Business Message Standard (BMS)

for

Align Trade Item Extension For Food And Beverage

BRG: Align (GDSN)

BMS Release: 2.1

Version: 0.1.8

Date: 04.06.2007

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Change Request Reference

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CR Submitter(s):	Loek Boortman
Date of CR Submission to GSMP:	06/08/2005

Business Requirements Document (BRAD) Reference

BRAD Title: Business Requirements Analysis Document (BRAD) for IRT Foodservice/Food Retail (Master Data)
BRAD Date: 15.06.2006
BRAD Version: 0.1.0

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Document Summary

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Document Change History

Date of Change	Version	Changed By	Reason for Change	Summary of Change	Model Build #
19.10.2005	0.0.1	Coen Janssen, Esther Peelen	Initial Draft		
08.11.2005	0.0.2	Coen Janssen, Esther Peelen	Review	- Updated class diagrams based on San Mateo comments. - Added GDD reports - Some code list updates	
29.11.2005	0.0.3	Coen Janssen, Esther Peelen	Review	-Updated class diagrams -Updated GDD reports -Code list updates	
14.12.2005	0.0.4	Coen Janssen, Esther Peelen	Review	- several modifications to class diagrams - updated GDD Reports - added examples - updated code lists	
19.12.2005	0.1.0	Coen Janssen, Esther Peelen	Peer Review	-several modifications to class diagrams -updated GDD Reports -updated code lists -modified paragraph 1.1.1 -added paragraph 1.7 -modified examples	
22.12.2005	0.1.1	Loek Boortman	Review Process manager	- added digital image for second example - corrected errors in examples	
23.01.2006	0.1.2	Coen Janssen, Esther Peelen	Public review comments	- some changes to design - modified GDD report and examples accordingly	
08.02.2006	0.1.3	Coen Janssen, Esther Peelen	Release policy	- The approved changes to the core item model have temporarily been moved into the Food and Beverage extension to make the functionality available earlier in the GDSN. - several modifications to class diagrams - updated GDD Reports - updated examples - added one code list	P4CL 8049
15.03.2006	0.1.4	Esther Peelen	GDD Update	- Updated GDD Report and added Data Description Report	

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15.03.2006	0.1.5	Eric Kauz	Updated Context	Updated Industry Context	
14.06.2006	0.1.6	Coen Janssen	Technical Public Review	- some cosmetic changes - some additions to GDD report - functional changes, see par.1.9	P4CL 8493
28.07.2006	0.1.7	Eric Kauz	Update to 2.1 Template.	-	
09.04.2007	0.1.8	Giovanni Biffi	Code Value added to the Physiochemical Characteristic Code List	Change corresponding to the GDSN MR1	

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1 Business Solution

1.1 Business Domain View

1.1.1 Problem Statement / Business Need

1. The inclusion of data requirements from food service manufacturers, distributors and operators will facilitate communication across the entire food service and food retail Supply Chain.
2. Due to government requirements manufacturers, distributors and retailers must identify nutritional requirements.
3. The current differences in the identification of ingredients, nutrients, allergens, additives etc. are mostly caused by simple languages translation issues. This forms a blockade for this information to be passed on through the GDSN network and amongst international active trading partners.
4. The EU is in the process of allowing for pilots that facilitate an e-label as an addition to the physical label
5. Product labels have reached their limitation in readability due to the vast amount of information that is to be printed on the label.
6. The intolerance of people to allergic substances is rising fast and thus the importance of standardized information gathering to ensure availability to the public is evermore increasing.
7. The relation between food and health (obesity, health claim) is attracting more and more attention and requires uniform and standardized information exchange between trading partners and public bodies.

1.1.2 Objective

This BMS contains the detailed design of the specific information that needs to be communicated for food & beverage products, in order to meet the requirements in the referenced BRAD.

1.1.3 Audience

- Food service and food retail manufacturers
- Food retailers
- Food service operators
- Datapools
- Trade bodies

1.1.4 Artefacts

Not applicable.

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1.1.5 References

	Reference Name	Description
[Ref1]	Business Requirements Analysis Document (BRAD) for IRT Foodservice/Food Retail (Master Data)	
[Ref2]	BRAD For GDSN Item Maintenance Release 1: Version: 0.0.2	Updated business rules and definitions around the Align Trade Item Standard

1.1.6 Acknowledgements

1.1.6.1 BRG Members

Function	Name	Company / organisation
BRG Chair	Jim Funk	S.C. JOHNSON & SON, INC.
BRG Chair	Eduardo Tovar	PROCTER & GAMBLE COMPANY
BRG Member	Javier Arias	GS1 SPAIN
BRG Member	Neale Austen	EAN AUSTRALIA
BRG Member	Michael Bammer	CVS PHARMACY, INC.
BRG Member	Giovanni Biffi	IAC – EAN COLOMBIA
BRG Member	Loek Boortman	GS1 NEDERLAND
BRG Member	Benjamin Couty	GS1 FRANCE
BRG Member	MaryAnn Goodrich	UNILEVER HOME & PERSONAL CARE NA
BRG Member	Hideki Ichihara	EAN JAPAN
BRG Member	Nancy Laskero	SEARS, ROEBUCK AND CO
BRG Member	Hanjoerg Lerch	METRO GROUP BUYING GMBH
BRG Member	Markus Mathar	SINFOS GMBH
BRG Member	Roberto Matsubayashi	EAN BRASIL
BRG Member	Michael Moise	NESTLE AG
BRG Member	Olivier Mouton	CARREFOUR
BRG Member	Barbara Munro	KRAFT FOODS, INC
BRG Member	Anakaryna Palacios	EAN VENEZUELA
BRG Member	Hector German Piñeros	IBC SOLUTIONS COLOMBIA
BRG Member	Paul Povey	PROCTER & GAMBLE COMPANY
BRG Member	Rebecca Quigley	COCA-COLA BOTTLERS SALES AND SERVICES
BRG Member	Julie Rodriguez	LEVI STRAUSS & CO
BRG Member	Joy Schneck	GENERAL MILLS, INC.
BRG Member	Peggy Spofford	3M COMPANY
BRG Member	Steve Vazzano	TRANSORA
BRG Member	Lionel Tussau	GEORGIA-PACIFIC CORPORATION
BRG Member	Patricia Vessey	BEST BUY COMPANY, INC.

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BRG Member	Marcel Yska	AHOLD NV
BRG Member	Greg Zwanziger	SUPERVALU, INC.

1.1.6.2 IRT Participants

Function	Name	COMPANY / ORGANISATION
IRT Co-chair	Chris Emment	COMPASS
IRT Co-chair / ITRG Liaison	Rita Laur	GS1 CANADA
Member	Diane Tetens	GENERAL MILS
Member	Steve Rosenberg	GS1 US
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Participant	Nadim Warde	EQUADIS SA
Participant	Paul Heathcote	E-CHAIN SOLUTIONS
Participant	Sian Musto	UDEX
Participant	Stefano Bergamin	GS1 ITALY
Participant	Leo Dekleermaeker	GS1 BELGIUM
Participant	Thierry Toralba	SODEXHO ALLIANCE
Participant	Mitch Fortier	GS1 AUSTRALIA

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1.1.6.3 Design Team Members

Function	Name	Organisation
Modeller	Coen Janssen, Esther Peelen	GS1 Netherlands
XML Technical Designer	Dipan Anarkat	GS1
EANCOM Technical Designer		
Peer Reviewer	Eric Kauz	GS1 HO

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1.2 Business Context

Context Category	Value(s)
Industry	All
Geopolitical	All
Product	Food, Beverage and Tobacco
Process	Align_Trade Item
System Capabilities	EAN.UCC
Official Constraints	None
Roles	All

Note: The above context set is used to create a unique namespace for the extension. The applicable industries for this extension based on ISIC classification are:

- Manufacture of Food Products and Beverages
- Wholesale Trade and Commission Trade, Except of Motor Vehicles and Motorcycles
- Retail trade, Except of Motor Vehicles and Motorcycles, Repair of Personal and Household goods
- Hotels and Restaurants.

1.3 Additional Technical Requirements Analysis

1.3.1 Technical Requirements (optional)

Number	Statement	Rationale

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1.4 Business Transaction View

1.4.1 Business Transaction Use Case Diagram

Covered in Align Trade Item Use Cases.

1.4.2 Use Case Description

Covered in Align Trade Item Use Cases.

1.4.3 Business Transaction Activity Diagram(s)

Covered in Align Trade Item Use Cases.

1.4.4 Business Transaction Sequence Diagram(s) (optional)

Covered in Align Trade Item Use Cases.

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1.5 Information Model (including GDD Report)

1.5.1 GDD Data description:

Class (ABIE)	Attribute (BBIE)	Association (ASBIE)	Secondary Class	Related Requirement
FoodAndBeverageAllergen				
	allergenSpecificationAgency			[ref1] {7.2 - D5}
	allergenSpecificationName			[ref1] {7.2 - D6}
	allergenTypeCode			
	levelOfContainment			[ref1] {7.2-D3}
FoodAndBeverageAllergyRelatedInformation				
		None	FoodAndBeverageAllergen	
		allergenStatement	MultiLongDescription	
FoodAndBeverageDietRelatedInformation				
	dietCertficationNumber			ref1] {7.2 - E5}
	dietCertificationAgency			[ref1] {7.2-E1}
		None	FoodAndBeverageDietTypeInformation	
		dietTypeDescription	MultiDescription	[ref1] {7.2-E4}
FoodAndBeverageDietTypeInformation				
	dietTypeCode			[ref1] {7.2-E3}
	dietTypeSubcode			[ref1] {7.2 - E6}
FoodAndBeverageInformation				
	productionVariantdescription			[ref1] {7.2 - V1}
	productionVariantEffectiveDate			[ref1] {7.2 - V2}
		None	FoodAndBeverageAllergyRelatedInformation	
		None	FoodAndBeverageDietRelatedInformation	

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Class (ABIE)	Attribute (BBIE)	Association (ASBIE)	Secondary Class	Related Requirement
		None	FoodAndBeverageIngredientInformation	
		None	FoodAndBeverageMicrobiologicalInformation	
		None	FoodAndBeverageNutrientInformation	
		None	FoodAndBeveragePhysiochemicalCharacteristic	
		None	FoodAndBeveragePreparationInformation	
		None	FoodAndBeverageServingInformation	
FoodAndBeverageIngredient				
	contentPercentage			[ref1] {7.2-C2}
	countryOfOrigin			[ref1] {7.2-C1}
	ingredientSequence			[ref1] {7.2-B2}
		ingredientName	MultiDescription	[ref1] {7.2-B1}
FoodAndBeverageIngredientInformation				
		None	FoodAndBeverageIngredient	
		ingredientStatement	MultiDescription5000	[ref1] {7.2-C3}
FoodAndBeverageMarketingInformationExtension				
	nutritionalClaimCode			[ref1] {7.2-A1}
		healthClaim	MultiDescription	[ref1] {7.2-A3}
		nutritionalClaim	MultiDescription	[ref1] {7.2-A2}
		servingSuggestion	MultiLongDescription	[ref1] {7.2-K2}
FoodAndBeverageMicrobiologicalInformation				
	organismCode			[ref1] {7.2-U1}

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Class (ABIE)	Attribute (BBIE)	Association (ASBIE)	Secondary Class	Related Requirement
		organismMaximumValue	MultiMeasurementValue	[ref1] {7.2-U2}
FoodAndBeverageNutrient				
	measurementPrecision			[ref1] {7.2-F3}
	nutrientTypeCode			[ref1] {7.2-F1}
	percentageOfDailyValueIntake			[ref1] {7.2-F4}
		quantityContained	MultiMeasurementValue	[ref1] {7.2-F2}
FoodAndBeverageNutrientInformation				
	preparationState			
		None	FoodAndBeverageNutrient	
		dailyValueIntakeReference	MultiDescription	[ref1] {{7.2-F5}
		householdServingSize	MultiDescription	[ref1] {{7.2-F6}
		servingSize	MultiMeasurementValue	[ref1] {{7.2-F7}
FoodAndBeveragePhysiochemicalCharacteristic				
	characteristicCode			[ref1] {7.2-T1}
		characteristicValue	MultiMeasurementValue	ref1] {7.2-T2}
FoodAndBeveragePreparationInformation				
	preparationType			
		None	FoodAndBeverageProductYieldInformation	[ref1] {7.2-H3-4}
		preparationInstructions	MultiDescription2500	[ref1] {7.2-Q1}
		precautions	MultiLongDescription	[ref1] {7.2-Q2}
FoodAndBeverageProductYieldInformation				
	productYieldTypeCode			[ref1] {7.2-H3-3}
	productYieldVariation			[ref1] {7.2-H3-2}

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Class (ABIE)	Attribute (BBIE)	Association (ASBIE)	Secondary Class	Related Requirement
		productYield	MultiMeasurementValue	[ref1] {7.2-H3-1}
FoodAndBeverageServingInformation				
	numberOfServingsPerPackage			[ref1] {7.2-H2}
	numberOfSmallestUnitsPerPackage			[ref1] {7.2-H1}
FoodAndBeverageTradeItemExtension				
	preservationTechniqueCode			[ref1] {7.2-R1}
		None	FoodAndBeverageInformation	
		None	FoodAndBeverageMarketingInformationExtension	
		customerSupportCenter	PartyIdentification	[ref1] {7.2-M1}
		productionFacility	PartyIdentification	[ref1] {7.2-K6}
		None	TradeItemCertificationInformation	
		None	TradeItemExternalInformation	[ref1] {7.2-I1}
TradeItemCertificationInformation				
	certificationAgency			[ref1] {7.2-G1}
	certificationStandard			[ref1] {7.2-G2}
		certificationValue	MultiDescription	[ref1] {7.2-G3}
TradeItemExternalInformation				
	typeOfInformation			
		inheritance	ExternalFileLink	

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1.5.2 GDD Report

Align Trade Item Extension For Food And Beverage

Class (ABIE)	Attribute (BBIE)	Association (ASBIE)	Secondary Class	Official Dictionary Entry Name	Definition	Multiplicity
FoodAndBeverageAllergen				Food And Beverage Allergen. Details	Description of the presence or absence of allergens as governed by local rules and regulations, specified per allergen.	
	allergenSpecificationAgency			Food And Beverage Allergen. Allergen Specification Agency. Text	Agency that controls the allergen definition.	1..1
	allergenSpecificationName			Food And Beverage Allergen. Allergen Specification Name. Text	Free text field containing the name and version of the regulation or standard that contains the definition of the allergen.	1..1
	allergenTypeCode			Food And Beverage Allergen. Allergen Type Code. Code	Code indicating the type of allergen.	1..1
	levelOfContainment			Food And Beverage Allergen. Level Of Containment. Code	Code indicating the level of presence of the allergen.	1..1
FoodAndBeverageAllergyRelatedInformation				Food And Beverage Allergy Related Information. Details	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	
		None	FoodAndBeverageAllergen	Food And Beverage Allergy Related Information. Association. Food And Beverage Allergen	Definition not required for unnamed associations.	0..*
		allergenState-	MultiLongDe-	Food And Beverage Al-	Textual description of the presence or	0..1

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Class (ABIE)	Attribute (BBIE)	Association (ASBIE)	Secondary Class	Official Dictionary Entry Name	Definition	Multiplicity
		ment	scription	lergy Related Information. Allergen Statement. Multi Long Description	absence of allergens as governed by local rules and regulations, specified as one string.	
FoodAndBeverageDietRelatedInformation				Food And Beverage Diet Related Information. Details	Information on whether the product meets the criteria to be classified as suitable for a specific targeted group. Certain groups of consumers are limited in consuming products, depending on the ingredients or preparation style. This can be i.e. due to religious reasons or restriction of diet reasons.	
	dietCertficationNumber			Food And Beverage Diet Related Information. Diet Certification Number. Text	Identification given to the trade item by the certification organization defining the requirements for diet claims.	0..1
	dietCertificationAgency			Food And Beverage Diet Related Information. Diet Certification Agency. Text	Name of organization defining the requirements for diet claims.	0..1
		None	FoodAndBeverageDietTypeInformation	Food And Beverage Diet Related Information. Association. Food And Beverage Diet Type Information	Definition not required for unnamed associations.	1..1
		dietTypeDescription	MultiDescription	Food And Beverage Diet Related Information. Diet Type Description. Multi Description	Free text for indication of diet not stated in the list of diets.	1..1
FoodAndBeverageDietTypeInformation				Food And Beverage Diet Type Information. Details	Information on the type of diet.	
	dietTypeCode			Food And Beverage Diet	Code indicating the diet the product is	1..1

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Class (ABIE)	Attribute (BBIE)	Association (ASBIE)	Secondary Class	Official Dictionary Entry Name	Definition	Multiplicity
				Type Information. Diet Type Code. Code	suitable for.	
	dietTypeSubcode			Food And Beverage Diet Type Information. diet Type Sub code. Code	Indicates a set of agreements or a certificate name that guarantees the product is permitted in a particular diet.	0..1
FoodAndBeverageInformation				Food And Beverage Information. Details	Information on ingredients, nutrients, preparation, etc. of food and beverage products. This information can vary depending on the production circumstances under which the product was produced.	
	productionVariantdescription			Food And Beverage Information. Production Variant Description. Text	Free text assigned by the manufacturer to describe the production variant. Examples are: package series X, package series Y.	0..1
	productionVariantEffectiveDate			Food And Beverage Information. Production Variant Effective Date. Date Time	The start date of a production variant. The variant applies to products having a date mark (a best before date or expiration date) on the package that comes on or after the effective date.	0..1
		None	FoodAndBeverageAllergyRelatedInformation	Food And Beverage Information. Association. Food And Beverage Allergy Related Information	Definition not required, please refer to associated class.	0..1
		None	FoodAndBeverageDietRelatedInformation	Food And Beverage Information. Association. Food And Beverage Diet Related Information	Definition not required, please refer to associated class.	0..*
		None	FoodAndBeverageIngredientInformation	Food And Beverage Information. Association. Food And Beverage Ingredient Information	Definition not required, please refer to associated class.	0..1
		None	FoodAndBever-	Food And Beverage In-	Definition not required for unnamed asso-	0..*

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Class (ABIE)	Attribute (BBIE)	Association (ASBIE)	Secondary Class	Official Dictionary Entry Name	Definition	Multiplicity
			ageMicrobiologi-calInformation	formation. Association. Food And Beverage Microbiological Informa-tion	ciations.	
		None	FoodAndBever-ageNutrientIn-formation	Food And Beverage In-formation. Association. Food And Beverage Nu-trient Information	Definition not required, please refer to associated class.	0..1
		None	FoodAndBever-agePhysiochemi-calCharacteristic	Food And Beverage In-formation. Association. Food And Beverage Physiochemical Charac-teristic	Definition not required for unnamed asso-ciations.	0..*
		None	FoodAndBever-agePreparation-Information	Food And Beverage In-formation. Association. Food And Beverage Preparation Information	Definition not required for unnamed asso-ciations, please refer to associated class.	0..*
		None	FoodAndBever-ageServingIn-formation	Food And Beverage In-formation. Association. Food And Beverage Serv-ing Information	Definition not required, please refer to associated class.	0..1
FoodAndBever-ageIngredient				Food And Beverage In-gredient. Details	Information on the constituent ingredient make up of the product split out per in-gredient.	
	contentPercentage			Food And Beverage In-gredient. Content Per-centage. Numeric	Indication of the percentage of the ingre-dient contained in the product.	0..1
	countryOfOrigin			Food And Beverage In-gredient. Country Of Origin. Code	Code indicating the country of origin of the ingredient (ISO-3166).	0..*
	ingredientSequence			Food And Beverage In-	Integer (1, 2, 3…) indicating the ingredi-	1..1

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Class (ABIE)	Attribute (BBIE)	Association (ASBIE)	Secondary Class	Official Dictionary Entry Name	Definition	Multiplicity
				gredient. Ingredient Sequence. Integer_ Numeric	ent order by content percentage of the product. (major ingredient = 1, second ingredient = 2) etc.	
		ingredientName	MultiDescription	Food And Beverage Ingredient. Ingredient Name. Multi Description	Text field indicating one ingredient or ingredient group (according to regulations of the target market). Ingredients include any additives (colourings, preservatives, e-numbers, etc) that are encompassed.	1..1
FoodAndBeverageIngredientInformation				Food And Beverage Ingredient Information. Details	Information on the constituent ingredient make up of the product.	
		None	FoodAndBeverageIngredient	Food And Beverage Ingredient Information. Association. Food And Beverage Ingredient	Definition not required for unnamed associations, please refer to associated class.	0..*
		ingredientStatement	MultiDescription5000	Food And Beverage Ingredient Information. Ingredient Statement. Multi Description 5000	Information on the constituent ingredient make up of the product specified as one string.	0..1
FoodAndBeverageMarketingInformationExtension				Food And Beverage Marketing Extension. Details	This extension contains marketing related data elements that are specific to food and beverage products.	
	nutritionalClaimCode			Food And Beverage Marketing Extension. Nutritional Claim Code. Code	Code list reflecting the values of permitted nutritional claims of the EC and US (and any other known) regulations.	0..*
		healthClaim	MultiDescription	Food And Beverage Marketing Extension. Health Claim. Multi Description	Free text field for any health claims according to regulations of the target market.	0..*
		nutritionalClaim	MultiDescription	Food And Beverage Marketing Extension. Nutri-	Free text field for any additional nutritional claims.	0..*

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Class (ABIE)	Attribute (BBIE)	Association (ASBIE)	Secondary Class	Official Dictionary Entry Name	Definition	Multiplicity
				tional Claim. Multi Description		
		servingSuggestion	MultiLongDescription	Food And Beverage Marketing Extension. Serving Suggestion. Multi Long Description	Free text field for serving suggestion.	0..1
FoodAndBeverageMicrobiologicalInformation				Food And Beverage Microbiological Information. Details	Information on the maximum allowable presence of certain micro-organisms as guaranteed by the manufactures upon receipt of the goods	
	organismCode			Food And Beverage Microbiological Information. Organism Code. Code	Code indicating the type of microbiological organism.	1..1
		organismMaximumValue	MultiMeasurementValue	Food And Beverage Microbiological Information. Organism Maximum Value. Multi Measurement Value	Maximum allowable value of the microbiological organism.	1..1
FoodAndBeverageNutrient				Food And Beverage Nutrient. Details	Information on the nutrients contained in the product. Examples are vitamins, minerals, different types of carbohydrates, different types of saturated fat, types of unsaturated fat, types of Polyunsaturated fat.	
	measurementPrecision			Food And Beverage Nutrient. Measurement Precision. Code	Code indicating whether the specified nutrient content is exact or approximate.	1..1
	nutrientTypeCode			Food And Beverage Nutrient. Nutrient Type Code. Code	Code from the list of the INFOODS food component tag names (http://www.fao.org/infoods/tagnames_e	1..1

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Class (ABIE)	Attribute (BBIE)	Association (ASBIE)	Secondary Class	Official Dictionary Entry Name	Definition	Multiplicity
					n.stm) identifying nutrients contained in the product.	
	percentageOfDailyValueIntake			Food And Beverage Nutrient. Percentage Of Daily Value Intake. Numeric	The percentage of the recommended daily intake of a nutrient as recommended by authorities of the target market. Is expressed relative to the serving size and base daily value intake.	0..1
		quantityContained	MultiMeasurementValue	Food And Beverage Nutrient. Quantity Contained. Multi Measurement Value	Measurement value indicating the amount of nutrient contained in the product. Is expressed relative to the serving size.	0..1
FoodAndBeverageNutrientInformation				Food And Beverage Nutrient Information. Details	Information about content of nutrients. Multiple sets of nutrient information can be specified with varying state, serving size and daily value intake base.	
	preparationState			Food And Beverage Nutrient Information. Preparation State. Code	Code specifying whether the nutrient information applies to the prepared or unprepared state of the product.	1..1
		None	FoodAndBeverageNutrient	Food And Beverage Nutrient Information. Association. Food And Beverage Nutrient	Definition not required for unnamed associations.	1..*
		dailyValueIntakeReference	MultiDescription	Food And Beverage Nutrient Information. Daily Value Intake Reference. Multi Description	Free text field specifying the daily value intake base for on which the daily value intake per nutrient has been based. Example: “Based on a 2000 calorie diet.”	0..1
		householdServingSize	MultiDescription	Food And Beverage Nutrient Information. Household Serving Size. Multi Description	Free text field specifying the household serving size in which the information per nutrient has been stated. Example: Per 1/3 cup (42 g).	0..1
		servingSize	MultiMeasure-	Food And Beverage Nu-	Measurement value specifying the serving	0..1

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Class (ABIE)	Attribute (BBIE)	Association (ASBIE)	Secondary Class	Official Dictionary Entry Name	Definition	Multiplicity
			mentValue	trient Information. Serving Size. Multi Measurement Value	size in which the information per nutrient has been stated. Example: Per 100 grams.	
FoodAndBeverageChemicalCharacteristic				Food And Beverage Physiochemical Characteristic. Details	Information on the product's physico-chemical characteristics.	
	characteristicCode			Food And Beverage Physiochemical Characteristic. Characteristic Code. Code	Code indicating the type of physiochemical characteristic.	1..1
		characteristicValue	MultiMeasurementValue	Food And Beverage Physiochemical Characteristic. Characteristic Value. Multi Measurement Value	Measurement value of the physicochemical characteristic.	1..1
FoodAndBeveragePreparationInformation				Food And Beverage Preparation Information. Details	Information on way the product can be prepared. Used to show alternate ways to prepare, such as microwaving, boiling etc.	
	preparationType			Food And Beverage Preparation Information. Preparation Type. Code	A code specifying the technique used to make the product ready for consumption. For example: baking, boiling.	1..1
		None	FoodAndBeverageProductYieldInformation	Food And Beverage Preparation Information. Association. Food And Beverage Product Yield Information	Definition not required for unnamed associations, please refer to associated class.	0..1
		preparationInstructions	MultiDescription2500	Food And Beverage Preparation Information. Preparation Instructions. Multi Description 2500	Textual instruction on how to prepare the product before serving.	1..1
		precautions	MultiLongDe-	Food And Beverage	Specifies additional precautions to be	0..1

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Class (ABIE)	Attribute (BBIE)	Association (ASBIE)	Secondary Class	Official Dictionary Entry Name	Definition	Multiplicity
			scription	Preparation Information. Precautions. Multi Long Description	taken before preparation or consumption of the product.	
FoodAndBeverageProductYield-Information				Food And Beverage Product Yield Information. Details	Information on the amount of product that is available for consumption after preparing / serving the product.	
	productYieldTypeCode			Food And Beverage Product Yield Information. Product Yield Type Code. Code	Code indicating the type of yield measurement. Examples:• After dilution• Drained weight• After cooking• Etc	1..1
	productYieldVariation			Food And Beverage Product Yield Information. Product Yield Variation. Numeric	Indication of range in percent of the given cooking / roasting loss. Percentage that the actual weight of the trade item differs upward or downward from the average or estimated product yield.	0..1
		productYield	MultiMeasure-mentValue	Food And Beverage Product Yield Information. Product Yield. Multi Measurement Value	Product quantity after preparation.	1..1
FoodAndBeverageServingInformation				Food And Beverage Serving Information. Details	Information on the number of servings and units contained in the package.	
	numberOfServingsPer-Package			Food And Beverage Serving Information. Number Of Servings Per Package. Numeric	The total number of servings contained in the package.	0..1
	numberOfSmallestU-nitsPerPackage			Food And Beverage Serving Information. Number Of Smallest Units Per Package. Numeric	The total number of smallest units contained in the package. The smallest unit can not be further divided without breaking or slicing the product. Example: 10 pancakes.	0..1

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Class (ABIE)	Attribute (BBIE)	Association (ASBIE)	Secondary Class	Official Dictionary Entry Name	Definition	Multiplicity
FoodAndBeverageTradeItemExtension				Food And Beverage Trade Item Extension. Details	This extension contains trading partner neutral data elements that are specific to food and beverage products.	
	preservationTechniqueCode			Food And Beverage Trade Item Extension. Preservation Technique Code. Code	Code value indicating the preservation technique used to preserve the product from deterioration.	0..*
		None	FoodAndBeverageInformation	Food And Beverage Trade Item Extension. Association. Food And Beverage Information	Definition not required for unnamed associations.	1..*
		None	FoodAndBeverageMarketingInformationExtension	Food And Beverage Trade Item Extension. Association. Food And Beverage Marketing Extension	Definition not required for unnamed associations, please refer to associated class.	0..1
		customerSupportCenter	PartyIdentification	Food And Beverage Trade Item Extension. Customer Support Center. Party Identification	Identifies the customer support centre for the trade item. The information recipient may use this GLN to look up the telephone number of the identified Support Centre.	0..1
		productionFacility	PartyIdentification	Food And Beverage Trade Item Extension. Production Facility. Party Identification	Identifies the facility where the product is being produced. Enables users to identify and look up the name of the facility where the product has been produced. E.g. Bowmanville or West Side etc.	0..*
		None	TradeItemCertificationInformation	Food And Beverage Trade Item Extension. Association. Trade Item Certification Information	Definition not required for unnamed associations, please refer to associated class.	0..*
		None	TradeItemExternalInformation	Food And Beverage Trade Item Extension. Associa-	Definition not required for unnamed associations, please refer to associated class.	0..*

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Class (ABIE)	Attribute (BBIE)	Association (ASBIE)	Secondary Class	Official Dictionary Entry Name	Definition	Multiplicity
				tion. Trade Item External Information		
TradeItemCertificationInformation				Trade Item Certification Information. Details	Information on certification standards to which the trade item complies.	
	certificationAgency			Trade Item Certification Information. Certification Agency. Text	Name of the organization issuing the certification standard or other requirement being met. Free text field. Example: European Union	1..1
	certificationStandard			Trade Item Certification Information. Certification Standard. Text	Name of the certification standard. Free text. Example: Egg classification.	1..1
		certification-Value	MultiDescription	Trade Item Certification Information. Certification Value. Multi Description	The product's certification standard value. Example: 4	1..1
TradeItemExternalInformation				Trade Item External Information. Details	Links to external files that contain additional information about the trade item.	
	typeOfInformation			Trade Item External Information. Type Of Information. Code	Code identifying the type of information contained in the file. Example: Image of product label.	1..1
		inheritance	ExternalFileLink	Trade Item External Information. Inheritance. External File Link	Definition not required for inheritance associations, please refer to associated class.	1..1

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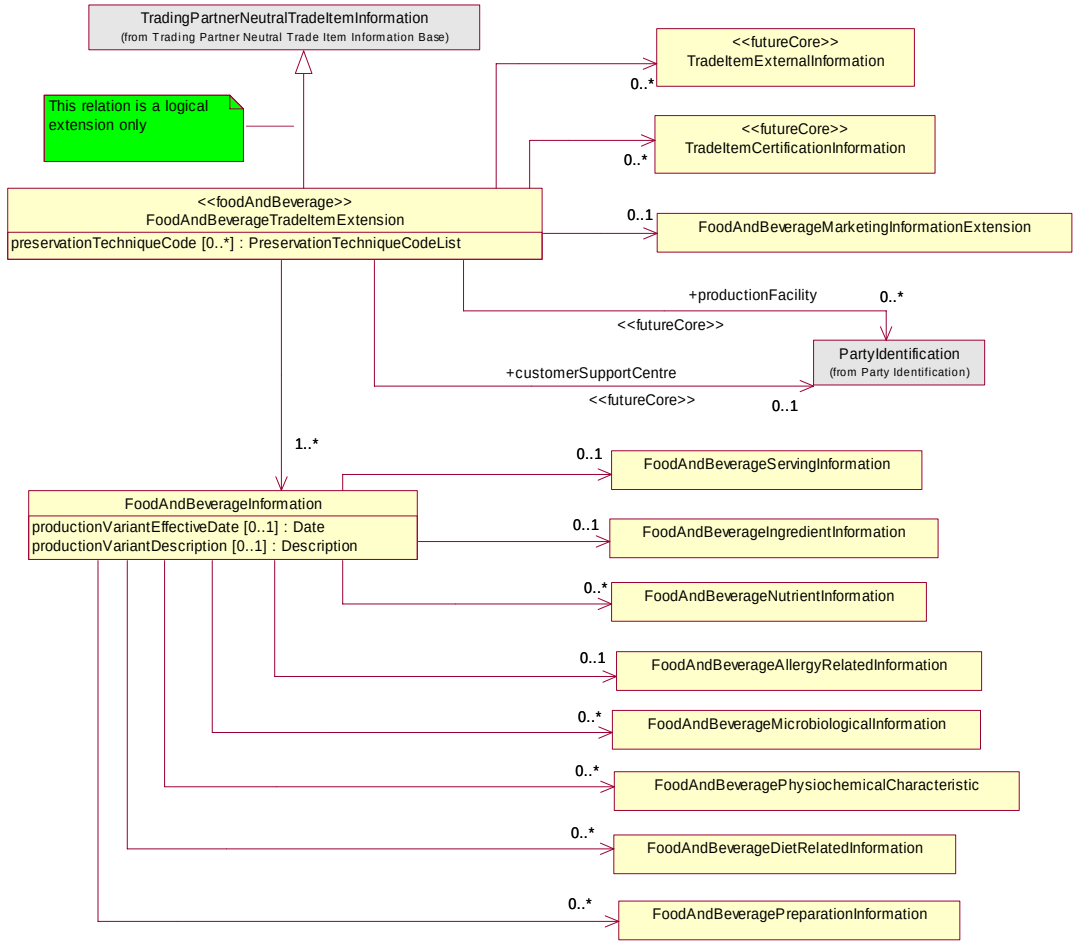
1.5.3 Class Diagrams



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Note: The relationship between the extension and the Trading Partner Neutral Trade Item Information class is logical only and does not designate the physical location of the extension tag in the Schema. This relationship states that, logically, the information contained in the extension belongs with other Trading Partner Neutral Trade Item Information such as packaging marking and item dimensions. The physical placement of the extension tag is a technical decision as long as it allows the implementers to relate the extensions to a specific trade item.

Note on Future Core elements: These elements have been approved and will be incorporated in the core item BMS in a future release.

- productionFacility will be added as association to the ManufacturerOfTradeItem class.
- customerSupportCentre will be added as association to TradingPartnerNeutralTradeItemInformation
- TradeItemCertificationInformation will be added as association to TradingPartnerNeutralTradeItemInformation
- TradeItemExternalInformation will be added as association to TradingPartnerNeutralTradeItemInformation

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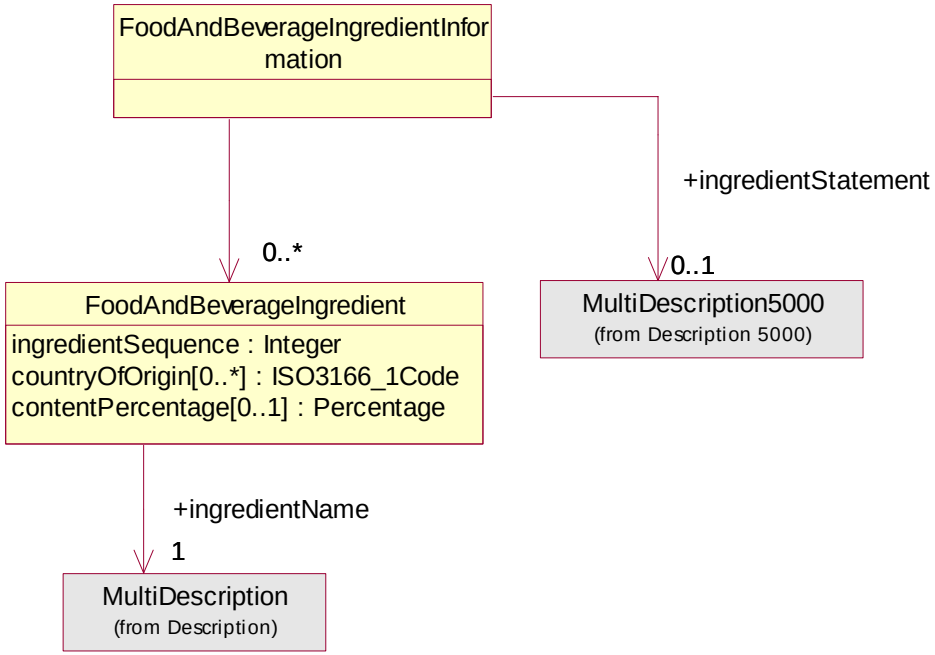
Food And Beverage Ingredient Information



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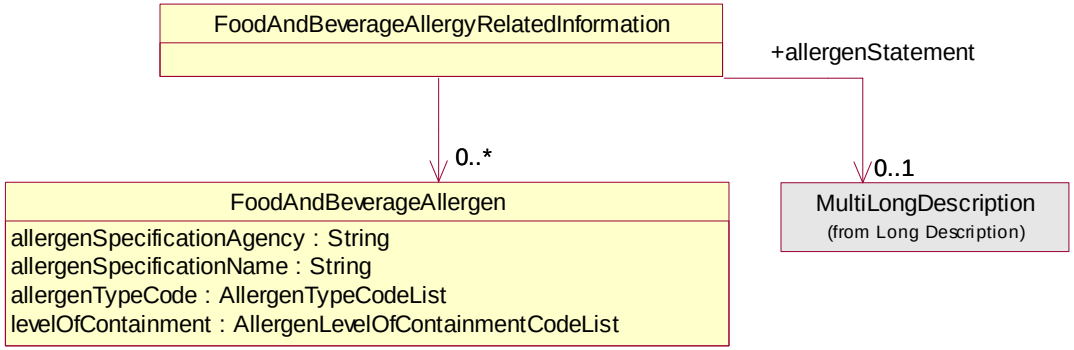
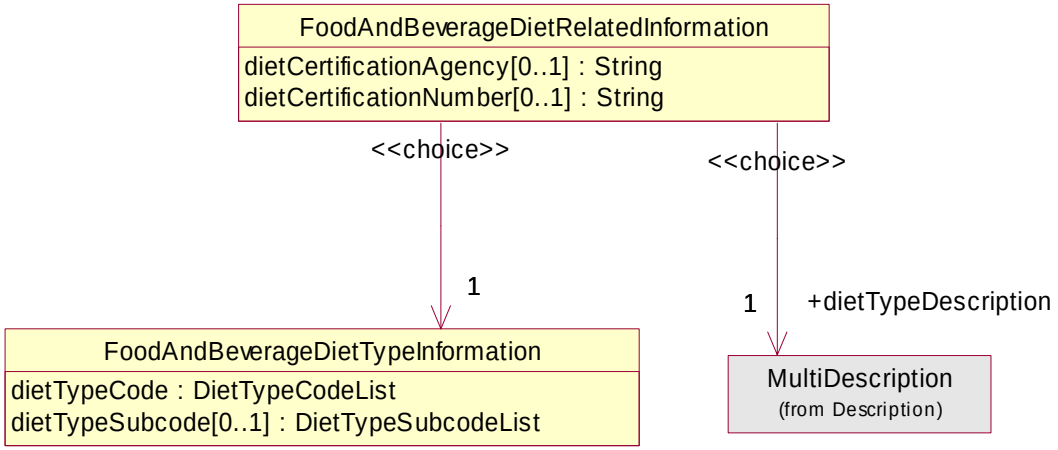
Food And Beverage Allergy Related Information



Food And Beverage Diet Related Information



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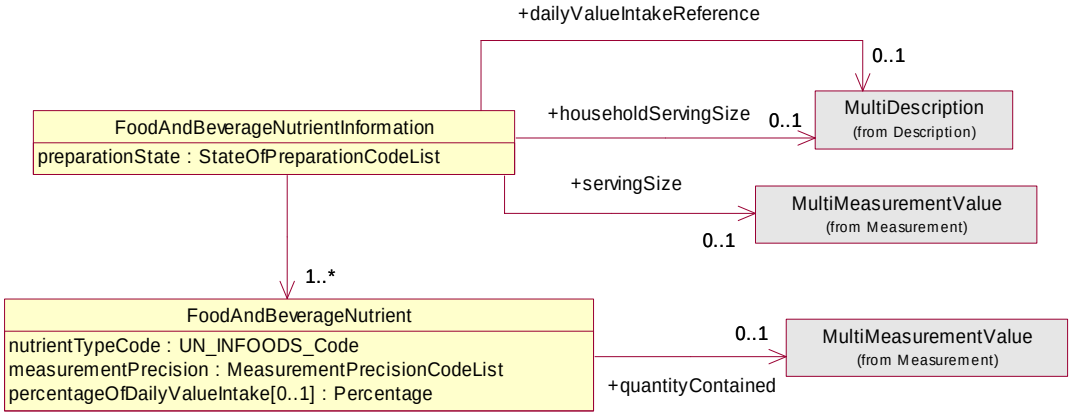
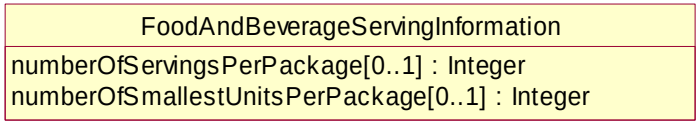
Food And Beverage Nutrient Information



Food And Beverage Serving Information



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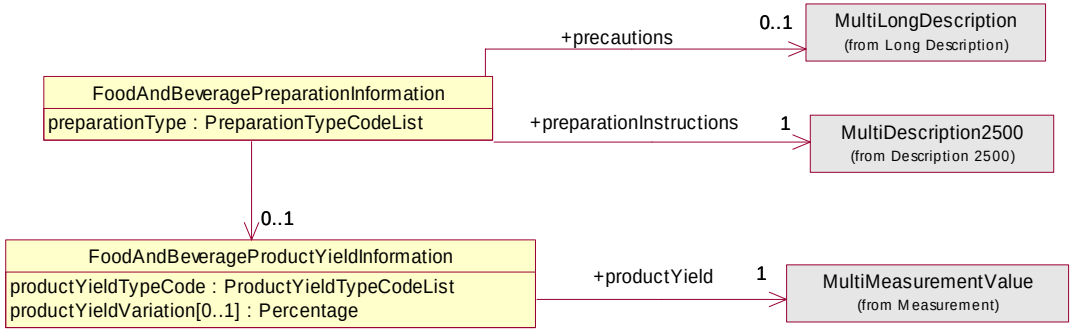
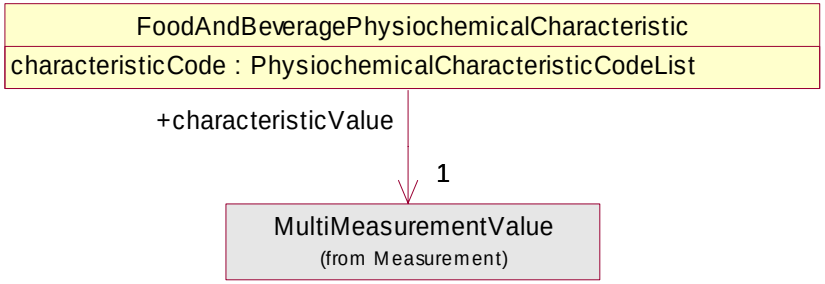
Food And Beverage Preparation Information



Food And Beverage Physiochemical Characteristic



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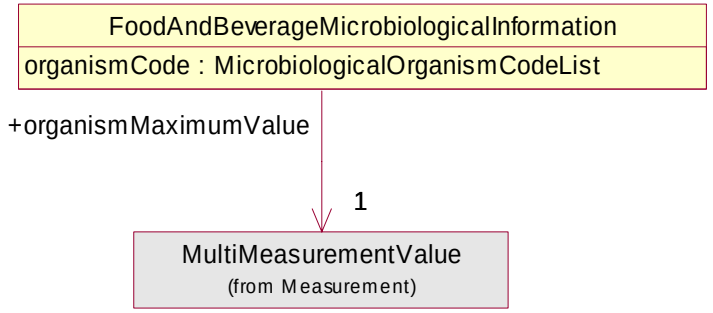
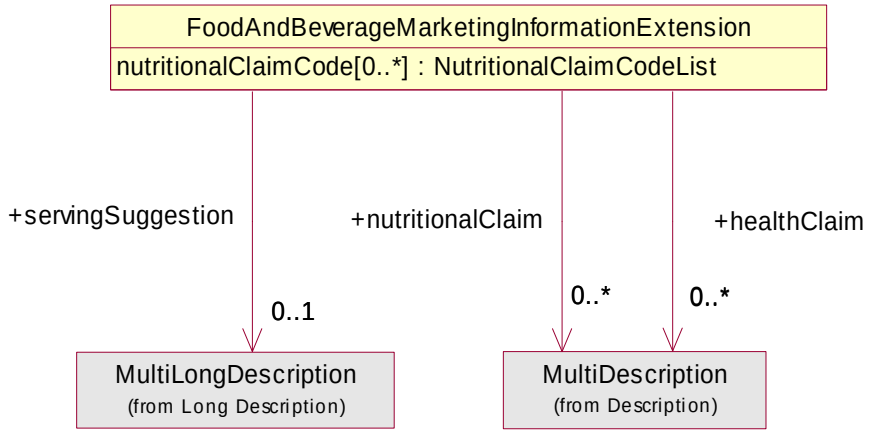
Food And Beverage Microbiological Information



Food and Beverage Marketing Information



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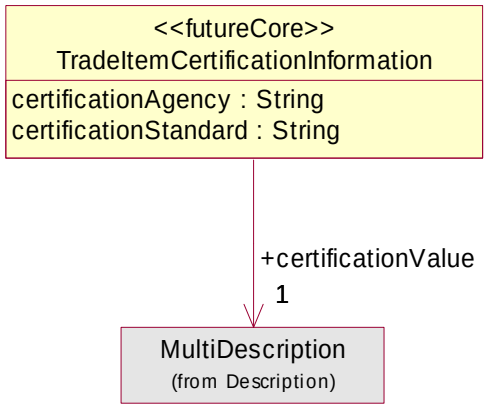
Trade Item Certification Information



Note on Future Core elements: These elements have been approved and may be incorporated in the core item BMS in a future release.

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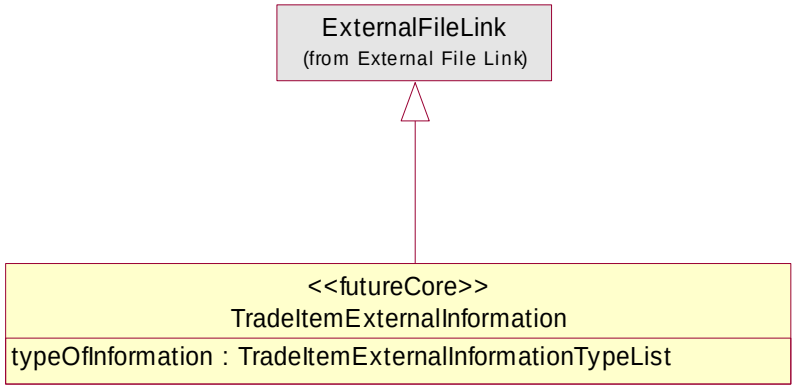
Trade Item External Information



Note on Future Core elements: These elements have been approved and may be incorporated in the core item BMS in a future release.

- Addition to core means that attribute linkToExternalDescription in class TradeItemDescriptionInformation is no longer needed.

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1.5.4 Code Lists

Code List Name	Code List Description
Allergen Type Code List	Code indicating the allergen.
Code Name	**Code Description**
AC	Refers to the presence of Crustaceans and their derivates in the product, as listed as listed in the regulations specified in AllergenSpecificationAgency and AllergenSpecification-Name
AE	Refers to the presence of eggs and their derivates in the product, as listed as listed in the regulations specified in AllergenSpecificationAgency and AllergenSpecification-Name
AF	Refers to the presence of Fish and their derivates in the product, as listed in as listed in the regulations specified in AllergenSpecificationAgency and AllergenSpecification-Name
AM	Refers to the presence of milk and their derivates in the product, as listed in as listed in the regulations specified in AllergenSpecificationAgency and AllergenSpecification-Name
AN	Refers to the presence of nuts and their derivates in the product, as listed in as listed in the regulations specified in AllergenSpecificationAgency and AllergenSpecification-Name
AP	Refers to the presence of peanuts and their derivates in the product, as listed in as listed in the regulations specified in AllergenSpecificationAgency and AllergenSpecification-Name
AS	Refers to the presence of sesame seeds or their derivatives in the product, as listed in as listed in the regulations specified in AllergenSpecificationAgency and AllergenSpecificationName
AU	Refers to the presence of Refers to the presence Sulphur Dioxide and Sulphites in the product, as listed in as listed in the regulations specified in AllergenSpecificationAgency and AllergenSpecificationName
AW	Refers to the presence of Cereals containing gluten and their derivates in the product, as listed in the regulations specified in AllergenSpecificationAgency and AllergenSpecificationName
AY	Refers to the presence of soybeans and their derivates in the product, as listed in as listed in the regulations specified in AllergenSpecificationAgency and AllergenSpecification-Name
BC	Refers to the presence of celery or their derivatives in the product, as listed in as listed in the regulations specified in

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	AllergenSpecificationAgency and AllergenSpecification-Name
BM	Refers to the presence of mustard or their derivatives in the product, as listed in as listed in the regulations specified in AllergenSpecificationAgency and AllergenSpecification-Name
NC	Refers to the presence of cocoa and their derivates in the product, as listed in as listed in the regulations specified in AllergenSpecificationAgency and AllergenSpecification-Name
NK	Refers to the presence of coriander and their derivates in the product, as listed in as listed in the regulations specified in AllergenSpecificationAgency and AllergenSpecification-Name
NL	Refers to the presence of Lupine and their derivates in the product, as listed in as listed in the regulations specified in AllergenSpecificationAgency and AllergenSpecification-Name
NM	Refers to the presence of corn and their derivates in the product, as listed in as listed in the regulations specified in AllergenSpecificationAgency and AllergenSpecification-Name
NP	Refers to the presence of pod fruits and their derivates in the product, as listed in as listed in the regulations specified in AllergenSpecificationAgency and AllergenSpecification-Name
NR	Refers to the presence of rye and their derivates in the product, as listed in as listed in the regulations specified in AllergenSpecificationAgency and AllergenSpecification-Name
NW	Refers to the presence of carrot and their derivates in the product, as listed in as listed in the regulations specified in AllergenSpecificationAgency and AllergenSpecification-Name
UM	Refers to the presence of molluscs and their derivates in the product, as listed in as listed in the regulations specified in AllergenSpecificationAgency and AllergenSpecification-Name
UW	Refers to the presence of wheat and their derivates in the product, as listed in the regulations specified in Allergen-SpecificationAgency and AllergenSpecificationName

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Code List Name	Code List Description
Allergen Level Of Containment Code List	Code indicating the level of presence.
Code Name	**Code 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

Code List Name	Code List Description
Diet Type Code List	Code list or enumerated list of values indicating the target group the product is suitable for.
Code Name	**Code Description**
DIETETIC	Denotes a product that is specially prepared or processed for people on restrictive diets.
HALAL	Denotes selling or serving food ritually fit according to Islamic dietary laws.
KOSHER	Denotes selling or serving food ritually fit according to Jewish dietary laws.
ORGANIC	Denotes 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.
VEGAN	Denotes a product that contains no dairy or animal ingredients.
VEGETARIAN	Denotes a product that contains no meat, fish or other animal products.
WITHOUT_PORK	Denotes a product that contains no pork meat
WITHOUT_BEEF	Denotes a product that contains no beef or beef-products. Beef is considered to be a taboo food product by some religions most notable Hinduism, Buddhism and Jainism

Code List Name	Code List Description
Diet Type Sub Code List	Code list or enumerated list of values indicating …..
Code Name	**Code Description**
CIRCLE_U	Kosher food product that is certified by the Union of Orthodox Jewish Congregations (www.ou.org)
CRC	Kosher food product certified by the Chicago rabbinical council (www.crcweb.org)
K	Kosher food product that is certified by the OK Kosher Certification (www.ok.org**)**
K_DAIRY	Kosher food product certified by the Chicago rabbinical council (www.crcweb.org)
K_PAREVE	Kosher food product certified by the Chicago rabbinical council (www.crcweb.org)
KOF_K	Kosher food product that is certified by the KOF-K Ko-

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	sher Supervision (www.kof-k.org)
KOF_K,DAIRY	Kosher food product that is certified by the KOF-K Kosher Supervision (www.kof-k.org)
KSR_OVRSR	Kosher food product that is certified by the Grand rabbinat du Quebec (www.rabbinat.qc.ca)
KVHD	Kosher food product certified by the Massachusetts Vaad
OK_PAREVE	Kosher food product that is certified by the OK Kosher Certification (www.ok.org)
OU	Kosher food product certified by the orthodox union (www.ou.org)
OU_DAIRY	Kosher food product certified by the orthodox union (www.ou.org)
OU_KOF_K	Kosher food product certified by the orthodox union (www.ou.org)
OU_KOF_K_DAIRY	Kosher food product certified by the orthodox union (www.ou.org)
OU_PAREVE	Kosher food product certified by the orthodox union (www.ou.org)
STAR_K	Kosher food product that is certified by STAR-K Kosher Certification (www.star-k.com)

Code List Name	**Code List Description**
Product Yield Type Code List	Codes identifying the type of product yield measurement.
Code Name	**Code Description**
AFTER_COOKING	Weight or volume of food product after it has been prepared
AFTER_DILUTION	Volume of food product after a fluid has been added
DRAINED_WEIGHT	Weight of food product after the fluid in which the food product was preserved has been removed

Code List Name	**Code List Description**
UN INFOODS Code	Codes identifying food components (=nutrients).
Code Name	**Code Description**
This is an external code list. For allowed code values see: http://www.fao.org/infoods/tagnames_en.stm	

Code List Name	**Code List Description**
Physiochemical Characteristic Code List	Codes identifying physiochemical characteristics.
Code Name	**Code Description**
AFLATOXIN_B1_LESS_THAN	To indicate the value of aflatoxin B1 (stated in less than X microgram per kilogram)
AFLATOXIN_B2_LESS_THAN	To indicate the value of aflatoxin B2 (stated in less than X microgram per kilogram)
AFLATOXIN_G1_LESS_THAN	To indicate the value of aflatoxin G1 (stated in less than X microgram per kilogram)
AFLATOXIN_G2_LESS_THAN	To indicate the value of aflatoxin G2 (stated in less than X

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	microgram per kilogram)
AFLATOXIN_M1_LESS_THAN	To indicate the value of aflatoxin M1 (stated in less than X microgram per kilogram)
CADMIUM_LESS_THAN	To indicate the value of mercury (stated in less than X microgram per kilogram)
LEAD_LESS_THAN	To indicate the value of mercury (stated in less than X microgram per kilogram)
MERCURY_LESS_THAN	To indicate the value of mercury (stated in less than X microgram per kilogram)
MYCOTOXINS	To indicate the value of mycotoxins
OCHRATOXIN_A	To indicate the value of ochratoxin A (stated in less than X microgram per kilogram)
PENETROMY	To indicate the firmness (density) of the pulp in fruits and vegetables
TARGET_ACIDITY	To indicate the target acidity of the product
TARGET_DEGREE_BRIX	Brix degree is the weight (in grams) of dry material contained in 100 grams f a distilled water solution
TARGET_DENSITY	To indicate the target density of the product
TARGET_DRY_MATERIAL	Target material quantity after total dehydration of the product (constant weight)
TARGET_FAT	To indicate the target value of fat
TARGET_FAT_ON_DRY_BASIS	Target fat material proportion on dry material of the product
TARGET_HUMIDITY	Target quantity of the water vapour contained in the product
TARGET_INHIBITOR	Substance target quantity which jams or delays a chemical reaction
TARGET_NEUTRALISING_AGENT	Substance target quantity which avoids the realisation of a chemical reaction
TARGET_NON-FAT_DRY_SOLIDS	Target dry material quantity of the product minus fat material
TARGET_PH	Measure of the target acidity or alkalinity of a solution
TARGET_PH_OLEIC_ACIDITY	To indicate the target value of PH oleic acidity of the product
TARGET_PROTEIN_RATE	To indicate the target value of protein rate
TARGET_SPECIFIC_GRAVITY	To indicate the target specific gravity of the product
TARGET_VISCOSITY	Target resistance property to the flow

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TARGET_WATER_ACTIVITY	Target chemical's potential of the water in the substance: it defines the foods shelf life

Code List Name	Code List Description
Microbiological Organism Code List	Codes identifying microbiological organisms.
Code Name	**Code Description**
BACILLUS_CEREUS	To indicate the value of bacillus cereus
CAMPYLOBACTOR	To indicate the value of campylobacter
CLOSTRIDIUM_PERFRINGENS	To indicate the value of clostridium perfringens
COLIFORMS_AT_30_DEGREES_C	To indicate the value of coliforms at 30°c
COLIFORMS_AT_44_DEGREES_C	To indicate the value of coliforms at 44°c or faecal coli-forms
ENTEROBACTERIA	To indicate the value of enterobacteria
ESCHERICHIA_COLI	To indicate the value of escherichia coli
ESCHERICHIA_COLI_O157_H7	To indicate the value of escherichia coli o157:h7
FAECAL_STREPTOCOCCI	To indicate the value of faecal_streptococci
FUNGI	To indicate the value of FUNGI
HAEMOLYTIC_STREPTOCOCCI	To indicate the value of haemolyticstreptococci
HAFNIA_ALVEI	To indicate the value of hafnia alvei
LISTERIA_MONOCYTOGENES	To indicate the value of listeria monocytogenes
MESOPHILIC_AEROBES	To indicate the value of mesophilic aerobes
MESOPHILIC_ANAEROBES	To indicate the value of mesophilic anaerobes
MILK-ACID	To indicate the value of milk-acid
MOULDS	To indicate the value of moulds
PATHOGENEN	To indicate the value of Pathogenen
POSITIVE_ COAGULASE_STAPHYLOCOCCI	To indicate the value of positive coagulase staphylococci
PSEUDOMONAS	To indicate the value of pseudomonas
SALMONELLA	To indicate the value of Salmonella mesophilic aerobes
STAPHYLOCOCCUS_AUREUS	To indicate the value of staphylococcus aureus
STAPHYLOCOCCUS_ENTEROTOXIN	To indicate the value of staphylococcus enterotoxin
SULPHITE_REDUCER_ANAEROBES_ AT_46_DEGREES_C	To indicate the value of sulphite-reducer anaerobes 46°c

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SULPHITE_REDUCER_CLOSTRIDIUM_AT_46_DEGREES_C	To indicate the value of sulphite-reducer clostridium 46°c
THERMOPHILIC_AEROBES	To indicate the value of thermophilic aerobes
THERMOPHILIC_ANAEROBES	To indicate the value of thermophilic anaerobes
VIBRIO_CHOLERAE	To indicate the value of vibriocholerae
VIBRIO_PARAHAEMOLYTICUS	To indicate the value of vibrio parahaemolyticus
YEASTS	To indicate the value of yeasts

Code List Name	**Code List Description**
Measurement Precision Code List	Codes indicating the exactness of the method used to analyze the nutritional value.
Code Name	**Code Description**
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)

CODE LIST NAME	**Code list description**
Preparation type code list	Codes indicating the type of preparation of a product.
CODE NAME	**Code description**
BAKING	Cooking food in an oven by dry heat applied evenly throughout the oven
BARBECUING	Method of cooking meat with the heat and hot gasses of a fire
BLANCHING	Food preparation wherein the food substance is rapidly plunged into boiling water and then removed after a brief, timed interval and then plunged into iced water or placed under cold running water
BLIND_BAKING	Baking a pie crust or other pastry without the filling
BOILING	Cooking food in boiling water, or other water-based liquid such as stock or milk
BRAISING	Cooking with "moist heat", typically in a covered pot with a small amount of liquid
BROILING	Cooking food with high heat with the heat applied directly to the food, most commonly from above. Heat transfer to the food is primarily via radiant heat
DEEP_FRYING	Cooking method whereby food is submerged in hot oil or fat.

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DOUBLE_STEAMING	Cooking technique to prepare delicate food such as bird nests, shark fins etc. The food is covered with water and put in a covered ceramic jar
FRYING	Cooking of food in fat.
GRILLING	Form of cooking that involves direct heat. The definition varies widely by region and culture
MICROWAVING	Cooking food by employing microwave radiation
PAN_FRYING	Form of frying characterized by the use of less cooking oil than deep frying
POACHING	Cooking food by gently simmering food in liquid, generally water, stock or wine
PRESSURE_COOKING	Method of cooking in a sealed vessel that does not permit air or liquids to escape below a preset pressure
PRESSURE_FRYING	Meat and cooking oil are brought to high temperatures while pressure is held high enough that the water within is prevented from boiling off
READY_TO_EAT	Besides unpacking no additional preparation required.
ROASTING	Cooking method that utilizes dry heat, whether an open flame, oven, or other heat source.
ROTISSERIE	Style of roasting where meat is skewered on a spit and revolves over a flame
SAUTÉING	Cooking food using a small amount of fat in a shallow pan over relatively high heat
SEARING	Technique used in grilling, roasting, braising, sautéing, etc. That cooks the surface of the food (usually meat, poultry or fish) at high temperature so that a caramelized crust forms
SIMMERING	Cook food by heating it in water kept just below the boiling point (same as coddling)
SMOKING	Process of curing, cooking, or seasoning food by exposing it for long periods of time to the smoke from a wood fire
STEAMING	Cooking by first boiling the water so it will evaporate into steam, then the steam will carry heat to the food, thus achieving heating the food
STEWING	Preparing meat cut into smaller pieces or cubes by simmering it in liquid, usually together with vegetables
STIR_FRYING	Chinese cooking technique used because of its fast cooking speed

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Code List Name	Code List Description
State of Preparation Code List	Codes indicating the state of preparation of a product.
Code Name	**Code Description**
PREPARED	The state of the product after preparation (e.g. after adding milk or water)
UNPREPARED	The initial state of a product

Code List Name	Code List Description
Preservation Technique Code List	Codes indicating types of preservation techniques.
Code Name	**Code Description**
ACIDIFICATION	Dropping pH of food
ALCOHOL_CURING	Treatment of food by adding alcohol in order to preserve the product
BRINING	Water saturating or strongly impregnating with salt
CANNING	Preserved in a sealed airtight container, usually made of tin-coated iron
COLD_SMOKE_CURING	To smoke the food at between 70 degrees to 90 degrees F.
CONSERVE	Keep from harm or damage
DEHYDRATION	To remove water from food
DRYING	Making with moisture having evaporated, drained away
FERMENTATION	Any of a group of chemical reactions induced by living or nonliving ferments that split complex organic compounds into relatively simple substance
FREEZE_DRYING	Preserving food by freezing and then drying in a vacuum
FREEZING	Turning into ice or another solid by cold
HOT_SMOKE_CURING	Hot-smoking partially or totally cooks the food by treating it at temperatures ranging from 100 degrees to 190 degrees F
IONISATION	To convert into an ion or ions
IRRADIATION	Food irradiation is the process of exposing food to ionizing radiation in order to disinfest, sterilize, or preserve food.
PASTEURISATION	Partially sterilisation by heating
QUICK_FREEZING	Freezing (food) rapidly so as to preserve its qualities
SALT_CURING	Preserving by using a salt brine
SOUS_VIDE	Low temperature long time cooking under vacuum
STERILISATION	Deprivation of reproductive powers
SUGAR_CURING	Treatment of food by adding sugar in order to preserve the product
ULTRA_HIGH_TEMPERATURE	Ultra heat treated (especially for milk)

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UNDER_MODIFIED_ATMOSPHERE	Packed with a gas with protective proprieties
VACUUM_PACKED	Sealed after the partial removal of air

Code List Name	**Code List description**
Nutritional Claim Code List	Codes indicating types of Nutritional Claims. Code definitions are based on EC regulation 2003/0165
Code Name	**Code description**
ENERGY_FREE	A claim that a food is energy-free, and any claim likely to have the same meaning for the consumer, may only be made where the product contains less than 4kcal (17kj)/100ml. In the case of energy-free foods, the term "naturally" may be used as a prefix to this claim.
ENERGY_REDUCED	A claim that a food is energy-reduced, and any claim likely to have the same meaning for the consumer, may only be made where the energy value is reduced by at least 30%, with an indication of the characteristic(s), which make(s) the food reduced in its total energy value.
ENRICHED_OR_FORTIFIED_IN_VITAMINS_AND_OR_MINERALS	A claim that a food is enriched or fortified in vitamins and/or minerals, and any claim likely to have the same meaning for the consumer, may only be made where the product contains the vitamins and/or minerals in at least a significant amount as defined in the Annex of Directive 90/496/EEC.
FAT_FREE	A claim that a food is fat-free, and any claim likely to have the same meaning for the consumer, may only be made where the product contains no more than 0.5g of fat per 100g or 100ml. However, claims expressed as "X% fat-free" shall be prohibited. In the case of foods naturally fat-free, the term "naturally" may be used as a prefix to this claim.
HIGH_FIBRE	A claim that a food is high in fibre, and any claim likely to have the same meaning for the consumer, may only be made where the product contains at least 6g of fibre per 100g or at least 3g of fibre per 100kcal. In the case of foods naturally high in fibre, the term "naturally" may be used as a prefix to this claim.
HIGH_PROTEIN	A claim that a food is high in protein, and any claim likely to have the same meaning for the consumer, may only be made where at least 20% of the energy value of the food is provided by protein. In the case of foods naturally high in protein, the term "naturally" may be used as a prefix to this claim.
HIGH_VITAMINS_AND_OR_MINERALS	A claim that a food is high in vitamins and/or minerals, and any claim likely to have the same meaning for the consumer, may only be made where the product contains at least twice the value of "source of vitamins and minerals". In case of foods naturally high in vitamins and/or minerals, the term "naturally" may be used as a prefix to this claim.
LIGHT_LITE	A claim stating that a product is "light" or "lite", and any claim likely to have the same meaning for the consumer, shall follow the same conditions as those set for the term "reduced"; the claim shall also be accompanied by an indication of the characteristic(s) which make the food "light" or "lite".

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LOW_ENERGY	A claim that a food is low in energy, and any claim likely to have the same meaning for the consumer, may only be made where the product contains less than 40 kcal (170 kj)/100g and less than 20kcal (80kj)/100ml. In the case of foods naturally low in energy, the term "naturally" may be used as a prefix to this claim.
LOW_FAT	A claim that a food is low in fat, and any claim likely to have the same meaning for the consumer, may only be made where the product contains no more than 3g of fat per 100g or 1.5g of fat per 100ml. In the case of foods naturally low in fat, the term "naturally" may be used as a prefix to this claim.
LOW_SATURATED_FAT	A claim that a food is low in saturated fat, and any claim likely to have the same meaning for the consumer, may only be made where the product contains no more than 1.5g of saturates per 100g for solids or, 0.75g of saturates per 100ml for liquids and in either case saturated fat must not provide more than 10% of energy. In the case of foods naturally low in saturated fat, the term "naturally" may be used as a prefix to this claim.
LOW_SODIUM_SALT	A claim that a food is low in sodium, and any claim likely to have the same meaning for the consumer, may only be made where the product contains no more than 0.12g of sodium, or the equivalent value for salt, per 100g or per 100ml. In the case of foods naturally low in sodium, the term "naturally" may be used as a prefix to this claim.
LOW_SUGARS	A claim that a food is low in sugars, and any claim likely to have the same meaning for the consumer, may only be made where the product contains no more than 5g of sugars per 100g or 100ml. In the case of foods naturally low in sugars, the term "naturally" may be used as a prefix to this claim.
NATURAL_SOURCE_OF_VITAMINS_AND_OR_MINERALS	A claim that a food is a natural source of vitamins and/or minerals, and any claim likely to have the same meaning for the consumer, may only be made where the product contains at least 15% of the recommended daily allowance specified in the Annex of Council Directive 90/496/EEC per 100 g or 100 ml.
SATURATED_FAT_FREE	A claim that a food does not contain saturated fat, and any claim likely to have the same meaning for the consumer, may only be made where the product contains no more than 0.1g of saturated fat per 100g or 100ml. In the case of foods naturally saturated fat-free, the term "naturally" may be used as a prefix to this claim.
SODIUM_FREE_OR_SALT_FREE	A claim that a food is sodium-free, and any claim likely to have the same meaning for the consumer, may only be made where the product contains no more than 0.005g of sodium, or the equivalent value for salt, per 100g. In the case of foods naturally sodium-free, the term "naturally" may be used as a prefix to this claim.
SOURCE_OF_FIBRE	A claim that a food is a source of fibre, and any claim likely to have the same meaning for the consumer, may only be made where the product contains at least 3g of fibre per 100g or at least 1.5g of fibre per 100kcal. In the case of foods that are naturally sources of fibre, the term "naturally" may be used as a prefix to this claim.

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SOURCE_OF_PROTEIN	A claim that a food is a source of protein, and any claim likely to have the same meaning for the consumer, may only be made where at least 12% of the energy value of the food is provided by protein. In the case of foods that are naturally sources of protein, the term "naturally" may be used as a prefix to this claim.
SUGARS_FREE	A claim that a food is sugars-free, and any claim likely to have the same meaning for the consumer, may only be made where the product contains no more than 0.5g of sugars per 100g or 100ml. In the case of foods naturally sugars-free, the term "naturally" may be used as a prefix to this claim.
VERY_LOW_SODIUM_SALT	A claim that a food is very low in sodium, and any claim likely to have the same meaning for the consumer, may only be made where the product contains no more than 0.04g of sodium, or the equivalent value for salt, per 100g or per 100 ml. In the case of foods naturally very low in sodium, the term "naturally" may be used as a prefix to this claim.
WITH_NO_ADDED_SUGARS	A claim stating that sugar has not been added to a food, and any claim likely to have the same meaning for the consumer, may only be made where the product does not contain any added mono- or disaccharides or any other food used for its sweetening properties.

Code List Name	**Code List Description**
TradeItemExternalInformationTypeList	Codes indicating the type of information contained in the external file.
Code Name	**Code Description**
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.

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1.6 Business Document Example

Class in core item model
Class in common library
Root class in core item model
Class in extension
Attribute

Example 1

TradeItemDocument	
- creationDateTime	**2005-06-27T11:00:00**
- documentStatus	**ORIGINAL**
EntityIdentification (+tradeItemDocumentIdentification)	
- uniqueCreatorIdentification	**2005B09**
PartyIdentification (+contentOwner)	
- gLN	**8712345678913**
TradeItem	
- tradeItemUnitDescriptor	**BASE_UNIT_OR_EACH**
TradeItemIdentification	
- gTIN	**10063211038689**
TradeItemInformation	
InformationProvider (+informationProviderOfTradeItem)	
- nameOfInformationProvider	**Foodservice distributor**
PartyIdentification (+informationProvider)	
- gLN	**8712345678944**
TargetMarketInformation *1	
- targetMarketCountryCode	**US**
- targetMarketDescription (language, shortText)	**EN,United States**
TargetMarketInformation *2	
- targetMarketCountryCode	**CA**
- targetMarketDescription (language, shortText)	**EN,Canada**
TradeItemDescriptionInformation	
- brandName	**Camp's Frozen**
MultiShortDescription (+functionalName)	
- description (language, shortText)	**EN, Soup**
MultiShortDescription (+variant)	
- description (language, shortText)	**EN, Homestyle Minestrone**

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TradeItemDescription	
- language, text	**EN, Camp's Frozen Soup Homestyle Minestrone**
AdditionalTradeItemDescription	
- language, text	**EN, An Italian tradition full of diced carrots, kidney beans, peas and penne pasta.**
TradingPartnerNeutralTradeItemInformation	
ManufacturerOfTradeItem	
- nameOfManufacturer	**Camp**
PartyIdentification (+manufacturer)	
- gLN	**8712345678913**
MarketingInformation	
- tradeItemFeatureBenefit	**Consistent fresh-frozen quality featuring traditional and on-trend varieties. Easy to prepare-simply add water. Less waste-use as little as half a tray. More than forty varieties to meet customer taste preferences. Industry leading merchandising support available.**
PackagingMarking	
- isPackagingMarkedReturnable	**FALSE**
TradeItemUnitIndicator	
- isTradeItemABaseUnit	**TRUE**
- isTradeItemAConsumerUnit	**TRUE**
- isTradeItemADespatchUnit	**FALSE**
- isTradeItemAnInvoiceUnit	**FALSE**
- isTradeItemAnOrderableUnit	**FALSE**
- isTradeItemAVariableUnit	**FALSE**
FoodAndBeverageTradeItemExtension	
- preservationTechniqueCode	**FREEZING**
PartyIdentification (+customerSupportCentre) *1	
- gLN	**8712345678913**
PartyIdentification (+productionFacility)	
- gLN	**8712345678913**
FoodAndBeverageMarketingInformationExtension	
MultiLongDescription (+servingSuggestion)	
- description (language, longText)	**As a soup, or ingredient in many of your favourite recipes. Add simple**

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	garnishes to create signature soups.
FoodAndBeverageInformation	
- productionVariantEffectiveDate	**2005-12-01**
FoodAndBeverageIngredientInformation	
MultiDescription5000 (+ingredientStatement)	
- description (language, text)	**EN, Water, tomato paste, tomatoes (citric acid, calcium chloride), carrots, red kidney beans, celery, ...**
FoodAndBeverageIngredient *	
- ingredientSequence	**1**
MultiDescription (+ingredientName)	
- description (language, text)	**EN, Water**
FoodAndBeverageIngredient *	
- ingredientSequence	**2**
MultiDescription (+ingredientName)	
- description (language, text)	**EN, Tomato paste**
FoodAndBeverageIngredient *	
- ingredientSequence	**3**
MultiDescription (+ingredientName)	
- description (language, text)	**EN, Tomatoes (citric acid, calcium chloride)**
FoodAndBeverageIngredient *	
- ingredientSequence	**4**
MultiDescription (+ingredientName)	
- description (language, text)	**EN, Carrots**
FoodAndBeverageIngredient *	
- ingredientSequence	**5**
MultiDescription (+ingredientName)	
- description (language, text)	**EN, Red kidney beans**
FoodAndBeverageIngredient *	
- ingredientSequence	**6**
MultiDescription (+ingredientName)	
- description (language, text)	**EN, Celery**
FoodAndBeverageIngredient *	
- ingredientSequence	**7**
MultiDescription (+ingredientName)	

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- description (language, text)	**EN, Rehydrated potatoes (sodium phosphate)**
FoodAndBeverageIngredient *	
- ingredientSequence	**8**
MultiDescription (+ingredientName)	
- description (language, text)	**EN, Italian green beans**
FoodAndBeverageIngredient *	
- ingredientSequence	**9**
MultiDescription (+ingredientName)	
- description (language, text)	**EN, Penne pasta (enriched wheat flour, egg white)**
FoodAndBeverageIngredient *	
- ingredientSequence	**10**
MultiDescription (+ingredientName)	
- description (language, text)	**EN, Zucchini**
FoodAndBeverageIngredient *	
- ingredientSequence	**11**
MultiDescription (+ingredientName)	
- description (language, text)	**EN, Peas**
FoodAndBeverageIngredient *	
- ingredientSequence	**12**
MultiDescription (+ingredientName)	
- description (language, text)	**EN, Spinach**
FoodAndBeverageIngredient *	
- ingredientSequence	**13**
MultiDescription (+ingredientName)	
- description (language, text)	**EN, Salt**
FoodAndBeverageIngredient *	
- ingredientSequence	**14**
MultiDescription (+ingredientName)	
- description (language, text)	**EN, Modified corn starch**
FoodAndBeverageIngredient *	
- ingredientSequence	**15**
MultiDescription (+ingredientName)	
- description (language, text)	**EN, Parmesan cheese**
FoodAndBeverageIngredient *	

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- ingredientSequence	**16**
MultiDescription (+ingredientName)	
- description (language, text)	**EN, Spice**
FoodAndBeverageIngredient *	
- ingredientSequence	**17**
MultiDescription (+ingredientName)	
- description (language, text)	**EN, Canola oil**
FoodAndBeverageIngredient *	
- ingredientSequence	**18**
MultiDescription (+ingredientName)	
- description (language, text)	**EN, Enriched wheat flour**
FoodAndBeverageIngredient *	
- ingredientSequence	**19**
MultiDescription (+ingredientName)	
- description (language, text)	**EN, Garlic powder**
FoodAndBeverageIngredient *	
- ingredientSequence	**20**
MultiDescription (+ingredientName)	
- description (language, text)	**EN, Disodium guanylate**
FoodAndBeverageIngredient *	
- ingredientSequence	**21**
MultiDescription (+ingredientName)	
- description (language, text)	**EN, Disodium inosinate**
FoodAndBeverageIngredient *	
- ingredientSequence	**22**
MultiDescription (+ingredientName)	
- description (language, text)	**EN, Parsley**
FoodAndBeverageNuttrientInformation	
- preparationState	**UNPREPARED**
MultiMeasurementValue (+servingSize)	
-measurementValue (unitOfMeasure, value)	**GRM, 125**
FoodAndBeverageNutrient *1	
- NutrientTypeCode	**ENERC**
- measurementPrecision	**APPROXIMATELY**
MultiMeasurementValue (+quantityContained)	

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-measurementValue (unitOfMeasure, value)	**kcal, 96**
FoodAndBeverageNutrient *2	
- NutrientTypeCode	**CHOCDF**
- measurementPrecision	**APPROXIMATELY**
MultiMeasurementValue (+quantityContained)	
-measurementValue (unitOfMeasure, value)	**GRM, 19.3**
FoodAndBeverageNutrient *3	
- NutrientTypeCode	**PRO-**
- measurementPrecision	**APPROXIMATELY**
MultiMeasurementValue (+quantityContained)	
-measurementValue (unitOfMeasure, value)	**GRM, 4.1**
FoodAndBeverageNutrient *4	
- NutrientTypeCode	**FAT**
- measurementPrecision	**APPROXIMATELY**
MultiMeasurementValue (+quantityContained)	
-measurementValue (unitOfMeasure, value)	**GRM, 0.3**
FoodAndBeverageNutrient *5	
- NutrientTypeCode	**FASAT**
- measurementPrecision	**APPROXIMATELY**
MultiMeasurementValue (+quantityContained)	
-measurementValue (unitOfMeasure, value)	**GRM, 0.2**
FoodAndBeverageNutrient *6	
- NutrientTypeCode	**CHOLC**
- measurementPrecision	**APPROXIMATELY**
MultiMeasurementValue (+quantityContained)	
-measurementValue (unitOfMeasure, value)	**MGM, 1.1**
FoodAndBeverageNutrient *7	
- NutrientTypeCode	**NA**
- measurementPrecision	**APPROXIMATELY**
MultiMeasurementValue (+quantityContained)	
-measurementValue (unitOfMeasure, value)	**MGM, 1029.6**
FoodAndBeverageNutrient *8	
- NutrientTypeCode	**FIB-**
- measurementPrecision	**APPROXIMATELY**

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MultiMeasurementValue (+quantityContained)	
-measurementValue (unitOfMeasure, value)	**GRM, 4.5**
FoodAndBeveragePreparationInformation	
- preparationType	**COOKING**
MultiLongDescription (+precautions)	
- description (language, longText)	**Do not re-freeze. Do not use if film is torn or missing.**
MultiDescription2500 (+preparationInstructions)	
- description (language, text)	**Cooking Directions: Remove plastic film. 1)Place 1 tray (2 blocks) of soup in pot. 2)Add one full tray (1.9 L or 8 cups) water and cover. 3)Heat to boiling (min 80C\180F), stirring occasionally. Reduce heat (70C\160F) and cover. Stir periodically.**

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Example 2

TradeItemDocument	
- creationDateTime	**2006-01-12T12:00:00**
- documentStatus	**ORIGINAL**
EntityIdentification (+tradeItemDocumentIdentification)	
- uniqueCreatorIdentification	**TRIGIINTERFACE23**
PartyIdentification (+contentOwner)	
- gLN	**05000118052255**
TradeItem	
- tradeItemUnitDescriptor	**BASE_UNIT_OR_EACH**
TradeItemIdentification	
- gTIN	**05000118017354**
TradeItemInformation	
InformationProvider (+informationProviderOfTradeItem)	
- nameOfInformationProvider	**UNI UK FOODS**
PartyIdentification (+informationProvider)	
- gLN	**05000118052255**
TargetMarketInformation	
- targetMarketCountryCode	**UK**
- targetMarketDescription (language, shortText)	**EN,UNITED KINGDOM**
TradeItemDescriptionInformation	
- brandName	**NORR**
- subBrand	**TONIGHTS CHICKEN**
MultiShortDescription (+functionalName)	
- description (language, shortText)	**SAUCE**
AdditionalTradeItemDescription	
- language, text	
MultiShortDescription (+variant)	
- description (language, shortText)	**EN,FOR CHICKEN SWEET AND SOUR**
TradeItemDescription	
- language, text	**EN, NORR TONIGHTS CHICKEN SAUCE FOR CHICKEN SWEET AND SOUR**
TradingPartnerNeutralTradeItemInformation	
ManufacturerOfTradeItem	
- nameOfManufacturer	**UNI UK FOODS**

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PartyIdentification (+manufacturer)	
- gLN	**05000118052255**
PackagingMarking	
- isPackagingMarkedReturnable	**FALSE**
TradeItemMeasurements	
MultiMeasurementValue (+depth)	
-measurementValue	
MultiMeasurementValue (+height)	
-measurementValue	
TradeItemUnitIndicator	
- isTradeItemABaseUnit	**TRUE**
- isTradeItemAConsumerUnit	**TRUE**
- isTradeItemADespatchUnit	**FALSE**
- isTradeItemAnInvoiceUnit	**FALSE**
- isTradeItemAnOrderableUnit	**FALSE**
- isTradeItemAVariableUnit	**FALSE**
FoodAndBeverageTradeItemExtension	
- preservationTechniqueCode	**PASTEURISATION**
- preservationTechniqueCode	**ACIDIFICATION**
PartyIdentification (+productionFacility)	
- gLN	**05000118052255**
PartyIdentification (+customerSupportCentre) *1	
- gLN	**05000118052255**
FoodAndBeverageMarketingInformationExtension	
MultiLongDescription (+servingSuggestion)	
- description (language, longText)	**EN,SWEET AND SOUR SAUCE FOR CHICKEN CONTAINING PEPPERS AND PINEAPPLE. SERVES 4 HUNGRY PEOPLE**
FoodAndBeverageInformation	
- productionVariantEffectiveDate	**2006-01-12**
- productionVariantDescription	
FoodAndBeverageServingInformation	
- numberOfServingsPerPackage	**4**
- numberOfSmallestUnitsPerPackage	
FoodAndBeverageIngredientInformation	
FoodAndBeverageIngredient *	

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- ingredientSequence	**1**
MultiDescription (+ingredientName)	
- description (language, text)	**EN,WATER**
FoodAndBeverageIngredient *	
- ingredientSequence	**2**
MultiDescription (+ingredientName)	
- description (language, text)	**EN,SUGAR**
FoodAndBeverageIngredient *	
- ingredientSequence	**3**
MultiDescription (+ingredientName)	
- description (language, text)	**EN,ONION**
FoodAndBeverageIngredient *	
- ingredientSequence	**4**
MultiDescription (+ingredientName)	
- description (language, text)	**EN,TOMATO PUREE**
FoodAndBeverageIngredient *	
- ingredientSequence	**5**
MultiDescription (+ingredientName)	
- description (language, text)	**EN,SPIRIT VINEGAR**
FoodAndBeverageIngredient *	
- ingredientSequence	**6**
MultiDescription (+ingredientName)	
- description (language, text)	**EN,TOMATO**
FoodAndBeverageIngredient *	
- ingredientSequence	**7**
- contentPercentage	**4%**
MultiDescription (+ingredientName)	
- description (language, text)	**EN,PINEAPPLE IN JUICE**
FoodAndBeverageIngredient *	
- ingredientSequence	**8**
- contentPercentage	**3%**
MultiDescription (+ingredientName)	
- description (language, text)	**EN,GREEN PEPPERS**
FoodAndBeverageIngredient *	
- ingredientSequence	**9**

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MultiDescription (+ingredientName)	
- description (language, text)	**EN,CELERY**
FoodAndBeverageNuttrientInformation	
- preparationState	**UNPREPARED**
MultiMeasurementValue (+servingSize)	
-measurementValue (unitOfMeasure, value)	**GRM,131.25**
FoodAndBeverageNutrient *	
- NutrientTypeCode	**ENER-**
- measurementPrecision	**APPROXIMATELY**
MultiMeasurementValue (+quantityContained)	
-measurementValue (unitOfMeasure, value)	**KCAL,96**
FoodAndBeverageNutrient *	
- NutrientTypeCode	**PRO**
- measurementPrecision	**APPROXIMATELY**
MultiMeasurementValue (+quantityContained)	
-measurementValue (unitOfMeasure, value)	**GRM,0.4**
FoodAndBeverageNutrient *	
- NutrientTypeCode	**CHOAVL**
- measurementPrecision	**APPROXIMATELY**
MultiMeasurementValue (+quantityContained)	
-measurementValue (unitOfMeasure, value)	**GRM,20.8**
FoodAndBeverageNutrient *	
- NutrientTypeCode	**SUGAR**
- measurementPrecision	**APPROXIMATELY**
MultiMeasurementValue (+quantityContained)	
-measurementValue (unitOfMeasure, value)	**GRM,18.7**
FoodAndBeverageNutrient *	
- NutrientTypeCode	**FAT**
- measurementPrecision	**APPROXIMATELY**
MultiMeasurementValue (+quantityContained)	
-measurementValue (unitOfMeasure, value)	**GRM,0.1**
FoodAndBeverageNutrient *	
- NutrientTypeCode	**FASAT**
- measurementPrecision	**APPROXIMATELY**
MultiMeasurementValue (+quantityContained)	

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-measurementValue (unitOfMeasure, value)	**MGM,0.001**
FoodAndBeverageNutrient *	
- NutrientTypeCode	**FIB**
- measurementPrecision	**APPROXIMATELY**
MultiMeasurementValue (+quantityContained)	
-measurementValue (unitOfMeasure, value)	**GRM,0.5**
FoodAndBeverageNutrient *	
- NutrientTypeCode	**NA**
- measurementPrecision	**APPROXIMATELY**
MultiMeasurementValue (+quantityContained)	
-measurementValue (unitOfMeasure, value)	**GRM,0.19**
FoodAndBeverageAllergyRelatedInformation	
- allergenSpecificationAgency	**European Union**
- allergenSpecificationName	**2005/26/EC**
- levelOfContainment	**CONTAINS**
MultiDescription (+allergenTypeName)	
- description (language, text)	**CELERY**
FoodAndBeverageAllergyRelatedInformation	
- allergenSpecificationAgency	**European Union**
- allergenSpecificationName	**2003/89/EC**
- allergenTypeCode	**AP**
- levelOfContainment	**MAY_CONTAIN**
FoodAndBeverageDietRelatedInformation	
- dietCertificationAgency	**UNI UK FOODS**
Food AndBeverageDietTypeInformation	
- dietTypeCode	**VEGETARIAN**
FoodAndBeveragePreparationInformation *	
- preparationType	**BAKING**
MultiLongDescription (+precautions)	
- description (language, longText)	**EN,Once cooked, the finished dish can be frozen in a suitable container.**
MultiDescription2500 (+preparationInstructions)	
- description (language, text)	**EN, To Oven cook** **1. Preheat oven to 180’c (Gas Mark 4).**

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	2. Pan-Fry 450g boneless chicken* until golden. **3. Place chicken in a casserole dish, stir in the sauce and cover.** **4. Cook in the oven for 1 hour (or until chicken is fully cooked)** *** If you prefer chicken pieces, use 900g and allow 10 minutes extra cooking time.**
FoodAndBeveragePreparationInformation *	
- preparationType	**FRYING**
MultiLongDescription (+precautions)	
- description (language, longText)	**EN,Once cooked, the finished dish can be frozen in a suitable container**.
MultiDescription2500 (+preparationInstructions)	
- description (language, text)	**EN,** **1. Pan-fry the chicken until golden.** **2. Stir in the sauce, cover and simmer for 20 minutes until the chicken is fully cooked.**

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1.7 Implementation Considerations

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

The ingredient (and allergen) split however is needed:

1. to enable structured searches
2. to enable specification of related information per ingredient, such as the content percentage and country of origin.

Production variant, GTIN allocation rules and minor ingredient changes

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

the following changes warrant the allocation of a new GTIN:

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

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

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

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

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

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

1.8 Appendices

1.9 Summary of Changes

(Details changes to BMS for each version by BMS Section)

Change	BMS Version	Associated CR Number
Class FoodAndBeverageInformation: - changed cardinality of attribute productionVariantEffectiveDate from 1..1 into 0..1	0.1.6	
Allergen Type Code List - added code UW for Wheat	0.1.6	
Added code value to the Physiochemical Characteristic Code List - PENETROMY	0.1.8	06-000198

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2 Technical Solution Design

This section provides the specifications for the standards content ITRG approves. It is called the Technical Solution Design (TSD).

The Technical Solution Design contains:

- TSD Zip file Table of Contents
- Business Message Standard Section Technical Level GDD Report
- XSD (XML Schema Documents)
- XML Instance File and HTML Form View (XML and HTML files containing sample data specified in Section 1.6)

In the process of approving the Technical Solution Design, the ITRG will be provided the following artifacts:

- Any relevant Business Requirements Analysis Document (BRAD)
- Any relevant Business Requirements Document (BRD)
- Section 1 of Business Message Standard (Business Solution Design)
- Comment Resolution Template from Technical Public Review
- XML Test Report
- Change Request
- Other informative or reference documents

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