



TSD Product Data Modules Standard

the normative specification for standard data exchanged with the product data modules in the GS1 Source framework.

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Contributors

Name	Organisation
Marc Benhaim, working group co-chair	GS1 France
Edward Collins, working group co-chair	Brandbank
Steven Robba, working group co-chair	1WorldSync Holdings, Inc.
Alvarez, Pete	GS1 GO
Angelo, Kerry	GS1 Community Room Staff
Ausili, Andrea	GS1 Italy
Beideman, Robert	GS1 GO
Beno, Martin	GS1 Slovakia
Bersani, Bob	GS1 Global Office
Besford, Robert	GS1 UK
Bigler, Lori	The J.M. Smucker Company
Bixler, Jeffrey	Georgia Pacific
Bradley, Ardetha	Georgia Pacific
Brown, Scott	GS1 US
Burd, Randy	MultiAd Kwiikee
Dean, Kevin	GS1 Canada
Dicks, Arne	GS1 Germany
Edison, Carol	GS1 US
el kalla, ahmed	GS1 Egypt
Espinosa, Juliet	GS1 Columbia
Fahoum, Terri	The J.M. Smucker Company
Felipe, Juan	GS1 Columbia
Gathmann, Stefan	GS1 Ireland
Gerasimenko, Alexander	Mars, Inc.
Gray, Neil	GS1 UK
Green, Cameron	GS1 Global Office
Gupta, Sudu	ITradeNetwork.com, Inc.

Name	Organisation
Hakala, Pertti	GS1 Finland
Herregodts, Kurt	GS1 Belgium & Luxembourg
Hylar, Alan	GS1 Global Office
Ichihara, Hideki	GS1 Japan
Iwasaki, Yoshihiko	GS1 Japan
Kauz, Eric	GS1 Global Office
Kidd, Robin	Nestle
Kolwane, Neville	GS1 South Africa
Kovacic, Bojan	GS1 Slovenia
Kurmanova, Kamilla	GS1 Russia
Lekwana, Pedro	GS1 South Africa
Lockhead, Sean	GS1 Global Office
Meldgaard, Charlotte	GS1 Denmark
Moreno, Sandra	GS1 Colombia
Moreno, Sandra	GS1 Columbia
Moritz, Marcus	GS1 Germany
Nachman-Ghnassia, Sophie	France Telecom Orange
Nuce, Melanie	GS1 US
Nunez, Katrin	Summa Technology Group
Ochoa, Juan	GS1 Colombia
Ogandzhanov, Georgy	GS1 Russia
Ottiker, Michel	GS1 Switzerland
Paixac, Silverio	GS1 Portugal
Pereira, Steven	GS1 Australia
Picoito, Joao	GS1 Portugal
Pujol, Xavier	GS1 Spain
Ramos, Carlos	GS1 Mexico
Rasmussen, Thomas	GS1 Denmark
Reithmeier, Michaela	GS1 Austria
Repec, Craig Alan	GS1 Global Office
Richardson, Rich	GS1 US
Roberts, Toni	Costco
Rubio Alegren, Sylvia	ICA AB
Sarachman, Michael	GS1 Global Office
Schins, Armand	Ahold (Europe)
Scott, Luke	Unknown-On Webex
Sieira, Marcel	GS1 Australia
Simonalle, Kim	epcSolutions inc.
Sinitsyn, Andrey	ItRuStore Ltd.
Slone, Joe	1WorldSync Holdings, Inc.

Name	Organisation
Soboleva, Olga	GS1 Russia
Spindler, Mike	ShelfSnap LLC
Stein, Sylvia	GS1 Netherlands
Tomassi, Gina	PepsiCo, Inc.
Traub, Ken	Ken Traub Consulting LLC
Vacval, Milan	Gladson Interactive
Whittington, Wade	Georgia Pacific LLC
Zegre, Michael	Saphety Level SA
Dipan Anarkat, B2C working group facilitator	GS1 Global Office
Mark Frey, GSMP working group facilitator	GS1 Global Office
Coen Janssen, Editor and modeller	GS1 Global Office
Ewa Iwicka, XML development	GS1 Global Office

Log of Changes

Release	Date of Change	Changed By	Summary of Change
i1.1-d1	25-feb-2013	Coen Janssen	<p>WR-12-000355 Basic ProductInformation Module</p> <ul style="list-style-type: none"> Added: regulatedProductName, packagingSignatureLine <p>Nutritional Information Module:</p> <ul style="list-style-type: none"> changed data type of dailyValueIntakePercent from float into decimal added TSD qualifiers to all code data types. <p>New modules:</p> <ul style="list-style-type: none"> Product Allergen Information Module Product Claims and Endorsements Module Product Quantity Information Module Product Origin Information Module Product Instructions Module Food and Beverage Ingredient Information Module <p>Food and Beverage Preparation Information Module</p>
i1.1	Jul-2013	Coen Janssen	eBallot successful, changed document status into Unratified and removed revision markings.
d1.2	Mar-2015	Mark Van Eeghem	<p>Added this summary of change:</p> <ul style="list-style-type: none"> Updated UML diagram and data definition in 4.1 to show addition of association to class TSD_PackagingMarking + addition of new attribute functionalName. Added section 4.1.5 for the new PackagingMarking class Updated section 5.1 XML Schemas to reflect update to 1.2 Created Section 5.10 for XML schema Nonfood Ingredient Information Module <p>Updated appendix with mapping to GDSN for Phase 3 attributes.</p>

Release	Date of Change	Changed By	Summary of Change
1.2	May 2015	D. Buckley	Applied new GS1 Branding and release number following board ratification. No text changes whatsoever.
1.2.1	Sep 2016	Mark Van Eeghem	<ul style="list-style-type: none"> ■ Processed as errata for attributes that had to be included: ■ Inserted new attribute tradeItemVariantTypeCode in 4.1 ■ Added new Class "Colour" to provide colourCode and colourDescription in 4.1 and 4.1.5 ■ Added new attribute "subBrand" in 4.1.1 ■ Added new attribute "languageSpecificSubbrandName" in 4.1.1 ■ Removed section 5 "Schemas" as these will as of now be provided as a separate package. ■ Updated the mapping section for the new attributes.

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1 Scope

Product data is defined in several modules. This standard defines the following product data modules:

- *Basic Product Information* - This module contains common identifying information for a product. This data is intended to be suitable to assist an end user in understanding to which product a given data set pertains.
- *Product Allergen Information* - This module contains data pertaining to any allergens contained in a product, including those data elements that are of interest to consumers, are commonly available on the product label, and are defined in the Global Data Synchronization Network (GDSN).
- *Product Claims and Endorsements* - This module contains data pertaining to symbols and statements that have been authorized by regulators or other agencies, including those data elements that are of interest to consumers, are commonly available on the product label, and are defined in the Global Data Synchronization Network (GDSN).
- *Product Instructions* - This module contains data pertaining to the instructions on storage and usage of the product, including those data elements that are of interest to consumers, are commonly available on the product label, and are defined in the Global Data Synchronization Network (GDSN).
- *Product Origin Information* - This module contains data pertaining to the origin of the product, including those data elements that are of interest to consumers, are commonly available on the product label, and are defined in the Global Data Synchronization Network (GDSN).
- *Product Quantity Information* - This module contains data pertaining to the physical quantity contained in a product, including those data elements that are of interest to consumers, are commonly available on the product label, and are defined in the Global Data Synchronization Network (GDSN).
- *Food and Beverage Ingredient Information* - This module contains data pertaining to the ingredient content of a food product, including those data elements that are of interest to consumers, are commonly available on the product label, and are defined in the Global Data Synchronization Network (GDSN).
- *Food and Beverage Preparation Information* - This module contains data pertaining to the preparation of a food product, including those data elements that are of interest to consumers, are commonly available on the product label, and are defined in the Global Data Synchronization Network (GDSN).
- *Nutritional Product Information* - This module contains data pertaining to the nutritional content of a food product, including those data elements that are of interest to consumers, are commonly available on the product label, and are defined in the Global Data Synchronization Network (GDSN).
- *Nonfood Ingredient Information* - This module contains data pertaining to the ingredient content of a nonfood product, including those data elements that are of interest to consumers, are commonly available on the product label, and are defined in the Global Data Synchronization Network (GDSN).
- *Product Usage And Safety* - This module contains data pertaining to the product usage and safety instructions of the product, including those data elements that are of interest to consumers, are commonly available on the product label, and are defined in the Global Data Synchronization Network (GDSN).

For each module the standard defines the following:

- Abstract data definitions for product data delivered by Data Aggregators to Internet Applications.
- XML schemas that implement the abstract data definitions and the messages implied by the abstract interface definitions

Future versions of this standard may add additional modules.

2 References

Normative references:

- [GS1GS] GS1, "GS1 General Specifications Version 12," January 2012.
- [GS1TSD] GS1, "Trusted Source of Data (TSD) Version 1.1, 2013
- [INFOODS] Klensin et al, "Identification of Food Components for INFOODS Data Interchange," Tokyo: United Nations University, 1989, with updates through June 2007. <http://www.fao.org/infoods/infoods/standards-guidelines/food-component-identifiers-tagnames/en/>
- [ISO3166] "Codes for the representation of names of countries and their subdivisions -- Part 1: Country codes," ISO 3166-1:2006.
- [ISO639] "Codes for the representation of names of languages -- Part 1: Alpha-2 code," ISO 639-1:2002.
- [ISODir2] ISO/IEC Directives part 2; Rules for the structure and drafting of International Standards – 6th edition, 2011
- [UNECE20] United Nations Economic Commission for Europe, "Recommendation No. 20: Codes for Units of Measure Used in International Trade, Revision 7," September 2010, http://www.unece.org/fileadmin/DAM/cefact/recommendations/rec20/rec20_Rev7e_2010.zip.
- [GDSN 2.8 Code Lists] Global Data Dictionary, Code Lists v2.8, http://apps.gs1.org/GDD/bms/Version2_8/SitePages/Home.aspx

3 Terms and definitions

Within this specification, the terms SHALL, SHALL NOT, SHOULD, SHOULD NOT, MAY, NEED NOT, CAN, and CANNOT are to be interpreted as specified in Annex G of the ISO/IEC Directives, Part 2, 2001, 4th edition [ISODir2]. When used in this way, these terms will always be shown in ALL CAPS; when these words appear in ordinary typeface they are intended to have their ordinary English meaning.

All sections of this document, with the exception of the introduction, are normative, except where explicitly noted as non-normative.

The following typographical conventions are used throughout the document:

- ALL CAPS type is used for the special terms from [ISODir2] enumerated above.
- Monospace type is used to denote programming language, UML, and XML identifiers, as well as for the text of XML documents.
- Placeholders for changes that need to be made to this document prior to its reaching the final stage of approved GS1 specification are prefixed by a rightward-facing arrowhead, as this paragraph is.

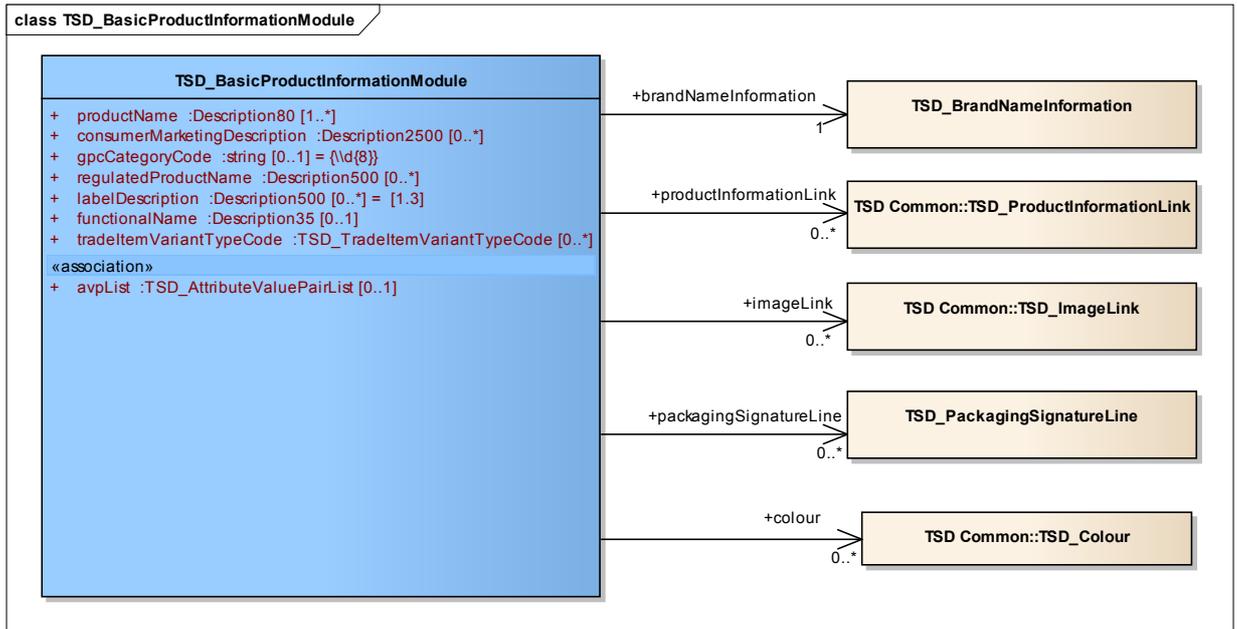
4 Data Model – Abstract Definition

4.1 Basic Product Information Module

The Basic Product Information Module carries the [basic information needed](#) to recognize a product. The module is intended for all [product categories](#).

Class Diagram

The following UML diagram expresses the data content of the Basic Product Information module.



Data Definitions

The data content of `TSD_BasicProductInformationModule` SHALL be as specified in the following table.

Data Element	Type	Cardinality	Description
productName	Description80 ([GS1TSD] section 6.2.6)	1..*	Consumer friendly short description of the product suitable for compact presentation. Each Description80 structure SHALL have a different language code, and SHALL represent presentations of the same value in different languages.

Data Element	Type	Cardinality	Description
consumerMarketingDescription	Description2500 ([GS1TSD] section 6.2.6)	0..*	Consumer-friendly marketing detailed description of the product. Each Description2500 structure SHALL have a different language code, and SHALL represent presentations of the same value in different languages.
gpcCategoryCode	String	0..1	8-digit code specifying a product category according to the GS1 Global Product Classification (GPC) standard
regulatedProductName	Description500 ([GS1TSD] section 6.2.6)	0..*	The prescribed, regulated or generic product name or denomination that describes the true nature of the product. For example for a food product in order to distinguish it from other foods according to country specific regulations.
functionalName	Description35	0..1	The function of the product.
tradeItemVariantTypeCode	TSD_TradeItemVariantTypeCode (see below)	0..*	Provides a code to identify the variant type of the product (e.g. Flavour).
brandNameInformation	TSD_BrandNameInformation (below)	1	The brand name of the product.
productInformationLink	TSD_ProductInformationLink (below)	0..*	URLs linking to product information provided by the brand owner.
imageLink	TSD_ImageLink (below)	0..*	Images provided by the brand owner
packagingSignatureLine	TSD_PackagingSignatureLine (below)	0..*	Name, address and contact information as present on the packaging (for example for the brand owner or importer, distributor, ..). This information MAY be repeated for different parties presented on the packaging.
colour	TSD_Colour (below)	0..*	Information specifying a colour in text and / or coded format.

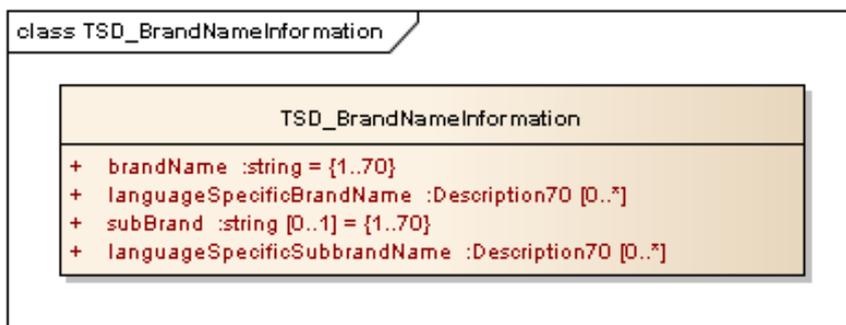
Data Element	Type	Cardinality	Description
avpList	TSD_AttributeValuePairList ([GS1TSD] section 6.2.8)	0..1	Temporary attributes introduced between minor versions; see [GS1TSD] section 6.2.8.

The value of tradeItemVariantTypeCode SHALL be one of the following:

Value	Description
FLAVOUR	A quality that affects the sense of taste.
SCENT	A quality that affects the sense of scent

4.1.1 Brand Name Information

Class Diagram



Data Definitions

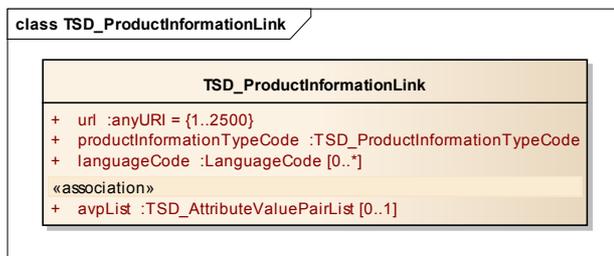
The data content of a TSD_BrandNameInformation structure SHALL be as follows:

Data Element	Type	Cardinality	Description
brandName	String	1	The brand name of the product that appears on the consumer package.
languageSpecificBrandName	Description70 ([GS1TSD] section 6.2.6)	0..*	An alternate form of the brand name for a specified language.
languageSpecificSubbrandName	Description70	0..*	A second level of brand expressed in a different language than the primary sub-brand name (subBrand).

Data Element	Type	Cardinality	Description
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.

4.1.2 Product Information Link

Class Diagram



Data Definitions

The data content of a TSD_ProductInformationLink structure SHALL be as follows:

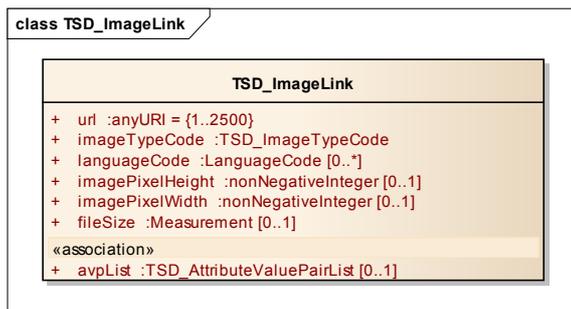
Data Element	Type	Cardinality	Description
url	AnyURI (up to 2500 characters)	1	Uniform Resource Locator (URL) that references a World-Wide Web resource providing information about the product. The value of url SHALL be an absolute URL with or without a fragment identifier, as specified in [RFC3986]; relative URL references SHALL NOT be used.
productInformationTypeCode	TSD_ProductInformationTypeCode	1	Code specifying the type of product information available at the specified url.
languageCode	LanguageCode ([GS1TSD] section 6.2.3)	0..*	Language codes specifying the language(s) for which this URL applies, or omitted if this URL applies to all languages
avpList	TSD_AttributeValuePairList ([GS1TSD] section 6.2.8)	0..1	Temporary attributes introduced between minor versions; see [GS1TSD] section 6.2.8.

The value of `productInformationTypeCode` SHALL be one of the following:

Value	Description
AUDIO	Link to a file containing an audio clip which is relevant to the product. Examples are commercials, or instructional/how to use audio files.
CONSUMER_HANDLING_AND_STORAGE	Link to website, file, or image containing the Manufacturer's recommendations for how the consumer or end user should store and handle the product.
DOCUMENT	Link to a document or text file containing product information. Examples of this type could be an instruction manual, assembly guide, or warranty document.
IFU	Link to a file containing the Instructions For Use (IFU). This type of file is primarily used in conjunction with ingestible products, regardless of species.
MARKETING_INFORMATION	Link to a file with product information associated with selling a product or service.
OTHER_EXTERNAL_INFORMATION	Link to a file containing product information of an unspecified type.
VIDEO	Link to a file containing a video clip which is relevant to the product. Examples are commercials, trailers, or instructional/how to use video files.
WARRANTY_INFORMATION	Link to a file with information associated with any guarantee given by a company stating that a product is reliable and free from known defects and that the seller will, without charge, repair or replace defective parts within a given time limit ad under certain conditions.
WEBSITE	Link to a website containing product or manufacturer information.

4.1.3 Image Link

Class Diagram



Data Definitions

The data content of a TSD_ImageLink structure SHALL be as follows:

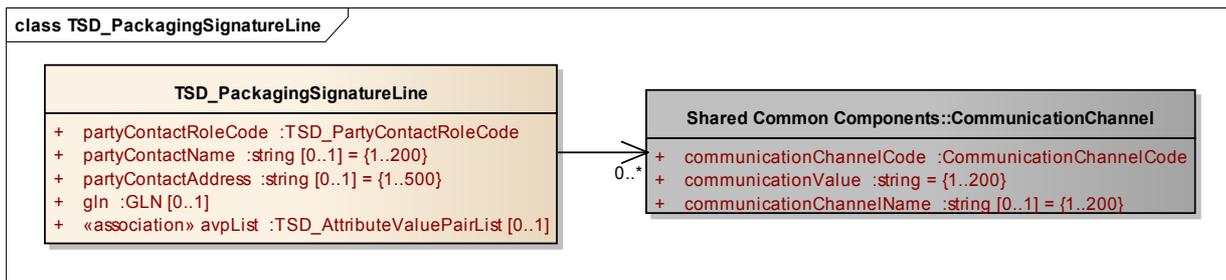
Data Element	Type	Cardinality	Description
url	AnyURI (up to 2500 characters)	1	Uniform Resource Locator (URL) that references a World-Wide Web resource providing a product image. The value of url SHALL be an absolute URL without a fragment identifier, as specified in [RFC3986]; relative URL references SHALL NOT be used.
imageTypeCode	TSD_ImageTypeCode	1	Code specifying the type of images available at the specified url.
languageCode	LanguageCode ([GS1TSD] section 6.2.3)	0..*	Language codes specifying the language(s) for which this image applies, or omitted if this image applies to all languages.
imagePixelHeight	nonNegativeInteger	0..1	The number of pixels along the vertical axis of the image.
imagePixelWidth	nonNegativeInteger	0..1	The number of pixels along the horizontal axis of the image.
fileSize	Measurement ([GS1TSD] section 6.2.7)	0..1	Measure of the size of the file, expressed as value and unit of measure code. Example: 2 megabytes.
avpList	TSD_AttributeValue PairList ([GS1TSD] section 6.2.8)	0..1	Temporary attributes introduced between minor versions; see ([GS1TSD] section 5.4.1.

The value of imageTypeCode SHALL be one of the following:

Value	Description
LOGO	Link to a file containing the Manufacturer or Brand Logo(s) associated with the product.
OUT_OF_PACKAGE_IMAGE	Link to an image of an item out of its packaging and, if necessary, assembled ready for use by the end user. This type of file is subject to the GDSN Product Image Specification Standard.
PRODUCT_IMAGE	Link to a file containing a visual representation of the product.
PRODUCT_LABEL_IMAGE	Link to a file containing a visual representation of the product label.

4.1.4 Packaging Signature Line

Class Diagram



Data Definitions

The data content of a TSD_PackagingSignatureLine structure SHALL be as follows:

Data Element	Type	Cardinality	Description
partyContactRoleCode	TSD_PartyContactRoleCode (see below)	1..1	Code specifying the role of the party or contact.
partyContactName	string {1..200}	0..1	The name of the party or contact expressed as text.
partyContactAddress	string {1..500}	0..1	The address associated with the party / 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.
gln	GLN ([GS1TSD] section 6.2.5)	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.
communicationChannel	CommunicationChannel (see below)	0..*	Communication details for the party or contact. MAY be repeated for different communication channel types.
avpList	TSD_AttributeValuePairList ([GS1TSD] section 6.2.8)	0..1	Temporary attributes introduced between minor versions.

The value of partyContactRoleCode SHALL be one of the following:

Value	Description
BRAND_OWNER	The organization that owns the specifications of the product regardless of where and by whom it is manufactured is normally responsible for the allocation of the Global Trade Item Number (GTIN).
DISTRIBUTOR	Party distributing goods, financial payments or documents.
EXPORTER	Party who makes - or on whose behalf a Customs clearing agent or other authorized person makes - an export declaration. This may include a manufacturer, seller or other person. Within a Customs union, consignor may have the same meaning as exporter
IMPORTER	Party who makes - or on whose behalf a Customs clearing agent or other authorized person makes - an import declaration. This may include a person who has possession of the goods or to whom the goods are consigned.
MANUFACTURER_OF_GOODS	Party who manufactures the goods.
MANUFACTURING_PLANT	A physical location consisting of one or more buildings with facilities for manufacturing.
REGISTERED_AGENT	The party having legal responsibility for the product in the target market for example a company to which market authorization has been issued.
WHOLESALE	Seller of articles, often in large quantities, to be retailed by others.

Value	Description
CXC	Consumer Support. The party which provides product support to the end user of a trade item or a service (GS1 Code)

The data content of a `CommunicationChannel` structure SHALL be as follows:

Data Element	Type	Cardinality	Description
<code>communicationChannelCode</code>	Communication ChannelCode (see below)	1..1	Code specifying the type of communication channel, for example TELEPHONE.
<code>communicationChannelName</code>	string	0..1	The name of a specific communication channel for example Facebook, Twitter, etc.
<code>communicationChannelValue</code>	string	1..1	Text identifying the endpoint for the communication channel, for example a telephone number or an e-mail address.

The value of `communicationChannelCode` SHALL be one of the following:

Value	Description
EMAIL	Creating/sending/receiving of unstructured free text messages or documents using computer network, a mini-computer or an attached modem and regular telephone line or other electronic transmission media.
SOCIAL_MEDIA	A social media address.
TELEFAX	Device used for transmitting and reproducing fixed graphic material (as printing) by means of signals over telephone lines or other electronic transmission media.
TELEPHONE	Voice/data transmission by telephone.
WEBSITE	The identification of a world wide web address.

4.1.5 Colour



Data Definitions

The data content of a TSD_Colour structure SHALL be as follows:

Data Element	Type	Cardinality	Description
colourCode	TSD_ColourCode (see below)	0..1	A code depicting the colour of an object according to a specified code list.
colourDescription	Description80	0..*	A description of a colour of an object.

The value of colourCode SHALL be one of the following:

Value	Name	Description
1	National Retail Federation	National Retail Federation – Standard Colour & Size Codes This handbook provides guidelines for use in retailers' and vendors' merchandising and communications systems.
10	NCS	NCS: Natural Colour System is a national standard for colour in Sweden, Norway, Spain and South Africa, has extensive international distribution. http://www.ncscolour.com
11	IFPS	IFPS: The International Federation for Produce Standards. IFPS is composed of national produce associations from around the globe. The long term objective of the federation is to improve the supply chain efficiency of the fresh produce industry through developing, implementing and managing harmonized international standards. http://www.ifpsglobal.com/ProductIdentification.aspx
2	PANTONE MATCHING SYSTEM	The definitive international reference for selecting, specifying, matching and controlling ink colours. The PANTONE formula guide, a three-guide set consisting of 1,114 solid PANTONE Colours on coated, uncoated and matte stock, shows corresponding printing ink formulas for each colour, and the three-book set of solid chips provides coated, uncoated and matte perforated tear-out chips that can be used for quality control. Pantone® Inc
3	PANTONE Process Colour System®	Provides a comprehensive palette of more than 3,000 colours achievable in four-color (CMYK) process printing. The PANTONE solid to process guide compares a solid PANTONE Colour to the closest possible match in CMYK four-color process that can be achieved on a computer monitor, output device or printing press. Other PANTONE Colour Reference Guides for the graphic arts include metallic, pastels, tints, duotones, film and foil. The PANTONE Hexachrome® Color System. Pantone® Inc
4	The PANTONE Hexachrome® Color System	A six-colour ultra high quality printing process, reproduces a dynamic range of more brilliant continuous-tone images and simulates brighter, more vivid colours than standard four-color process printing. Pantone® Inc
5	PANTONE TEXTILE Colour System®	A vital tool for designers in the apparel, home furnishings and interior design industries for selecting and specifying colour used in the manufacture of textiles and fashion. The System - consisting of 1,932 colours in cotton or paper format - is ideal for assembling creative palettes and conceptual colour schemes, and for providing colour communication and control in the manufacturing process. In January of 2001 Pantone Inc. included the NRF Colour Codes into the PANTONE TEXTILE Color System
6	Assigned by Buyer	Assigned by Buyer
7	Assigned by Seller	Assigned by Seller
8	WWS	(Waren Wirtschafts System): A colour code system used in Germany for the standardisation of colours within the fashion/apparel sector.

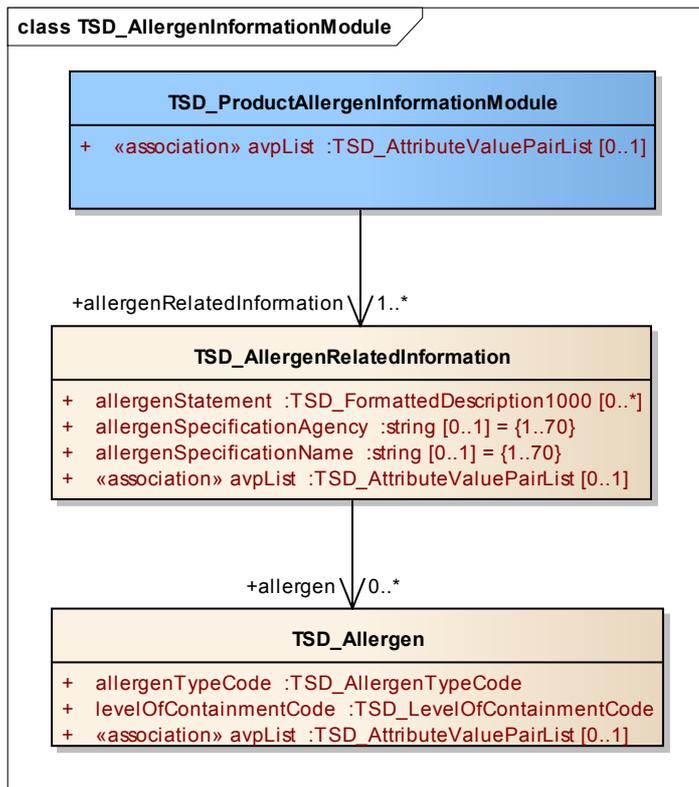
Value	Name	Description
9	RAL	RAL: Farbsystem RAL colour system is an international colour standard for professional users of colours in industry, trade, architecture and design since 1927. RAL is an independent and neutral partner for industry and trade. http://www.ral.de .

4.2 Product Allergen Information Module

The Allergen Information Module carries the allergen warnings on the product. The module is intended for all product categories.

Class Diagram

The following UML diagram expresses the data content of the Product Allergen Information module.



Data Definitions

The data content of a **TSD_ProductAllergenInformationModule** structure SHALL be as follows:

Data Element	Type	Cardinality	Description
allergenRelated Information	TSD_AllergenRelated Information (below)	1..*	Information about substances that might cause allergic reactions and substances subject to intolerance when consumed. The allergy information refers to specified regulations that apply to the target market to which the item information is published.
avpList	TSD_AttributeValue PairList ([GS1TSD] section 6.2.8)	0..1	Temporary attributes introduced between minor versions; see [GS1TSD] section 5.4.1.

The data content of a TSD_AllergenInformation structure SHALL be as follows:

Data Element	Type	Cardinality	Description
allergenStatement	TSD_FormattedDescription1000 ([GS1TSD] section 6.2.9)	0..*	Textual description of the presence or absence of allergens as governed by local rules and regulations, specified as one string. Each TSD_FormattedDescription1000 structure SHALL have a different language code, and SHALL represent presentations of the same value in different languages.
allergenSpecification Agency	string {1..70}	0..1	Agency that controls the allergen definition.
allergenSpecification Name	string {1..70}	0..1	Free text field containing the name and version of the regulation or standard that contains the definition of the allergen.
allergen	TSD_Allergen (below)	0..*	Detailed information per individual allergen.
avpList	TSD_AttributeValuePairList ([GS1TSD] section 6.2.8)	0..1	Temporary attributes introduced between minor versions; see [GS1TSD] section 5.4.1.

The data content of a TSD_Allergen structure SHALL be as follows:

Data Element	Type	Cardinality	Description
allergenTypeCode	TSD_AllergenTypeCode	1..1	Code specifying the type of allergen.
levelOfContainmentCode	TSD_LevelOfContainmentCode	1..1	Code specifying the level of presence of the allergen.
avpList	TSD_AttributeValuePairList ([GS1TSD] section 6.2.8)	0..1	Temporary attributes introduced between minor versions; see [GS1TSD] section 5.4.1.

The value of allergenTypeCode SHALL be a value defined in the GS1 Allergen Type Code List (urn:gs1:gdd:cl:AllergenTypeCodeList), GDSN version 2.8.

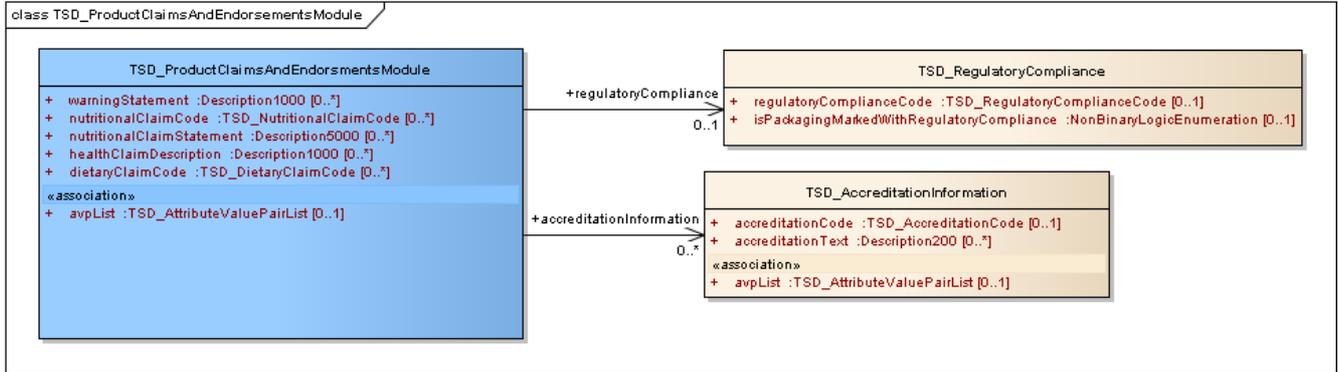
The value of levelOfContainmentCode SHALL be one of the following:

Value	Description
CONTAINS	Intentionally included in the product.
FREE_FROM	The product is free from the indicated substance.
MAY_CONTAIN	The substance is not intentionally included, but due to shared production facilities or other reasons, the product may contain the substance.

4.3 Product Claims and Endorsements Module

The Product Claims and Endorsements Module carries information on claims that may be regulated or endorsed by external agencies. The module is intended for all product categories.

Class Diagram



Data Definitions

The data content of a TSD_ProductClaimsAndEndorsementsModule structure SHALL be as follows:

Data Element	Type	Cardinality	Description
warningStatement	Description1000 ([GS1TSD] section 6.2.6)	0..*	Text that outlines special requirements, warning and caution information printed on the package. Includes information on precautions to be taken before preparation or consumption of a food product. Repetitions for the same language are allowed.
nutritionalClaimCode	TSD_NutritionalClaimCode (see below)	0..*	Code specifying a nutritional claim applicable to the product.
nutritionalClaimStatement	Description5000 ([GS1TSD] section 6.2.6)	0..*	Free text field for any additional nutritional claims. Repetitions for the same language are allowed.
healthClaimDescription	Description1000 ([GS1TSD] section 6.2.6)	0..*	Free text description of a health claim according to regulations of the target market. Repetitions for the same language are allowed.
dietaryClaimCode	TSD_DietaryClaimCode	0..*	Code specifying a dietary claim applicable to the product.
RegulatoryCompliance	TSD_RegulatoryCompliance (below)	0..1	Details on a specific regulatory compliance symbol or code present on the packaging.
AccreditationInformation	TSD_AccreditationInformation (below)	0..*	Details on a specific symbol or statement that is present on the packaging, showing that the trade item received recognition, endorsement, certification by the accrediting agency. This does not represent claims for regulatory purposes on products such as free from markings.

Data Element	Type	Cardinality	Description
avpList	TSD_AttributeValue PairList ([GS1TSD] section 6.2.8)	0..1	Temporary attributes introduced between minor versions. See [GS1TSD] section 5.4.1.

The value of dietaryClaimCode SHALL be one of the following:

Value	Description
APPROVED_BY_ASTHMA_AND_ALLERGY_ASSOC	Definitions made by the asthma and allergist association.
APPROVED_FOR_TUBE_FEEDING	The item is physically marked that it is approved for tube feeding by the appropriate authority of the target market.
BEWUSTE_KEUZE	Identifies non-staple or non-essential products (e.g. soup, candy, desserts, etc.) that offer more nutritional value or less contain less of potentially harmful ingredients (such as sugar, salt, fat) in comparison to similar items according to the guidelines of the Dutch Wetenschappelijke Commissie. See: http://www.ikkiesbewust.nl/
BIOLOGICAL	Indicates the product has been marked as a biological item which indicates a food product that was produced with the use of feed or fertilizer of plant or animal origin, without employment of chemically formulated fertilizers, growth stimulants, antibiotics or pesticides.
CALORIES_PER_PORTION	Indicates the product has a marking with the calories per portion contained in the product.
DIET_PRODUCT_450_800_KCAL_PER_DAY	The item is physically marked that it is approved for a 450-800 kilocalorie/day diet by the appropriate authority of the target market.
DIET_PRODUCT_800_1200_KCAL_PER_DAY	The item is physically marked that it is approved for a 800-1200 kilocalorie/day diet by the appropriate authority of the target market.
GEZONDE_KEUZE_KLAVERTJE	Health symbol used in the Netherlands Target Market which indicates that the item is a cholesterol-reducing product.
GEZONDERE_KEUZE	Identifies basic staple products (such as fruit, milk, bread, etc.) that constitute a healthier choice for consumers because of their higher nutritional value in comparison to similar products according to the guidelines of the Dutch Wetenschappelijke Commissie. See: http://www.ikkiesbewust.nl/
HALAL	Indicates the product has been marked as Halal which denotes selling or serving food ritually fit according to Islamic dietary laws.
IK_KIES_BEWUST	Conscious choice symbol used in the Netherlands Target Market which may be used for products low in saturated fat, trans fatty acids, sugar and salt.
KOSHER	Indicates the product has been marked as Kosher which denotes selling or serving food ritually fit according to Jewish dietary laws.
LACTASE_ENZYME	The item is physically marked that it is approved as lactase enzyme by the appropriate authority of the target market.
LOW_ON_PHENYLALANINE	The item is physically marked as containing a low level of phenylalanine as approved by the appropriate authority of the target market.

Value	Description
LOW_ON_SUGAR	The item is physically marked as containing a low level of sugar as approved by the appropriate authority of the target market.
MOTHERS_MILK_SUBSTITUTE	The item is physically marked that it is approved as substitute mother's milk the appropriate authority of the target market.
NUTRITION_SUPPLEMENT	The item is physically marked that it is approved as nutrition supplement by the appropriate authority of the target market.
NYCKELHAL_MARK	Lean product.
VEGETARIAN	Indicates the product has been marked as vegetarian which denotes a product that contains no meat, fish or other animal products.

The value of `nutritionalClaimCode` SHALL be a value defined in the GS1 Nutritional Claim Code List (`urn:gs1:gdd:cl:NutritionalClaimCodeList`), GDSN version 2.8.

The data content of a `TSD_RegulatoryCompliance` structure SHALL be as follows:

Data Element	Type	Cardinality	Description
<code>regulatoryComplianceCode</code>	<code>TSD_RegulatoryComplianceCode</code>	0..*	Code specifying a specific government regulation that the trade item is in compliance with.
<code>isPackagingMarkedWithRegulatoryComplianceCode</code>	<code>nonBinaryLogicEnumeration</code>	0..1	Indicator of whether the packaging is marked with a regulatory compliance code.

The value of `regulatoryComplianceCode` SHALL be a value defined in the GS1 Class Compliance Regulation Code List (`urn:gs1:gdd:cl:ClassComplianceRegulationCodeList`), GDSN version 2.8. Besides this the following additional values are allowed:

Value	Description	Symbol
E_MARK	The e-mark indicates that the packaging is filled according to the European Directive 76/211/EEC (amended by 2007/45/EC).	
NANO_MATERIALS_PRES ENCE_SYMBOL	Indicates the presence of nano materials by use of the nano symbol on the packaging label	(nano)
MINIMUM_DURABILITY_ SYMBOL	Indicates the presence of the symbol marking minimum durability on the item	
PERIOD_SAFE_TO_USE_ AFTER_OPENING_SYMBOL	Indicates the presence of the "open cream jar" symbol on the packaging label, signifying the period after opening the product is still safe to be used.	
INFORMATION_ON_EXTE RNAL_CARRIER_SYMBOL	Indicates the presence of the symbol for marking external information on an external carrier.	

AEROSOL_REVERSE_EPSILON	Products complying with all the requirements of the Aerosol Directive are marked with the "reverse epsilon" symbol	
ANIMAL_ID_HEALTH_MARK	Food business operators, in accordance with Regulation (EC) No 853/2004, should ensure that all products of animal origin that they place on the market, bear either a health mark or an identification mark.	
BATTERY_DIRECTIVE	Directive describing the legal requirements on batteries intended to made available on the market provided that such products are labelled, marked or accompanied with commercial documents. Essentially safety and environmental aspects are defined (e.g. obligation of the seller to take batteries back, proscription to throw batteries into the household garbage) for different type of batteries (e.g. batteries used by the end consumer, batteries used in cars). In Germany the law on batteries (BattG) details these rules.	
BIOCIDE_REGULATION	The purpose of this Regulation (EU Reg 528/2012) is to harmonise the rules on making available on the market and using biocidal products, whilst ensuring a high level of protection of both human and animal health and the environment. These rules compasses the establishment a list of active substances which may be used in biocidal products and the authorisation of biocidal products	
CE	The CE marking as it has been legally called since 1993 (per directive 93/68/EEC)(DECISION No 768/2008/EC) (abbreviation of French: Conformité Européenne, meaning "European Conformity"[1], formerly EC mark[2]) is a mandatory conformity mark for products placed on the market in the European Economic Area (EEA).	
COSMETIC_INFORMATION_REGULATION	Regulation (EU Reg 1223/2009) establishing rules to be complied with any cosmetic product made available on the market, a high level of protection of human health and a high degree of protection of the environment. These rules include the necessity to indicate allergens and the displaying of the ingredients used in the product.	
DETERGENTS_SAFETY_REGULATION	Regulation (EU Reg 648/2002) establishing rules designed to achieve the free movement of detergents and surfactants for detergents in the market while, at the same time, ensuring a high degree of protection of the environment and human health.	
EMC_DIRECTIVE	The main objective of the Directive 2004/108/EC of the European Council, of 15 December 2004, is to regulate the compatibility of equipment regarding EMC (Electromagnetic Compatibility).	
FEED_SAFETY_REGULATION	Regulation (EU Reg 767/2009) to harmonise the conditions for the placing on the market and the use of feed, in order to ensure a high level of feed safety and thus a high level of protection of public health, as well as to provide adequate information for users and consumers.	

FOOD_INFORMATION_REGULATION	Regulation providing the basis for the assurance of a high level of consumer protection in relation to food information, taking into account the differences in the perception of consumers and their information needs whilst ensuring the smooth functioning of the market. General principles, requirements and responsibilities governing food information, and in particular food labelling rules are established (e.g. EU regulation 1169 / 2011). These rules include the necessity to indicate allergens, the responsible food business operator, the name of the food, the displaying of the ingredients used additives.	
FOOD_SUPPLEMENT_DIRECTIVE	Food supplements (EU directive 2002/46/EC) marketed as foodstuffs and presented as such. These products shall be delivered to the ultimate consumer only in a pre-packaged form. Consumer health and safety aspects are in focus as well as to provide adequate information on how to use the product properly.	
FREE_PHARMACEUTICAL_PRODUCTS_DIRECTIVE	Directive describing the legal requirements on pharmaceutical products which are commercially available and intended to made available on the market provided that such products are labelled, marked or accompanied with commercial documents. General Consumer safety aspects are in focus like the dosage form linked with an application instruction (e.g. Do not use with alcohol). In Germany the law on medical products (AMG) details these rules.	
INTENDED_TO_COME_IN_TO_CONTACT_WITH_FOOD	requires that food contact materials: * Are safe; Must not transfer their components into food in quantities that could endanger human health, change food composition in an unacceptable way or deteriorate its taste and odour. Are manufactured according to good manufacturing practice.	
LVD_DIRECTIVE	The Low Voltage Directive (LVD) 2006/95/EC provides common broad objectives for safety regulations, so that electrical equipment approved by any EU member country will be acceptable for use in all other EU countries. The Low Voltage Directive does not supply any specific technical standards that must be met, instead relying on IEC technical standards to guide designers to produce safe products. Products that conform to the general principles of the Low Voltage Directive and the relevant particular safety standards are marked with the CE marking to indicate compliance and acceptance throughout the EU. Conformance is asserted by the manufacturer based on its conformity assessment.	
PHARMACEUTICAL_PRODUCT_DIRECTIVE	In contrast to the free pharmaceutical directive this directive describing the legal requirements on pharmaceutical products available only in pharmacies. These products have stronger regulations and restrictions to consumer safety aspects. For example the dosage recommendation needs to be explained in detail by the sales staff as well as possible interaction with other pharmaceutical products.	
PRODUCT_OF_DAILY_USE_DIRECTIVE	Directive describing the legal requirements on the products of daily use focusing on consumer safety (e.g. do not use with ..., not used by children). An example is the German directive BedGgstV.	
RETURNING_OF_ELECTRONICAL_PRODUCT_DIRECTIVE	Directive of the returning of electronic products ensuring a high degree of protection of the environment. This directive defines returning quotes of returning electronical products needs to be fulfilled by the industry and by retailers (e.g. ElektroG in Germany).	

ROHS_DIRECTIVE	Is not a quality mark but a European directive 2002/95/EC (stands for Restriction of Hazardous Substances). This directive restricts (with exceptions) the use of six hazardous materials like lead, cadmium and mercury in the manufacture of various types of electronic and electrical equipment.	
SECURITY_OF_ELECTRONIC_PRODUCTS_DIRECTIVE	Directive on the safety of electronic products covering consumer health as well as environmental aspects (e.g. German law on product safety ProdSG).	
TEXTILE LABELLING REGULATION	Regulation (EU Reg 1007/2011). This Regulation lays down rules concerning the use of textile fibre names and related labelling and marking of fibre composition of textile products, rules concerning the labelling or marking of textile products containing non-textile parts of animal origin and rules concerning the determination of the fibre composition of textile products by quantitative analysis of binary and ternary textile fibre mixtures, in order to provide accurate information to consumers.	
TOY SAFETY DIRECTIVE	Directive, which applies to products designed or intended, whether or not exclusively, for use in play by children under 14 years of age. Health and safety aspects of the child are in focus Amongst others security aspects of toys are defined (e.g. Warning: small components may be swallowed) as well as substances, which are not allowed to use in toys (e.g. softening agents).	
UNDERWATER LIGHTING	The European standard EN 60598-2-18 is recognized by most countries as the safety standard for underwater lighting.	
UVA	EU 647 Cosmetic industry worked closely with the European Commission, and COLIPA, currently called COSMETICS EUROPE proposed a UVA labelling symbol. This indicates that the level of UVA protection provided by a product is at least 1/3 ratio of its SPF. Manufacturers will show that their products meet the SPF/UVAPF ratio by displaying the letters "UVA" inside a circle whose diameter should not exceed the height of the SPF number.	

The data content of a TSD_AccreditationInformation structure SHALL be as follows:

Data Element	Type	Cardinality	Description
accreditationCode	TSD_Accreditation Code	0..1	Code specifying a type of recognition, endorsement or certification received for the product by following the guidelines of the accrediting agency, often expressed as a symbol or statement on the packaging.

Data Element	Type	Cardinality	Description
accreditationText	Description200 ([GS1TSD] section 6.2.6)	0..*	Text specifying a type of recognition, endorsement or certification received for the product by following the guidelines of the accrediting agency, often expressed as a symbol or statement on the packaging. MAY be used as alternative to the code if no code is available. MAY be used in combination with the code when dynamic information needs to be added, such as a certificate identifier. Each Description200 structure SHALL have a different language code, and SHALL represent presentations of the same value in different languages.
avpList	TSD_AttributeValue PairList ([GS1TSD] section 6.2.8)	0..1	Temporary attributes introduced between minor versions. See [GS1TSD] section 5.4.1.

The value of accreditationCode SHALL be one of the following:



Note: This list is managed as attribute value pair in GDSN version 2.8, and new values are added on a regular basis. For the most up-to-date list please consult the GS1 website (<http://www.gs1.org/qsmp/kc/qdsn>), AVP "packagingMarkedLabelAccreditationCode".

Value	Description
AMA_ORGANIC_SEAL	Austria Ministry of Agriculture Organic Label, AMA Marketing licenses the AMA organic logo. Red, white and black indicates the majority of ingredients are of Austrian origin.
AUS_KAUP_ESTONIA	Used to specify Estonia Meat in their product. Eesti Lihatootlejate Assotsiatsioon www.ela.ee
BDIH_LOGO	BDIH Germany guidelines for Certified Natural Cosmetics
BETER_LEVEN_1_STER	The one-star Beter Leven (better life) mark indicates that the product comes from a company that cares that animals are kept according to the minimal requirements for sanitation and wel-being for the cattle industry. See: http://beterleven.dierenbescherming.nl/1-ster
BETER_LEVEN_2_STER	The two-star Beter Leven (better life) mark indicates that the product comes from a company that provides for a higher wel-being of animals than that established by the minimal requirements for sanitation and wel-being for the cattle industry, yet the conditions are inferior to those of Biological-class products. See: http://beterleven.dierenbescherming.nl/2-sterren-

Value	Description
BETER_LEVEN_3_STER	The three-star Beter Leven (better life) mark is awarded to products that come from companies that excel in keeping animals according to top guidelines for Biological-class products. In some cases this mark is accompanied by an EKO indication. See: http://beterleven.dierenbescherming.nl/3-sterren-
BIO_AUSTRIA_LABEL	Bio Austria is the Austrian Bio-network of Eastern organic farmers. Created from the former Association Harvest for Life
BIO_LABEL_GERMAN	German national organic certification label (Bio-Siegel), see www.bio-siegel.de
BIO_SUISSE_BUD_SEAL	Represents interests of Swiss organic farmers www.bio-suisse.ch
BLUE_ANGEL	The Blue Angel is awarded to companies as kind of a reward for their commitment to environmental protection. They use it to professionally promote their eco-friendly products in the market. The Blue Angel is an ecological beacon showing the consumer the way to the ecologically superior product and promotes environmentally conscious consumption. See: http://www.blauer-engel.de/en/index.php
BORD_BIA_APPROVED	The Bord Bia Approved logo is awarded to a company which has been audited by Bord Bia to verify that processes, from farm to fork, comply with the highest Quality Assurance Standards. These standards include: animal welfare, traceability, environment, safety, feed, water, testing, inspection, hygiene and good manufacturing practice. "Bord Bia Approved" is awarded to a company where all the ingredients including meat content satisfy the Bord Bia requirements. www.bordbia.ie
BORD_BIA_APPROVED_MEAT	Bord Bia Approved - Meat Content Only applies to companies where only the meat content satisfies certain conditions detailed in the Bord Bia requirements document. see http://www.bordbia.ie/industryservices/quality/Documents/Quality-Assurance-Scheme-Logo-GuidelinesV7.pdf for more details.
BRA_MILJOVAL_LABEL_SWEDISH	Bra Miljöval Bra Miljöval is the ecolabel of SSNC. It is referred to as "Good Environmental Choice" in English. SSNC started ecolabelling
CROSSED_GRAIN_SYMBOL	Crossed grain logo is a trademark owned and administered by Coeliac. It is a worldwide symbol for safe gluten-free foods. Each country has their own Coeliac website for example UK www.coeliac.org.uk
DEMETER_LABEL	Demeter International trademark for products of certified biodynamic production. www.demeter.net
EC_NATIONAL_HEALTH_MARK	The package is physically marked with EC National Health Mark. The EC National Health Mark is the health mark for specific hygiene regulations for food of animal origin. The regulation (EC) Nr. 853/2004 of 29. April 2004 of the European Parliament on hygiene rules for food of animal origin demands that companies handling products of animal origin are authorised according to this regulation. The official body responsible for this authorisation assigns a health mark to the food producing company

Value	Description
ECO_LABEL_LADYBUG	This is a Finnish label used by the Organic union, which represents the entire Finnish organic industry, consumers and producers in a common interest group. They work as a neutral voice in various working groups and consultations, and prepare position papers and presentations. The Federation also organizes training events and professional seminars. The Organic Federation also publishes the magazine Organic.
ECOCERT_CERTIFICATE	ECOCERT is a certification body for sustainable development. www.ecocert.com
EESTI_OKOMARK	Estonian Eco Label: Ministry of Agriculture Ökomärk (Label of Organic Food) www.agri.ee
EESTI_PARIM_TOIDUAIN	Best Food Association of Estonia Food Industry http://www.toiduliit.ee/ . An organisation that supports and promote Estonian food industry and economy, and contribute to a balanced and appropriate ethics to members of a favourable business environment for development.
EKO	This symbol stands for organic production certified by Skal that meets the requirements of the EU-regulation for organic production. Skal is the inspection body for the organic production in the Netherlands.
EU_ECO_LABEL	The item is physically marked with the European Union Eco label a European environmental initiative supported by the European Commission.
EU_ORGANIC_FARMING	New EU organic logo the EU introduced a new organic logo to ensure consumer protection and common standards. See www.organic-farming.europa.eu
EXTREMELY_CLEAN	The package is physically marked as extremely clean which slightly lower level of cleanness than sterile is. This means that it is free from bacteria and other microorganisms to a level defined as extremely clean by the appropriate authorities of the target market.
FAIR_TRADE_MARK	The FAIR TRADE Mark certifies that products meet the social, economic and environmental International Fair trade Standards. The FAIR TRADE Mark is usually supported by a local Fair Trade Labelling Organisation and certifies products not companies. It does not cover the companies or organizations selling the product
FALKEN	Not Available
FINNISH_HEART_SYMBOL	The heart symbol to inform the consumer at one glance that the product marked with this symbol is a preferred choice in its product group with regard to fat and sodium. Finnish Heart Association www.sydanmerkki.fi
FOREST_STEWARDSHIP_COUNCIL_LABEL	The item is physically marked with the Forest Stewardship Council label.
GMO_MARKED	The item is physically marked as of genetically modified origin.
GOODS_FROM_FINLAND_BLUE_SWAN	http://www.finfood.fi/ Finfood Suomen Ruokatieto Ry
GREEN_DOT	Not Available
GREEN_RESTAURANT_ASSOCIATION_ENDORSED	The item is physically marked with the Green Restaurant Association Endorsed symbol.

Value	Description
GREEN_SEAL_CERTIFIED	The item is physically marked with the Green Seal Certified symbol.
GUARANTEED_IRISH	Ireland: The Guaranteed Irish symbol makes shopping for Irish products and services a lot easier. Shoppers know that when they buy a product or service featuring the guaranteed Irish logo they are supporting Irish companies and safeguarding Irish jobs. http://www.guaranteedirish.ie/
KRAV_MARK	Not Available
LABEL_OF_THE_ALLERGY_AND_ASTHMA_FEDERATION	Allergy and Asthma Federation is a non-profit public health organisation. Our aim is to improve quality of life of the allergy and asthma patients. http://www.allergia.fi/in-english/
LEAPING_BUNNY	The Coalition for Consumer Information on Cosmetics' (CCIC) Leaping Bunny Program administers a cruelty-free standard and the internationally recognized Leaping Bunny Logo for companies producing cosmetic, personal care, and household products. The Leaping Bunny Program provides the best assurance that no new animal testing is used in any phase of product development by the company, its laboratories, or suppliers. See also www.leapingbunny.org
LOODUSSOBRALIK_TOODE_ESTONIA	Eco-friendly product The sign "eco-friendly product" is designed to make environmentally friendly products on store shelves more as significant. When it comes to food shall be used for agriculture, natural farming methods. No use of mineral fertilizers, insect control and plant poisons. http://www.stockmann.ee/portal/7765/
LOVE_IRISH_FOOD	Love Irish Food - a promotional label printed on the product packaging to indicate to the consumer that the food is manufactured in Ireland using Irish ingredients. http://www.loveirishfood.ie/
MADE_IN_FINLAND_FLAG_WITH_KEY	Made in Finland Products that are made in Finland Avainlippu (Key Flag) Suomalaisen Työn www.avainlippu.fi
MARINE_STEWARDSHIP_COUNCIL_LABEL	The item is physically marked with the Marine Stewardship Council label.
MAX_HAVELAAR	Fair trade symbol used in the Netherlands Target Market awarded to manufacturers which contribute to improving the living and working conditions of small farmers and agricultural workers in disadvantaged regions.
NATRUE_LABEL	The NATRUE Label guarantees that the products that carry it are made only with natural and organic ingredients, through soft manufacturing processes and environmentally friendly practices. The NATRUE Label is awarded by NATRUE, a non-profit organisation committed to promote and protect high standards of quality and environmental integrity. See: http://www.natrue.org/home/
NYCKELHALET	The green key hole is to be put on the healthy foods in Sweden, Denmark, and Norway within certain product groups in order to make it easier for the customers to make a healthy choice. http://www.norden.org/
OEKO_TEX_LABEL	Confidence in textiles – this has been the motto of the independent test institutes of the International Oeko-Tex® Association since 1992, with their tests for harmful substances according to Oeko-Tex® Standard 100 for textile products of all types which pose no risk whatsoever to health. See www.oeko-tex.com

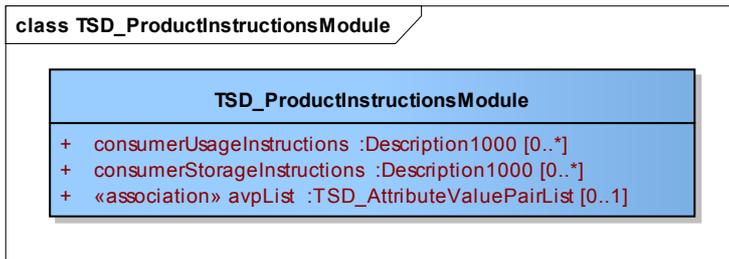
Value	Description
OFFICIAL_ECO_LABEL_SUN	Luomo Sun Sign Denotes controlled organic production. The official label of the Finnish inspection authorities; owned by the Ministry of Agriculture and Forestry. http://opetus.ruokatieto.fi/
PEFC	Programme for Endorsement of Forest Certification (PEFCC_ is an international non-profit, non-governmental organisation dedicated to promoting Sustainable Forest Management (SFM) through independent third-party certification
PROTECTED_DESIGNATION_OF_ORIGIN	The Protected designation of origin is the name of an area, a specific place or, in exceptional cases, the name of a country, used as a designation for an agricultural product or a foodstuff, the entire product must be traditionally and ENTIRELY manufactured (prepared, processed AND produced) within the specific region and thus acquire unique properties. Protected Geographical Status (PGS) is a legal framework defined in European Union law to protect the names of regional foods.
PROTECTED_GEOGRAPHICAL_INDICATION	The Protected geographical indication is the name of an area, a specific place or, in exceptional cases, the name of a country, used as a description of an agricultural product or a foodstuff, the entire product must be traditionally and at least PARTIALLY manufactured (prepared, processed OR produced) within the specific region and thus acquire unique properties. Protected Geographical Status (PGS) is a legal framework[1] defined in European Union law to protect the names of regional foods.
PROTECTED_HARVEST_CERTIFIED	The item is physically marked with the Protected Harvest Certified symbol.
QUALITY_MARK_IRELAND	Control IMO Organic farming is an alternative, environmentally friendly method of food production. It forbids the use of chemicals and requires production methods that respect animal welfare and do not damage the environment. The term 'organic' can only be used on food labels in Ireland if the food product meets strict Irish and EU organic standards and is licensed by an approved certification body.
RAINFOREST_ALLIANCE	The item is physically marked with the Rainforest Alliance Certified symbol.
SCHARRELVLEES	A symbol used in the Netherlands Target Market intended for meat based products which guarantees that the animals has been growth without the use of antibiotics.
SOIL_ASSOCIATION_ORGANIC_SYMBOL	The Soil Association Organic Symbol is a symbol used in the UK to show that products meet a strict set of organic standards that protect health, sustainability and the environment.
STERILE	The package is physically marked as sterile, which is the highest level of cleanness. This means that it is free from bacteria and other microorganisms to a level defined as sterile by the appropriate authorities of the target market.
SUSTAINABLE_PALM_OIL_RSPO	In response to the urgent and pressing global call for sustainably produced palm oil, the Roundtable on Sustainable Palm Oil (RSPO) was formed in 2004 with the objective of promoting the growth and use of sustainable oil palm products through credible global standards and engagement of stakeholders. http://www.rspo.org/

Value	Description
SVANEN	The Swan is the Nordic environmental label. It was established by the Nordic Council of Ministers in 1989 and Denmark joined in 1997. The Swan is used in all Nordic countries, i.e. Denmark, Norway, Sweden, Finland and Iceland.
SWEDISH_SEAL_OF_QUALITY	The item is physically marked with the Swedish Seal of Quality label which intends to guarantee the responsibility for the environment of the product.
TRADITIONAL_SPECIALTY_GUARANTEED	The Traditional specialty guaranteed is a trademark for an agricultural product or a foodstuff, which has a certain feature or a set of features, setting it clearly apart from other similar products or foodstuffs belonging to the same category. The product or foodstuff must be manufactured using traditional ingredients or must be characteristic for its traditional composition, production process, or processing reflecting a traditional type of manufacturing or processing.
TUNNUSTATUD_EESTI_MAITSE	Approved Estonian Taste - Quality/Tradition/Origin/Traceability for Estonian products. All raw materials must be 100% Estonian. Estonian Chamber of Agriculture and Commerce
TUNNUSTATUD_MAITSE	Approved Taste label (designed as a barn swallow) denoting Estonian origin and high quality was introduced. This label has been given to products for Food quality and safety. Estonian Chamber of Agriculture and Commerce (ECAC) www.epkk.ee
UNIQUELY_FINNISH	Uniquely Finnish http://www.maakuntienparhaat.fi/en/ The Uniquely Finnish label is a national quality label for small entrepreneurs. ProAgria Association of Rural Advisory Centres grants the label to qualified foodstuff, handicraft and rural tourism companies based on applications.
USDA	US Department of Agriculture
UTZ_CERTIFIED	A certification which is intended to assure the social and environmental quality in coffee production. Coffee based products may be marked with this certification.
VAELG_FULDKORN_FORST	Grain based foods (bread, breakfast products, baking articles etc.) which have got a high content of whole grain will be puffed with a nutritional puff from the beginning of 2009: Please choose whole grain first! Denmark http://www.fuld Korn.dk/
WWF_PANDA_LABEL	Products that support the WWF http://www.worldwildlife.org/

4.4 Product Instructions Module

The Product Instructions Module carries general instructions on the storage and use of the product. The module is intended for all product categories.

Class Diagram



Data Definitions

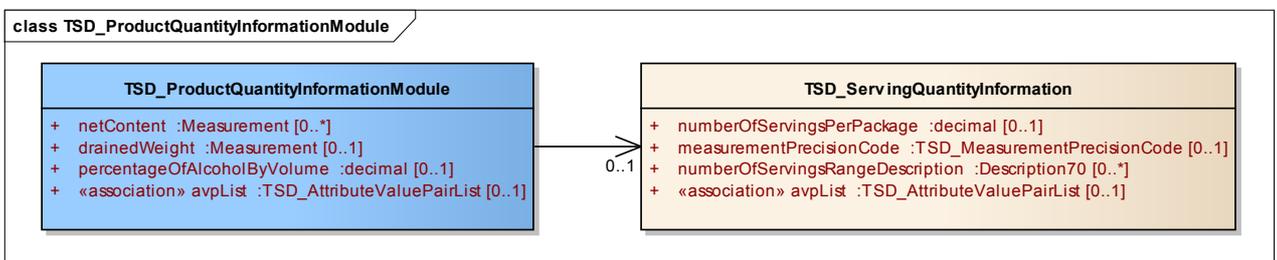
The data content of a TSD_ProductInstructionsModule structure SHALL be as follows:

Data Element	Type	Cardinality	Description
consumerUsageInstructions	Description1000 ([GS1TSD] section 6.2.6)	0..*	Free text containing the 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. Repetitions for the same language are allowed.
consumerStorageInstructions	Description1000 ([GS1TSD] section 6.2.6)	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 labelled on the pack. Repetitions for the same language are allowed.
avpList	TSD_AttributeValuePairList ([GS1TSD] section 6.2.8)	0..1	Temporary attributes introduced between minor versions. See [GS1TSD] section 5.4.1.

4.5 Product Quantity Information Module

The Product Quantity Information Module carries the information on the physical product quantity as often displayed on the package. The module is intended for all product categories.

Class Diagram



Data Definitions

The data content of a TSD_ProductQuantityInformationModule structure SHALL be as follows:

Data Element	Type	Cardinality	Description
netContent	Measurement ([GS1TSD] section 6.2.7)	0..*	The quantity of the trade item contained by a package, usually as claimed on the label. For example, Water 750ml - net content = "750 MLT" ; 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.
drainedWeight	Measurement ([GS1TSD] section 6.2.7)	0..1	The weight of the trade item when drained of its liquid. For example 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.
percentageOfAlcoholByVolume	decimal	0..1	Percentage of alcohol contained in the base unit trade item.
servingQuantityInformation	TSD_ServingQuantityInformation (below)	0..1	Information on the number of servings contained in the package.
avpList	TSD_AttributeValuePairList ([GS1TSD] section 6.2.8)	0..1	Temporary attributes introduced between minor versions. See [GS1TSD] section 5.4.1.

The data content of a TSD_ServingQuantityInformation structure SHALL be as follows:

Data Element	Type	Cardinality	Description
numberOfServingsPerPackage	decimal	0..1	The total number of servings contained in the package.
measurementPrecisionCode	TSD_MeasurementPrecisionCode	0..1	Code indicating whether the number of servings per package is exact or approximate.
numberOfServingsRangeDescription	Description70	0..*	A free text field specifying a range for the number of servings contained in the package. If more than one Description70 structure is present each SHALL have a different language code, and SHALL represent representations of the same value in different languages.

Data Element	Type	Cardinality	Description
avpList	TSD_AttributeValuePairList ([GS1TSD] section 6.2.8)	0..1	Temporary attributes introduced between minor versions. See [GS1TSD] section 5.4.1.

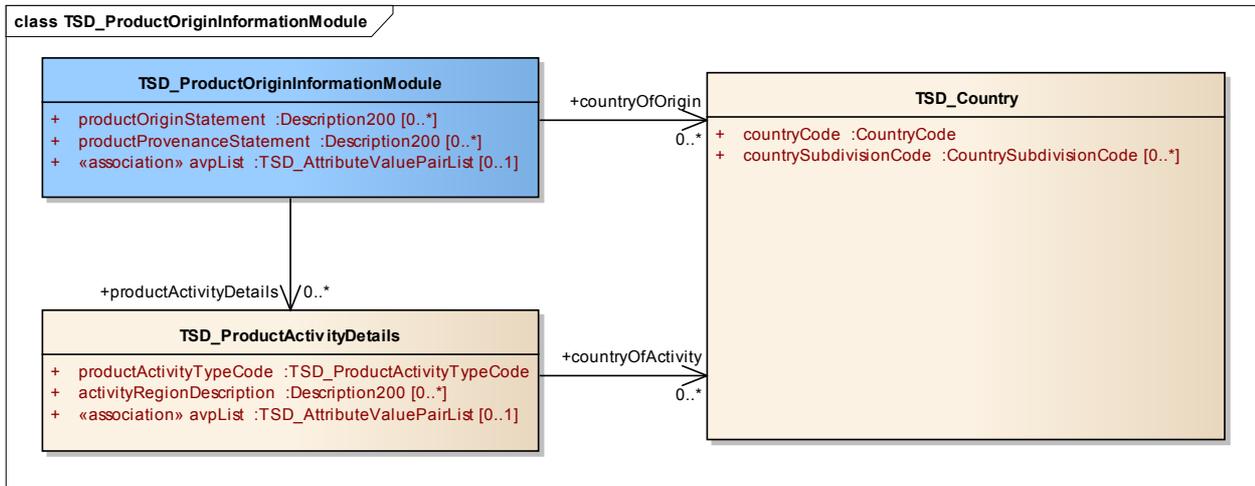
The value of measurementPrecisionCode SHALL be one of the following:

Value	Description
APPROXIMATELY	The method used to analyse the products resulted in approximate value.
EXACT	The method used to analyse the products resulted in exact value.
LESS_THAN	To indicate presence when the measurement value is too small to be measured precisely (rule states less than 0.5). This value does not apply to number of servings.

4.6 Product Origin Information Module

The Product Origin Information Module carries information on the origin of the product. The module is intended for all product categories.

Class Diagram



Data Definitions

The data content of a TSD_ProductOriginInformationModule structure SHALL be as follows:

Data Element	Type	Cardinality	Description
product OriginStatement	Description200 ([GS1TSD] section 6.2.6)	0..*	Free text description of the geographic area the product originates from. Each Description200 structure SHALL have a different language code, and SHALL represent presentations of the same value in different languages.

Data Element	Type	Cardinality	Description
productProvenanceStatement	Description200 ([GS1TSD] section 6.2.6)	0..*	Free text description of the region or place the product originates from. This is to be specifically used to specify areas such as cities, mountain ranges, regions. Examples: Made in Thüringen Mountains, Made in Paris, From the Napa Valley. Each Description200 structure SHALL have a different language code, and SHALL represent presentations of the same value in different languages.
countryOfOrigin	TSD_Country (below)	0..*	The country code (codes) in which the goods have been produced or manufactured, according to criteria established for the purposes of application of the value may or may not be presented on the trade item label.
productActivityDetails	TSD_ProductActivityDetails (below)	0..*	Information on a location where manufacturing and / or distribution activities are carried out for the product. Each productActivityDetails structure SHALL have a different productActivityTypeCode.
avpList	TSD_AttributeValuePairList ([GS1TSD] section 6.2.8)	0..1	Temporary attributes introduced between minor versions.

The data content of a TSD_ProductActivityDetails structure SHALL be as follows:

Data Element	Type	Cardinality	Description
productActivityTypeCode	TSD_ProductActivityTypeCode	1..1	Code specifying the type of activity being performed on a trade item for example processing, bottling, manufacturing.
activityRegionDescription	Description200	0..*	Name of the region in which a processing or other activity has been performed for example processing, bottling, manufacturing. Each Description200 structure SHALL have a different language code, and SHALL represent presentations of the same value in different languages.
countryOfActivity	TSD_Country (below)	0..*	Provides the country and subdivision where an activity (e.g. bottling) has taken place.
avpList	TSD_AttributeValuePairList ([GS1TSD] section 6.2.8)	0..1	Temporary attributes introduced between minor versions.

The value of TSD_ProductActivityTypeCode SHALL be one of the following:

Value	Description
COUNTRY_OF_ASSEMBLY	Country where product is assembled. Uses ISO country codes.
COUNTRY_OF_LAST_PROCESSING	The ISO 3166-1 code that identifies the country in which the trade item was last processed and tested before importation.
CATCH_ZONE	Free text field describing the sea zone in which the seafood in the trade item was caught.
PLACE_OF_BIRTH	The place the mammal, species was born. The place may be a country, region (land or sea), city, etc. Since a company may have multiple facilities in multiple countries, the attribute needs to be repeating to reflect the potential places. The actual birth place of a particular animal would be transactional.
PLACE_OF_REARING	Is the place the mammal, species was raised after birth to the end of the animals' life. The place maybe a country, region (land or sea), city, etc. Since a company may have multiple facilities in multiple countries, the attribute needs to be repeating to reflect the potential places. The actual rearing place(s) of a particular animal would be transactional.
PLACE_OF_SLAUGHTER	Is the place the mammal, species was killed to be processed for food, or other purposes. The place maybe a country, region (land or sea), city, etc. Since a company may have multiple facilities in multiple countries, the attribute needs to be repeating to reflect the potential places. The actual slaughter place of a particular animal would be transactional.

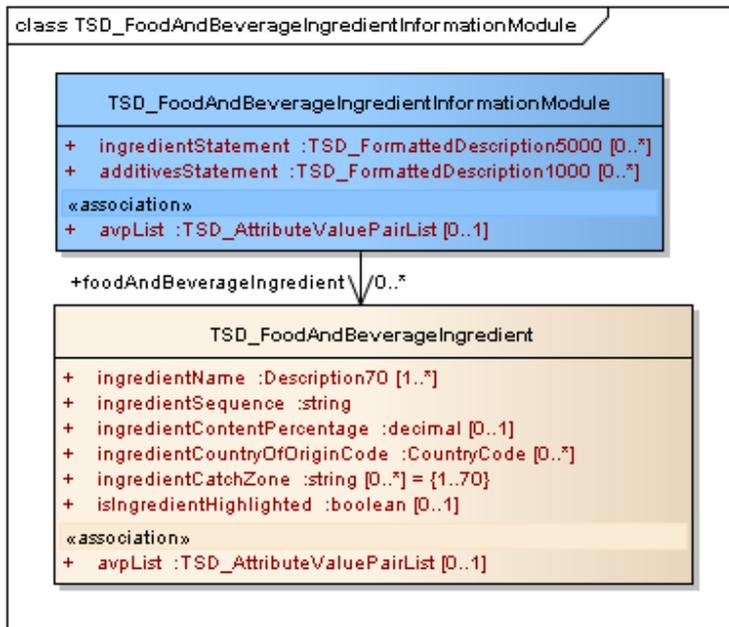
The data content of a TSD_Country structure SHALL be as follows:

Data Element	Type	Cardinality	Description
countryCode	CountryCode	1..1	Code specifying the country in which a processing or other activity is performed, for example processing, bottling, manufacturing.
countrySubdivisionCode	CountrySubdivisionCode	0..*	Code specifying the country subdivision in which a processing or other activity has been performed for example processing, bottling, manufacturing.

4.7 Food and Beverage Ingredient Information Module

The Food and Beverage Ingredient Module carries information on ingredients and additives of the product. The module is intended for the "food and beverage" product category.

Class Diagram



Data Definitions

The data content of a TSD_FoodAndBeverageIngredientInformationModule structure SHALL be as follows:

Data Element	Type	Cardinality	Description
ingredientStatement	TSD_Formatted Description5000 ([GS1TSD] section 6.2.9)	0..*	A free text field describing the constituent ingredient make up of the product. Each TSD_Formatted Description5000 structure SHALL have a different language code, and SHALL represent presentations of the same value in different languages.
additivesStatement	TSD_Formatted Description1000 ([GS1TSD] section 6.2.9)	0..*	A free text field describing any additives that have to be specifically included on the label to conform to legal requirements. Each TSD_Formatted Description1000 structure SHALL have a different language code, and SHALL represent presentations of the same value in different languages.
foodAndBeverage Ingredient	TSD_FoodAndBeverage Ingredient (below)	1..*	Detailed information about specific ingredients. Each member of this list SHALL have a distinct value of ingredientName.
avpList	TSD_AttributeValue PairList ([GS1TSD] section 6.2.8)	0..1	Temporary attributes introduced between minor versions; see [GS1TSD] section 5.4.1.

The data content of a TSD_FoodAndBeverageIngredient structure SHALL be as follows:

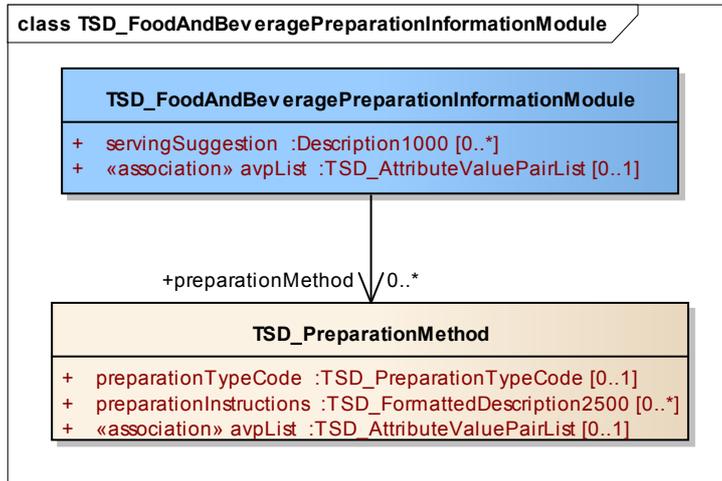
Data Element	Type	Cardinality	Description
ingredientName	Description70 ([GS1TSD] section 6.2.6)	1..*	Free text field describing an ingredient or ingredient group. Ingredients include any additives (colorings, preservatives, e-numbers, etc) that are encompassed. Each ingredientName SHALL have a different language code, and SHALL represent presentations of the same value in different languages.
ingredientSequence	string	1..1	Integer (1, 2, 3...) indicating the ingredient order by content percentage of the product. (major ingredient = 1, second ingredient = 2) etc.
ingredientContent Percentage	decimal	0..1	Percentage of the ingredient contained in the product.
ingredientCountryOf OriginCode	CountryCode ([GS1TSD] section 6.2.2)	0..*	Code indicating the country of origin of the ingredient (ISO-3166).
ingredientCatchZone	string {1..70}	0..*	Free text field describing the sea zone from which the seafood in the trade item was caught in.
isIngredient Highlighted	boolean	0..1	Indication of the need to highlight the Ingredient Name when presenting the ingredient list to consumers, as required by local regulations.
avpList	TSD_AttributeValue PairList ([GS1TSD] section 6.2.8)	0..1	Temporary attributes introduced between minor versions; see [GS1TSD] section 5.4.1.

4.8 Food and Beverage Preparation Information Module

The Food and Beverage Preparation Information Module carries instructions on the preparation and consumption of the product. The module is intended for the “food and beverage” product category.

Class Diagram

The following UML diagram expresses the data content of the Food and Beverage Preparation Information module.



Data Definitions

The data content of a `TSD_FoodAndBeveragePreparationInformationModule` structure SHALL be as follows:

Data Element	Type	Cardinality	Description
servingSuggestion	Description1000 ([GS1TSD] section 6.2.6)	0..*	Free text describing serving suggestions. Each <code>TSD_FormattedDescription1000</code> structure SHALL have a different language code, and SHALL represent presentations of the same value in different languages.
preparationMethod	TSD_Preparation Method (see below)	0..*	Detailed preparation information. Each member of this list SHALL have a distinct value of <code>preparationTypeCode</code> .
avpList	TSD_AttributeValue PairList ([GS1TSD] section 6.2.8)	0..1	Temporary attributes introduced between minor versions; see [GS1TSD] section 5.4.1.

The data content of a `TSD_PreparationMethod` structure SHALL be as follows:

Data Element	Type	Cardinality	Description
preparationTypeCode	TSD_Preparation TypeCode	0..1	A code specifying the technique used to make the product ready for consumption. For example: baking, boiling.

Data Element	Type	Cardinality	Description
preparationInstructions	TSD_Formatted Description2500 ([GS1TSD] section 6.2.9)	0..*	Free text providing instructions on how to prepare the product before serving. Each TSD_Formatted Description2500 structure SHALL have a different language code, and SHALL represent presentations of the same value in different languages.
avpList	TSD_AttributeValue PairList ([GS1TSD] section 6.2.8)	0..1	Temporary attributes introduced between minor versions; see [GS1TSD] section 5.4.1.

The value of preparationTypeCode SHALL be a value defined in one of the following code lists:

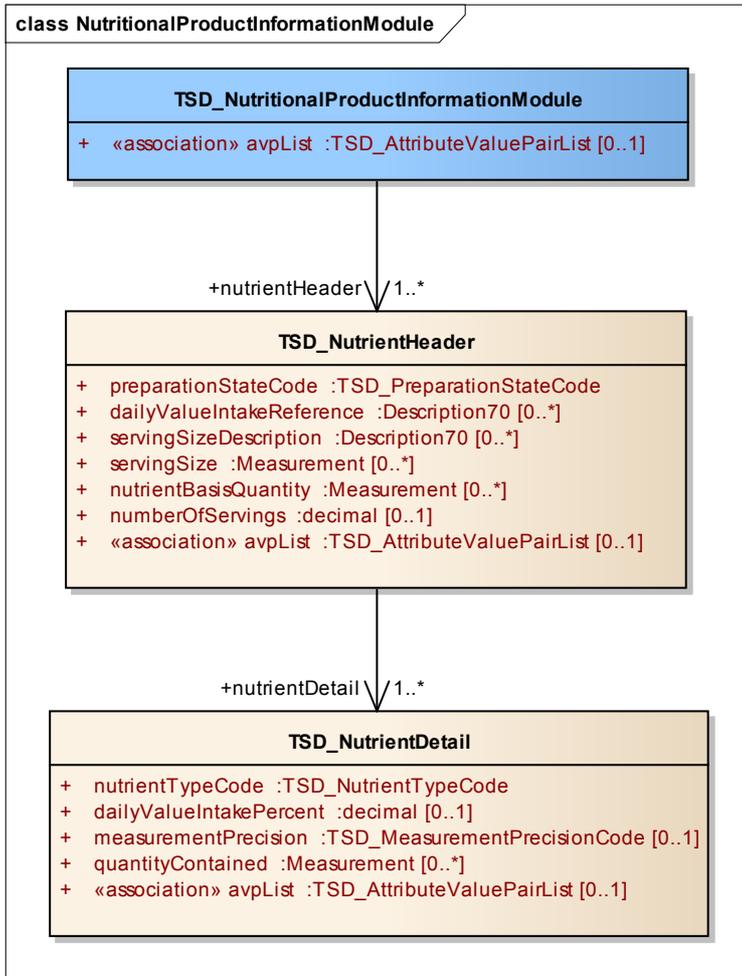
- GS1 Preparation Type Code List (urn:gs1:gdd:cl:PreparationTypeCodeList), GDSN version 2.8
- GS1 State of Preparation Code List (urn:gs1:gdd:cl:StateOfPreparationCodeList), GDSN version 2.8.

4.9 Nutritional Product Information Module

The Nutritional Product Information Module carries the nutritional facts on the product. The module is intended for the “food and beverage” product category.

Class Diagram

The following UML diagram expresses the data content of the Nutritional Product Information module.



Data Definitions

The data content of a **TSD_NutritionalProductInformationModule** structure SHALL be as follows:

Data Element	Type	Cardinality	Description
nutrientHeader	TSD_NutrientHeader (below)	1..*	The nutritional information for a specified serving size and state of preparation.
avpList	TSD_AttributeValue PairList (see [GS1TSD] section 6.2.8)	0..1	Temporary attributes introduced between minor versions; see [GS1TSD] section 5.4.1.

The data content of a TSD_NutrientHeader structure SHALL be as follows:

Data Element	Type	Cardinality	Description
preparationStateCode	TSD_Preparation StateCode (below)	1	Code specifying the preparation state of the product for which the nutrient information is valid.
dailyValue IntakeReference	Description70 ([GS1TSD] section 6.2.6)	0..*	Free text field specifying the daily value intake base on which the daily value intake per nutrient has been based. Examples: "Based on a 2000 calorie diet.", "based on one cup skimmed milk", "diet for 4 year old". If more than one Description70 structure is present each SHALL have a different language code, and SHALL represent representations of the same value in different languages.
servingSizeDescription	Description70 ([GS1TSD] section 6.2.6)	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). If more than one Description70 structure is present each SHALL have a different language code, and SHALL represent representations of the same value in different languages.
servingSize	Measurement ([GS1TSD] section 6.2.7)	0..*	Measurement value specifying the actual serving size. Example: 40 grams. When specified, servingSize establishes the basis for all contained NutrientDetail records. A NutrientHeader SHALL contain servingSize or nutrientBasisQuantity (but not both). If more than one Measurement structure is present each SHALL have a different unitOfMeasure and SHALL represent the same value expressed in different units.

Data Element	Type	Cardinality	Description
nutrientBasisQuantity	Measurement ([GS1TSD] section 6.2.7)	0..*	Quantity on which the nutrient information has been based; for example, per 100 grams. When specified, <code>basisQuantity</code> establishes the basis for all contained <code>NutrientDetail</code> records. A <code>NutrientHeader</code> SHALL contain <code>servingSize</code> or <code>nutrientBasisQuantity</code> (but not both). If more than one <code>Measurement</code> structure is present each SHALL have a different <code>unitOfMeasure</code> and SHALL represent the same value expressed in different units.
numberOfServings	decimal	0..1	Number of servings. If both this and <code>servingSize</code> are specified, the value SHALL be the number of servings based on <code>servingSize</code> . Otherwise, the value is informational and not related to any particular serving size expressed within this product data.
nutrientDetail	TSD_NutrientDetail (below)	1..*	Detailed information about specific nutrients for this serving size and preparation state. Each member of this list SHALL have a distinct value of <code>nutrientTypeCode</code> .
avpList	TSD_AttributeValue PairList ([GS1TSD] section 6.2.8)	0..1	Temporary attributes introduced between minor versions; see [GS1TSD] section 6.2.8.

The value of `preparationStateCode` SHALL be one of the following:

Value	Description
PREPARED	The state of the product after preparation (e.g. after adding milk or water)
UNPREPARED	The initial state of the product

The data content of a `TSD_NutrientDetail` structure SHALL be as follows:

Data Element	Type	Cardinality	Description
nutrientTypeCode	TSD_NutrientTypeCode (below)	1	Code that specifies which nutrient this <code>NutrientDetail</code> structure describes.

Data Element	Type	Cardinality	Description
dailyValue IntakePercent	decimal	0..1	<p>The percentage of the recommended daily intake of a nutrient provided by the quantity of product defined in the nutrient header (by <code>servingSize</code> or <code>nutrientBasisQuantity</code>), as recommended by authorities of the target market. For example, a value of 50 denotes 50% of daily value.</p> <p>If the <code>NutrientHeader</code> structure includes a <code>dailyValueIntakeReference</code>, this value SHALL be computed with reference to the diet specified by <code>dailyValueIntakeReference</code>. Otherwise, this value SHALL be computed with reference to a diet not expressed in this product data, but used consistently for all nutrient detail records associated with the same nutrient header.</p>
measurement Precision	TSD_Measurement PrecisionCode (below)	0..1	Code indicating the exactness of the method used to analyse the nutritional value.
quantityContained	Measurement ([GS1TSD] section 6.2.7)	0..*	Measurement value indicating the amount of nutrient contained in the quantity of product defined in the nutrient header (by <code>servingSize</code> or <code>nutrientBasisQuantity</code>). If more than one <code>Measurement</code> structure is present each SHALL have a different <code>unitOfMeasure</code> and SHALL represent the same value expressed in different units.
avpList	TSD_AttributeValue PairList ([GS1TSD] section 6.2.8)	0..1	Temporary attributes introduced between minor versions; see [GS1TSD] section 6.2.8.

The value of `nutrientTypeCode` SHALL be a "tagname" defined in the INFOODS Food Component Tagname list [INFOODS]; or one of the additional code values as defined in GS1 Code List UN_INFOODS (urn:gs1:gdd:cl:UN_INFOODS), GDSN version 2.8.

The value of `measurementPrecision` SHALL be one of the following values:

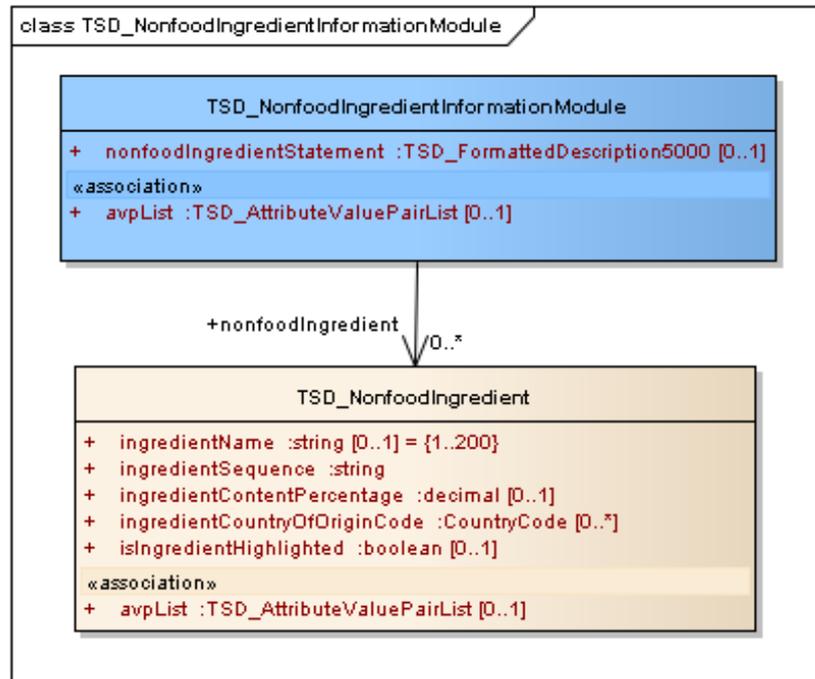
Value	Meaning
APPROXIMATELY	The method used to analyse the products resulted in approximate value of the nutritional content.
EXACT	The method used to analyse the products resulted in exact value of the nutritional content.
LESS_THAN	To indicate presence when the measurement value is too small to be measured precisely (rule states less than 0.5).

4.10 Nonfood Ingredient Information Module

The Nonfood Ingredient Information Module carries the ingredients of the product. The module is intended for the non food product categories. (E.g. Health & Beauty)

Class Diagram

The following UML diagram expresses the data content of the Nonfood Ingredient Information module.



Data Definitions

The data content of a TSD_NonfoodIngredientInformationModule structure SHALL be as follows:

Data Element	Type	Cardinality	Description
nonfoodIngredientStatement	TSD_FormattedDescription5000	0..1	Formatted ingredient statement for non food items
avpList	TSD_AttributeValuePairList (see [GS1TSD] section 6.2.8)	0..1	Temporary attributes introduced between minor versions; see [GS1TSD] section 5.4.1.
nonfoodIngredient	TSD_NonfoodIngredient (below)	0..*	Detailed information about specific ingredients. Each member of this list SHALL have a distinct value of ingredientName.

The data content of a TSD_NonfoodIngredient structure SHALL be as follows:

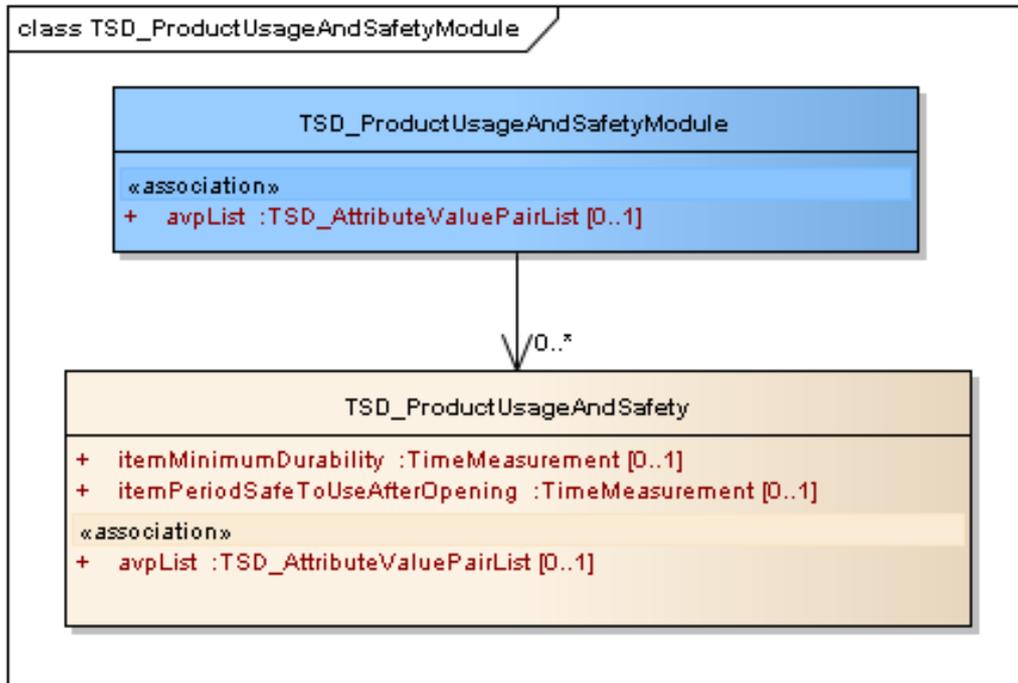
Data Element	Type	Cardinality	Description
ingredientName	string {1..200}	0..1	Free text field describing an ingredient or ingredient group. Ingredients include any additives (colorings, preservatives, e-numbers, etc) that are encompassed. Each ingredientName SHALL have a different language code, and SHALL represent presentations of the same value in different languages.
ingredientSequence	string	1..1	Indicates the ingredient order by content percentage of the product. (major ingredient = 1, second ingredient = 2) etc. Sub ingredients can be denoted by using e.g. 1.1 or 1.1.1
ingredientContentPercentage	decimal	0..1	Percentage of the ingredient contained in the product.
ingredientCountryOfOriginCode	CountryCode ([GS1TSD] section 6.2.2)	0..*	Code indicating the country of origin of the ingredient (ISO-3166).
isIngredientHighlighted	boolean	0..1	Indication of the need to highlight the Ingredient Name when presenting the ingredient list to consumers, as required by local regulations.
avpList	TSD_AttributeValuePairList ([GS1TSD] section 6.2.8)	0..1	Temporary attributes introduced between minor versions; see [GS1TSD] section 5.4.1.

4.11 Product Usage and Safety Module

The Product Usage and Safety Module carries the information on product usage and safety of the product. The module is intended for all product categories.

Class Diagram

The following UML diagram expresses the data content of the Product Usage And Safety module.



Data Definitions

The data content of a TSD_ProductUsageAndSafetyModule structure SHALL be as follows:

Data Element	Type	Cardinality	Description
avpList	TSD_AttributeValuePairList (see [GS1TSD] section 6.2.8)	0..1	Temporary attributes introduced between minor versions; see [GS1TSD] section 5.4.1.
	TSD_ProductUsageAndSafety (below)	0..*	Details on the product usage and the safety of the product.

The data content of a TSD_ProductUsageAndSafety structure SHALL be as follows:

Data Element	Type	Cardinality	Description
itemMinimumDurability	TimeMeasurement	0..1	Minimum durability of the item expressed in months
itemPeriodSafeToUseAfterOpening	TimeMeasurement	0..1	Period After Opening where the product is still safe to be used. This mention MUST take the form of number of months or number of years: e.g. "50 months" or "4 years"
avpList	TSD_AttributeValuePairList ([GS1TSD] section 6.2.8)	0..1	Temporary attributes introduced between minor versions; see [GS1TSD] section 5.4.1.

A Appendix - GDSN Attribute Mapping

The mapping to GDSN 2.8 is normative.

The mapping to GDSN 3.x is advisory pending the finalization of the GDSN 3.x standard.

A.1 Basic Product Information Module

TSD	Req#	GDSN 2.8 (normative)	GDSN 3.x (non-normative)
TSD_BasicProduct InformationModule			
productName	TSD phase 1	(1) AVP: labelDescription (2) TradeItemDescriptionInformation.. tradeItemDescription	(1) TradeItemDescriptionInformation. labelDescription (2) TradeItemDescriptionInformation. tradeItemDescription
consumerMarketing Description	TSD phase 1 + BPI-004	(1) MarketingInformation. tradeItemMarketingMessage (2) MarketingInformation. tradeItemFeatureBenefit (3) TradeItemDescriptionInformation.. additionalTradeItemDescription	(1) MarketingInformation. tradeItemMarketingMessage (2) MarketingInformation. tradeItemFeatureBenefit (3) TradeItemDescriptionInformation.. additionalTradeItemDescription
gpcCategoryCode	TSD phase 1	CatalogueItemClassification. classificationCategoryCode	CatalogueItemClassification. gpcCategoryCode
regulatedProductName	BPI-001	AVP: regulatedProductName	TradeItemDescriptionInformation. regulatedProductName
functionalName	TSD Phase 3	TradeItemDescriptionInformation.functionalName.Multi ShortDescription	TradeItemDescriptionInformation.functionalName
tradeItemVariantTypeCode	Errata		TradeItemDescriptionModule.tradeItemDescriptionInf ormation.TradeItemVariant. tradeItemVariantTypeCode
TSD_BrandNameInformation			
brandName	TSD phase 1	TradeItemDescriptionInformation. brandName	BrandNameInformation. brandName
languageSpecificBrandName	TSD phase 1	TradeItemDescriptionInformation. languageSpecificBrandName	BrandNameInformation. languageSpecificBrandName

TSD	Req#	GDSN 2.8 (normative)	GDSN 3.x (non-normative)
languageSpecificSubbrandName	Errata		TradeItemDescriptionModule.TradeItemDescriptionInformation.BrandNameInformation.languageSpecificSubbrandName
subBrand	Errata		TradeItemDescriptionModule.TradeItemDescriptionInformation.BrandNameInformation.subBrand
TSD_ProductInformationLink			
url	TSD phase 1	(1) ExternalFileLink. uniformResourceIdentifier (2) ReferencedFileInformation. uniformResourceIdentifier	ReferencedFileInformation. uniformResourceIdentifier
productInformationTypeCode	TSD phase 1	(1) TradeItemExternalInformation. typeOfInformation (2) ReferencedFileInformation. referencedFileTypeCode	ReferencedFileInformation. referencedFileTypeCode
languageCode	TSD phase 1	(1) urn:gs1:gdd:bie:FileContentInformation. fileLanguage (2) not available for ReferencedFileInformation	?
TSD_ImageLink			
url	TSD phase 1	urn:gs1:gdd:bie:ExternalFileLink. uniformResourceIdentifier	ReferencedFileInformation. uniformResourceIdentifier
imageTypeCode	TSD phase 1	TradeItemExternalInformation. typeOfInformation	ReferencedFileInformation. referencedFileTypeCode
languageCode	TSD phase 1	FileContentInformation. fileLanguage	?
imagePixelHeight	TSD phase 1	ExternalFileLink.filePixelHeight	?
imagePixelWidth	TSD phase 1	ExternalFileLink.filePixelWidth	?
fileSize	TSD phase 1	ExternalFileLink.fileSize	?
TSD_PackagingSignatureLine	BPI-002		
partyContactRoleCode		(1) base on name of element (ManufacturerOfTradeItem / BrandOwnerOfTradeItem) (2) TradeItemContactInformation.contactType	PartyInRole.partyRoleCode TradeItemContactInformation.contactTypeCode

TSD	Req#	GDSN 2.8 (normative)	GDSN 3.x (non-normative)
partyContactName		(1) ManufacturerOfTradeItem. nameOfManufacturer (2) BrandOwnerOfTradeItem. nameOfBrandOwner (3) TradeItemContactInformation. contactName	PartyInRole.partyName TradeItemContactInformation.contactName
partyContactAddress		TradeItemContactInformation.contactAddress	TradeItemContactInformation.contactAddress
gln		(1) ManufacturerOfTradeItem.manufacturer. PartyIdentification (2) BrandOwnerOfTradeItem.brandOwner. PartyIdentification (3) TradeItemContactInformation / PartyIdentification. gln	PartyInRole.gln
TSD_CommunicationChannel		TradeItemContactInformation.. TargetMarketCommunicationChannel	TradeItemContactInformation..CommunicationChannel
communicationChannelCode		urn:gs1:gdd:bie:CommunicationChannel.communicati onChannelCode	
communicationChannelName		not available	
communicationChannelValue		urn:gs1:gdd:bie:CommunicationChannel. communicationNumber	
colour	Errata		
colourCode	Errata		TradeItemDescriptionModule.tradeItemDescriptionInf ormation.Colour.colourCode
colourDescription	Errata		TradeItemDescriptionModule.tradeItemDescriptionInf ormation.Colour.colourDescription

A.2 Product Allergen Information Module

TSD	Req#	GDSN 2.8 (normative)	GDSN 3.x (non-normative)
TSD_ProductAllergen InformationModule			
TSD_AllergenRelated Information			

TSD	Req#	GDSN 2.8 (normative)	GDSN 3.x (non-normative)
allergenStatement	ALR-001.3	FoodAndBeverageAllergyRelatedInformation.allergenStatement	AllergenRelatedInformation.allergenStatement
allergenSpecificationAgency	ALR-001.1	FoodAndBeverageAllergen.allergenSpecificationAgency	AllergenRelatedInformation.allergenSpecificationAgency
allergenSpecificationName	ALR-001.2	FoodAndBeverageAllergen.allergenSpecificationName	AllergenRelatedInformation.allergenSpecificationName
TSD_Allergen			
allergenTypeCode	ALR-002.1	FoodAndBeverageAllergen.allergenTypeCode	Allergen.allergenTypeCode
levelOfContainmentCode	ALR-002.2	FoodAndBeverageAllergen.levelOfContainment	Allergen.levelOfContainmentCode

A.3 Product Claims and Endorsements Module

TSD	Req#	GDSN 2.8 (normative)	GDSN 3.x (non-normative)
TSD_ProductClaimsAndEndorsementsModule			
warningStatement	PMI-003	(1) PackagingMarking.warningCopyDescription.MultiLongDescription (2) FoodAndBeveragePreparationInformation.precautions.MultiLongDescription	(1) PackagingMarking.warningCopyDescription (2) PreparationServing.preparationConsumptionPrecautions
nutritionalClaimCode	NUI-002	FoodAndBeverageMarketingInformationExtension.nutritionalClaimCode	NutrientInformationModule.nutritionalClaimCode
nutritionalClaimStatement	NUI-001	FoodAndBeverageMarketingInformationExtension.nutritionalClaim	NutrientInformationModule.nutritionalClaim
healthClaimDescription	HBI-002	FoodAndBeverageMarketingInformationExtension.healthClaim	HealthBenefitInformation.healthClaimDescription
dietaryClaimCode	HWP-002	PackagingMarking.packageMarksDietAllergen	HealthWellnessPackagingMarking.packagingMarkedDietAllergenCode
TSD_RegulatoryCompliance			

TSD	Req#	GDSN 2.8 (normative)	GDSN 3.x (non-normative)
regulatoryComplianceCode	RTI-001	TradingPartnerNeutralTradeItemInformation. classComplianceRegulationCode	RegulatedTradeItemModule. tradeItemRegulationTypeCode
isPackagingMarkedWithRegulatoryCompliance		AVP isPackagingMarkedWithRegulatoryCompliance	
TSD_AccreditationInformation			
accreditationCode	PMI-001	(1) AVP packagingMarkedLabelAccreditationCode (2) PackagingMarking. packageMarksEnvironment, (3) PackagingMarking. packageMarksEthical	PackagingMarking. packagingMarkedLabelAccreditationCode
accreditationText	PMI-002	not available	not available

A.4 Product Instructions Module

TSD	Req#	GDSN 2.8 (normative)	GDSN 3.x (non-normative)
TSD_ProductInstructions			
consumerUsageInstructions	HAN-002	TradeItemHandlingInformation. consumerUsageStorageInstructions	TradeItemHandlingInformation. consumerUsageInstructions (tbc)
consumerStorageInstructions	HAN-001	TradeItemHandlingInformation. consumerUsageStorageInstructions	TradeItemHandlingInformation. consumerStorageInstructions (tbc)

A.5 Product Quantity Information Module

TSD	Req#	GDSN 2.8 (normative)	GDSN 3.x (non-normative)
TSD_ProductQuantityInformationModule			
netContent	MEA-001	TradeItemMeasurements. netContent	TradeItemMeasurements.netContent
drainedWeight	MEA-002	TradeItemMeasurements. drainedWeight	TradeItemWeight.drainedWeight
percentageOfAlcoholByVolume	ABI-001	TradeItemMeasurements. percentageOfAlcoholByVolume	AlcoholicBeverageInformation. percentageOfAlcoholByVolume

TSD	Req#	GDSN 2.8 (normative)	GDSN 3.x (non-normative)
TSD_ServingQuantityInformation			
numberOfServingsPerPackage	PSI-003	FoodAndBeverageServingInformation. numberOfServingsPerPackage	ServingQuantityInformation. numberOfServingsPerPackage
measurementPrecisionCode	PSI-003.1	not available	ServingQuantityInformation. numberOfServingsPerPackageMeasurementPrecisionCode
numberOfServingsRangeDescription	PSI-003	not available	not available

A.6 Product Origin Information Module

TSD	Req#	GDSN 2.8 (normative)	GDSN 3.x (non-normative)
TSD_ProductOriginInformationModule			
productOriginStatement	IAI-002	not available	PlaceOfProductActivity. tradeItemCountryOfOriginStatement
placeOfProvenanceStatement	IAI-003	AVP placeOfProvenance	PlaceOfProductActivity. placeOfProvenance
TSD_Country (+countryOfOrigin)			
countryCode		TradingPartnerNeutralTradeItemInformation. tradeItemCountryOfOrigin	Country (+countryOfOrigin). countryCode
countrySubdivisionCode		not available	Country (+countryOfOrigin). countrySubdivisionCode
TSD_ProductActivityDetails	IAI-001, IAI-004, IAI-005		
productActivityTypeCode		deduct from: TradingPartnerNeutralTradeItemInformation. tradeItemCountryOfOrigin	ProductActivityDetails. tradeItemActivityTypeCode And deduct from AVPs placeOfBirth, placeOfRearing, placeOfSlaughter

TSD	Req#	GDSN 2.8 (normative)	GDSN 3.x (non-normative)
		TradingPartnerNeutralTradeItemInformation. tradeItemCountryOfAssembly TradingPartnerNeutralTradeItemInformation. tradeItemCountryOfLastProcessing AVP: placeOfBirth, placeOfRearing, placeOfSlaughter	
activityRegionDescription		not available, except for AVP: placeOfBirth, placeOfRearing, placeOfSlaughter	ProductActivityDetails.activityRegionDescription AVP: placeOfBirth, placeOfRearing, placeOfSlaughter
TSD_Country (+countryOfActivity)			
countryCode		TradingPartnerNeutralTradeItemInformation. tradeItemCountryOfAssembly TradingPartnerNeutralTradeItemInformation. tradeItemCountryOfLastProcessing	Country(+countryOfActivity).countryCode AVP: placeOfBirth, placeOfRearing, placeOfSlaughter
countrySubdivisionCode		not available	Country (+countryOfActivity). countrySubdivisionCode

A.7 Food and Beverage Ingredient Information Module

TSD	Req#	GDSN 2.8 (normative)	GDSN 3.x (non-normative)
TSD_FoodAndBeverageIngredientInformationModule			
ingredientStatement	ING-001	FoodAndBeverageIngredientInformation. ingredientStatement	FoodAndBeverageIngredientModule. ingredientStatement
additivesStatement	HBI-001	(1) FoodAndBeverageMarketingInformationExtension. compulsoryAdditivesLabelInformation (2) FoodAndBeverageAdditiveInformation. additiveName + FoodAndBeverageAdditiveInformation. levelOfContainment	(1) HealthBenefitInformation. compulsoryAdditiveLabelInformation (2) AdditiveInformation. additiveName + AdditiveInformation. levelOfContainment
TSD_FoodAndBeverageIngredient			
ingredientName	ING-002.1	FoodAndBeverageIngredient. ingredientName	FoodAndBeverageIngredient. ingredientName

TSD	Req#	GDSN 2.8 (normative)	GDSN 3.x (non-normative)
ingredientSequence	ING-002.2	FoodAndBeverageIngredient. ingredientSequence	FoodAndBeverageIngredient. ingredientSequence
ingredientContentPercentage	ING-002.3	FoodAndBeverageIngredient. contentPercentage	FoodAndBeverageIngredient. ingredientContentPercentage
ingredientCountryOfOriginCode	ING-002.4	FoodAndBeverageIngredient. countryOfOrigin	FoodAndBeverageIngredient. countryOfOriginCode
ingredientCatchZone	ING-002.5	FoodAndBeverageIngredient. fishCatchZone	FoodAndBeverageIngredient. catchZone
isIngredientHighlighted	ING-002.7	not available	not available

A.8 Food and Beverage Preparation Information Module

TSD	Req#	GDSN 2.8 (normative)	GDSN 3.x (non-normative)
TSD_FoodAndBeveragePreparationInformationModule			
servingSuggestion	PSI-004	FoodAndBeverageMarketingInformationExtension.servingSuggestion	PreparationServing.servingSuggestion
TSD_PreparationMethod			
preparationTypeCode		FoodAndBeveragePreparationInformation.preparationType	PreparationMethod.preparationTypeCode
preparationInstructions	PSI-001	FoodAndBeveragePreparationInformation.preparationInstructions	PreparationServing.preparationInstructions

A.9 Nutritional Product Information Module

TSD	Req#	GDSN 2.8 (normative)	GDSN 3.x (non-normative)
TSD_NutritionalProductInformationModule			
TSD_NutrientHeader			

TSD	Req#	GDSN 2.8 (normative)	GDSN 3.x (non-normative)
preparationStateCode	TSD phase 1	FoodAndBeverageNutrientInformation. preparationState	NutrientHeader.preparationStateCode
dailyValueIntakeReference	TSD phase 1	FoodAndBeverageNutrientInformation. dailyValueIntakeReference	NutrientHeader.dailyValueIntakeReference
servingSizeDescription	TSD phase 1	FoodAndBeverageNutrientInformation. householdServingSize	NutrientHeader.servingSizeDescription
servingSize	TSD phase 1	FoodAndBeverageNutrientInformation. servingSize	NutrientHeader. servingSize
nutrientBasisQuantity	TSD phase 1	no direct mapping, work-around possible using servingSizeDescription = BASIS_QUANTITY and servingSize = actual value (e.g. per 100 gr)	NutrientHeader. nutrientBasisQuantity
numberOfServings	TSD phase 1	FoodAndBeverageServingInformation. numberOfServingsPerPackage	Not available in NutrientHeader in GDSN. See also TSD Product Quantity Information Module
TSD_NutrientDetail			
nutrientTypeCode	TSD phase 1	FoodAndBeverageNutrient. nutrientTypeCode	NutrientDetail.nutrientTypeCode
dailyValueIntakePercent	TSD phase 1	FoodAndBeverageNutrient. percentageOfDailyValueIntake	nutrientTypeCode.dailyValueIntakePercent
measurementPrecision	TSD phase 1	FoodAndBeverageNutrient. measurementPrecision	nutrientTypeCode.measurementPrecisionCode
quantityContained	TSD phase 1	FoodAndBeverageNutrient. quantityContained.	nutrientTypeCode.quantityContained

A.10 Nonfood Ingredient Information Module

TSD	Req#	GDSN 2.8 (normative)	GDSN 3.x (non-normative)
TSD_NonfoodIngredientInformationModule	TSD Phase 3		
nonfoodIngredientStatement			
TSD_NonfoodIngredient	TSD Phase 3		
ingredientName	TSD Phase 3	AVP nonfoodIngredientName	nonfoodIngredient. nonfoodIngredientName

TSD	Req#	GDSN 2.8 (normative)	GDSN 3.x (non-normative)
ingredientSequence	TSD Phase 3		
ingredientContentPercentage	TSD Phase 3		
ingredientCountryOfOriginCode	TSD Phase 3		
isIngredientHighlighted	TSD Phase 3	not available	not available

A.11 Product Usage And Safety Module

TSD	Req#	GDSN 2.8 (normative)	GDSN 3.x (non-normative)
TSD_ProductUsageAndSafetyModule	TSD Phase 3		
itemMinimumDurability	TSD Phase 3		
itemPeriodSafeToUseAfterOpening	TSD Phase 3		