</li> </ul> </li> <li>• SafetyDataSheetInformationModule <ul style="list-style-type: none"> <li>◦ Updated definition for flashPointTemperature.</li> </ul> </li> <li>• SalesInformationModule <ul style="list-style-type: none"> <li>◦ In TargetMarketDiscountRestrictions <ul style="list-style-type: none"> <li>▪ Changed isDiscountingIllegal to isDiscountingIllegalInTargetMarket and made it mandatory.</li> <li>▪ Changed name of link from TargetMarketDiscountRestrictions to Country to discountRestrictionTargetMarketCountry and made it mandatory</li> </ul> </li> <li>◦ In TargetMarketConsumerSalesConditions <ul style="list-style-type: none"> <li>▪ Changed consumerSalesConditionCode to targetMarketConsumerSalesConditionCode</li> <li>▪ Changed name of link from TargetMarketSalesConditions to Country to salesConditionTargetMarketCountry and made it mandatory.</li> </ul> </li> </ul> </li> <li>• TextileMaterialModule <ul style="list-style-type: none"> <li>◦ Moved TextileMaterial and TextileMaterialComposition back into TextileMaterialModulePackage.</li> </ul> </li> <li>• TradeItem <ul style="list-style-type: none"> <li>◦ Changed attribute name of udidFirstPublicationDate to udidFirstPublicationDateTime.</li> <li>◦ Changed componentQuantity to 0..1</li> </ul> </li> </ul> |  |  |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|



|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |       |               |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|---------------|
| <ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>Added notes to contentsDescription and nonMarkedTradeItemComponents to not use these attributes as they will be deleted in a future release.</li> <li>Added examples in definitions for componentMultiplePackedQuantity and multipleContainerQuantity.</li> </ul> </li> <li>TradeItemLifespanModule           <ul style="list-style-type: none"> <li>Added itemPeriodSafeToUseAfterOpening</li> </ul> </li> <li>Section 7.1           <ul style="list-style-type: none"> <li>Made consumerEndAvailabilityDateTime, consumerFirstAvailabilityDateTime, consumerFirstDeliveryDate TPD.</li> <li>Changed minimumOrderValue to TPN and TPD.</li> <li>Changed udidFirstPublicationDateTime to Trading Partner Dependent.</li> </ul> </li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |       |               |
| <ul style="list-style-type: none"> <li>Trade Item           <ul style="list-style-type: none"> <li>Updated definitions for componentMultiplePackedQuantity and multipleContainerQuantity</li> <li>Updated definition for countryOfOrigin to reflect subdivision.</li> <li>Fixed definition for PhysicalResourceUsage.</li> <li>Added definition for exhibitGroup.</li> </ul> </li> <li>Section 7.1           <ul style="list-style-type: none"> <li>tradeItemMarketingMessage changed to allow repetition for value and language.</li> <li>Added proofOfPackagingWeightReductionDescription</li> <li>Changed udidFirstPublicationDateTime to T.P.Neutral &amp; T.P.Dependent.</li> <li>Added creditableGrainGroupCode</li> <li>Added exhibitGroup</li> <li>Made lowerExplosiveLimit global</li> <li>Deleted organicClaimCertification</li> <li>Made consumerEndAvailabilityDateTime, consumerFirstAvailabilityDateTime, consumerFirstDeliveryDate TPN and TPD.</li> </ul> </li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 1.1.6 |               |
| <ul style="list-style-type: none"> <li>AudioVisualMediaContentInformationModule           <ul style="list-style-type: none"> <li>Added numberOfEpisodes to AudioVisualMediaContentInformation Class</li> </ul> </li> <li>AudioVisualMediaProductDescriptionInformationModule           <ul style="list-style-type: none"> <li>Added audioVisualMediaCollectionSeriesNumber to AudioVisualMediaProductDescription Class</li> </ul> </li> <li>ConsumerInstructionsModule           <ul style="list-style-type: none"> <li>Added dexterityUsageCode to ConsumerInstructions Class</li> </ul> </li> <li>ElectronicDeviceCharacteristicsInformationModule           <ul style="list-style-type: none"> <li>Added equalizerControlFeatures to TradeItemAudioInformation Class</li> </ul> </li> <li>FoodAndBeverageIngredientModule           <ul style="list-style-type: none"> <li>Added isIngredientRelevantDataProvided to FoodAndBeverageIngredientModule Class</li> </ul> </li> <li>LightingDeviceModule           <ul style="list-style-type: none"> <li>Added lightBulbShapeCode to LightBulbInformation Class</li> <li>Added lightBulbBaseType to LightBulbInformation Class</li> <li>Added lightBulbDiameterValue to LightBulbInformation Class</li> <li>Added lightBulbFilamentTypeCode to LightBulbInformation Class</li> <li>Added lightOutput to LightingDeviceModule Class</li> </ul> </li> <li>MarketingInformationModule</li> </ul> | 1.1.7 | Release 3.1.4 |



|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |       |                                                               |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|---------------------------------------------------------------|
| <ul style="list-style-type: none"> <li>○ Added autographedBy to MarketingInformation Class</li> <li>○ Added isTradeItemConsideredCollectibleOrMemorabilia to MarketingInformation Class</li> <li>○ Added usageColourDescription to MarketingInformation Class</li> <li>○ Added tradeItemIntroductionYear to MarketingInformation Class</li> <li>• NonGTINLogisticsInformationModule <ul style="list-style-type: none"> <li>○ Added logisticsUnitCubeDimension to NonGTINLogisticsUnitInformation Class</li> <li>○ Added netWeight To NonGTINLogisticsUnitInformation Class</li> </ul> </li> <li>• PackagingInformationModule <ul style="list-style-type: none"> <li>○ Added packagingSustainabilityStatement to PackagingInformationModule Class</li> </ul> </li> <li>• OpticsDeviceInformationModule <ul style="list-style-type: none"> <li>○ Added zoomTimesFactor to ZoomInformation Class</li> <li>○ Added zoomTypeCode to ZoomInformation Class</li> <li>○ Added lensTypeDescription to LensInformation Class</li> <li>○ Added lensCoatingTypeDescription to LensInformation Class</li> <li>○ Added lensFilterTypeDescription to LensInformation Class</li> <li>○ Added exposureMode to OpticsDeviceInformation Class</li> <li>○ Added fieldOfView to OpticsDeviceInformation Class</li> </ul> </li> <li>• RegulatedTradeItemModule <ul style="list-style-type: none"> <li>○ Added regulationRestrictionsAndDescriptors to RegulatoryInformation Class</li> <li>○ Added regulationRestrictionCommunityIdentifier to RegulatoryInformation Class</li> <li>○ Added regulationCommunityLevelCode to RegulatoryInformation Class</li> </ul> </li> <li>• TradeItemHandlingModule <ul style="list-style-type: none"> <li>○ Added stackingPatternTypeCode to TradeItemStacking Class</li> </ul> </li> <li>• TradeItemMeasurementsModule <ul style="list-style-type: none"> <li>○ Added tensileStrength to TradeItemMeasurements class</li> </ul> </li> </ul> |       |                                                               |
| <ul style="list-style-type: none"> <li>• Moved selfTimerDelay from OpticsDeviceInformation to ElectronicDeviceCharacteristicsInformationModule.</li> <li>• Changed isTradeItemConsideredCollectibleOrMemorabilia to Global/Local</li> <li>• Changed isIngredientRelevantDataProvided to Global/Local</li> <li>• Changed definition of OpticsDeviceInformationModule to reflect all optics devices not just photography.</li> <li>• Changed definition of association to OpticsDeviceInformation to reflect all optics devices not just photography.</li> <li>• NonGTINLogisticsInformationModule: made logisticsUnitCubeDimension and netWeight 0..1 to match other instances of attributes.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 1.1.8 | Release 3.1.4<br>Comment Review                               |
| <ul style="list-style-type: none"> <li>• Added additiveTypeCodeReference to AdditiveInformation class.</li> <li>• Added velocity to TradeItemMeasurements class.</li> <li>• Added nutrientBasisQuantityDescription to NutrientHeader.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 3.1.5 | 16-000444<br>17-000017<br>17-000023<br>15-000002<br>16-000529 |

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |       |                                                                            |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|----------------------------------------------------------------------------|
| <ul style="list-style-type: none"> <li>Added OrganicCertification class to OrganicClaim. Added organicCertificationIdentification, organicCertificationEffectiveEndDateTime, organicCertificationEffectiveStartDateTime.</li> <li>Added organicClaimAgencyTypeCode to OrganicClaim.</li> <li>Added TransactionalMeasurementUnitCode to GDSN Common Data Types.</li> <li>Added TransactionalMeasurement to GDSN Compound Data Types</li> <li>Added shippingContainerQuantity to Packaging class.</li> <li>Updated definition of batteryTypeCode.</li> <li>lastChangeDateTime: changed to Global/Local in section 7.1</li> <li>additionalPartyIdentification: added value in section 7.1, made Global/Local and TPN/TPD.</li> <li>tradeItemWeight/netWeight: updated definition to remove business rules.</li> <li>Updated definitions for packagingDepth, packagingHeight, packagingWidth</li> <li>Updated definition for batteryTypeCode.</li> <li>Updated the definition for nutrientBasisQuantity, servingSize.</li> </ul>                                                                                       |       | 17-000020<br>16-000520<br>16-000465<br>16-000352<br>17-000061<br>17-000188 |
| <ul style="list-style-type: none"> <li>Changed additionalTradeItemClassificationCodeDescription, additionalTradeItemClassificationCodeValue, additionalTradeItemClassificationPropertyCode, additionalTradeItemClassificationPropertyDescription, additionalTradeItemClassificationSystemCode, additionalTradeItemClassificationVersion, propertyAmount, propertyCode, propertyDateTime, propertyDescription, propertyFloat, propertyString, propertyInteger, propertyMeasurement to Global/Local in In Section 7.1.</li> <li>Added isOrphanDrug to PharmaceuticalItemInformation.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 3.1.5 | Community Review<br>16-000536                                              |
| <ul style="list-style-type: none"> <li>TradeItemInformation: <ul style="list-style-type: none"> <li>Updated definitions for productionVariantDescription, productionVariantEffectiveDateTime, productionVariantCancelledDateTime</li> <li>Added productionVariantDiscontinuedDateTime, consumerProductVariantEndEffectiveDateTime, consumerProductVariantIdentification, consumerProductVariantReasonCode</li> </ul> </li> <li>AnimalFeedingModule: Added feedAnalyticalConstituentsStatement, feedAdditiveStatement, feedCompositionStatement, feedingInstructions</li> <li>MarketingInformation: <ul style="list-style-type: none"> <li>Added TradeItemCaseInformation Class and added new attribute caseDescription.</li> <li>Added brandMarketingDescription</li> </ul> </li> <li>NutrientHeader: Added servingsPerPackageDescription</li> <li>TradeItemMeasurements: added acceleration, frontFaceTypeCode, shearStrength</li> <li>Changed productionVariantCancelledDateTime, productionVariantDescription, productionVariantDiscontinuedDateTime, productionVariantEffectiveDateTime to TPN/TPD.</li> </ul> | 3.1.6 |                                                                            |
| <ul style="list-style-type: none"> <li>AnimalFeedingModule: Updated definition for feedType</li> <li>FoodAndBeverageIngredientModule: Added additiveStatement to FoodAndBeverageIngredientModule</li> <li>FoodAndBeveragePreparationServingModule: Added recipe to PreparationServing</li> <li>GDSNCommon: Added grossWeight to AdditionalTradeItemDimensions</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 3.1.7 |                                                                            |

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |       |         |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|---------|
| <ul style="list-style-type: none"> <li>HealthcareItemInformationModule: Added healthcareItemMaximumUsageAge, healthcareItemMinimumUsageAge, healthcareItemUsageAgeDescription, usageDuringBreastFeedingCode, usageDuringPregnancyCode to healthcareItemInformation.</li> <li>LightingDeviceModule: Added colourTemperature and visibleLight to LightBulbInformation.</li> <li>MarketingInformationModule: Added tastingNotes to MarketingInformation</li> <li>NonfoodIngredientModule: Added additiveStatement to NonfoodIngredientModule</li> <li>NutritionalInformationModule: Added nutrientSource to NutrientDetail</li> <li>PackagingMarkingModule: Added consumerFriendlyDateOnPackagingDescription to PackagingDate</li> <li>Section 7.1: Added details for following attributes: <ul style="list-style-type: none"> <li>additiveStatement, recipe, grossWeight (AdditionalTradeItemDimensions), healthcareItemMaximumUsageAge, healthcareItemMinimumUsageAge, healthcareItemUsageAgeDescription, usageDuringBreastFeedingCode, usageDuringPregnancyCode, colourTemperature, visibleLight, tastingNotes, additiveStatement, nutrientSource, consumerFriendlyDateOnPackagingDescription</li> <li>Updated following for Global/Local and TPN/TPD Status <ul style="list-style-type: none"> <li>quantityOfLayersPerPallet</li> <li>quantityOfTradeItemsPerPallet</li> <li>quantityOfTradeItemsPerPalletLayer</li> <li>depth (NonGTINLogisticsUnitInformation)</li> <li>height (NonGTINLogisticsUnitInformation)</li> <li>width (NonGTINLogisticsUnitInformation)</li> <li>grossWeight (NonGTINLogisticsUnitInformation)</li> <li>logisticsUnitCubeDimension</li> <li>netWeight (NonGTINLogisticsUnitInformation)</li> <li>stackingPatternTypeCode</li> </ul> </li> </ul> </li> </ul> |       |         |
| <ul style="list-style-type: none"> <li>Section 7.1 <ul style="list-style-type: none"> <li>Added consumerFriendlyDateOnPackagingDescription is Single Value, Multi-description</li> <li>Made logisticsUnitStackingFactor TPN/TPD</li> <li>height (nonGTINLogisticsUnitInformation) made TPN/TPD</li> <li>depth (nonGTINLogisticsUnitInformation) made TPN/TPD</li> <li>width, depth, height (AdditionalTradeItemDimensions) made TPN/TPD.</li> <li>netWeight (nonGTINLogisticsUnitInformation) made single value/single measurement since it is 0..1.</li> </ul> </li> <li>FoodAndBeverageIngredientModule <ul style="list-style-type: none"> <li>Changed AdditiveStatement to Description5000</li> </ul> </li> <li>NonfoodIngredientModule <ul style="list-style-type: none"> <li>Changed AdditiveStatement to Description5000</li> </ul> </li> <li>NutritionalInformationModule <ul style="list-style-type: none"> <li>Added descriptionOnNutrientQualifier</li> </ul> </li> <li>PreparationServing <ul style="list-style-type: none"> <li>Changed recipe to Description5000</li> </ul> </li> <li>AlcoholInformationModule</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 3.1.7 | Com Rev |

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                 |  |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|--|
| <ul style="list-style-type: none"> <li>○ Added isTradeItemAQualityVintageAlcoholProduct</li> <li>• RegulatedTradeItemModule</li> <li>○ Added doesTradeItemContainElectricalComponents</li> <li>• TradeItemDisposalInformationModule</li> <li>○ Added sparePartsAvailabilityEffectiveDateTypeCode</li> <li>○ Added sparePartsAvailabilityPeriod</li> <li>• AdditionalTradeItemDimensions</li> <li>○ Made grossWeight 0..1</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                 |  |
| <ul style="list-style-type: none"> <li>• Updated definition for frontFaceTypeCode to reference DEPTH not LENGTH</li> <li>• Reverted quantityOfTradeItemsContainedInACompleteLayer to Global and TPN.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Errata<br>3.1.7 |  |
| <p>ChemicalRegulationInformationModule</p> <ul style="list-style-type: none"> <li>• regulatedChemicalName, changed length to 1000.</li> <li>• technicalChemicalName, changed length to 1000.</li> </ul> <p>ConsumerInstructionsModule</p> <ul style="list-style-type: none"> <li>• consumerStorageInstructions, changed data type to Description5000</li> <li>• consumerUsageInstructions, Changed data type to Description5000</li> </ul> <p>GDSNCommon</p> <ul style="list-style-type: none"> <li>• Added Language Optional Description Data Types</li> <li>• classOfDangerousGoods, Updated Definition</li> <li>• Added dangerousGoodsLimitedQuantityIndexHazardousInformationDetail</li> <li>• dangerousGoodsPackingGroup, Updated Datatype to Code</li> <li>• dangerousGoodsShippingName, Changed Datatype to LanguageOptionalDescription1000</li> <li>• Added dangerousGoodsSubsidiaryClass to HazardousInformationDetail</li> <li>• dangerousGoodsTechnicalName, Changed data type to Description1000</li> <li>• aDRDangerousGoodsLimitedQuantitiesCode, Updated Definition</li> <li>• aDRDangerousGoodsPackagingTypeCode, Updated Definition</li> <li>• Added dangerousGoodsLimitedQuantitiesCode to HazardousInformationHeader</li> <li>• Added dangerousGoodsPackagingTypeCode to HazardousInformationHeader</li> <li>• Added association from PartyInRole to StructuredAddress</li> <li>• Added city to StructuredAddress</li> <li>• Added countryCode to StructuredAddress</li> <li>• Added postalCode to StructuredAddress</li> <li>• Added provinceStateCode to StructuredAddress</li> <li>• Added streetAddress to StructuredAddress</li> <li>• Added association from TradeItemContactInformation to StructuredAddress</li> <li>• Added materialThreadCount to TradeItemMaterialComposition</li> </ul> <p>HealthcareItemInformationModule</p> <ul style="list-style-type: none"> <li>• Added doesTradeItemContainHumanTissue to HealthcareItemInformation</li> <li>• Added healthcareGroupedProductCode to HealthcareItemInformation</li> <li>• Added isTradeItemExemptFromSerialisation to HealthcareItemInformation</li> </ul> <p>HealthRelatedInformation</p> <ul style="list-style-type: none"> <li>• Added compulsoryAdditionalLabelInformation HealthRelatedInformation</li> <li>• compulsoryAdditiveLabelInformation, Updated Definition</li> </ul> | 3.1.8           |  |

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |       |                  |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|------------------|
| <p>MarketingInformationModule</p> <ul style="list-style-type: none"> <li>tradeItemFeatureBenefit, Changed data type to FormattedDescription250</li> </ul> <p>MedicalDeviceTradeItemModule</p> <ul style="list-style-type: none"> <li>Added clinicalSizeDescription to ClinicalSize</li> <li>Added clinicalSizeTypeCode to ClinicalSize</li> <li>Added clinicalSizeValue to ClinicalSize</li> <li>Added association from MedicalDeviceInformation to ClinicalSize</li> <li>Added isExemptFromPremarketAuthorisation to MedicalDeviceInformation</li> <li>Added directPartMarkingIdentifier to MedicalDeviceInformation</li> </ul> <p>NutritionalInformationModule</p> <ul style="list-style-type: none"> <li>servingSizeDescription, Changed data type to Description500</li> </ul> <p>PackagingInformationModule</p> <ul style="list-style-type: none"> <li>Added industrySpecificPackagingTypeCodeReference to Packaging</li> </ul> <p>PackagingMarkingModule</p> <ul style="list-style-type: none"> <li>consumerPackageDisclaimer, Changed data type to Description5000</li> <li>ConsumerWarningDescription, Changed data type to Description5000</li> <li>warningCopyDescription, Changed data type to Description5000</li> </ul> <p>SalesInformationModule</p> <ul style="list-style-type: none"> <li>allowanceChargeDescription, Changed data type to Description500</li> <li>Added netDueTimePeriod to ApplicablePaymentTerms</li> <li>Added paymentDueBasisTypeCode to ApplicablePaymentTerms</li> <li>Added discountApplicablePeriod to AvailableDiscount</li> <li>Added discountBaseTypeCode to AvailableDiscount</li> <li>targetMarketSalesConditionCode, Made optional in UML</li> </ul> <p>TextileMaterialModule</p> <ul style="list-style-type: none"> <li>Deleted association from TextileMaterialModule to TextileMaterial</li> <li>Added association from TextileMaterialModule to TradeItemMaterial</li> </ul> <p>TradeItemDescriptionInformationModule</p> <ul style="list-style-type: none"> <li>tradeItemFormDescription, Changed data type from String of 35 to languageOptionalDescription500</li> <li>variantDescription, Changed data type to Description500</li> <li>Added econtentEnvironmentTypeCode to TradeItemEContent</li> <li>Added econtentTradeItemStatement to TradeItemEContent</li> <li>Added association from TradeItemDescriptionInformation to TradeItemEContent</li> </ul> <p>TradeItemTemperatureInformation</p> <ul style="list-style-type: none"> <li>Added maximumEnvironmentAtmosphericPressure</li> <li>Added minimumEnvironmentAtmosphericPressure</li> </ul> <p>TransportationHazardousClassificationModule</p> <ul style="list-style-type: none"> <li>marinePollutantTechnicalName, Changed length to 1000.</li> <li>reportableQuantityTechnicalName, Changed length to 1000.</li> </ul> |       |                  |
| <ul style="list-style-type: none"> <li>Removed materialThreadCount from TradeItemMaterialComposition in GDSN Common (backed out from initial 3.1.8 design)</li> <li>Reverted TextileMaterialModule to 3.1.3 design.</li> <li>Changed provinceStateCode to length of 1..80 to match Shared Common attribute</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 3.1.8 | Community Review |

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |       |                  |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|------------------|
| <ul style="list-style-type: none"> <li>• Changed data type of directPartMarkingIdentifier to identifier.</li> <li>• Removed compulsoryAdditionalLabelInformation from HealthRelatedInformation. This change will not be part of this release.</li> <li>• Added clinicallyRelevantCharacteristicOfMedicalDevice and clinicalWarningCode to HealthcareItemInformation.</li> <li>• Moved the class ClinicalSize from MedicalDevice to HealthcareItemInformation.</li> <li>• PackagingMarkingModule: <ul style="list-style-type: none"> <li>◦ Added new class (TradeItemIdentificationMarking)</li> <li>◦ Added tradeItemIdentificationMarkingTypeCode and tradeItemIdentificationMarkingValue</li> </ul> </li> <li>• handlingInstructionsCodeReference: Changed definition and Section 6.2 to reference use of HandlingInstructionsCode_GDSN in GDD and Code List BMS.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |       |                  |
| <ul style="list-style-type: none"> <li>• Corrected sequence of nutrientTypeCode and preparationStateCode in model (no impact on schemas)</li> <li>• HealthcareItemInformation <ul style="list-style-type: none"> <li>◦ Changed clinicalWarningCode from a code datatype to a new repeatable class containing ClinicalWarningAgencyCode and clinicalWarningCode.</li> </ul> </li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 3.1.8 | Eballot Comments |
| <ul style="list-style-type: none"> <li>• 4.1 Core Trade Item, GDD Report: Fixed typo from NextLowerLevelTradeItem to NextLowerLevelTradeItemInformation to be in line with UML model.</li> <li>• 5.3 AnimalFeedingModule, GDD Report: Added missing association to avpList in GDD report to be in line with Model.</li> <li>• 5.4 ApparelInformationModule, GDD Report: Fixed typo in class name from "ClosureFastnerInformation" to "ClosureFastenerInformation" + fixed typo in datatype from "ClosureOfFastenerTypeCode" to "ClosureOrFastenerTypeCode".</li> <li>• 5.14 ConsumerInstructionsModule, GDD Report: Fixed content type for dexterityUsageCode from "association" to "attribute" to be in line with model.</li> <li>• 5.15 Controlled Substance Module, GDD Report: added missing association from ControlledSubstanceInformation to avpList.</li> <li>• 5.15 Controlled Substance Module, GDD Report: Removed erroneous association from ControlledSubstance to avpList.</li> <li>• 5.18 DangerousSubstanceInformationModule, GDD Report: Removed one instance of avpList association in DangerousSubstanceProperties Class (there were 2) to be in line with model.</li> <li>• 5.19 DeliveryPurchasingInformationModule, GDD Report: Added missing association from DeliveryPurchasingInformation to avpList to be in line with model.</li> <li>• 5.20 DietInformationModule, GDD Report: Added missing association from DietInformation to avpList. Removed in GDD report inexistent association from DietTypeInformation to avpList.</li> <li>• 5.23 ElectronicDeviceCharacteristicsInformationModule, GDD Report: Added to gdd report the missing association from ElectronicDeviceCharacteristicsInformationModule to ImageDeviceResolutionInformation.</li> <li>• 5.24 FarmingAndProcessingInformationModule, GDD Report: fixed typo in name of</li> </ul> | 3.1.9 | Initial Draft    |



|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |  |  |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|
| <p>FarmingAndProcessingInformationModule from FarmingProcessingInformationModule.</p> <ul style="list-style-type: none"> <li>• 5.32 MarketingInformationModule, GDD Report: Added missing association from MarketingInformation to ChannelSpecificMarketingInformation.</li> <li>• 5.33 MedicalDeviceTradeItemModule, GDD Report: Fixed name of module from MedicalDeviceInformationModule to MedicalDeviceTradeItemModule + removed empty association from GDD Report for MedicalDeviceInformation.</li> <li>• 5.38 ONIXPublicationFileInformationModule, GDD Report: Added missing GDD report for class TitleElement</li> <li>• 5.43 PackagingSustainabilityModule, GDD Report: corrected content type for avpList from Attribute to Association in PackagingSustainabilityModule class + corrected in GDD report avpList from Attribute to Association in LifeCycleIndicators class + corrected in GDD report avpList from Attribute to Association in IndividualPackagingComponentLevel class + corrected in GDD report avpList from Attribute to Association in PackagingSustainabilityEconomicIndicators class.</li> <li>• 5.44 PharmaceuticalItemInformation, GDD Report: added missing association to Dosage in class PharmaceuticalItemInformation.</li> <li>• 5.45 PhysicalResourceUsageInformationModule, GDD Report: Added missing association from PhysicalResourceUsageInformation to avpList.</li> <li>• 5.55 SafetyDataSheetModule, GDD Report: Fixed typo in association from SafetyDataSheetInformation to ReferencedFileInformation (was ReferencedFileInformation).</li> <li>• 5.58 SoftwareSystemRequirementsModule, GDD Report: removed line for avpList in the module class it self and added missing avpList in SoftwareSystemsRequirements class.</li> <li>• 5.59 SustainabilityModule, GDD Report: Removed 2nd line for AVPList in SustainabilityInformation class to be in line with model.</li> <li>• 5.60 TextileMaterialModule, GDD Report: added missing association to avpList in TextileMaterialComposition class.</li> <li>• 5.63 TradeItemDisposalInformationModule, GDD Report: Added missing association to avpList in TradeItemDisposalInformationModule class and removed erroneous association to avpList in TradeItemDisposalInformation class.</li> <li>• 5.69 TradeItemMeasurementsModule, GDD Report: Fixed the named association tradeItemNonPackagedSize to NonPackagedSizeDimension from the TradeItemMeasurements class to be in line with model (was unnamed association to tradeItemnonPackagedSize).</li> <li>• 3.14 HazardousInformationHeader, GDD Report: Removed double association from HazardousInformationDetail to avpList to single one to be in line with model.</li> <li>• 5.38 ONIXPublicationFileInformationModule: Added missing UML diagram for ONIXTitleElement class + fixed name of attribute from publicationDateTimeCode to publicationDateTypeCode + fixed datatype for the same attribute from ONIXPublicationType to ONIXPublicationTypeCode.</li> <li>• 5.14 ConsumerInstructionsModule, GDD Report and UML diagram: Added new attribute</li> </ul> |  |  |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |       |                  |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|------------------|
| <p>productUsageBodyLocationCode to class Consumer Instructions. + added missing content type "Association" to association from consumerInstructionsModule to class ConsumerInstructions + Added missing content type "Attribute" to consumerStorageInstructions, consumerUsageInstructions. Updated UML diagram for the codes with the new added ProductUsagebodyLocationCode datatype</p> <ul style="list-style-type: none"> <li>• 5.17 DairyFishMeatPoultryItemModule: Added new attribute catchAreaCode to class FishCatchInformation in both class diagram and gdd report.</li> <li>• 3.8 CertificationInformation: Added new attribute isCertificateRequired to both class diagram and GDD Report,</li> <li>• 5.19 DeliveryPurchasingInformationModule: Added startDateTimeOfExclusivity in GDD report and class diagrams. (DeliveryPurchasingInformation class)</li> <li>• 5.56 SalesInformationModule: Added new attribute tradeItemExclusiveSellingLocationCode (SalesInformation class) in GDD report and class diagrams.</li> <li>• 3.16 OrganicInformation: Added new attribute organicClaimAgencyName. (Both class diagram and gdd report + section 7.1)</li> <li>• 3.17 NonpackagedSizeDimension: Added new attribute isSizeTypeVariant (In class diagram, gdd report and section 7.1)</li> <li>• 5.32 MarketingInformationModule: Added new attribute targetConsumerAgeGroupCode to class TargetConsumer (in GDD, class diagram and section 7.1). Added missing content type "Attribute" to attribute caseDescription in GDD report.</li> </ul> |       |                  |
| <ul style="list-style-type: none"> <li>• Added "<b>Please use the CatchAreaCode_GDSN codelist.</b>" To the definition of catchAreacode.</li> <li>• Added a period at the end of definition of organicClaimAgencyName.</li> <li>• Backed out the following changes: <ul style="list-style-type: none"> <li>○ Added BMS Ids to the attributes, associations, classes and modules.</li> <li>○ 5.4 ApparelInformationModule, added GDD report for NonPackagedSizedimension with unique BMS Ids.</li> <li>○ 5.8 Audio Visual Media Production Information Module: Added GDD report for AspectRatioInformation with unique BMS Id</li> <li>○ 5.10 Battery Information Module: Added GDD report for TradeItemMaterial and Country with unique BMSId</li> <li>○ 5.11 Certification Information Module: Added GDD Report for CertificationInformation and all associated classes with unique BMS Id</li> <li>○ 5.12 chemical Regulation Information Module: Added GDD report for RegistrationInformation with unique BMS Id</li> <li>○ 5.13 Child Nutrition Information Module: Added GDD Report for ReferencedFileInformation classes with unique BMS Id</li> <li>○ 5.14 Consumer Instructions Module: Added GDD Report for ExternalCodeValueInformation with associated class including unique BMS Ids.</li> <li>○ 5.16 Copyright Information Module: Added GDD report for PartyIdentification including BMS Ids.</li> <li>○ 5.18 Dangerous Substance Information Module: Added GDD report for</li> </ul> </li> </ul>                                                | 3.1.9 | Community Review |



|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |       |                        |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|------------------------|
| <ul style="list-style-type: none"> <li>ExternalCodeValueInformation and DangerousHazardousLabel with unique BMS Ids.</li> <li>5.19: Delivery Purchasing Information Module: Added GDD report with unique BMS IDs for IncotermInformation</li> <li>5.20 Diet Information Module: Added GDD report for CertificationInformation and associated classes with unique BMS Ids.</li> <li>5.25 Food and Beverage Ingredient Module: Added GDD reports for AdditiveInformation, FarmingAndProcessingInformation, OrganicInformation, PartyInRole and PlaceOfProductActivity with unique BMS IDs</li> <li>5.60 Textile Material Module: In GDD Report, added missing association to avpList in TextileMaterialComposition class (bms id 3464)</li> <li>5.11 Certification Information Module: Added new attribute isCertificateRequired to both class diagram and GDD Report,</li> <li>5.20 Diet Information Module: Added new attribute isCertificateRequired to both class diagram and GDD Report,</li> <li>5.25 Food And Beverage Ingredient Module: Added new attribute organicClaimAgencyName. (Both class diagram and gdd report + section 7.1) (BMS Id 6156)</li> <li>5.24 Farming And Processing Information Module: Added new attribute organicClaimAgencyName. (Both class diagram and gdd report + section 7.1) (BMS Id 6155)</li> <li>5.69 Trade Item Measurements Module: Added new attribute isSizeTypeVariant (In class diagram, gdd report and section 7.1) (BMS ID 6158)</li> <li>5.4 Apparel Information Module: Added new attribute isSizeTypeVariant (In class diagram, gdd report and section 7.1) (BMS ID 6157)</li> </ul> |       |                        |
| <ul style="list-style-type: none"> <li><del>Added section 1.4 on document conventions + marked all documentation only changes that were previously marked in red in green now.</del></li> <li>In table 7.1 made productUsageBodyLocationCode G/L from G based on comment Steve Robba.</li> <li>Added missing attribute nutritionalScore to HealthRelatedInformation class + updated class diagram and GDD. + Added to section 7.1.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 3.1.9 | Community Review 2     |
| <ul style="list-style-type: none"> <li>5.17 Dairy Fish Meat Poultry Item Module: Updated FishReportingInformation UML diagram to reflect catchAreaCode datatype is catchAreaCode_GDSN. Also updated the code diagram to include catchAreaCode_GDSN. + Changed datatype in GDD report from CatchAreaCode to CatchAreaCode_GDSN + removed "Please use the CatchAreaCode_GDSN codelist." from definition.</li> <li>5.56 Sales Information Module: Updated code uml diagram by adding TradeItemExclusiveSellingLocationCode.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 3.1.9 | XML Developer comments |
| <ul style="list-style-type: none"> <li>5.28 Health Related Information Module: Backed out nutritionalScore attribute from UML, GDD Report and section 7.1 as this attribute can only go in in a next release.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 3.1.9 | eBallot comments       |
| <ul style="list-style-type: none"> <li>5.28 Health Related Information Module: Reintroduced nutritionalScore attribute from UML, GDD Report and section 7.1 by agreement.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 3.1.9 | eBallot Comments       |

|                                                                                                                                                                                                                                                                                                   |       |                              |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|------------------------------|
| <ul style="list-style-type: none"><li>5.28 Health Related Information Module: Added constraint of {1..80} to nutritionalScore attribute for clarification purposes only. + Removed compulsoryAdditionalInformation attribute from UML as it was never in this nor any previous release.</li></ul> | 3.1.9 | eBallot<br>Comments<br>1.4.7 |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|------------------------------|