

EU Trade Item Implementation Guideline

GDSN implementation guideline providing instructions and recommendations specific to Europe

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1 Introduction

This guideline is maintained by the B2B2C technical working group of GS1 in Europe. It provides guidance for exchanging various information via the GS1 GDSN (Global Data Synchronisation Network) in Europe. This guideline only covers topics that need additional guidance on top of global documentation of the [GS1 GDSN standard](#) and that are specific to European region. GS1 in Europe also publishes separate implementation guidelines for larger topics. These can be found on [B2B2C website of GS1 in Europe](#).

Please note that some guidance is not applicable in all European markets for various reasons. For example, some local communities do not need to exchange such information yet, some do not use GDSN yet, some are on a migration path to recommended European solution etc. Therefore, it is advised to always consult local GS1 Member Organisations and their GDSN documentation.

2 Structure of the Guideline

This document provides guidance for various topics that are mostly not related to each other. Each topic has its own chapter. New chapters are added when new topics emerge.

3 Animal & Plant Based Proteins in Food

Due to sustainability efforts, some retailers in Europe start to require their suppliers to provide information about amount of animal-based and plant-based proteins in food products they sell. Reducing the amount of animal-based protein has positive impact on reducing CO2 emissions. This chapter provides recommendation on how to share such information via GDSN in Europe.

Following GDSN attributes are needed:

- BMS ID 6766 ingredientCode
- BMS ID 6771 ingredientCode/@codeListName
- BMS ID 1284 ingredientContentPercentage

Whole group of these three attributes can be repeated and therefore used to report amount of both animal-based and plant-based protein – see example in chapter 3.3.

These attributes can be used for several different purposes. Subchapters below provide detailed instruction on how to use these attributes to exchange information about animal/plant-based protein.

3.1 Ingredient Code (BMS ID 6766)

- **GDSN name:** ingredientCode
- **Definition:** See current global definition in GS1 Navigator: [BMS ID 6766](#).
- **Instruction:** Select code for animal-based or plant-based protein defined in figure below. Use attribute ingredientContentPercentage to provide information about amount of this protein type in the product.
- **SET Rule:** Add following value to the related technical attribute ingredientCode/@codeListName ([BMS ID 6771](#)): euSustainabilityReporting
- **Example:** PLANT_BASED_PROTEIN

Code	Name	Definition	Business Rule
ANIMAL_BASED_PROTEIN	Total animal-based protein	This code represents total animal-based protein from all ingredients in the product.	Used to indicate the total percentage of animal-based protein contained in the product. This ingredient code often does not stand for just one ingredient. It is the sum of all ingredients (their protein parts) that contain animal-based protein.

Code	Name	Definition	Business Rule
PLANT_BASED_PROTEIN	Total plant-based protein	This code represents total plant-based protein from all ingredients in the product.	Used to indicate the total percentage of plant-based protein contained in the product. This ingredient code often does not stand for just one ingredient. It is the sum of all ingredients (their protein parts) that contain plant-based protein.

3.2 Ingredient Content Percentage (BMS ID 1284)

- **GDSN name:** ingredientContentPercentage
- **Definition:** See current global definition in GS1 Navigator: [BMS ID 6766](#).
- **Instruction:** When used to report amount of animal-based and plant-based protein in the product, provide percentage of protein type (plant-based or animal-based) selected in ingredientCode. It shall be the total percentage of the protein type contained in the product's net weight.
- **Remark:** To determine weight of chosen protein type in the product, data recipients need to calculate it:
 - Weight of protein type in product = (ingredientContentPercentage / 100) * [netWeight](#).
- **Example:** 12

3.3 Ingredient Purpose

- **GDSN name:** ingredientPurpose
- **Definition:** See current global definition in GS1 Navigator: [BMS ID 1287](#).
- **Instruction:** When used to report amount of animal-based and plant-based protein in the product, one of the codes in the table below can be used to indicate, whether each protein type is natural (core) part of the product or whether it is added.
- **Remark:** This is additional information not required by all recipients processing information about animal- or plant-based protein content.
- **Example:** NATURAL

Code	Name	Definition	Business Rule
NATURAL	Protein naturally part of the product	A naturally obtained protein can be defined as a group of proteins derived from living organisms.	Used to indicate that the protein type chosen in attribute Ingredient Code (BMS ID 6766) is natural (core) part of the product.
ADDED	Protein added to the product	A protein that has been engineered or an existing protein that has been replaced/modified and has been added to the product.	Used to indicate that the protein type chosen in attribute Ingredient Code (BMS ID 6766) is added to the product.

3.4 Examples

Examples below show how to exchange basic information about protein content as well as extended version with information including usage of attribute `ingredientPurpose`. Please note that `ingredientCode` can be repeated multiple times with the same code – see Example 2. In such a case, recipients need to sum values in all iterations of `ingredientContentPercentage` related to the same `ingredientCode` to get the total amount. This also applies to recipients that do not process `ingredientPurpose` attribute as they can receive information from suppliers trading with such recipients.

3.4.1 Example 1 – Basic Information

Example below illustrates how to exchange basic information about product that contains 60 grams of animal-based protein and 40 grams of plant-based proteins.

- `tradeItemDescription` = GS1 Chilli Con Carne 200 g
- `ingredientStatement` = Ingredients: Beef, rice, beans, corn, sauce
- `netWeight` = 200 GRM
- `[1] ingredientCode` = ANIMAL_BASED_PROTEIN
- `[1] ingredientCode/@codeListName` = euSustainabilityReporting
- `[1] ingredientContentPercentage` = 30
- `[2] ingredientCode` = PLANT_BASED_PROTEIN
- `[2] ingredientCode/@codeListName` = euSustainabilityReporting
- `[2] ingredientContentPercentage` = 20

3.4.2 Example 2 – Additional Information

Example below illustrates how to exchange protein information with recipients who require additional information about whether each protein type is natural (core) part of the product or added. Product below contains 60 grams of animal-based protein naturally part of the product and 40 grams of plant-based proteins of which 10 grams is added and 30 grams is natural part of the product.

- `tradeItemDescription` = GS1 Chilli Con Carne 200 g
- `ingredientStatement` = Ingredients: Beef, rice, beans, corn, sauce
- `netWeight` = 200 GRM
- `[1] ingredientCode` = ANIMAL_BASED_PROTEIN
- `[1] ingredientPurpose` = NATURAL
- `[1] ingredientCode/@codeListName` = euSustainabilityReporting
- `[1] ingredientContentPercentage` = 30
- `[2] ingredientCode` = PLANT_BASED_PROTEIN
- `[2] ingredientPurpose` = NATURAL
- `[2] ingredientCode/@codeListName` = euSustainabilityReporting
- `[2] ingredientContentPercentage` = 15
- `[3] ingredientCode` = PLANT_BASED_PROTEIN
- `[3] ingredientPurpose` = ADDED
- `[3] ingredientCode/@codeListName` = euSustainabilityReporting
- `[3] ingredientContentPercentage` = 5

4 Regulation (EU) 2023/988 on General Product Safety

This Regulation aims at protecting consumers and their safety. Some of its aspects require product master data to be shared between suppliers and retailers, especially when products are sold online or by another mean of distance selling.

This guidance is a technical document and is not intended to provide a legal interpretation of Regulation (EU) 2023/988, the ultimate official interpretation of which is the exclusive reserve of the judicial powers, i.e. the national courts and the Court of Justice of the European Communities.

4.1 Contact Information

Article 19 states following:

- (a): "name, registered trade name or registered trademark of the manufacturer, as well as the postal and electronic address at which they can be contacted;"
- (b): "where the manufacturer is not established in the Union, the name, postal and electronic address of the responsible person within the meaning of Article 16(1) of this Regulation or Article 4(1) of Regulation (EU) 2019/1020;"

Attributes below can be used to share contact information required by these Articles.

4.1.1 Contact Type Code ([BMS ID 127](#))

- **GDSN name:** contactTypeCode
- **Definition:** The general category of the contact party for a trade item for example Purchasing.
- **Instruction:** Always use code BZL (*Licensee Registrar*) to share contact details of a person responsible for the product in the EU market. This can be for example manufacturer established in the EU or importer. If article 19 (b) applies to your product, contact details of manufacturer not established in EU shall be shared in another iteration with code MAN (*Manufacturer*). Other codes like CXC (*Consumer Support*) etc. can be used additionally (as secondary).
- **Remark:** If multiple iterations with different type codes are provided, retailers are recommended to always use/display at least those with code BZL (*Licensee Registrar*) and MAN (*Manufacturer*) when selling online.
- **Example:** BZL

4.1.2 Contact ([BMS ID 126](#))

- **GDSN name:** contactName
- **Definition:** The name of the company or person associated with the contact type. For example, in case of a contact type of CXC (*Consumer Support*), this could be the company name as expressed on the trade item packaging or label.
- **Instruction:** Populate name or registered trade name (trademark) of the manufacturer or responsible person as stated on the product, its packaging or in a document accompanying the product. If no address or only incomplete address information (postal and/or electronic) is available on the product, it is still recommended to provide the complete information.
- **Example:** GS1 in Europe

4.1.3 Contact Address ([BMS ID 123](#))

- **GDSN name:** contactAddress
- **Definition:** The address associated with the contact type. For example, in case of a contact type of CXC (*Consumer Support*), this could be the full company address as expressed on the trade item packaging or label.
- **Instruction:** Populate postal address of the manufacturer or responsible person as stated on the product, its packaging or in a document accompanying the product. If no address or only

incomplete address information (postal and/or electronic) is available on the product, it is still recommended to provide the complete information.

- **Remark:** Email address, social media etc. should be provided via attributes below (BMS ID 134 & 135).
- **Example:** Galerie Ravenstein 4 bus 10, 1000 Brussels, Belgium

4.1.4 Contact Method Code ([BMS ID 134](#))

- **GDSN name:** communicationChannelCode
- **Definition:** Code specifying the type of communication channel, for example TELEPHONE.
- **Instruction:** Use code EMAIL, SOCIAL_MEDIA or WEBSITE to indicate type of electronic address of the manufacturer or responsible person stated on the product, its packaging or in a document accompanying the product.
- **Remark:** Use attribute Contact Details (BMS ID 135) to provide the actual address.
- **Example:** EMAIL

4.1.5 Contact Details ([BMS ID 135](#))

- **GDSN name:** communicationValue
- **Definition:** Text identifying the endpoint for the communication channel, for example a telephone number or an e-mail address.
- **Instruction:** Populate electronic address of the manufacturer or responsible person as stated on the product, its packaging or in a document accompanying the product. If no address or only incomplete address information (postal and/or electronic) is available on the product, it is still recommended to provide the complete information.
- **Remark:** This is usually an email or social media – indicated in attribute Contact Method Code (BMS ID 134). It can also be a website if contact information is provided there.
- **Example:** info@gs1eu.org

4.1.6 Target Market Country Code ([BMS ID 138](#))

- **GDSN name:** targetMarketCountryCode
- **Definition:** The code that identifies the target market. The target market is at country level or higher geographical definition and is where a trade item is intended to be sold.
- **Instruction:** If contact details are the same for multiple countries, indicate list of those countries by repeating this attribute.
- **Remark:** Optional information only. It can be used by retailers selling the product in multiple countries but receiving data from GDSN only for one target market.
- **Example:** 203 (*Czech Republic*)

4.1.7 Example of providing contact information

It is possible to provide multiple contact information. Example below shows how to provide contact information for manufacturer and party having legal responsibility for the product in the market. It will also illustrate how to indicate that the second contact is the same for multiple markets (Denmark, Sweden and Norway). Iterations are indicated by [].

First iteration - manufacturer

[1] contactTypeCode = MAN

[1] contactName = GS1 Utopia

[1] contactAddress = Factory Street 1, Big Town, Utopia Republic

[1.1] communicationChannelCode = EMAIL

[1.1] communicationValue = info@gs1utopia.org

Second iteration - party having legal responsibility

[2] contactTypeCode = BZL

[2] contactName = GS1 in Europe

[2] contactAddress = Galerie Ravenstein 4 bus 10, 1000 Brussels, Belgium

[2.1] communicationChannelCode = EMAIL

[2.1] communicationValue = info@gs1eu.org

[2.2] communicationChannelCode = WEBSITE

[2.2] communicationValue = <https://gs1.eu/>

[2.3] targetMarketCountryCode (BMS ID 138, class tradeItemContactInformation) = 208 (Denmark)

[2.3] targetMarketCountryCode (BMS ID 138, class tradeItemContactInformation) = 578 (Norway)

[2.3] targetMarketCountryCode (BMS ID 138, class tradeItemContactInformation) = 752 (Sweden)

4.2 Identification of the Product

Article 19 (c) states following: "information allowing the identification of the product, including a picture of it, its type and any other product identifier;"

In GDSN, following attributes can be used to identify the product:

- **Product ID:** gtin ([BMS ID 67](#))
- **Product Description:** tradeItemDescription ([BMS ID 3517](#))
- **Product Image:** uniformResourceIdentifier ([BMS ID 3000](#)) and referencedFileTypeCode ([BMS ID 2999](#)) with code PRODUCT_IMAGE.

4.3 Warnings and Safety Information

Article 19 (d) states following: "any warning or safety information to be affixed to the product or to the packaging or included in an accompanying document in accordance with this Regulation or the applicable Union harmonisation legislation in a language which can be easily understood by consumers, as determined by the Member State in which the product is made available on the market."

Selection of attributes to provide warnings and safety information depends on type of such information on product's label. Common attributes to exchange most of these warnings and safety information in Europe are listed below. There are no specific instructions for these attributes coming from this Regulation.

- **Additional Legal Product Information:** compulsoryAdditiveLabelInformation ([BMS ID 1457](#))
- **Hazard Statements:** hazardStatementsCode ([BMS ID 3240](#)), hazardStatementsDescription ([BMS ID 3241](#))
- **Precautionary Statements:** precautionaryStatementsCode ([BMS ID 3244](#)), precautionaryStatementsDescription ([BMS ID 3245](#))
- **GHS Pictograms:** gHSSymbolDescriptionCode ([BMS ID 3238](#))
- **GHS Signal Word:** gHSSignalWordsCode ([BMS ID 3237](#))
- **Attached documents:** uniformResourceIdentifier ([BMS ID 3000](#)) and referencedFileTypeCode ([BMS ID 2999](#)) with code SAFETY_DATA_SHEET (Safety Data Sheet) or DOP_SHEET (Declaration of Performance Sheet).¹

¹ For safety data sheets, some markets in Europe (e.g. The Netherlands) use attributes from Safety Data Sheet Module (BMS IDs 3164 and 3165) instead.

- **AISE Instructions:** enumerationValue ([BMS ID 810](#), EU code list is available as *Consumer Instructions Label* in section [European Union](#)) and externalAgencyName (BMS ID 806) with code AISE.

5 Seasonal Dates in Europe

Attributes seasonalAvailabilityStartDateTime ([BMS ID 1552](#)) and seasonalAvailabilityEndDateTime ([BMS ID 1551](#)) **SHALL NOT** be used in Europe.

Instead, attribute isTradeItemSeasonal ([BMS ID 1550](#)) SHALL be used to indicate that a product is a seasonal product (code value TRUE). In such case, attributes startAvailabilityDateTime ([BMS ID 1025](#)) and endAvailabilityDateTime ([BMS ID 1002](#)) can be used to indicate seasonal availability dates.

6 Nanoparticles in the product

To indicate whether the product contains nanoparticles or not, the code value NANOPARTICLE SHALL be used in the attribute claimElementCode ([BMS ID 7233](#)) and codes CONTAINS (product contains nanoparticles) or FREE_FROM (no nanoparticles in the product) in the attribute claimTypeCode ([BMS ID 7237](#)) SHALL be used.

Usage of code NANO_MATERIALS_PRESENCE in attribute regulationTypeCode ([BMS ID 3070](#)) is not recommended and not supported in Europe.