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TSD Product Data Modules GS1 Standard

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11 Log of Changes

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i1.1-d2	28-Feb-2013	Coen Janssen	Completed the mapping tables in the Appendix
i1.1-d3	28-Mar-2013	Coen Janssen	Substantial changes based on the BRAD community review results.
i1.1-d4	5-Apr-2013	Coen Janssen	See revision markings
i1.1-d5	8-Apr-2013	Coen Janssen	version for initial XML development
i1.1-d6	17-Apr-2013	Coen Janssen	Various changes, including changes related to the group decision of Apr-16 on formatted description. See revision markings.
i1.1-d7	24-Apr-2013	Coen Janssen	Clean version, including the additional changes discussed over the conference calls on Apr-18 and Apr-23.
i1.1-d8	29-Apr-2013	Ewa Iwicka, Coen Janssen	Included the XML schemas. Included additional GDSN mappings in appendix.
i1.1-crd1	30-Apr-2013	Coen Janssen Ewa Iwicka	Version for community review.
i1.1-crd2	31-May-2013	Coen Janssen Ewa Iwicka	Comment resolutions, see revision markings.
i1.1-crd3	4-Jun-2013	Coen Janssen Ewa Iwicka	Version for eBallot, including comment resolutions (see revision markings).
i1.1	Jul-2013	Coen Janssen	eBallot successful, changed document status into Unratified and removed revision markings.

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Table of Contents

21		
22	Introduction	7
23	1. Scope	7
24	2. References	8
25	3. Terms and definitions	8
26	4. Data Model – Abstract Definition.....	9
27	4.1. Basic Product Information Module	9
28	4.2. Product Allergen Information Module.....	16
29	4.3. Product Claims and Endorsements Module.....	18
30	4.4. Product Instructions Module.....	26
31	4.5. Product Quantity Information Module	27
32	4.6. Product Origin Information Module	29
33	4.7. Food and Beverage Ingredient Information Module	31
34	4.8. Food and Beverage Preparation Information Module.....	34
35	4.9. Nutritional Product Information Module.....	35
36	5. XML Schemas	40
37	5.1. Basic Product Information Module	40
38	5.2. Product Allergen Information Module.....	41
39	5.3. Product Claims and Endorsements Module.....	43
40	5.4. Product Instructions Module.....	44
41	5.5. Product Quantity Information Module	45
42	5.6. Product Origin Information Module	46
43	5.7. Food and Beverage Ingredient Information Module	47
44	5.8. Food and Beverage Preparation Information Module.....	49
45	5.9. Nutritional Product Information Module.....	50
46	6. Summary of Changes.....	51
47	6.1. Issue 1.1	51
48	Appendix - GDSN Attribute Mapping.....	52
49	Basic Product Information Module	52
50	Product Allergen Information Module.....	54
51	Product Claims and Endorsements Module.....	55
52	Product Instructions Module.....	55
53	Product Quantity Information Module.....	56
54	Product Origin Information Module	56
55	Food and Beverage Ingredient Information Module.....	57
56	Food and Beverage Preparation Information Module	58
57	Nutritional Product Information Module.....	59
58		

59 Introduction

60 This document is a GS1 Standard which is the normative specification for standard data exchanged
61 with the product data modules in the GS1 Source framework.

62 1. Scope

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

- 64 ■ *Basic Product Information* - This module contains common identifying information for a
65 product. This data is intended to be suitable to assist an end user in understanding to which
66 product a given data set pertains.
- 67 ■ *Product Allergen Information* - This module contains data pertaining to any allergens
68 contained in a product, including those data elements that are of interest to consumers, are
69 commonly available on the product label, and are defined in the Global Data Synchronization
70 Network (GDSN).
- 71 ■ *Product Claims and Endorsements* - This module contains data pertaining to symbols and
72 statements that have been authorized by regulators or other agencies, including those data
73 elements that are of interest to consumers, are commonly available on the product label, and
74 are defined in the Global Data Synchronization Network (GDSN).
- 75 ■ *Product Instructions* - This module contains data pertaining to the instructions on storage and
76 usage of the product, including those data elements that are of interest to consumers, are
77 commonly available on the product label, and are defined in the Global Data Synchronization
78 Network (GDSN).
- 79 ■ *Product Origin Information* - This module contains data pertaining to the origin of the product,
80 including those data elements that are of interest to consumers, are commonly available on
81 the product label, and are defined in the Global Data Synchronization Network (GDSN).
- 82 ■ *Product Quantity Information* - This module contains data pertaining to the physical quantity
83 contained in a product, including those data elements that are of interest to consumers, are
84 commonly available on the product label, and are defined in the Global Data Synchronization
85 Network (GDSN).
- 86 ■ *Food and Beverage Ingredient Information* - This module contains data pertaining to the
87 ingredient content of a food product, including those data elements that are of interest to
88 consumers, are commonly available on the product label, and are defined in the Global Data
89 Synchronization Network (GDSN).
- 90 ■ *Food and Beverage Preparation Information* - This module contains data pertaining to the
91 preparation of a food product, including those data elements that are of interest to consumers,
92 are commonly available on the product label, and are defined in the Global Data
93 Synchronization Network (GDSN).
- 94 ■ *Nutritional Product Information* - This module contains data pertaining to the nutritional
95 content of a food product, including those data elements that are of interest to consumers, are
96 commonly available on the product label, and are defined in the Global Data Synchronization
97 Network (GDSN).

98
99 For each module the standard defines the following:

- 100 ■ Abstract data definitions for product data delivered by Data Aggregators to Internet
101 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
- [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.

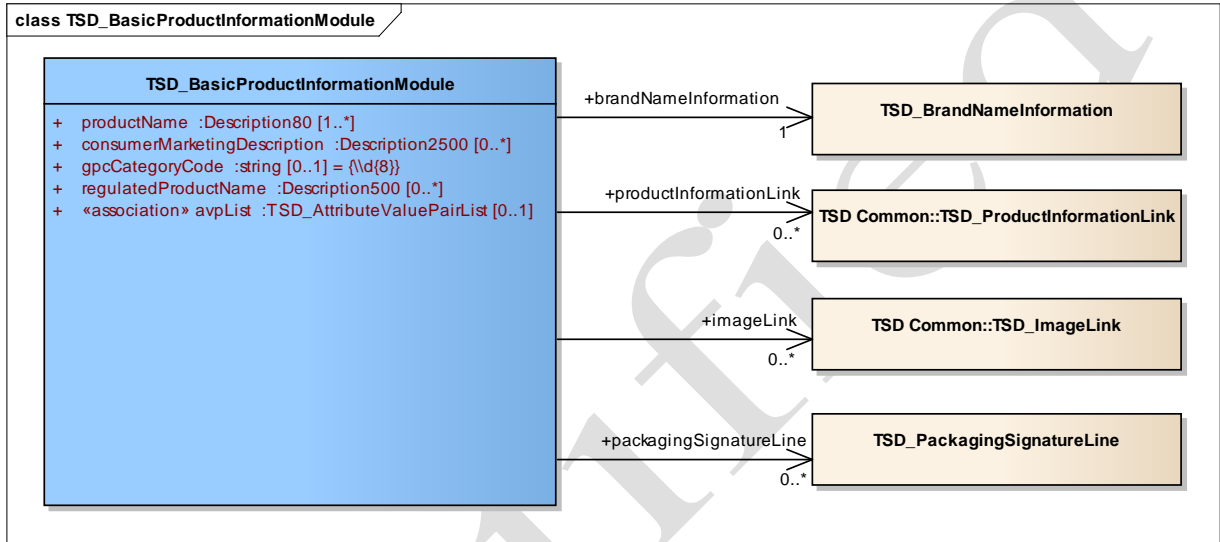
4. Data Model – Abstract Definition

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

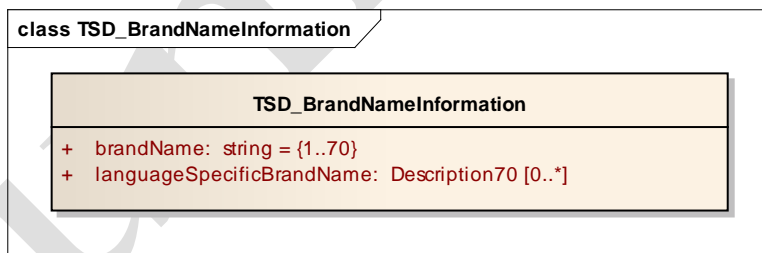
The data content of TSD_BasicProductInformationModule SHALL be as specified in the following table.

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.
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.

Data Element	Type	Cardinality	Description
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.
brandNameInformation	TSD_BrandName Information (below)	1	The brand name of the product.
productInformation Link	TSD_ProductInformation Link (below)	0..*	URLs linking to product information provided by the brand owner.
imageLink	TSD_ImageLink (below)	0..*	Images provided by the brand owner
packagingSignature Line	TSD_Packaging SignatureLine (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.
avpList	TSD_AttributeValue PairList ([GS1TSD] section 6.2.8)	0..1	Temporary attributes introduced between minor versions; see [GS1TSD] section 6.2.8.

4.1.1. Brand Name Information

Class Diagram



Data Definitions

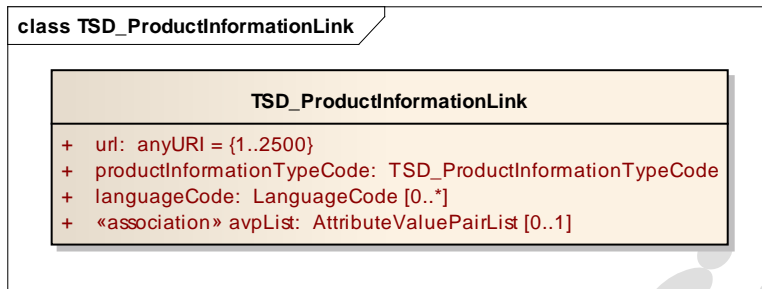
The data content of a TSD_BrandNameInformation structure SHALL be as follows:

Data Element	Type	Cardinality	Description
brandName	String	1	The brand name of the product that appears on the consumer package.

Data Element	Type	Cardinality	Description
languageSpecific BrandName	Description70 ([GS1TSD] section 6.2.6)	0..*	An alternate form of the brand name for a specified language.

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.

Value	Description
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.

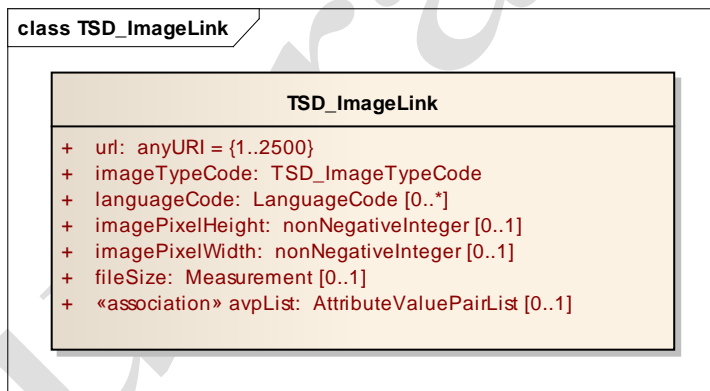
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4.1.3. Image Link

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Class Diagram



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Data Definitions

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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.

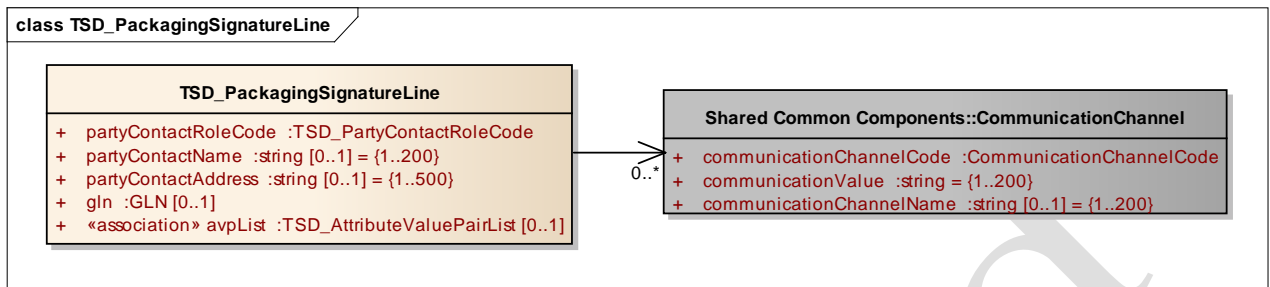
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The value of imageTypeCode SHALL be one of the following:

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	Communication Channel (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

Value	Description
	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.
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:

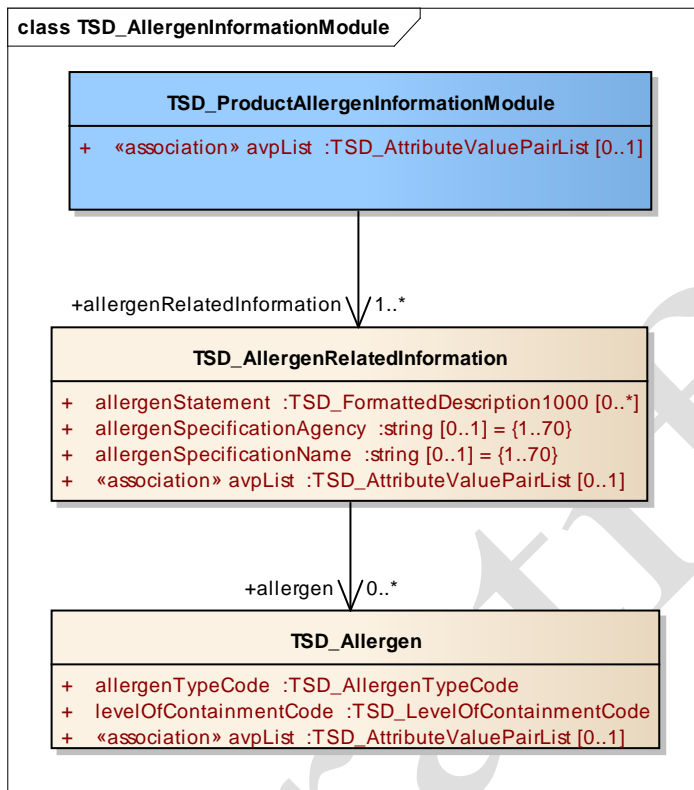
Value	Description
EMAIL	Creating/sending/receiving of unstructured free text messages or documents using computer network, a mini-computer or an attached modem and regular telephone line or other electronic transmission media.
SOCIAL_MEDIA	A social media address.
TELEFAX	Device used for transmitting 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.

4.2. 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.
allergenSpecificationAgency	string {1..70}	0..1	Agency that controls the allergen definition.
allergenSpecificationName	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.

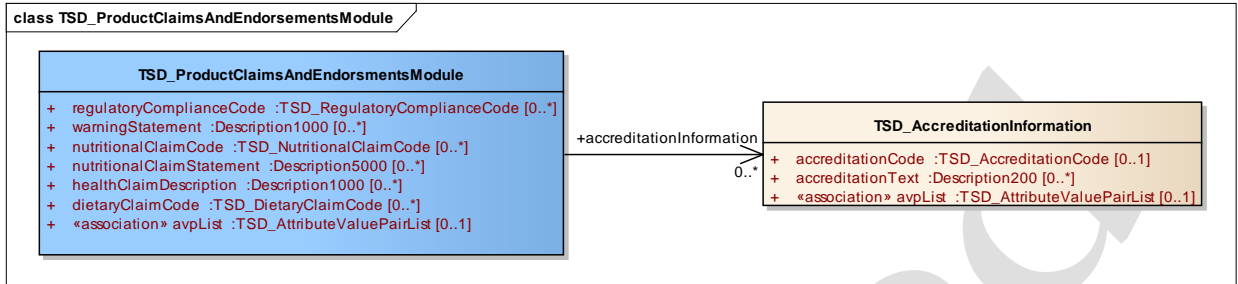
The value of levelOfContainmentCode SHALL be one of the following:

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
regulatoryComplianceCode	TSD_RegulatoryComplianceCode	0..*	Code specifying a specific government regulation that the trade item is in compliance with.
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.

Data Element	Type	Cardinality	Description
Accreditation Information	TSD_Accreditation Information (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.
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 `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
E_MARK	The e-mark indicates that the packaging is filled according to the European Directive 76/211/EEC (amended by 2007/45/EC).

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.

Value	Description
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.
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_AccreditationInformation` structure SHALL be as follows:

Data Element	Type	Cardinality	Description
<code>accreditationCode</code>	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.

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The value of accreditationCode SHALL be one of the following:

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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/gsmp/kc/gdsn>), 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 well-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 well-being of animals than that established by the minimal requirements for sanitation and well-being for the cattle industry, yet the conditions are inferior to those of Biological-class products. See: http://beterleven.dierenbescherming.nl/2-sterren-
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

Value	Description
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
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

Value	Description
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.
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/

Value	Description
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
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.

Value	Description
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/
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

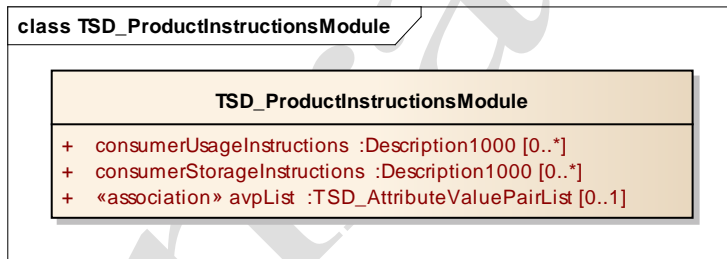
Value	Description
TUNNUSTATUD_MAITSE	Approved Taste label (designed as a barn swallow) denoting Estonian origin and high quality was introduced. This label has been given to products for Food quality and safety. Estonian Chamber of Agriculture and Commerce (ECAC) www.epkk.ee
UNIQUELY_FINNISH	Uniquely 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.fuldakorn.dk/
WWF_PANDA_LABEL	Products that support the WWF http://www.worldwildlife.org/

219

220 4.4. Product Instructions Module

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

223 Class Diagram



224

225 Data Definitions

226 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.
consumerStorage	Description1000	0..*	Expresses in text the consumer

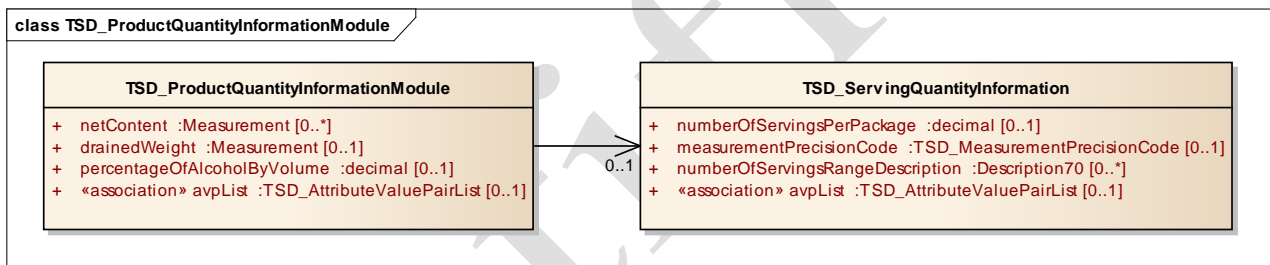
Data Element	Type	Cardinality	Description
Instructions	([GS1TSD] section 6.2.6)		storage instructions of a product which are normally held on the label or accompanying the product. This information may or may not be labelled on the pack. Repetitions for the same language are allowed.
avpList	TSD_AttributeValuePairList ([GS1TSD] section 6.2.8)	0..1	Temporary attributes introduced between minor versions. See [GS1TSD] section 5.4.1.

227

228 4.5. Product Quantity Information Module

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

231 Class Diagram



232

233 Data Definitions

234 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.

Data Element	Type	Cardinality	Description
drainedWeight	Measurement ([GS1TSD] section 6.2.7)	0..1	The weight of the trade item when drained of its liquid. For example 225 "gm", 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.
avpList	TSD_AttributeValue PairList ([GS1TSD] section 6.2.8)	0..1	Temporary attributes introduced between minor versions. See [GS1TSD] section 5.4.1.

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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_Measurement PrecisionCode	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.
avpList	TSD_AttributeValue PairList ([GS1TSD] section 6.2.8)	0..1	Temporary attributes introduced between minor versions. See [GS1TSD] section 5.4.1.

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The value of measurementPrecisionCode SHALL be one of the following:

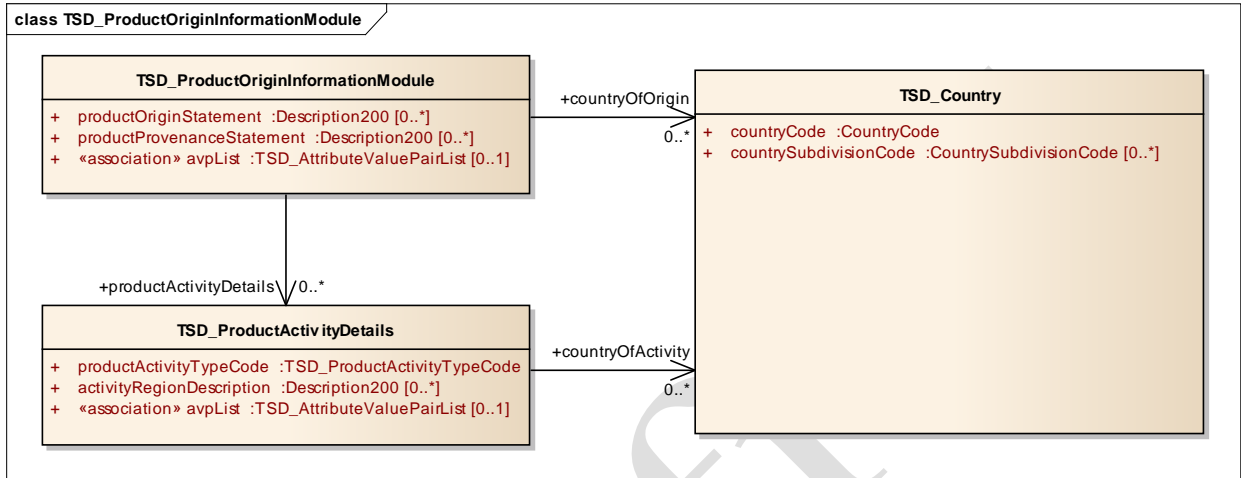
Value	Description
APPROXIMATELY	The method used to analyse the products resulted in approximate value.
EXACT	The method used to analyse the products resulted in exact value.
LESS_THAN	To indicate presence when the measurement value is too small to be measured precisely (rule states less than 0.5). This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

239

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
productOriginStatement	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.
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.

Data Element	Type	Cardinality	Description
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.
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.
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.

Value	Description
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:

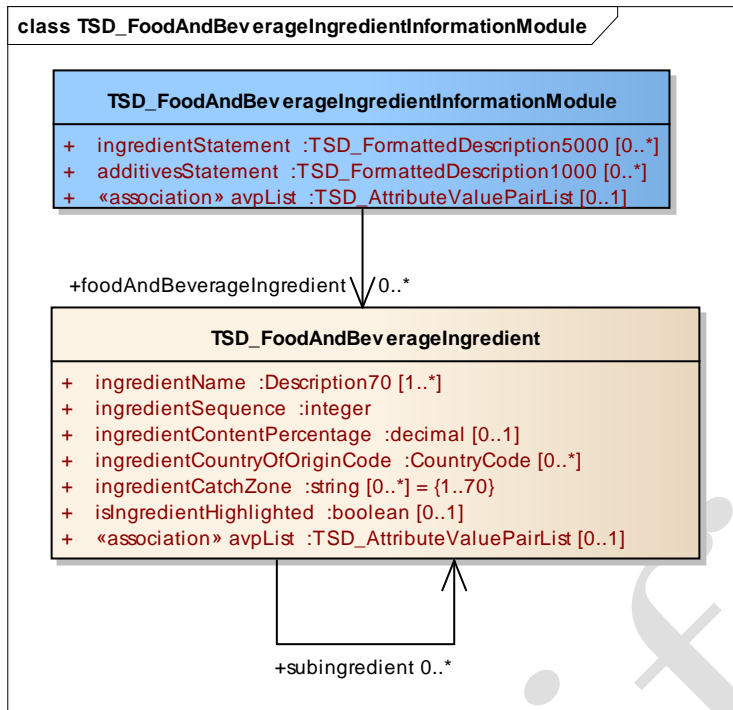
Data Element	Type	Cardinality	Description
countryCode	CountryCode	1..1	Code specifying the country in which a processing or other activity is performed, for example processing, bottling, manufacturing.
countrySubdivisionCode	CountrySubdivisionCode	0..*	Code specifying the country subdivision in which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

257

Class Diagram



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259

Data Definitions

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

Data Element	Type	Cardinality	Description
ingredientStatement	TSD_FormattedDescription5000 ([GS1TSD] section 6.2.9)	0..*	A free text field describing the constituent ingredient make up of the product. Each TSD_FormattedDescription5000 structure SHALL have a different language code, and SHALL represent presentations of the same value in different languages.
additivesStatement	TSD_FormattedDescription1000 ([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_FormattedDescription1000 structure SHALL have a different language code, and SHALL represent presentations of the same value in different languages.

Data Element	Type	Cardinality	Description
foodAndBeverageIngredient	TSD_FoodAndBeverageIngredient (below)	1..*	Detailed information about specific ingredients. Each member of this list SHALL have a distinct value of ingredientName.
avpList	TSD_AttributeValuePairList ([GS1TSD] section 6.2.8)	0..1	Temporary attributes introduced between minor versions; see [GS1TSD] section 5.4.1.

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

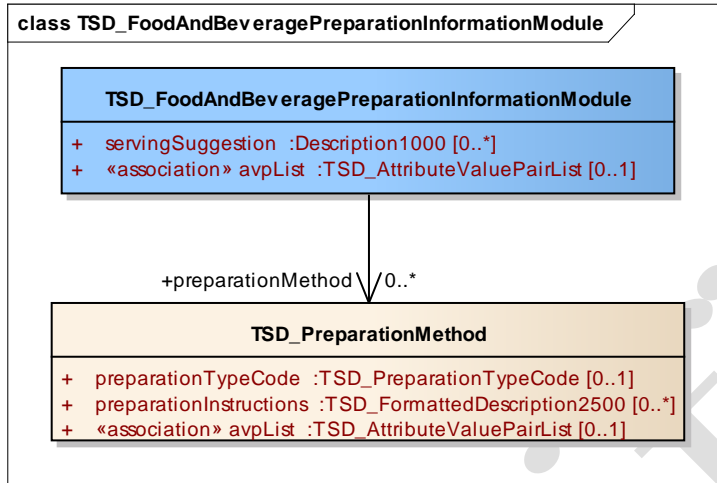
Data Element	Type	Cardinality	Description
ingredientName	Description70 ([GS1TSD] section 6.2.6)	1..*	Free text field describing an ingredient or ingredient group. Ingredients include any additives (colorings, preservatives, e-numbers, etc) that are encompassed. Each ingredientName SHALL have a different language code, and SHALL represent presentations of the same value in different languages.
ingredientSequence	integer	1..1	Integer (1, 2, 3...) indicating the ingredient order by content percentage of the product. (major ingredient = 1, second ingredient = 2) etc.
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).
ingredientCatchZone	string {1..70}	0..*	Free text field describing the sea zone from which the seafood in the trade item was caught in.
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.
subingredient	TSD_FoodAndBeverageIngredient (see above, this is a recursive structure)	0..*	Details on sub-ingredients for a food and beverage item.

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 TSD_FormattedDescription1000 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 preparationTypeCode..
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_PreparationTypeCode	0..1	A code specifying the technique used to make the product ready for consumption. For example: baking, boiling.
preparationInstructions	TSD_FormattedDescription2500 ([GS1TSD] section 6.2.9)	0..*	Free text providing instructions on how to prepare the product before serving. Each TSD_FormattedDescription2500 structure SHALL have a different language code, and SHALL represent presentations of the same value in different languages.
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 preparationTypeCode SHALL be a value defined in one of the following code lists:

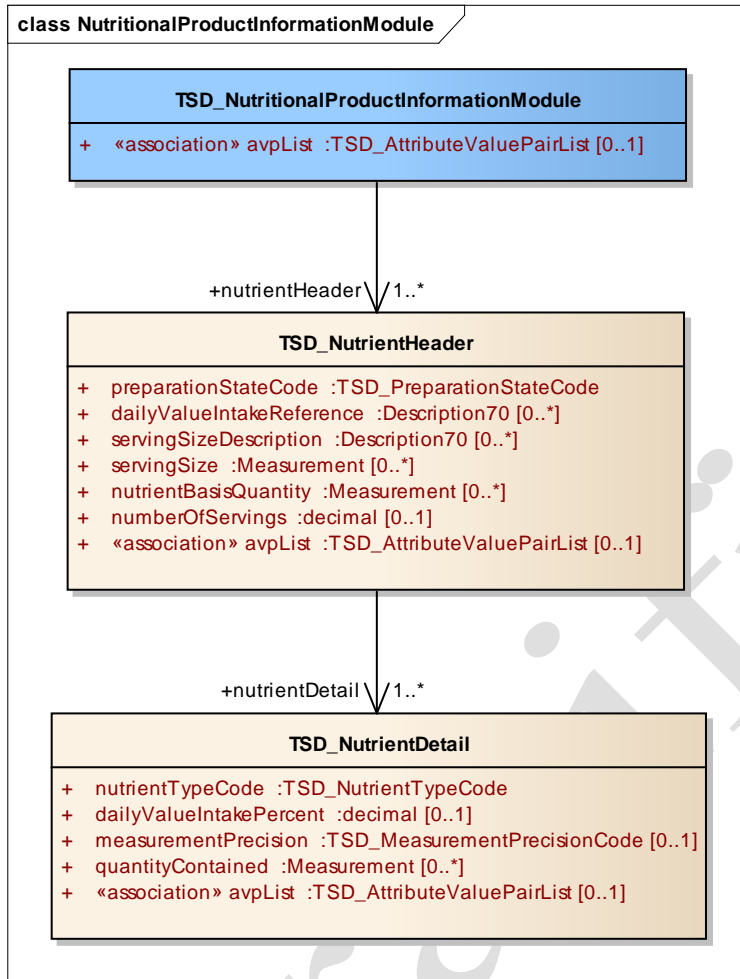
- GS1 Preparation Type Code List (urn:gs1:gdd:cl:PreparationTypeCodeList), GDSN version 2.8
- GS1 State of Preparation Code List (urn:gs1:gdd:cl:StateOfPreparationCodeList), GDSN version 2.8.

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_AttributeValuePairList (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_PreparationStateCode (below)	1	Code specifying the preparation state of the product for which the

Data Element	Type	Cardinality	Description
			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.
servingSize Description	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.
nutrientBasisQuantity	Measurement ([GS1TSD] section 6.2.7)	0..*	Quantity on which the nutrient information has been based; for example, per 100 grams. When specified, basisQuantity 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

Data Element	Type	Cardinality	Description
			expressed in different units.
numberOfServings	decimal	0..1	Number of servings. If both this and servingSize are specified, the value SHALL be the number of servings based on servingSize. 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 nutrientTypeCode.
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 NutrientDetail structure describes.
dailyValue IntakePercent	decimal	0..1	The percentage of the recommended daily intake of a nutrient provided by the quantity of product defined in the nutrient header (by servingSize or nutrientBasisQuantity), as recommended by authorities of the target market. For example, a value of 50 denotes 50% of daily value. If the NutrientHeader structure includes a dailyValue IntakeReference, this value SHALL be computed with reference to the diet specified by dailyValue IntakeReference. Otherwise, this value SHALL be computed with

Data Element	Type	Cardinality	Description
			reference to a diet not expressed in this product data, but used consistently for all nutrient detail records associated with the same nutrient header.
measurementPrecision	TSD_MeasurementPrecisionCode (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 servingSize or nutrientBasisQuantity). If more than one Measurement structure is present each SHALL have a different unitOfMeasure and SHALL represent the same value expressed in different units.
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 `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).

5. XML Schemas

5.1. Basic Product Information Module

This section specifies an XML schema for the Basic Product Information module as specified in Section 4.1.

```
<?xml version="1.0" encoding="UTF-8"?>
<xsd:schema xmlns:xsd="http://www.w3.org/2001/XMLSchema"
  xmlns:basic_product_information_module="urn:gs1:tsd:basic_product_information_module:xsd:1"
  xmlns:shared_common="urn:gs1:shared:shared_common:xsd:3"
  xmlns:tsd_common="urn:gs1:tsd:tsd_common:xsd:1"
  targetNamespace="urn:gs1:tsd:basic_product_information_module:xsd:1"
  elementFormDefault="unqualified" attributeFormDefault="unqualified" version="1.1">
  <xsd:annotation>
    <xsd:documentation><![CDATA[-----
    © Copyright GS1, 2013
```

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Date of creation: June 2013

The schema and subsequent updates will be provided on the GS1 websites.

```
]]></xsd:documentation>
</xsd:annotation>
<xsd:import namespace="urn:gs1:shared:shared_common:xsd:3"
  schemaLocation="../../shared/SharedCommon.xsd"/>
<xsd:import namespace="urn:gs1:tsd:tsd_common:xsd:1" schemaLocation="TSDCommon.xsd"/>
<xsd:element name="basicProductInformationModule"
  type="basic_product_information_module:TSD_BasicProductInformationModuleType"/>
<xsd:complexType name="TSD_BasicProductInformationModuleType">
  <xsd:sequence>
    <xsd:element name="productName" type="shared_common:Description80Type"
      maxOccurs="unbounded"/>
    <xsd:element name="consumerMarketingDescription"
      type="shared_common:Description2500Type" minOccurs="0" maxOccurs="unbounded"/>
    <xsd:element name="gpcCategoryCode" minOccurs="0">
      <xsd:simpleType>
        <xsd:restriction base="xsd:string">
          <xsd:pattern value="\d{8}"/>
        </xsd:restriction>
      </xsd:simpleType>
    </xsd:element>
    <xsd:element name="regulatedProductName" type="shared_common:Description500Type"
      minOccurs="0" maxOccurs="unbounded"/>
    <xsd:element name="brandNameInformation"
      type="basic_product_information_module:TSD_BrandNameInformationType"/>
    <xsd:element name="productInformationLink"
      type="tsd_common:TSD_ProductInformationLinkType" minOccurs="0" maxOccurs="unbounded"/>
```



```

367         <xsd:element name="imageLink" type="tsd_common:TSD_ImageLinkType" minOccurs="0"
368 maxOccurs="unbounded" />
369         <xsd:element name="packagingSignatureLine"
370 type="basic_product_information_module:TSD_PackagingSignatureLineType" minOccurs="0"
371 maxOccurs="unbounded" />
372         <xsd:element name="avpList" type="tsd_common:TSD_AttributeValuePairListType"
373 minOccurs="0" />
374     </xsd:sequence>
375 </xsd:complexType>
376 <xsd:complexType name="TSD_BrandNameInformationType">
377     <xsd:sequence>
378         <xsd:element name="brandName">
379             <xsd:simpleType>
380                 <xsd:restriction base="xsd:string">
381                     <xsd:maxLength value="70" />
382                     <xsd:minLength value="1" />
383                 </xsd:restriction>
384             </xsd:simpleType>
385         </xsd:element>
386         <xsd:element name="languageSpecificBrandName" type="shared_common:Description70Type"
387 minOccurs="0" maxOccurs="unbounded" />
388     </xsd:sequence>
389 </xsd:complexType>
390 <xsd:complexType name="TSD_PackagingSignatureLineType">
391     <xsd:sequence>
392         <xsd:element name="partyContactRoleCode"
393 type="basic_product_information_module:TSD_PartyContactRoleCodeType" />
394         <xsd:element name="partyContactName" minOccurs="0">
395             <xsd:simpleType>
396                 <xsd:restriction base="xsd:string">
397                     <xsd:maxLength value="200" />
398                     <xsd:minLength value="1" />
399                 </xsd:restriction>
400             </xsd:simpleType>
401         </xsd:element>
402         <xsd:element name="partyContactAddress" minOccurs="0">
403             <xsd:simpleType>
404                 <xsd:restriction base="xsd:string">
405                     <xsd:maxLength value="500" />
406                     <xsd:minLength value="1" />
407                 </xsd:restriction>
408             </xsd:simpleType>
409         </xsd:element>
410         <xsd:element name="gln" type="shared_common:GLNType" minOccurs="0" />
411         <xsd:element name="communicationChannel" type="shared_common:CommunicationChannelType"
412 minOccurs="0" maxOccurs="unbounded" />
413         <xsd:element name="avpList" type="tsd_common:TSD_AttributeValuePairListType"
414 minOccurs="0" />
415     </xsd:sequence>
416 </xsd:complexType>
417 <xsd:complexType name="TSD_PartyContactRoleCodeType">
418     <xsd:simpleContent>
419         <xsd:extension base="shared_common:GS1CodeType" />
420     </xsd:simpleContent>
421 </xsd:complexType>
422 </xsd:schema>

```

5.2. Product Allergen Information Module

This section specifies an XML schema for the Product Allergen Information module as specified in Section 4.2.

```

426 <?xml version="1.0" encoding="UTF-8"?>
427 <xsd:schema xmlns:xsd="http://www.w3.org/2001/XMLSchema"
428 xmlns:product_allergen_information_module="urn:gs1:tsd:product_allergen_information_module:xsd
429 :1" xmlns:shared_common="urn:gs1:shared:shared_common:xsd:3"
430 xmlns:tsd_common="urn:gs1:tsd:tsd_common:xsd:1"
431 targetNamespace="urn:gs1:tsd:product_allergen_information_module:xsd:1"
432 elementFormDefault="unqualified" attributeFormDefault="unqualified" version="1.1">
433     <xsd:annotation>

```

```

434     <xsd:documentation><![CDATA[-----
435     © Copyright GS1, 2013
436
437     GS1 is providing this XML Schema Definition file and resultant XML file as a service to
438     interested industries.
439     This XML Schema Definition file and resultant XML file were developed through a consensus
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441
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450     file are with the understanding that GS1 has no liability for any claim to the contrary, or
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452
453     Version Information:
454     Version Number: 1.1
455     Date of creation: June 2013
456
457     The schema and subsequent updates will be provided on the GS1 websites.
458     -----
459 ]]></xsd:documentation>
460 </xsd:annotation>
461 <xsd:import namespace="urn:gs1:shared:shared_common:xsd:3"
462 schemaLocation="../../shared/SharedCommon.xsd"/>
463 <xsd:import namespace="urn:gs1:tsd:tsd_common:xsd:1" schemaLocation="TSDCommon.xsd"/>
464 <xsd:element name="productAllergenInformationModule"
465 type="product_allergen_information_module:TSD_ProductAllergenInformationModuleType"/>
466 <xsd:complexType name="TSD_AllergenRelatedInformationType">
467 <xsd:sequence>
468 <xsd:element name="allergenStatement" type="tsd_common:TSD_FormattedDescription1000Type"
469 minOccurs="0" maxOccurs="unbounded"/>
470 <xsd:element name="allergenSpecificationAgency" minOccurs="0">
471 <xsd:simpleType>
472 <xsd:restriction base="xsd:string">
473 <xsd:maxLength value="70"/>
474 <xsd:minLength value="1"/>
475 </xsd:restriction>
476 </xsd:simpleType>
477 </xsd:element>
478 <xsd:element name="allergenSpecificationName" minOccurs="0">
479 <xsd:simpleType>
480 <xsd:restriction base="xsd:string">
481 <xsd:maxLength value="70"/>
482 <xsd:minLength value="1"/>
483 </xsd:restriction>
484 </xsd:simpleType>
485 </xsd:element>
486 <xsd:element name="allergen" type="product_allergen_information_module:TSD_AllergenType"
487 minOccurs="0" maxOccurs="unbounded"/>
488 <xsd:element name="avpList" type="tsd_common:TSD_AttributeValuePairListType"
489 minOccurs="0"/>
490 </xsd:sequence>
491 </xsd:complexType>
492 <xsd:complexType name="TSD_AllergenType">
493 <xsd:sequence>
494 <xsd:element name="allergenTypeCode"
495 type="product_allergen_information_module:TSD_AllergenTypeCodeType"/>
496 <xsd:element name="levelOfContainmentCode"
497 type="product_allergen_information_module:TSD_LevelOfContainmentCodeType"/>
498 <xsd:element name="avpList" type="tsd_common:TSD_AttributeValuePairListType"
499 minOccurs="0"/>
500 </xsd:sequence>
501 </xsd:complexType>
502 <xsd:complexType name="TSD_AllergenTypeCodeType">
503 <xsd:simpleContent>
504 <xsd:extension base="shared_common:GS1CodeType"/>

```

```

505     </xsd:simpleContent>
506   </xsd:complexType>
507   <xsd:complexType name="TSD_LevelOfContainmentCodeType">
508     <xsd:simpleContent>
509       <xsd:extension base="shared_common:GS1CodeType"/>
510     </xsd:simpleContent>
511   </xsd:complexType>
512   <xsd:complexType name="TSD_ProductAllergenInformationModuleType">
513     <xsd:sequence>
514       <xsd:element name="allergenRelatedInformation"
515         type="product_allergen_information_module:TSD_AllergenRelatedInformationType"
516         maxOccurs="unbounded"/>
517       <xsd:element name="avpList" type="tsd_common:TSD_AttributeValuePairListType"
518         minOccurs="0"/>
519     </xsd:sequence>
520   </xsd:complexType>
521 </xsd:schema>

```

5.3. Product Claims and Endorsements Module

This section specifies an XML schema for the Product Claims and Endorsements module as specified in Section 4.3.

```

525 <?xml version="1.0" encoding="UTF-8"?>
526 <xsd:schema xmlns:xsd="http://www.w3.org/2001/XMLSchema"
527   xmlns:product_claims_and_endorsements_module="urn:gs1:tsd:product_claims_and_endorsements_modu
528   le:xsd:1" xmlns:shared_common="urn:gs1:shared:shared_common:xsd:3"
529   xmlns:tsd_common="urn:gs1:tsd:tsd_common:xsd:1"
530   targetNamespace="urn:gs1:tsd:product_claims_and_endorsements_module:xsd:1"
531   elementFormDefault="unqualified" attributeFormDefault="unqualified" version="1.1">
532   <xsd:annotation>
533     <xsd:documentation><![CDATA[-----
534     © Copyright GS1, 2013
535

```

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```

557 -----
558 ]]></xsd:documentation>
559 </xsd:annotation>
560 <xsd:import namespace="urn:gs1:shared:shared_common:xsd:3"
561   schemaLocation="../../shared/SharedCommon.xsd"/>
562 <xsd:import namespace="urn:gs1:tsd:tsd_common:xsd:1" schemaLocation="TSDCommon.xsd"/>
563 <xsd:element name="productClaimsAndEndorsementsModule"
564   type="product_claims_and_endorsements_module:TSD_ProductClaimsAndEndorsementsModuleType"/>
565 <xsd:complexType name="TSD_AccreditationCodeType">
566   <xsd:simpleContent>
567     <xsd:extension base="shared_common:GS1CodeType"/>
568   </xsd:simpleContent>
569 </xsd:complexType>
570 <xsd:complexType name="TSD_AccreditationInformationType">
571   <xsd:sequence>

```

```

572     <xsd:element name="accreditationCode"
573 type="product_claims_and_endorsements_module:TSD_AccreditationCodeType" minOccurs="0"/>
574     <xsd:element name="accreditationText" type="shared_common:Description200Type"
575 minOccurs="0" maxOccurs="unbounded"/>
576     <xsd:element name="avpList" type="tsd_common:TSD_AttributeValuePairListType"
577 minOccurs="0"/>
578   </xsd:sequence>
579 </xsd:complexType>
580 <xsd:complexType name="TSD_DietaryClaimCodeType">
581   <xsd:simpleContent>
582     <xsd:extension base="shared_common:GS1CodeType"/>
583   </xsd:simpleContent>
584 </xsd:complexType>
585 <xsd:complexType name="TSD_NutritionalClaimCodeType">
586   <xsd:simpleContent>
587     <xsd:extension base="shared_common:GS1CodeType"/>
588   </xsd:simpleContent>
589 </xsd:complexType>
590 <xsd:complexType name="TSD_ProductClaimsAndEndorsementsModuleType">
591   <xsd:sequence>
592     <xsd:element name="regulatoryComplianceCode"
593 type="product_claims_and_endorsements_module:TSD_RegulatoryComplianceCodeType" minOccurs="0"
594 maxOccurs="unbounded"/>
595     <xsd:element name="warningStatement" type="shared_common:Description1000Type"
596 minOccurs="0" maxOccurs="unbounded"/>
597     <xsd:element name="nutritionalClaimCode"
598 type="product_claims_and_endorsements_module:TSD_NutritionalClaimCodeType" minOccurs="0"
599 maxOccurs="unbounded"/>
600     <xsd:element name="nutritionalClaimStatement" type="shared_common:Description5000Type"
601 minOccurs="0" maxOccurs="unbounded"/>
602     <xsd:element name="healthClaimDescription" type="shared_common:Description1000Type"
603 minOccurs="0" maxOccurs="unbounded"/>
604     <xsd:element name="dietaryClaimCode"
605 type="product_claims_and_endorsements_module:TSD_DietaryClaimCodeType" minOccurs="0"
606 maxOccurs="unbounded"/>
607     <xsd:element name="accreditationInformation"
608 type="product_claims_and_endorsements_module:TSD_AccreditationInformationType" minOccurs="0"
609 maxOccurs="unbounded"/>
610     <xsd:element name="avpList" type="tsd_common:TSD_AttributeValuePairListType"
611 minOccurs="0"/>
612   </xsd:sequence>
613 </xsd:complexType>
614 <xsd:complexType name="TSD_RegulatoryComplianceCodeType">
615   <xsd:simpleContent>
616     <xsd:extension base="shared_common:GS1CodeType"/>
617   </xsd:simpleContent>
618 </xsd:complexType>
619 </xsd:schema>

```

5.4. Product Instructions Module

This section specifies an XML schema for the Product Instructions module as specified in Section 4.4.

```

621 <?xml version="1.0" encoding="UTF-8"?>
622 <xsd:schema xmlns:xsd="http://www.w3.org/2001/XMLSchema"
623 xmlns:product_instructions_module="urn:gs1:tsd:product_instructions_module:xsd:1"
624 xmlns:tsd_common="urn:gs1:tsd:tsd_common:xsd:1"
625 xmlns:shared_common="urn:gs1:shared:shared_common:xsd:3"
626 targetNamespace="urn:gs1:tsd:product_instructions_module:xsd:1"
627 elementFormDefault="unqualified" attributeFormDefault="unqualified" version="1.1">
628   <xsd:annotation>
629     <xsd:documentation><![CDATA[-----
630   © Copyright GS1, 2013
631
632

```

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Date of creation: June 2013

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```

]]></xsd:documentation>
</xsd:annotation>
<xsd:import namespace="urn:gs1:shared:shared_common:xsd:3"
schemaLocation="../../shared/SharedCommon.xsd"/>
<xsd:import namespace="urn:gs1:tsd:tsd_common:xsd:1" schemaLocation="TSDCommon.xsd"/>
<xsd:element name="productInstructionsModule"
type="product_instructions_module:TSD_ProductInstructionsModuleType"/>
<xsd:complexType name="TSD_ProductInstructionsModuleType">
<xsd:sequence>
<xsd:element name="consumerUsageInstructions" type="shared_common:Description1000Type"
minOccurs="0" maxOccurs="unbounded"/>
<xsd:element name="consumerStorageInstructions" type="shared_common:Description1000Type"
minOccurs="0" maxOccurs="unbounded"/>
<xsd:element name="avpList" type="tsd_common:TSD_AttributeValuePairListType"
minOccurs="0"/>
</xsd:sequence>
</xsd:complexType>
</xsd:schema>

```

5.5. Product Quantity Information Module

This section specifies an XML schema for the Product Quantity Information module as specified in Section 4.5.

```

<?xml version="1.0" encoding="UTF-8"?>
<xsd:schema xmlns:xsd="http://www.w3.org/2001/XMLSchema"
xmlns:product_quantity_information_module="urn:gs1:tsd:product_quantity_information_module:xsd
:1" xmlns:shared_common="urn:gs1:shared:shared_common:xsd:3"
xmlns:tsd_common="urn:gs1:tsd:tsd_common:xsd:1"
targetNamespace="urn:gs1:tsd:product_quantity_information_module:xsd:1"
elementFormDefault="unqualified" attributeFormDefault="unqualified" version="1.1">
<xsd:annotation>
<xsd:documentation><![CDATA[-----
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```

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Date of creation: June 2013

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```

</xsd:documentation>
</xsd:annotation>
<xsd:import namespace="urn:gs1:shared:shared_common:xsd:3"
schemaLocation="../../shared/SharedCommon.xsd"/>
<xsd:import namespace="urn:gs1:tsd:tsd_common:xsd:1" schemaLocation="TSDCommon.xsd"/>
<xsd:element name="productQuantityInformationModule"
type="product_quantity_information_module:TSD_ProductQuantityInformationModuleType"/>
<xsd:complexType name="TSD_ProductQuantityInformationModuleType">
<xsd:sequence>
<xsd:element name="netContent" type="shared_common:MeasurementType" minOccurs="0"
maxOccurs="unbounded"/>
<xsd:element name="drainedWeight" type="shared_common:MeasurementType" minOccurs="0"/>
<xsd:element name="percentageOfAlcoholByVolume" type="xsd:decimal" minOccurs="0"/>
<xsd:element name="servingQuantityInformation"
type="product_quantity_information_module:TSD_ServingQuantityInformationType" minOccurs="0"/>
<xsd:element name="avpList" type="tsd_common:TSD_AttributeValuePairListType"
minOccurs="0"/>
</xsd:sequence>
</xsd:complexType>
<xsd:complexType name="TSD_ServingQuantityInformationType">
<xsd:sequence>
<xsd:element name="numberOfServingsPerPackage" type="xsd:decimal" minOccurs="0"/>
<xsd:element name="measurementPrecisionCode"
type="tsd_common:TSD_MeasurementPrecisionCodeType" minOccurs="0"/>
<xsd:element name="numberOfServingsRangeDescription"
type="shared_common:Description70Type" minOccurs="0"/>
<xsd:element name="avpList" type="tsd_common:TSD_AttributeValuePairListType"
minOccurs="0"/>
</xsd:sequence>
</xsd:complexType>
</xsd:schema>

```

5.6. Product Origin Information Module

This section specifies an XML schema for the Product Origin Information module as specified in Section 4.6.

```

<?xml version="1.0" encoding="UTF-8"?>
<xsd:schema xmlns:xsd="http://www.w3.org/2001/XMLSchema"
xmlns:product_origin_info="urn:gs1:tsd:product_origin_information_module:xsd:1"
xmlns:shared_common="urn:gs1:shared:shared_common:xsd:3"
xmlns:tsd_common="urn:gs1:tsd:tsd_common:xsd:1"
targetNamespace="urn:gs1:tsd:product_origin_information_module:xsd:1"
elementFormDefault="unqualified" attributeFormDefault="unqualified" version="1.1">

```

```

<xsd:annotation>
<xsd:documentation><![CDATA[-----
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```

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Version Information:
Version Number: 1.1

Date of creation: June 2013

The schema and subsequent updates will be provided on the GS1 websites.

```

</xsd:documentation>
</xsd:annotation>
<xsd:import namespace="urn:gs1:shared:shared_common:xsd:3"
schemaLocation="../../shared/SharedCommon.xsd"/>
<xsd:import namespace="urn:gs1:tsd:tsd_common:xsd:1" schemaLocation="TSDCommon.xsd"/>
<xsd:element name="productOriginInformationModule"
type="product_origin_information_module:TSD_ProductOriginInformationModuleType"/>
<xsd:complexType name="TSD_CountryType">
  <xsd:sequence>
    <xsd:element name="countryCode" type="shared_common:CountryCodeType"/>
    <xsd:element name="countrySubdivisionCode"
type="shared_common:CountrySubdivisionCodeType" minOccurs="0" maxOccurs="unbounded"/>
  </xsd:sequence>
</xsd:complexType>
<xsd:complexType name="TSD_ProductActivityDetailsType">
  <xsd:sequence>
    <xsd:element name="productActivityTypeCode"
type="product_origin_information_module:TSD_ProductActivityTypeCodeType"/>
    <xsd:element name="activityRegionDescription" type="shared_common:Description200Type"
minOccurs="0" maxOccurs="unbounded"/>
    <xsd:element name="countryOfActivity"
type="product_origin_information_module:TSD_CountryType" minOccurs="0" maxOccurs="unbounded"/>
    <xsd:element name="avpList" type="tsd_common:TSD_AttributeValuePairListType"
minOccurs="0"/>
  </xsd:sequence>
</xsd:complexType>
<xsd:complexType name="TSD_ProductActivityTypeCodeType">
  <xsd:simpleContent>
    <xsd:extension base="shared_common:GS1CodeType"/>
  </xsd:simpleContent>
</xsd:complexType>
<xsd:complexType name="TSD_ProductOriginInformationModuleType">
  <xsd:sequence>
    <xsd:element name="productOriginStatement" type="shared_common:Description200Type"
minOccurs="0" maxOccurs="unbounded"/>
    <xsd:element name="productProvenanceStatement" type="shared_common:Description200Type"
minOccurs="0" maxOccurs="unbounded"/>
    <xsd:element name="countryOfOrigin"
type="product_origin_information_module:TSD_CountryType" minOccurs="0" maxOccurs="unbounded"/>
    <xsd:element name="productActivityDetails"
type="product_origin_information_module:TSD_ProductActivityDetailsType" minOccurs="0"
maxOccurs="unbounded"/>
    <xsd:element name="avpList" type="tsd_common:TSD_AttributeValuePairListType"
minOccurs="0"/>
  </xsd:sequence>
</xsd:complexType>
</xsd:schema>

```

5.7. Food and Beverage Ingredient Information Module

This section specifies an XML schema for the Food and Beverage Ingredient Information module as specified in Section 4.7.

```

<?xml version="1.0" encoding="UTF-8"?>
<xsd:schema xmlns:xsd="http://www.w3.org/2001/XMLSchema"
xmlns:food_and_beverage_ingredient_information_module="urn:gs1:tsd:food_and_beverage_informati
on_module:xsd:1" xmlns:shared_common="urn:gs1:shared:shared_common:xsd:3"
xmlns:tsd_common="urn:gs1:tsd:tsd_common:xsd:1"
targetNamespace="urn:gs1:tsd:food_and_beverage_information_module:xsd:1"
elementFormDefault="unqualified" attributeFormDefault="unqualified" version="1.1">
  <xsd:annotation>
    <xsd:documentation><![CDATA[-----
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```

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Version Information:

Version Number: 1.1

Date of creation: June 2013

The schema and subsequent updates will be provided on the GS1 websites.

```

]]></xsd:documentation>
</xsd:annotation>
<xsd:import namespace="urn:gs1:shared:shared_common:xsd:3"
schemaLocation="../../shared/SharedCommon.xsd"/>
<xsd:import namespace="urn:gs1:tsd:tsd_common:xsd:1" schemaLocation="TSDCommon.xsd"/>
<xsd:element name="foodAndBeverageIngredientInformationModule"
type="food_and_beverage_ingredient_information_module:TSD_FoodAndBeverageIngredientInformation
ModuleType"/>
<xsd:complexType name="TSD_FoodAndBeverageIngredientInformationModuleType">
<xsd:sequence>
<xsd:element name="ingredientStatement"
type="tsd_common:TSD_FormattedDescription5000Type" minOccurs="0" maxOccurs="unbounded"/>
<xsd:element name="additivesStatement"
type="tsd_common:TSD_FormattedDescription1000Type" minOccurs="0" maxOccurs="unbounded"/>
<xsd:element name="foodAndBeverageIngredient"
type="food_and_beverage_ingredient_information_module:TSD_FoodAndBeverageIngredientType"
minOccurs="0" maxOccurs="unbounded"/>
<xsd:element name="avpList" type="tsd_common:TSD_AttributeValuePairListType"
minOccurs="0"/>
</xsd:sequence>
</xsd:complexType>
<xsd:complexType name="TSD_FoodAndBeverageIngredientType">
<xsd:sequence>
<xsd:element name="ingredientName" type="shared_common:Description70Type"
maxOccurs="unbounded"/>
<xsd:element name="ingredientSequence" type="xsd:integer"/>
<xsd:element name="ingredientContentPercentage" type="xsd:decimal" minOccurs="0"/>
<xsd:element name="ingredientCountryOfOriginCode" type="shared_common:CountryCodeType"
minOccurs="0" maxOccurs="unbounded"/>
<xsd:element name="ingredientCatchZone" minOccurs="0" maxOccurs="unbounded">
<xsd:simpleType>
<xsd:restriction base="xsd:string">
<xsd:maxLength value="70"/>
<xsd:minLength value="1"/>
</xsd:restriction>
</xsd:simpleType>
</xsd:element>
<xsd:element name="isIngredientHighlighted" type="xsd:boolean" minOccurs="0"/>
<xsd:element name="subingredient"
type="food_and_beverage_ingredient_information_module:TSD_FoodAndBeverageIngredientType"
minOccurs="0" maxOccurs="unbounded"/>
<xsd:element name="avpList" type="tsd_common:TSD_AttributeValuePairListType"
minOccurs="0"/>
</xsd:sequence>
</xsd:complexType>
</xsd:schema>

```


5.8. Food and Beverage Preparation Information Module

This section specifies an XML schema for the Food and Beverage Preparation Information module as specified in Section 4.8.

```
<?xml version="1.0" encoding="UTF-8"?>
<xsd:schema xmlns:xsd="http://www.w3.org/2001/XMLSchema"
  xmlns:food_and_beverage_preparation_information_module="urn:gs1:tsd:food_and_beverage_preparation_information_module:xsd:1"
  xmlns:shared_common="urn:gs1:shared:shared_common:xsd:3"
  xmlns:tsd_common="urn:gs1:tsd:tsd_common:xsd:1"
  targetNamespace="urn:gs1:tsd:food_and_beverage_preparation_information_module:xsd:1"
  elementFormDefault="unqualified" attributeFormDefault="unqualified" version="1.1">
  <xsd:annotation>
    <xsd:documentation><![CDATA[-----
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```

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Version Information:
Version Number: 1.1
Date of creation: June 2013

The schema and subsequent updates will be provided on the GS1 websites.

```
-----
]]></xsd:documentation>
</xsd:annotation>
<xsd:import namespace="urn:gs1:shared:shared_common:xsd:3"
  schemaLocation="../../shared/SharedCommon.xsd"/>
<xsd:import namespace="urn:gs1:tsd:tsd_common:xsd:1" schemaLocation="TSDCommon.xsd"/>
<xsd:element name="foodAndBeveragePreparationInformationModule"
  type="food_and_beverage_preparation_information_module:TSD_FoodAndBeveragePreparationInformationModuleType"/>
<xsd:complexType name="TSD_FoodAndBeveragePreparationInformationModuleType">
  <xsd:sequence>
    <xsd:element name="servingSuggestion" type="shared_common:Description1000Type"
      minOccurs="0" maxOccurs="unbounded"/>
    <xsd:element name="preparationMethod"
      type="food_and_beverage_preparation_information_module:TSD_PreparationMethodType"
      minOccurs="0" maxOccurs="unbounded"/>
    <xsd:element name="avpList" type="tsd_common:TSD_AttributeValuePairListType"
      minOccurs="0"/>
  </xsd:sequence>
</xsd:complexType>
<xsd:complexType name="TSD_PreparationMethodType">
  <xsd:sequence>
    <xsd:element name="preparationTypeCode"
      type="food_and_beverage_preparation_information_module:TSD_PreparationTypeCodeType"
      minOccurs="0"/>
    <xsd:element name="preparationInstructions"
      type="tsd_common:TSD_FormattedDescription2500Type" minOccurs="0" maxOccurs="unbounded"/>
    <xsd:element name="avpList" type="tsd_common:TSD_AttributeValuePairListType"
      minOccurs="0"/>
  </xsd:sequence>
</xsd:complexType>
<xsd:complexType name="TSD_PreparationTypeCodeType">
  <xsd:simpleContent>
    <xsd:extension base="shared_common:GS1CodeType"/>
```

```

    </xsd:simpleContent>
  </xsd:complexType>
</xsd:schema>

```

5.9. Nutritional Product Information Module

This section specifies an XML schema for the Nutritional Product Information module as specified in Section 4.9.

```

<?xml version="1.0" encoding="UTF-8"?>
<xsd:schema xmlns:xsd="http://www.w3.org/2001/XMLSchema"
  xmlns:nutritional_product_information_module="urn:gs1:tsd:nutritional_product_information_modu
  le:xsd:1" xmlns:shared_common="urn:gs1:shared:shared_common:xsd:3"
  xmlns:tsd_common="urn:gs1:tsd:tsd_common:xsd:1"
  targetNamespace="urn:gs1:tsd:nutritional_product_information_module:xsd:1"
  elementFormDefault="unqualified" attributeFormDefault="unqualified" version="1.1">
  <xsd:annotation>
    <xsd:documentation><![CDATA[-----
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```

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Version Number: 1.1
Date of creation: June 2013

The schema and subsequent updates will be provided on the GS1 websites.

```

]]></xsd:documentation>
</xsd:annotation>
<xsd:import namespace="urn:gs1:shared:shared_common:xsd:3"
  schemaLocation="../../shared/SharedCommon.xsd"/>
<xsd:import namespace="urn:gs1:tsd:tsd_common:xsd:1" schemaLocation="TSDCommon.xsd"/>
<xsd:element name="nutritionalProductInformationModule"
  type="nutritional_product_information_module:TSD_NutritionalProductInformationModuleType"/>
<xsd:complexType name="TSD_NutrientDetailType">
  <xsd:sequence>
    <xsd:element name="nutrientTypeCode"
      type="nutritional_product_information_module:TSD_NutrientTypeCodeType"/>
    <xsd:element name="dailyValueIntakePercent" type="xsd:decimal" minOccurs="0"/>
    <xsd:element name="measurementPrecision"
      type="tsd_common:TSD_MeasurementPrecisionCodeType" minOccurs="0"/>
    <xsd:element name="quantityContained" type="shared_common:MeasurementType" minOccurs="0"
      maxOccurs="unbounded"/>
    <xsd:element name="avpList" type="tsd_common:TSD_AttributeValuePairListType"
      minOccurs="0"/>
  </xsd:sequence>
</xsd:complexType>
<xsd:complexType name="TSD_NutrientHeaderType">
  <xsd:sequence>
    <xsd:element name="preparationStateCode"
      type="nutritional_product_information_module:TSD_PreparationStateCodeType"/>
    <xsd:element name="dailyValueIntakeReference" type="shared_common:Description70Type"
      minOccurs="0" maxOccurs="unbounded"/>
    <xsd:element name="servingSizeDescription" type="shared_common:Description70Type"
      minOccurs="0" maxOccurs="unbounded"/>

```

```

1041         <xsd:element name="servingSize" type="shared_common:MeasurementType" minOccurs="0"
1042 maxOccurs="unbounded"/>
1043         <xsd:element name="nutrientBasisQuantity" type="shared_common:MeasurementType"
1044 minOccurs="0" maxOccurs="unbounded"/>
1045         <xsd:element name="numberOfServings" type="xsd:decimal" minOccurs="0"/>
1046         <xsd:element name="nutrientDetail"
1047 type="nutritional_product_information_module:TSD_NutrientDetailType" maxOccurs="unbounded"/>
1048         <xsd:element name="avpList" type="tsd_common:TSD_AttributeValuePairListType"
1049 minOccurs="0"/>
1050     </xsd:sequence>
1051 </xsd:complexType>
1052 <xsd:complexType name="TSD_NutrientTypeCodeType">
1053     <xsd:simpleContent>
1054         <xsd:extension base="shared_common:GS1CodeType"/>
1055     </xsd:simpleContent>
1056 </xsd:complexType>
1057 <xsd:complexType name="TSD_NutritionalProductInformationModuleType">
1058     <xsd:sequence>
1059         <xsd:element name="nutrientHeader"
1060 type="nutritional_product_information_module:TSD_NutrientHeaderType" maxOccurs="unbounded"/>
1061         <xsd:element name="avpList" type="tsd_common:TSD_AttributeValuePairListType"
1062 minOccurs="0"/>
1063     </xsd:sequence>
1064 </xsd:complexType>
1065 <xsd:complexType name="TSD_PreparationStateCodeType">
1066     <xsd:simpleContent>
1067         <xsd:extension base="shared_common:GS1CodeType"/>
1068     </xsd:simpleContent>
1069 </xsd:complexType>
1070 </xsd:schema>

```

6. Summary of Changes

6.1. Issue 1.1

Change	Work Request
<p>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 Food and Beverage Preparation Information Module 	<p>WR-12-000355</p>

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.

Basic Product Information Module

TSD	Req#	GDSN 2.8 (normative)	GDSN 3.x (non-normative)
TSD_BasicProductInformationModule			
productName	TSD phase 1	(1) AVP: labelDescription (2) TradeItemDescriptionInformation..tradeItemDescription	(1) TradeItemDescriptionInformation..labelDescription (2) TradeItemDescriptionInformation..tradeItemDescription
consumerMarketingDescription	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
TSD_BrandNameInformation			
brandName	TSD phase 1	TradeItemDescriptionInformation..brandName	BrandNameInformation..brandName
languageSpecificBrandName	TSD phase 1	TradeItemDescriptionInformation..languageSpecificBrandName	BrandNameInformation..languageSpecificBrandName
TSD_ProductInformationLink			
url	TSD phase 1	(1) ExternalFileLink..uniformResourceIdentifier (2) ReferencedFileInformation..uniformResourceIdentifier	ReferencedFileInformation..uniformResourceIdentifier

TSD	Req#	GDSN 2.8 (normative)	GDSN 3.x (non-normative)
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
partyContactName		(1) ManufacturerOfTradeItem. nameOfManufacturer (2) BrandOwnerOfTradeItem. nameOfBrandOwner (3) TradeItemContactInformation. contactName	PartyInRole.partyName TradeItemContactInformation.contactName
partyContactAddress		TradeItemContactInformation.contactAddress	TradeItemContactInformation.contactAddress

TSD	Req#	GDSN 2.8 (normative)	GDSN 3.x (non-normative)
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.communicationChannelCode	
communicationChannelName		not available	
communicationChannelValue		urn:gs1:gdd:bie:CommunicationChannel. communicationNumber	

Product Allergen Information Module

TSD	Req#	GDSN 2.8 (normative)	GDSN 3.x (non-normative)
TSD_ProductAllergen InformationModule			
TSD_AllergenRelated Information			
allergenStatement	ALR-001.3	FoodAndBeverageAllergyRelatedInformation. allergenStatement	AllergenRelatedInformation. allergenStatement
allergenSpecification Agency	ALR-001.1	FoodAndBeverageAllergen. allergenSpecificationAgency	AllergenRelatedInformation. allergenSpecificationAgency
allergenSpecification Name	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

Product Claims and Endorsements Module

TSD	Req#	GDSN 2.8 (normative)	GDSN 3.x (non-normative)
TSD_ProductClaimsAndEndorsementsModule			
regulatoryComplianceCode	RTI-001	TradingPartnerNeutralTradeItemInformation. classComplianceRegulationCode	RegulatedTradeItemModule. tradeItemRegulationTypeCode
warningStatement	PMI-003	(1) PackagingMarking.warningCopyDescription. MultiLongDescription (2) FoodAndBeveragePreparationInformation. precautions.MultiLongDescription	(1) PackagingMarking.warningCopyDescription (2) PreparationServing. preparationConsumptionPrecautions
nutritionalClaimCode	NUI-002	FoodAndBeverageMarketingInformationExtension. nutritionalClaimCode	NutrientInformationModule.nutritionalClaimCode
nutritional ClaimStatement	NUI-001	FoodAndBeverageMarketingInformationExtension. nutritionalClaim	NutrientInformationModule.nutritionalClaim
healthClaimDescription	HBI-002	FoodAndBeverageMarketingInformationExtension. healthClaim	HealthBenefitInformation.healthClaimDescription
dietaryClaimCode	HWP-002	PackagingMarking.packageMarksDietAllergen	HealthWellnessPackagingMarking. packagingMarkedDietAllergenCode
TSD_Accreditation Information			
accreditationCode	PMI-001	(1) AVP packagingMarkedLabelAccreditationCode (2) PackagingMarking. packageMarksEnvironment, (3) PackagingMarking. packageMarksEthical	PackagingMarking. packagingMarkedLabelAccreditationCode
accreditationText	PMI-002	not available	not available

Product Instructions Module

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

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

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_ServingQuantityInformation			
numberOfServingsPerPackage	PSI-003	FoodAndBeverageServingInformation. numberOfServingsPerPackage	ServingQuantityInformation. numberOfServingsPerPackage
measurementPrecisionCode	PSI-003.1	not available	ServingQuantityInformation.numberOfServings PerPackageMeasurementPrecisionCode
numberOfServingsRangeDescription	PSI-003	not available	not available

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			

TSD	Req#	GDSN 2.8 (normative)	GDSN 3.x (non-normative)
(+countryOfOrigin)			
countryCode		TradingPartnerNeutralTradeltemInformation. tradeltemCountryOfOrigin	Country (+countryOfOrigin). countryCode
countrySubdivisionCode		not available	Country (+countryOfOrigin). countrySubdivisionCode
TSD_ProductActivityDetails	IAI-001, IAI-004, IAI-005		
productActivityTypeCode		deduct from: TradingPartnerNeutralTradeltemInformation. tradeltemCountryOfOrigin TradingPartnerNeutralTradeltemInformation. tradeltemCountryOfAssembly TradingPartnerNeutralTradeltemInformation. tradeltemCountryOfLastProcessing AVP: placeOfBirth, placeOfRearing, placeOfSlaughter	ProductActivityDetails.tradeltemActivityTypeCode And deduct from AVPs placeOfBirth, placeOfRearing, placeOfSlaughter
activityRegionDescription		not available, except for AVP: placeOfBirth, placeOfRearing, placeOfSlaughter	ProductActivityDetails.activityRegionDescription AVP: placeOfBirth, placeOfRearing, placeOfSlaughter
TSD_Country (+countryOfActivity)			
countryCode		TradingPartnerNeutralTradeltemInformation. tradeltemCountryOfAssembly TradingPartnerNeutralTradeltemInformation. tradeltemCountryOfLastProcessing	Country(+countryOfActivity).countryCode AVP: placeOfBirth, placeOfRearing, placeOfSlaughter
countrySubdivisionCode		not available	Country (+countryOfActivity). countrySubdivisionCode

Food and Beverage Ingredient Information Module

TSD	Req#	GDSN 2.8 (normative)	GDSN 3.x (non-normative)
TSD_FoodAndBeverage IngredientInformationModule			

TSD	Req#	GDSN 2.8 (normative)	GDSN 3.x (non-normative)
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
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
subingredient. TSD_FoodAndBeverageIngredient	ING-002.6	not available	FoodAndBeverageIngredient.subIngredient

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			

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

Nutritional Product Information Module

TSD	Req#	GDSN 2.8 (normative)	GDSN 3.x (non-normative)
TSD_NutritionalProduct InformationModule			
TSD_NutrientHeader			
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.measurement PrecisionCode
quantityContained	TSD phase 1	FoodAndBeverageNutrient. quantityContained.	nutrientTypeCode.quantityContained