



The Global Language of Business

## Retail Grocery

# GS1 US Guidance for Sharing Product Attributes via GDSN in Retail Grocery

*Release 1.4, Dec 21 2020*

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## About GS1

GS1® is a neutral, not-for-profit, global organization that develops and maintains the most widely-used supply chain standards system in the world. GS1 Standards improve the efficiency, safety, and visibility of supply chains across multiple sectors. With local Member Organizations in over 110 countries, GS1 engages with communities of Trading Partners, industry organizations, governments, and technology providers to understand and respond to their business needs through the adoption and implementation of global standards. GS1 is driven by over a million user companies, which execute more than six billion transactions daily in 150 countries using GS1 Standards.

## About GS1 US

GS1 US®, a member of GS1 global, is a not-for-profit information standards organization that facilitates industry collaboration to help improve supply chain visibility and efficiency through the use of GS1 Standards, the most widely-used supply chain standards system in the world. Nearly 300,000 businesses in 25 industries rely on GS1 US for trading-partner collaboration that optimizes their supply chains, drives cost performance and revenue growth while also enabling regulatory compliance. They achieve these benefits through solutions based on GS1 global unique numbering and identification systems, barcodes, Electronic Product Code-based RFID, data synchronization, and electronic information exchange. GS1 US also manages the United Nations Standard Products and Services Code® (UNSPSC®).

## About the GS1 US Retail Grocery Initiative

The GS1 US Retail Grocery Initiative is a voluntary collaborative industry effort seeking to address current industry challenges to improve product information and images, data quality, supply chain visibility, and operational efficiencies. This structured Initiative for retail grocery aims to help enable stakeholders to focus on the most important industry problems, streamline resources, and drive adoption and implementation of the industry-defined solutions leveraging GS1 Standards.

# 1 Introduction

This document provides implementation guidance for a variety of advanced topics encountered when retail grocery industry members implement the GS1 Global Data Synchronization Network™ (GDSN®). These topics are frequently discussed within the GDSN community, and the practices discussed in this document are common to members of the GS1 US Retail Grocery Initiative (“the Initiative”) in the US target market. Members of the Product Information and Images Workgroup of the Initiative worked together to develop this guidance and best practices document to support organizations in the implementation of GS1 Standards.

**!** **Important:** As with all GS1 Standards and solutions, the *GS1 US Guidance for Sharing Product Attributes via GDSN in Retail Grocery* is voluntary, not mandatory. It should be noted that use of the words “must” and “require” throughout this document relate exclusively to technical recommendations for the proper application of the standards to support the integrity of your implementation.

## 1.1 Document Summary and Change Log

Document Item	Current Value
Document Title	GS1 US Guidance for Sharing Product Attributes via GDSN in Retail Grocery
Date Last Modified	DEC 21 2020
Document Description	Supplements the formal GS1 Global Data Synchronization Network (GDSN) standards with guidance for a variety of advanced topics encountered when retail grocery industry members share product attributes via GDSN.
Change Log	Attribute information has been updated, added and removed based on the GDSN 3.1.9 to 3.1.11 release and industry feedback.

## 1.2 Document Purpose

The purpose of this document is to supplement the [GDSN Foodservice and Retail Grocery Attribute Interactive Spreadsheet Tool](#) with guidance to increase consistency and improve implementation by explaining advanced topics and providing examples.

## 1.3 Who Will Use this Document?

Business users who are implementing and/or operating the GDSN may use this document to supplement the formal GS1 GDSN standards with additional guidance. This document is aimed primarily at business users who need to understand the data content or process standards. Technical users involved with implementation may also find topics of interest.

## 1.4 Scope of this Document

The scope is the data and processes for the synchronization of Trade Items within the GDSN by the retail grocery community. In this version of the document, the scope is limited to the attributes as defined by the Initiative. While there are other attributes available in GDSN, they will only be in scope for this document if defined for use by the Initiative.

If you need additional training or advice, please contact your solution provider, data pool, or GS1 US® or refer to the [Additional Resource](#) section in this document.

## 2 Technical GDSN Topics

### 2.1 Element Naming

All **Module, Class, and Code List names** used in the GDSN Schema have no spaces, and all words in the name are capitalized. For example:

- TradeItemDescriptionModule
- AllergenInformation
- LevelOfContainmentCodeList

All **attribute names** used in the GDSN Schema have no spaces, and all words in the name are capitalized with the exception of the first word. For example:

- globalLocationNumber
- uniqueCreatorIdentification

### 2.2 Cardinality Terminology for Attributes

For data synchronization, attributes have a characteristic which details if the attribute must be populated or not. This characteristic is called “cardinality.” While the GDSN standards specify the baseline cardinality of the attributes overall, the GS1 US Retail Grocery Initiative has analyzed and supplemented the cardinality of attributes over and above that assigned by GDSN where appropriate for the retail grocery industry. For example, the GDSN specifies an attribute as optional, but the Initiative has determined that the attribute should be populated for a specific retail grocery use case. This determination does not prescribe any need or eliminate the ability to require population of any attribute by a Data Recipient.

The cardinality of each attribute is listed in the [GDSN Foodservice and Retail Grocery Attribute Interactive Spreadsheet Tool](#). Cardinality term definitions are provided below.

- **GDSN MANDATORY**- These attributes are mandatory or core attributes for the GDSN Message. A message cannot be published without these elements.
- **REQUIRED** - The GS1 US Retail Grocery Initiative recommends these minimum attributes for the GDSN message. A message may not be accepted by a Trading Partner if these attributes are not completed.
- **VOLUNTARY/OPTIONAL** - While these attributes are not GDSN Mandatory or Required, they add value to the retail grocery industry, and consequently may be requested by Trading Partners.

### 2.3 Package Measurement Rules

- All references in this document use the new title (i.e., *GS1 Package Measurement Rules*).
- However, the Global Data Dictionary (GDD) has not yet been updated for the title change, and therefore GDD definitions use the original title (i.e., *GDSN Package Measurement Rules*).

**For clarity, these documents are one and the same.**

### 2.4 Code Lists

The GDSN utilizes GS1® defined code lists as well as externally managed code lists (e.g., UNCEFACT, ISO, etc.). Code lists used in the GDSN are managed outside of the schema due to both frequency of update and requirements that vary between target markets.

There are several externally managed code lists, which are used in several areas of the schema to provide code values. The table below lists of some of these externally managed code lists. All of the code lists for the retail grocery attributes can be found in the [GDSN Foodservice and Retail Grocery Attribute Interactive Spreadsheet Tool](#).

**Table 2-1** Externally Managed Code Lists

Code List	Comments
ISO 639-1	Codes for the representation of names of languages. Available for purchase at the following website: <a href="http://www.iso.org/iso/home/store/catalogue_tc/catalogue_detail.htm?csnumber=22109">http://www.iso.org/iso/home/store/catalogue_tc/catalogue_detail.htm?csnumber=22109</a>
ISO 3166-1	Part 1 – Country Codes (Three Digit Format). Available for purchase at the following website: <a href="http://www.iso.org/iso/home/store/catalogue_tc/catalogue_detail.htm?csnumber=63545">http://www.iso.org/iso/home/store/catalogue_tc/catalogue_detail.htm?csnumber=63545</a>
ISO 3166-2	Part 2 – Alpha Country Subdivision. Available for purchase at the following website: <a href="http://www.iso.org/iso/home/store/catalogue_tc/catalogue_detail.htm?csnumber=63546">http://www.iso.org/iso/home/store/catalogue_tc/catalogue_detail.htm?csnumber=63546</a>
ISO 4217	Codes for the representation of currencies and funds. Available for purchase at the following website: <a href="http://www.iso.org/iso/home/store/catalogue_tc/catalogue_detail.htm?csnumber=64758">http://www.iso.org/iso/home/store/catalogue_tc/catalogue_detail.htm?csnumber=64758</a>
United Nations Recommendation 20	Codes for the representation of units of measure. This list is supplemented by temporary GS1 Codes while requests are made to the managing body for update. Available at the following website: <a href="http://www.unece.org/fileadmin/DAM/cefact/recommendations/rec20/rec20_rev4E_2006.pdf">http://www.unece.org/fileadmin/DAM/cefact/recommendations/rec20/rec20_rev4E_2006.pdf</a>
FAO INFOODS Tagnames	Codes for the representation of nutrients. This list is supplemented by temporary GS1 Codes while requests are made to the managing body for update. Available at the following website: <a href="http://www.fao.org/infoods/infoods/standards-guidelines/food-component-identifiers-tagnames/en/">http://www.fao.org/infoods/infoods/standards-guidelines/food-component-identifiers-tagnames/en/</a>

## 3 Finding Attribute Information & Code Lists

### 3.1 GDSN Foodservice and Retail Grocery Attribute Interactive Spreadsheet Tool

The GS1 US [GDSN Foodservice and Retail Grocery Attribute Interactive Spreadsheet Tool](#) is an interactive spreadsheet designed to help companies understand and use product attributes for successfully sharing product information via the GDSN. It includes recommendations for food and non-food items, attribute definitions, examples, and other critical attribute information for variants and components. It was prepared with input from the Product Information and Images (PII) Workgroup of the GS1 US Retail Grocery Initiative.

The spreadsheet tool includes:

- Attributes
- GDD attribute requirements including:
  - Definitions
  - Modules
  - Cardinality
- Retail Grocery Guidance for both food and non-food items
- Associated Code Lists

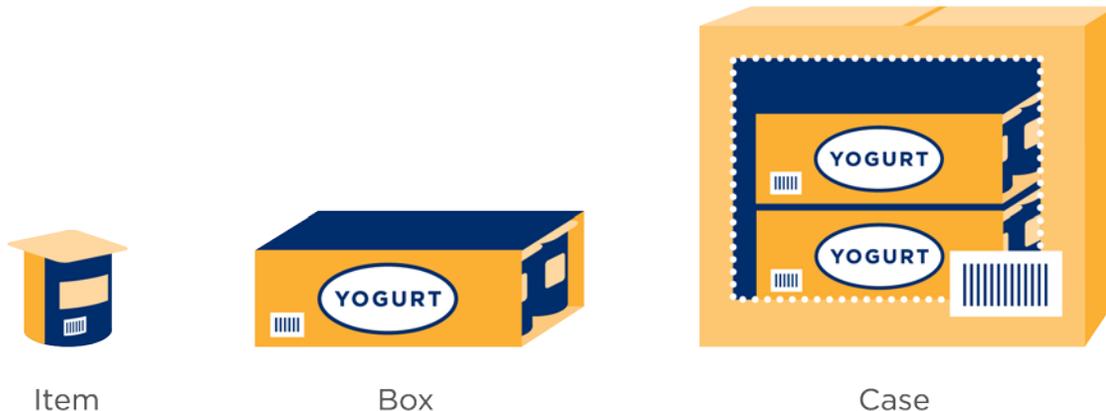
### 3.2 GS1 Global Attribute Explorer

[GS1 Global Attribute Explorer](#)<sup>®</sup> is an intuitive, browser-based search and discovery tool for GDSN attribute information, including GDD definition, metadata, etc. In addition, it offers a centralized location where Data Recipients can post their data attribute requirements, and where Data Sources can search and discover trading partner requirements and review the associated attribute standards.

## 4 Hierarchy Information

Manufacturers send hierarchical item data to GDSN data pools using information stored in *Parent/Child* and *Quantity* attributes. These relationships, along with *netContent* information, enables Trading Partners to build informative and structured hierarchies utilizing standardized information.

**Figure 4-1** Trade Item Hierarchies



In order for the Supply Chain to have a complete understanding of an item and the interplay of item relationships, a complete and accurate packaging hierarchy is the foundation. The key is to populate the *Parent*, *Child*, *Quantity of Next Lower Level*, and *netContent* attributes accurately and in a consistent manner. Currently, different Trading Partners may be storing information in a variety of ways for the same product.

For example, the product pictured above may be represented in a business system today as a:

- EACH (Ordered in increments of 1, 6, or 12 depending on the trading relationship)
- BOX of 6 yogurts (Ordered in increments of 6 EACH or 1 BOX)
- CASE of 2 BOXES of 6 yogurts (12 yogurts) (Ordered in increments of 1 CASE, 2 BOXES, or 12 EACH)

After standards are applied, the hierarchy for this item could be stored and communicated as:

- CASE of 12 yogurts (12 EACH)
  - Ordered using the GTIN of the CASE or
  - Ordered using the GTIN of the BOX or
  - Ordered using the GTIN of the EACH

Buyers will still be able to calculate their costs at the individual yogurt, but will do so using the multiplier provided in the *netContent* of the EACH.

Current EDI and ordering practices may include cross references, multipliers and/or packaging factors that help Trading Partners to agree that an order received is in-line with the expectations of the buyer and in the terms of the seller. Trading partners need to exercise caution as they migrate to GTINs in their ordering to assure that they transition smoothly to standardized hierarchies.

The following examples are used to describe the hierarchy of Trade Items. They show how a CASE contains PACKS, which in turn contains EACHES. **It is through the communication of Parent/Child and related quantity attributes that Data Recipients are able to construct the correct hierarchy from the data sent by suppliers.**

An accurate packaging hierarchy is the foundation for effective data synchronization and Manufacturers should take great care to assure that their hierarchies are reflected correctly. To support that effort, the remainder of this chapter presents examples of different hierarchies and guidance on how to effectively communicate each hierarchy.

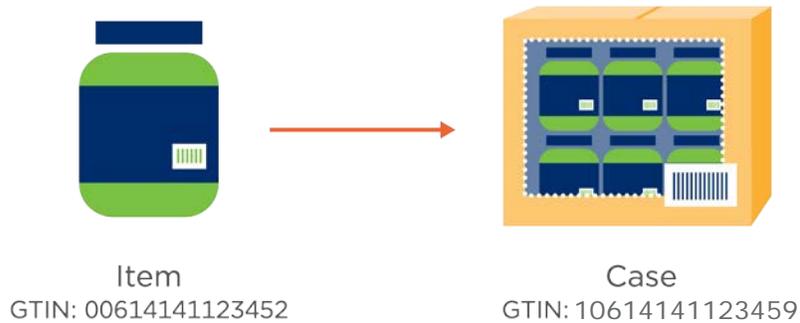
**✔ Note About Values in the First Position of “Each” GTINs in this Chapter:** The “eaches” in this chapter have been assigned GTIN-12s (as would be common for point-of-sale products that use UPC-A). GTIN-12s are 12 digits in length and do not have an Indicator Digit. Nonetheless, GTINs must be stored as 14 digits (regardless of how they are assigned and encoded). Therefore, the GTIN-12s for the “eaches” in this chapter are shown in their 14-digit format where the GTIN-12 has been padded with leading zeros per the standards.

Therefore, the first position of the “each” GTINs presented here is a “leading 0” and not an Indicator Digit (which must be a numerical character between 1-9). This is important to understand in order to have clarity about Indicator Digits and packaging levels in this chapter.

### 4.1 Two-Level Hierarchy

The figure below illustrates a simple two-level hierarchy including the attributes and values necessary to correctly communicate the hierarchy.

Figure 4-2 Two-Level Hierarchy



**Packaging string: Case of 6 Each (24 Ounces per Each)**

Table 4-1 Attributes & Values

Attribute ▶	GTIN	Child	QuantityOfNext LowerLevelTrade Item	netContent & UOM	Quantity of Children	TotalQuantityOf NextLowerLevel TradeItem
Pack Level ▼						
EACH	00614141123452	n/a	n/a	24 ONZ	n/a	n/a
CASE	10614141123459	00614141123452	6	n/a	1	6

## 4.2 Three-Level Hierarchy

The figure below illustrates a three-level hierarchy including the attributes and values necessary to correctly communicate the hierarchy.

**Figure 4-3** Three-Level Hierarchy



**Packaging string: Case of 6 Packs of 2 Each (24 Ounce per Each)**

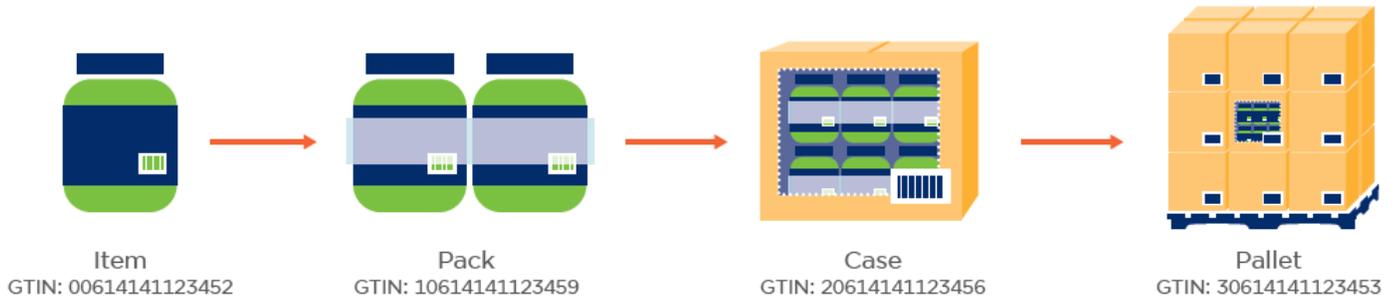
**Table 4-2** Attributes & Values

Attribute ▶ Pack Level ▼	GTIN	Child	QuantityOfNext LowerLevel TradeItem	netContent and UOM	Quantity of Children	TotalQuantityOf NextLowerLevel TradeItem
EACH	00614141123452	n/a	n/a	24 ONZ	n/a	n/a
PACK	10614141123459	00614141123452	2	n/a	1	2
CASE	20614141123456	10614141123459	6	n/a	1	6

### 4.3 Complex Hierarchy

The figure below illustrates a more complex but typical hierarchy where the lowest GTIN in the hierarchy is assigned at a low level (selling unit) and the hierarchy includes multiple packs / inner packs. The attributes and values required to correctly communicate this hierarchy are included below the chart.

**Figure 4-4** Complex Hierarchy



**Packaging string: Pallet of 18 Cases of 6 Packs of 2 Each (24 Ounce per Each)**

**Table 4-3** Attributes & Values

Attribute ▶	GTIN	Child	QuantityOfNext LowerLevelTrade Item	netContent and UOM	Quantity of Children	TotalQuantityOf NextLowerLevel TradeItem
Pack Level ▼						
EACH	00614141123452	n/a	n/a	24 oz	n/a	n/a
PACK	10614141123459	00614141123452	2	n/a	1	2
CASE	20614141123456	10614141123459	6	n/a	1	6
PALLET	30614141123453	20614141123456	18	n/a	1	18

- The [Pallets /Logistics Units section](#) below presents a diagram that demonstrates a hierarchy through the pallet level for Manufacturers who desire to assign GTINs at the pallet level.

**Note:** In GDSN, hierarchies are always described from the largest item (e.g., case) to the smallest (e.g., each). When published, the Data Source publishes the highest parent item in the hierarchy, and the data pool automatically includes this item and all smaller child items within it, down to and including the lowest level of the hierarchy.

#### 4.4 Complex Hierarchies (Multiple Unique Products per Hierarchy)

When a Trade Item contains more than one kind of Trade Item, a single parent will have more than one child GTIN, and the attributes *QuantityOfChildren* and *TotalQuantityOfNextLowerLevelTradeItem* become important to understanding the contents of the kit:

- **In simple hierarchies:** these two fields are populated with values of "1"
- **In complex hierarchies:** these two fields reflect the count of unique GTINs and their associated quantities

Figure 4-5 Complex Hierarchy



**Packaging string: Case of 2 Packs of 3 Packs of Packs containing 3 separate, unique GTINS**

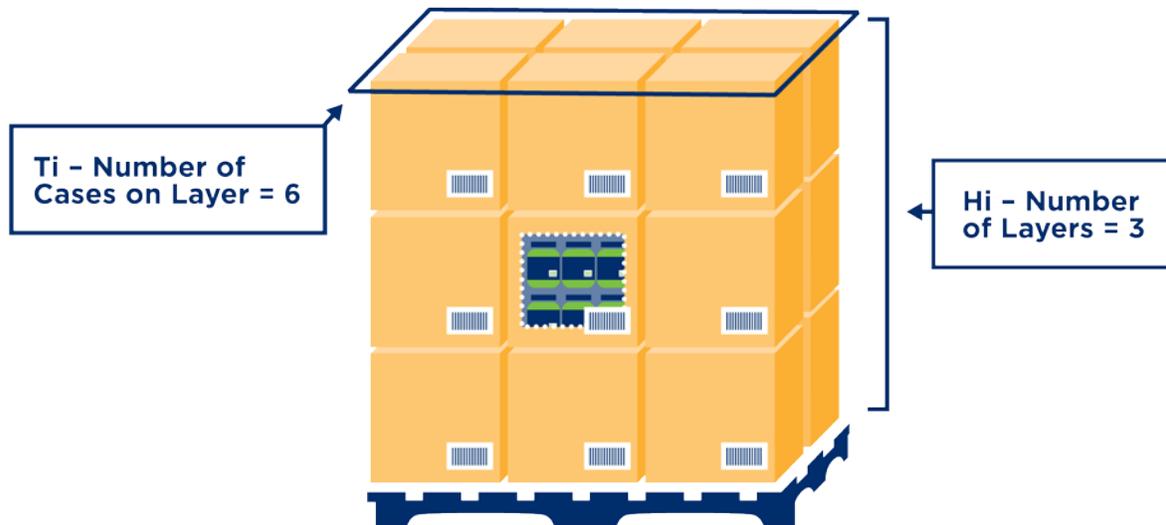
Table 4-4 Attributes & Values

Attribute ▶	GTIN	Quantity of Children	Child	QuantityOfNext LowerLevel TradeItem	TotalQuantity OfNextLower LevelTrade Item
<b>Pack Level ▼</b>					
EACH - Scissors	00614141777778	N/A	N/A	N/A	N/A
EACH - Roll of Tape	00614141555550	N/A	N/A	N/A	N/A
EACH - Box of Bandages	00614141444441	N/A	N/A	N/A	N/A
PACK - First Aid Kit	00614141333332	3	00614141777778 00614141555550 00614141444441	1 2 6	9
PACK – Pack of 3 First Aid Kits	10614141333339	1	00614141333332	3	3
CASE - 6 Three Packs of First Aid Kits	10614141333339	1	10614141333339	6	6

## 5 Pallets / Logistics Units

This section explains how to populate attributes describing how a Trade Item is palletized or otherwise prepared into a unit load (also sometimes known as a logistics unit). One of the most common forms of unit load is the pallet, used for transportation and storage purposes. Some companies use a GTIN to identify a standard pallet (or other unit load) of product as a Trade Item in its own right (i.e., it is priced, ordered and/or invoiced). This is referred to as "GTIN Logistics Units." Other companies who have a product that only exists in a single unit load format ("palletization") may choose to send the palletization information associated with the highest level of the product hierarchy, typically a case. This is referred to as "Non-GTIN Logistics Units." This section describes the attributes and GDSN handling for both.

Figure 5-1 Ti/Hi Example



Ti/Hi is a concept used to describe how product is stacked on a pallet. The "TI" is the number of cartons on a layer, and the "HI" is the number of layers of cartons on a pallet. The Ti/Hi for the example pallet displayed in the Figure below would be 6x3.

### 5.1 When Would I Use This?

- Data Sources looking to send unit load ("palletization") information in a consistent way in accordance with the GS1 Data Alignment standards.
- Data Receivers looking to integrate unit load information into their system without human intervention.

## 5.2 Scenario/Assumptions

The supplier supplies the Trade Item in a standardized layout in a unit load (e.g., on a pallet).

When sending data about logistics units:

1. The parties involved in the GDSN data synchronization (Data Source, Data Recipient, and their respective data pool(s)) should have the capability to support the attributes for GTIN Logistics Units. *(Note: This is expected, as the attributes are in classes commonly used throughout GDSN.)*
2. If the parties mutually agree to trade at a level below the logistics unit, then the parties involved in the GDSN data synchronization (Data Source, Data Recipient, and their respective data pool(s)) may choose to have the capability to support the optional extension for Non-GTIN Logistics Units. *(Note: This latter capability is optional in GDSN. Without this capability, only a reduced range of attributes may be synchronized for Non-GTIN Logistics Units.)*

## 5.3 “GTIN Logistics Units” versus “Non-GTIN Logistics Units”

The data attributes used to synchronize logistics unit information vary depending on whether the unit is a “GTIN Logistics Unit” or a “Non-GTIN Logistics Unit”:

- A **“GTIN Logistics Unit”** (commonly referred to as a *GTIN pallet* or a *pallet GTIN*) is a logistics unit that is identified by a GTIN. This GTIN is allocated to the logistics unit itself.
- A **“Non-GTIN Logistics Unit”** (commonly referred to as a *Non-GTIN pallet* or an *unmarked pallet*) is a logistic unit that is not identified by a GTIN. It is actually not identified by any Trade Item identifier.

The table below provides guidance for deciding whether to use “GTIN Logistics Units” or “Non-GTIN Logistics Units.”

**Table 5-1** Rules for GTIN Logistics Units vs. Non-GTIN Logistics Units

Scenario	Rule	Application
If a standard logistics unit configuration is ordered, invoiced or priced ...	A GTIN needs to be assigned to it.	GTIN Logistics Units
If there are multiple standard logistics unit configurations available for a synchronized item within a target market ...	A GTIN needs to be assigned to <u>each configuration</u> regardless of whether it is ordered, invoiced, or priced.	GTIN Logistics Units
If there is only one standard logistics unit configuration in a target market, there are currently <u>two</u> prevalent business practices for obtaining information ...	At the logistics unit level when a GTIN is assigned to the logistics unit.	GTIN Logistics Units
	At the “case” level when a GTIN is not assigned to the logistics unit. <i>(There are additional attributes that need to be added to support this “case” level processing.)</i>	Non-GTIN Logistics Units

## 5.4 Attributes

As noted above, the data attributes used to synchronize logistics unit information vary depending on if the unit is a “GTIN Logistics Unit” or a “Non-GTIN Logistics Unit.” The table below identifies the attributes to be used for each application.

**Table 5-2** Data Attributes Used to Synchronize Logistics Unit Information

Business Requirement	Data Attribute Name Used for a “GTIN Logistics Unit”	Data Attribute Name Used for a “Non-GTIN Logistics Unit” <i>(the data must be attached to the highest hierarchy level identified with a GTIN)</i>
“Cases” Per Layer †	quantityOfTradeItemsContainedInACompleteLayer	quantityOfTradeItemsPerPalletLayer
Layers Per Logistics Unit	quantityOfCompleteLayersContainedInATradeItem	quantityOfLayersPerPallet
“Cases” Per Logistics Unit †	quantityOfNextLowerLevelTradeItem	quantityOfTradeItemsPerPallet
Logistics Unit Gross Weight	grossWeight	NonGTINLogisticsUnitInformationModule/grossWeight
Logistics Unit Height	height	NonGTINLogisticsUnitInformationModule/height
Logistics Unit Depth	depth	NonGTINLogisticsUnitInformationModule/depth
Logistics Unit Width	width	NonGTINLogisticsUnitInformationModule/width
Stacking Factor	stackingFactor*	NonGTINLogisticsUnitInformationModule/logisticsUnitStackingFactor *
Stacking Factor Type	stackingFactorTypeCode *	N/A
Stacking Pattern Type	stackingPatternTypeCode *	N/A
Platform Terms & Conditions	platformTermsAndConditionsCode *	platformTermsAndConditionsCode *
Platform Type	platformTypeCode *	platformTypeCode *
Irregular Pallet Configuration*	isTradeItemPackedIrregularly *	isNonGTINLogisticUnitPackedIrregularly *

† **Note:** Although in most cases, the highest level below the logistics unit may be a case (CA), it may alternatively be another level such as display (DS).

\* **Note:** *stackingFactor*, *stackingFactorTypeCode*, *stackingPatternTypeCode*, *platformTermsAndConditionsCode*, *platformTypeCode* and *isTradeItemPackedIrregularly* are optional. For a particular Trade Item:

- **Either:** these values may be unvarying (static) for this Trade Item – *if so, they should be passed as master data populated with the normal values for the Trade Item*
- **Or:** these values may vary for each transaction (e.g., if there is no “normal” platform used for this Trade Item) – *if so, they should be passed in the Despatch Advice / Advance Ship Notice (and not as master data)*

## 5.5 Rules

- **Weight & Dimensions Not Including the Shipping Platform:** When Trade Item information does not contain the weight and dimensions of the shipping platform, the attribute *platformTypeCode* should be populated with *Code 27 - Platform of Unspecified Weight or Dimension* (i.e., the highest level of the hierarchy is being shipped on a shipping platform of unknown dimensions or unknown weight, and the platform weight or dimension may differ within the same shipment). All other values (including null) would indicate that the weight and dimensions include the shipping platform.
- **Attributes to be Validated on Receiving:** Data Sources should use only the attributes for the option which applies to the GTIN hierarchy. However, for receiving, Data Receivers should not validate only the appropriate attributes for the selected option in order to help the transition from past practice. This is because if a supplier transitions a product from Non-GTIN Logistics Units to GTIN Logistics Units, there is often an interim period when only some customers can use the appropriate data attributes. During this interim period, Data Sources may be required to send the data in both levels of the hierarchy (i.e. logistics and the next lower level (e.g., case)) in order to enable continuous synchronization with existing customers. The Data Recipient should take the attributes at the first (highest) level of the hierarchy they can process.
- **Co-Dependent Attributes:** When using the Non-GTIN Logistics Unit option, if any of the co-dependent attributes in the current version of the *GS1 GDSN Trade Item Implementation Guide* is populated, then all of them must be populated.
- ✓ **Note:** In the examples throughout the remainder of this section, the level below the logistics unit is always referred to as a “case.” Although in most instances the highest level below the logistics unit may be a case (CA), it may alternatively be another level such as display (DS).

## 5.6 Example 1: Highest Level of Hierarchy is a Pallet Identified by a GTIN

Example 1 is a hierarchy in which the highest level of the hierarchy (here a pallet) is identified by a GTIN. The product is a 200g jar of Gold coffee, packed in cases of 12 jars. The cases are palletized: 8 cases per layer and 4 layers per pallet.

The GTINs are:

- jar EA 3033718207536
- case CA 3033710218738
- pallet PL 3033711078317

In GDSN, this is published at the highest level of the item hierarchy: **pallet GTIN = 3033711078317**.

**Table 5-3** Example 1: Highest level of the hierarchy is a pallet identified by a GTIN

Information	Data Attribute Name (sent for the pallet GTIN 3033711078317)	Sample Value
Cases Per Layer	quantityofTradeitemsContainedinaCompleteLayer	8
Layers Per Logistics Unit	quantityOfCompleteLayersContainedInATradeItem	4
Cases Per Logistics Unit	quantityOfNextLowerLevelTradeItem	32
Logistics Unit Gross Weight	grossWeight	299.88 KGM
Logistics Unit Height	height	984 MM
Logistics Unit Depth	depth	1200 MM
Logistics Unit Width	width	800 MM
Stacking Factor	stackingFactor *	1
Stacking Factor Type	stackingFactorType *	STORAGE_UNSPECIFIED
Stacking Pattern Type	stackingPatternTypeCode *	INTERLOCKING
Pallet Terms & Conditions	platformTermsAndConditions *	<not used>
Platform Type	platformTypeCode *	11 [Flat pallet with dimensions of 1200 x 1000 mm ISO 6780 ISO 2 Pallet, EUR 2 Pallet]
Irregular Pallet Configuration*	isNonGTINLogisticUnitPackedIrregularly *	<not used> or FALSE

**Note:** *stackingFactor*, *stackingFactorTypeCode*, *stackingPatternTypeCode*, *platformTermsAndConditionsCode*, *platformTypeCode* and *isNonGTINLogisticUnitPackedIrregularly* are optional. For a particular Trade Item:

- **Either:** these values may be unvarying (static) for this Trade Item – *if so, they should be passed as master data populated with the normal values for the Trade Item*
- **Or:** these values may vary for each transaction (i.e., there is no “normal” platform used for this Trade Item) – *if so, they should be passed in the Despatch Advice / Advance Ship Notice, and not as master data*

### 5.7 Example 2: Highest Level of Hierarchy is a Pallet Not Identified by a GTIN

In Example 2, the highest level of the hierarchy (here a pallet) is not identified by a GTIN. The product is a 200g jar of Gold coffee, packed in cases of 12 jars. The cases are palletized: 8 cases per layer and 4 layers per pallet.

The GTINs are:

- jar EA 3033718207536
- case CA 3033710218738
- pallet <no GTIN>

In GDSN, this is published at the highest level of the item hierarchy: **case GTIN = 3033710218738**.

**Table 5-4** Example 2: Highest level of the hierarchy is a pallet not identified by a GTIN

Information	Data Attribute Name (sent for the case GTIN 3033710218738)	Sample Value
Cases Per Layer	quantityofTradeitemsContainedinaCompleteLayer	8
Layers Per Logistics Unit	quantityOfCompleteLayersContainedInATradeItem	4
Cases Per Logistics Unit	quantityOfNextLowerLevelTradeItem	32
Logistics Unit Gross Weight	NonGTINLogisticsUnitInformationModule/grossWeight	299.88 KGM
Logistics Unit Height	NonGTINLogisticsUnitInformationModule/height	984 MM
Logistics Unit Depth	NonGTINLogisticsUnitInformationModule/depth	1200 MM
Logistics Unit Width	NonGTINLogisticsUnitInformationModule/width	800 MM
Logistics Unit Stacking Factor	logisticsUnitStackingFactor *	1
Pallet Terms & Conditions	platformTermsAndConditionsCode *	2 {Exchange Pallet}
Platform Type	platformTypeCode *	11 [Flat pallet with dimensions of 1200 x 1000 mm ISO 6780 ISO 2 Pallet, EUR 2 Pallet]
Irregular Pallet Configuration*	IsNonGTINTradeItemPackedIrregularly*	<not used> or FALSE

**Note:** *logisticsUnitStackingFactor*, *platformTermsAndConditionsCode*, *platformTypeCode* and *IsNonGTINTradeItemPackedIrregularly* are optional. For a particular Trade Item:

- **Either:** these values may be unvarying (static) for this Trade Item – *if so, they should be passed as master data, populated with the normal values for the Trade Item*
- **Or:** these values may vary for each transaction (i.e., there is no “normal” platform used for this Trade Item) – *if so, they should be passed in the Despatch Advice / Advance Ship Notice, and not as master data*

### 5.8 Example 3: Quarter or Half Pallets on Pallet Identified by a GTIN

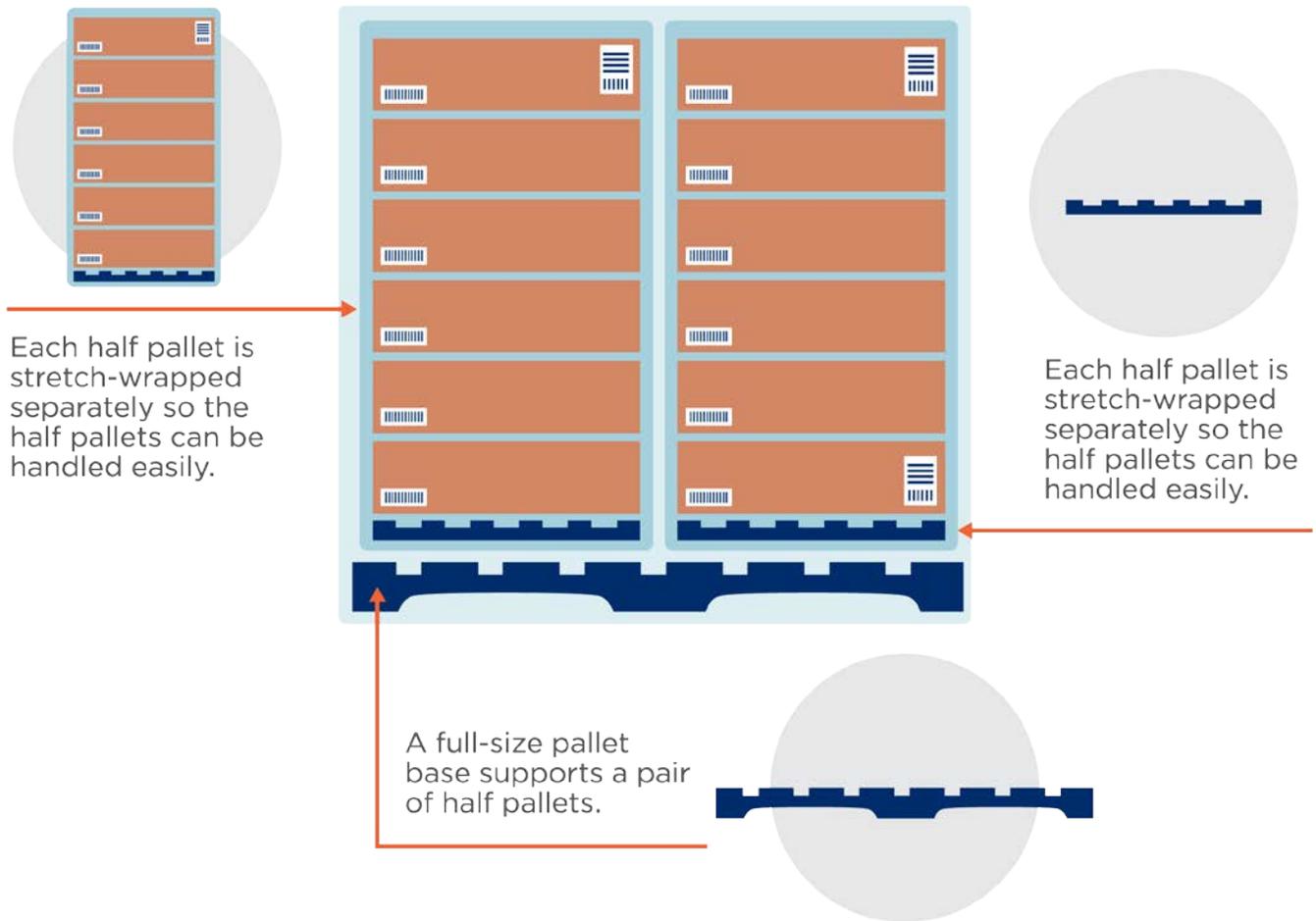
In Example 3, the product is a bottled water which is 8\*25 cl multi-pack, packed in cases of 3. The cases are palletized: 54 cases per half pallet and 2 half pallets per pallet.

The GTINs are:

- 8 bottles EA 03179730107834
- case CA 03179730107888
- half pallet CA 03179730107765
- pallet PL 03179730107758

In GDSN, this is published at the highest level of the item hierarchy: **pallet GTIN = 03179730107758**.

**Figure 5-2** Example of Half Pallet GTIN 03179730107765



**Table 5-5** Example 3: Quarter or Half Pallets on Pallet (Part 1)

Information	Data Attribute Name <i>(sent for the pallet GTIN 03179730107758)</i>	Sample Values
Cases Per Layer	quantityofTradeitemsContainedinaCompleteLayer	2
Layers Per Logistics Unit	quantityOfCompleteLayersContainedInATradeItem	1
Cases Per Logistics Unit	quantityOfNextLowerLevelTradeItem	2
Logistics Unit Gross Weight	grossWeight	1018 KGM
Logistics Unit Height	height	1771 MM
Logistics Unit Depth	depth	1013 MM
Logistics Unit Width	width	1268 MM
Stacking Factor	stackingFactor *	1
Stacking Factor Type	stackingFactorType *	TRANSPORT_LOAD
Pallet Terms & Conditions	platformTermsAndConditionsCode *	2 {Exchange Pallet}
Platform Type	platformTypeCode *	12 [Quarter size of the standard EuroPallet with dimensions of 600 x 400 mm, Quarter size of the standard EuroPallet (EUR)]
Irregular Pallet Configuration*	isTradeItemPackedIrregularly*	<not used> or FALSE

**Note:** *logisticsUnitStackingFactor*, *platformTermsAndConditionsCode*, *platformTypeCode* and *isTradeItemPackedIrregularly* are optional. For a particular Trade Item:

- **Either:** these values may be unvarying (static) for this Trade Item – *if so, they should be passed as master data, populated with the normal values for the Trade Item*
- **Or:** these values may vary for each transaction (i.e., there is no “normal” platform used for this Trade Item) – *if so, they should be passed in the Despatch Advice / Advance Ship Notice, and not as master data*

**Table 5-6** Example 3: Quarter or Half Pallets on Pallet (Part 2)

Information	Data Attribute Name <i>(sent for the case (half pallet) GTIN 30337110218738)</i>	Sample Values
Cases Per Layer	quantityofTradeitemsContainedinaCompleteLayer	6
Layers Per Logistics Unit	quantityOfCompleteLayersContainedInATradeItem	9
Cases Per Logistics Unit	quantityOfNextLowerLevelTradeItem	54
Logistics Unit Gross Weight	grossWeight	488,875 KGM
Logistics Unit Height	height	1607 MM
Logistics Unit Depth	depth	1013 MM
Logistics Unit Width	width	634 MM
Stacking Factor	stackingFactor *	1
Stacking Factor Type	stackingFactorType *	TRANSPORT_ROAD
Pallet Terms & Conditions	platformTermsAndConditionsCode *	2 { Exchange Pallet }
Platform Type	platformTypeCode *	31 [Half size flat pallet with dimensions of 1000 x 600 mm. 1/2 ISO 2 Pallet.]
Irregular Pallet Configuration*	isTradeItemPackedIrregularly *	<not used> or FALSE

**Note:** *logisticsUnitStackingFactor*, *platformTermsAndConditionsCode*, *platformTypeCode* and *isTradeItemPackedIrregularly* are optional. For a particular Trade Item:

- **Either:** these values may be unvarying (static) for this Trade Item – *if so, they should be passed as master data, populated with the normal values for the Trade Item*
- **Or:** these values may vary for each transaction (i.e., there is no “normal” platform used for this Trade Item) – *if so, they should be passed in the Despatch Advice / Advance Ship Notice, and not as master data*

## 5.9 Example 4: Multiple Configurations – GTINs Assigned to Each Configuration

In Example 4, the product is a 200g jar of coffee, packed in cases of 12 jars. The cases are palletized in two different ways for different distribution channels. In the first configuration, there are 8 cases per layer and 4 layers per pallet. In the second configuration, there are 10 cases per layer and 6 layers per pallet.

The GTINs are:

- jar EA 3033718207536
- case CA 3033710218738
- pallet configuration 1 PL 3033711078317
- pallet configuration 2 PL 3033711078324

In GDSN, this is published at the highest level of each item hierarchy: **once for pallet GTIN = 3033711078317 and once for pallet GTIN = 3033711078324**

**Table 5-7** Example 4: Multiple Configurations (Part 1)

Information	Data Attribute Name (sent for the pallet GTIN 3033711078317)	Sample Value
Cases Per Layer	quantityOfTradeItemsContainedInACompleteLayer	8
Layers Per Logistics Unit	quantityOfCompleteLayersContainedInATradeItem	4
Cases Per Logistics Unit	quantityOfNextLowerLevelTradeItem	32
Logistics Unit Gross Weight	grossWeight	299.88 KGM
Logistics Unit Height	Height	987 MM
Logistics Unit Depth	Depth	1200 MM
Logistics Unit Width	Width	800 MM
Stacking Factor	stackingFactor *	1
Stacking Factor Type	stackingFactorType *	TRANSPORT_ROAD
Pallet Terms & Conditions	platformTermsAndConditionsCode *	<not used>
Platform Type	platformTypeCode *	11 [Flat pallet with dimensions of 1200 x 1000 mm ISO 6780 ISO 2 Pallet, EUR 2 Pallet]
Irregular Pallet Configuration*	isTradeItemPackedIrregularly *	<not used> or FALSE

**Note:** *logisticsUnitStackingFactor*, *platformTermsAndConditionsCode*, *platformTypeCode* and *isTradeItemPackedIrregularly* are optional. For a particular Trade Item:

- **Either:** these values may be unvarying (static) for this Trade Item – *if so, they should be passed as master data, populated with the normal values for the Trade Item*
- **Or:** these values may vary for each transaction (i.e., there is no “normal” platform used for this Trade Item) – *if so, they should be passed in the Despatch Advice / Advance Ship Notice, and not as master data*

**Table 5-8** Example 4: Multiple Configurations (Part 2)

Information	Data Attribute Name (sent for the pallet GTIN 3033711078324)	Sample Value
Cases Per Layer	quantityOfTradeItemsContainedInACompleteLayer	10
Layers Per Logistics Unit	quantityOfCompleteLayersContainedInATradeItem	6
Cases Per Logistics Unit	quantityOfNextLowerLevelTradeItem	60
Logistics Unit Gross Weight	grossWeight	547.28 kg
Logistics Unit Height	height	1422 mm
Logistics Unit Depth	depth	1200 mm
Logistics Unit Width	width	1000 mm
Stacking Factor	stackingFactor *	1
Stacking Factor Type	stackingFactorType *	TRANSPORT_ROAD
Pallet Terms & Conditions	platformTermsAndConditionsCode *	<not used>
Platform Type	platformTypeCode *	12 [Quarter size of the standard EuroPallet with dimensions of 600 x 400 mm, Quarter size of the standard EuroPallet (EUR)]
Irregular Pallet Configuration*	isTradeItemPackedIrregularly*	<not used> or FALSE

**Note:** *logisticsUnitStackingFactor*, *platformTermsAndConditionsCode*, *platformTypeCode* and *isTradeItemPackedIrregularly* are optional. For a particular Trade Item:

- **Either:** these values may be unvarying (static) for this Trade Item – *if so, they should be passed as master data, populated with the normal values for the Trade Item*
- **Or:** these values may vary for each transaction (i.e., there is no “normal” platform used for this Trade Item) – *if so, they should be passed in the Despatch Advice / Advance Ship Notice, and not as master data*

## 5.10 Example 5: Transitioning from Non-GTIN Logistics Units to GTIN Logistics Units

Example 5 illustrates the transition from Example 2, where the Highest Level of Hierarchy is a Pallet Not Identified by a GTIN, to Example 1 where Highest Level of Hierarchy is a Pallet Identified by a GTIN. In this scenario, the original publication occurred at the case level (See [Example 2](#)). Now the Manufacturer has decided to begin trading at the pallet level, and in doing so created another logistics unit configuration, a pallet. Because there will then be two concurrent logistics unit configurations, the Manufacturer will need to assign a GTIN to the pallet level for each configuration (See [Example 4](#)).

### The recommended process is as follows:

1. Assign a GTIN and create a record for the new pallet, indicating the existing case as the Next Lower Level GTIN.
2. Publish a new item to the Retailer for the new configuration, publishing at the pallet level.
3. Send a Change for the existing case record, removing the Non-GTIN Logistics Unit attributes.
4. The Retailer now has two publications: one at the pallet level and the other at the case level.
5. The Retailer will need to send a positive CIC for the new pallet configuration and a rejected CIC for the case configuration.
6. The supplier can later send a Hierarchy Withdrawal message for the case if it is no longer offered to the Retailer.
7. The records can contain the appropriate ordering true/false flags, depending upon the configuration and the Retailer.



**Note:** The technical details of how this is achieved using standard messages between data pools within the GDSN is more complex. For further details, users may also obtain advice from their Data Pool and/or from GS1 US.

## 6 Metric and Imperial Measurements

In trade, most countries use the metric system of measurements, but some prefer the imperial system of measurements. This chapter illustrates how such measurements should be passed in the GDSN.

### 6.1 Scenario/Assumptions

Data Sources looking to provide information on a Trade Item in more than one target market with more than one measurement system. In each target market, the Data Source has determined which measurement system is required.

Most commonly, the U.S. imperial measurement system is used in the U.S.A., and the metric system is most commonly used in other target markets. The final decision rests with the Data Source.



**Note:** Please refer to the [GS1 Package Measurement Rules](#).

### 6.2 When Would I Use This?

For all global measurement attributes, Data Sources require the ability to send either metric or imperial measurements, depending on the Target Market. For each Target Market, there will be only one value, as determined by the Data Source. The Data Source should provide the measurement system that is required in a specific target market.



**Important:** In the event there is a regulatory framework requiring a particular unit of measure, it is the Data Recipient's responsibility to ensure that local regulations are adhered to.

### 6.3 Attributes in Scope

The Data Source in each target market can provide only one value for weights, dimensions and temperatures. The following attributes, as relevant to the retail grocery community, represent a **sample** of where this would apply. There are other applicable attributes in GDSN, which are trading partner specific and are not addressed in this guidance document.

- depth
- grossWeight
- height
- quantityContained
- servingSize
- storageHandlingTemperatureMaximum
- storageHandlingTemperatureMinimum
- width

### 6.4 Business Rules

- Suppliers may use any valid unit of measure (UOM) and it is up to their Trading Partners to convert the UOM between increments within a measurement system (e.g., suppliers transact with pound measurement versus recipient who stores data as ounces inches versus feet; etc.).
- For those attributes that have code lists specified in the Business Message Standard, always use a valid value from the code list specified.
- For more information, please refer to the [GS1 Package Measurement Rules](#).

- If a Data Source uses the same measurement system for the same attribute in more than one Target Market, then the Data Source must take care to ensure that values are consistent (e.g., if sending Depth to both France and Germany in the metric system, it is acceptable to send 100 mm to one and 10 cm to the other).
- **Important:** The GTIN Management Standard must always be followed.
- When a truly global Trade Item crosses from a “metric” Target Market to an “imperial” Target Market (for example: UK to US), it is expected that the Data Source would ensure approximate conversions of data are made between the two measurement systems.

## 7 Populating Ranges, Minimums & Maximums, and Attribute Pairing

### 7.1 Minimums & Maximums

When populating data where there is a Minimum and Maximum set of values, these attributes should be populated with the lower limit in the minimum and the upper limit in the maximum. However, not all situations have a range for the information being requested.

- When there is a "Range of Values," the lower value is populated in the Minimum Value Field and the higher value is populated in the Maximum Value Field.
- When there is a "Less Than or Up To a Value," the Minimum Value Field is left null and the Maximum Value Field contains the upper limit value.
- When there is a "Greater Than or No Less Than Value," the Minimum Value Field contains the lower limit value and the Maximum Value Field is left null.
- When there is a "Single or Recommended Value," the same value is populated in the Minimum Value Field and the Maximum Value Field.

The table below gives guidance as best practice on how to populate.

**Table 7-1** Minimum / Maximum Best Practices

Information Type Available	Populated In	Value
Range of Lowest to Highest	Minimum Values Field	Lowest Value
	Maximum Values Field	Highest Value
Less Than a Value	Minimum Values Field	Null value
	Maximum Values Field	Highest Value
Greater Than a Value	Minimum Values Field	Lowest Value
	Maximum Values Field	Null Value
Single or Recommended Value	Minimum Values Field	Single Value populated in both fields
	Maximum Values Field	

## 7.2 Attribute Pairing Examples

**EXAMPLE 1:** A Trade Item has a storage temperature **range** of -5 F to 36 F. Since there is a range, both Minimum and Maximum values would be populated and would be different.

Attribute	Value	UoM
maximumTemperature	36	F
minimumTemperature	-5	F

**EXAMPLE 2:** A Trade Item has an individual unit size of **no more than** 5 oz. Since the value is a less than value, only Maximum value would be populated.

Attribute	Value	UoM
individualUnitMaximum	5	oz
individualUnitMinimum		

**EXAMPLE 3:** A Trade Item has an order quantity of **no less than** 12. Since the value is a greater than value, only Minimum value would be populated.

Attribute	Value
orderQuantityMaximum	
orderQuantityMinimum	12

**EXAMPLE 4:** A Trade Item has a recommended deliver to distribution center temperature of 25 F. Since there is no range, both Minimum and Maximum values would be populated and would be the same.

Attribute	Value	UoM
maximumTemperature	25	F
minimumTemperature	25	F

## 8 Items with Returnable Assets

Returnable assets are pieces of an item, primarily packaging or shipping items, which are used in the shipping, storage or other handling of the item but should be returned to the Manufacturer for reuse in future instances of the item. Examples of returnable assets include crates, totes, bins, dollies, etc. This chapter describes how information on items with returnable assets would be provided. It primarily focuses on the hierarchy and GTIN levels which might be communicated through GDSN. Each level would have attributes populated to describe it and its relation to other levels of the hierarchy.

### 8.1 When Would I Use This?

This approach would be used to help describe the different hierarchies used when returnable assets are assembled.

### 8.2 Examples of Returnable Assets

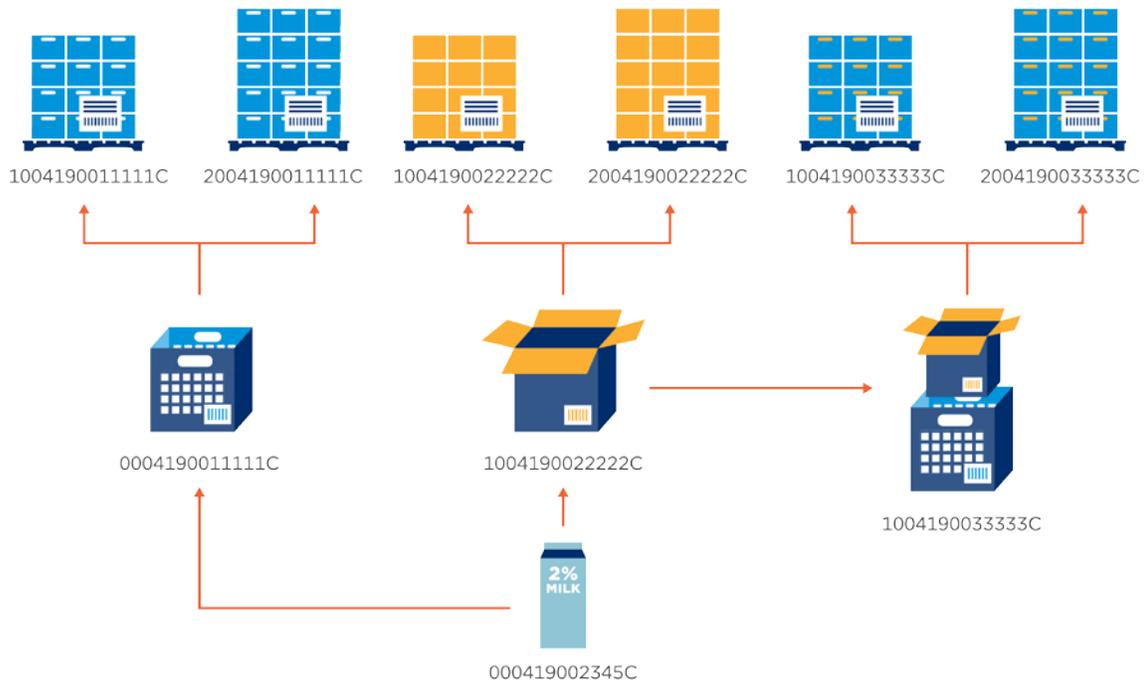
The following is an example diagram of a bag in box dairy product.

The item is a bladder of milk. The GTIN assigned to the bladder is a base level (i.e., zero level). This bladder can be shipped in three different styles of packaging:

- returnable crate,
- disposable box, or
- disposable box in a returnable crate.

Each of these layers can be given a new base level GTIN (i.e., zero level) as they are considered individual ordering levels in this example. Then, as other levels of the hierarchy are built, they are assigned GTINs built off of the appropriate zero level by changing the packaging indicator and the check digit (denoted with a "C").

**Figure 8-1** Returnable asset hierarchy example



## 9 Data Synchronization Information Flow

In the retail grocery industry there are various partners who are involved in the movement of products from the source to the consumer. It is important to understand how product data should flow from one partner to the next along the way. Knowing where the data came from and which pieces of information can be altered from the original message is important to understand how the information can be utilized. This section provides guidance as to how information should flow and which pieces of information can be altered along the way.

The information provided here is guidance on the best practice for product information flow. By Trading Partner agreement, data can flow from one party to another in a manner not presented in this chapter. For example, if a Manufacturer and a Retailer agree, product information can flow between the two even if the item is purchased and physically received from another party. It is important to note that because this is not best practice, it should not be expected practice. It is only accomplished through a specific arrangement between both parties outside of the GDSN Messaging structure.

### 9.1 Partner Naming Terms Defined

The following are naming terms used in this section. Understanding these terms will help the reader to follow along with the diagrams and text.

#### 9.1.1 Manufacturer

For the purpose of GDSN, the term *Manufacturer* applies to any party who manufactures or otherwise produces a product. The term Manufacturer can also refer to the Brand Owner. In other words (and in many cases), the Brand Owner is also the Manufacturer. For the purposes of GDSN, the terms Manufacturer and Brand Owner are interchangeable.

A Manufacturer is a sender of GDSN data (i.e., the data source for GDSN data about its products). Nonetheless, if the Manufacturer receives product information via GDSN from an upstream trading partner, the Manufacturer would also be a receiver of GDSN data.

#### 9.1.2 Distributor

The term *Distributor* applies to any party who provides product from a Manufacturer to a Retailer or Store. A Distributor is both a receiver and a sender of GDSN data. The Distributor's process and systems should allow synchronization of product information for a GTIN from multiple sources. Reconciliation of the multiple sets of product information should occur upon receipt by the Distributor's systems. Distributor-specific supply chain attributes may be changed and a Distributor "standard" record should be created/designated. (The [list of attributes](#) which a Distributor can change are provided below.) A copy of the original GDSN attributes as published should always be maintained as well.

#### 9.1.3 Re-Distributor

For this chapter, the term *Re-Distributor* applies to any party who provides product from a Distributor to a buyer. This party role can be performed by a Distributor or a Manufacturer (who is not the initial Manufacturer of the product). This party may also be referred to as a Buyer.

A Re-Distributor is both a receiver and a sender of GDSN data. The Re-Distributor's process and systems should allow synchronization of product information for a GTIN from multiple sources. Reconciliation of the multiple sets of product information should occur upon receipt by the Re-Distributor's systems. Re-Distributor specific supply chain attributes may be changed and a Re-Distributor "standard" record should be created/designated. (The [list of attributes](#) which a Re-Distributor can change are provided below.) A copy of the original GDSN attributes as published should always be maintained as well.

#### 9.1.4 Broker

For this chapter, the term *Broker* applies to any party who acts as a sales agent, or assists in the sale of a product (although Brokers do not typically take possession of a product). A Broker is a receiver of GDSN data. The Broker's process and systems should therefore allow for the synchronization of product information for a GTIN from multiple sources. Reconciliation of the multiple sets of product information should occur within the Broker's systems. A copy of the original GDSN attributes as published should always be maintained as well.

#### 9.1.5 Co-op / Buying Group

For this chapter, the term *Co-op/Buying Group* applies to any party who provides product buying as an aggregate service for a collection or group of buyers. A Co-op/Buying Group is a receiver of GDSN data. The Co-Op/Buying Group's process and systems should allow synchronization of product information for a GTIN from multiple sources. Reconciliation of the multiple sets of product information should occur upon receipt by the Co-Op/Buying Group's systems. A copy of the original GDSN attributes as published should always be maintained as well.

#### 9.1.6 Retailer

For this chapter, the term *Retailer* applies to any party who buys product to provide to a consumer either directly or through the use of stores. A Retailer can be a receiver of GDSN data. (If the Retailer in turn sends product information via GDSN to their Stores or business units, they will also be a sender of GDSN data, as is typically the case within a retail organization.) The Retailer's process and systems should allow for the synchronization of product information for a GTIN from multiple sources. Reconciliation of product information from multiple sources occurs within the Retailer's systems. A copy of the original GDSN attributes as published by the Manufacturer should always be maintained as well.

#### 9.1.7 Store

For this chapter, the term *Store* applies to any party who provides product directly to a consumer. This party is usually the retail outlet of a retail chain. A Store will only need to be a receiver of GDSN data if the Retailer utilizes GDSN to share product information via GDSN. (As mentioned in the previous section, this typically takes place within the Retailer's internal system.)

#### 9.1.8 3rd Party Service Provider

For this chapter, the term *3<sup>rd</sup> Party Service Provider* applies to any party who provides the ability to store, manipulate and/or share product information using GDSN and perhaps other mechanisms. A 3rd Party Service Provider is a receiver of GDSN data.

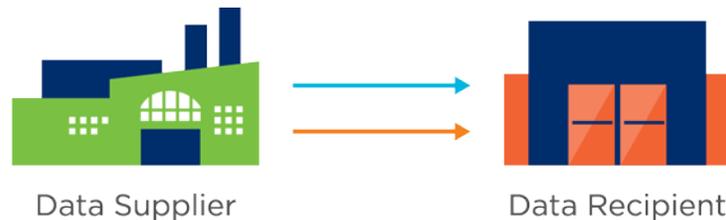
## 9.2 GDSN Product Information Flow

As discussed earlier, there are various partners who are involved in the movement of products from the source to the consumer in the retail grocery industry. This section describes and briefly introduces the basic information flows between partners, as well as some of the more complex information flows between retail grocery partners.

GDSN encourages product information to flow along the same pathways as the buying and selling of the product. Hence, the selling side is titled the Data Supplier and the buying side is titled the Data Recipient. The information contained in the GDSN message has elements which can be used to enhance the buying process (e.g., some attributes can have one value based on the buying relationship between Party A and Party B, and a different value when Party B sells the same product to Party C).

The following chart depicts a simplified view of the product information flow from the data supplier to the data recipient.

**Figure 9-1** GDSN Product information Flow



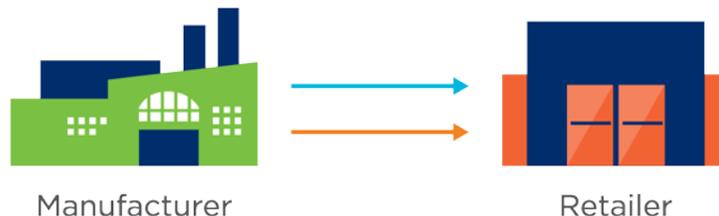
*The blue line between the parties is the GDSN itself.*

## 9.3 Retail Grocery Product Information Flow: Basic 2-Party Scenario

This scenario is the basic flow of product and product information from one side of the supply chain to the other for Manufacturer/National Brand products. For this scenario, the physical product flows from the Manufacturer to the Retailer. While not noted in the diagram for simplicity, the orders typically flow along the same line as the physical product. Product information should flow between the Trading Partners in the same fashion. The rationale for this approach is that the product information shared is appropriate for the buying relationship.

The chart below depicts the GDSN product information flow from the Manufacturer(s) to a Retailer which follows the flow of the product from Manufacturer(s) to the Retailer

**Figure 9-2** Retail Grocery Product Information Flow: Basic 2-Party Scenario



- *The blue line between the parties is the product information flow including the GDSN itself.*
- *The red line between the parties is the physical product flow.*

### 9.4 Retail Grocery Product Information Flow: Basic 3-Party Scenario

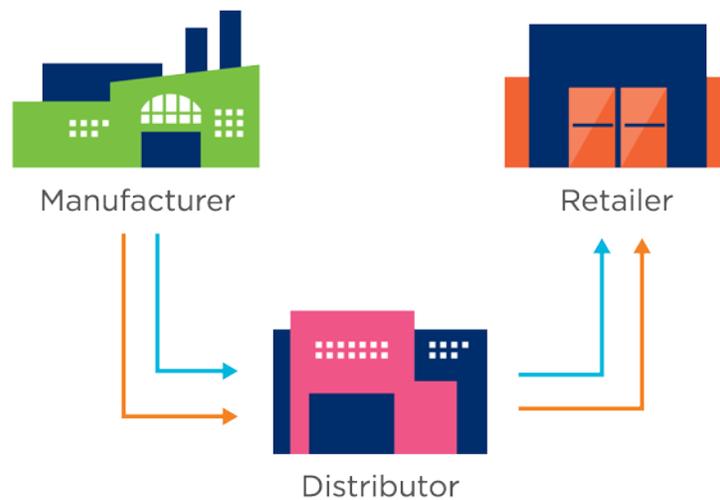
This scenario is the basic flow of product and product information from one side of the supply chain to the other for Manufacturer/National Brand products and Distributor Brand products. For this scenario, the physical product flows from the Manufacturer to the Distributor to the Retailer. While not noted in the diagram for simplicity, the orders typically flow along the same line as the physical product. Product information should flow between the Trading Partners in the same fashion.

Rationales for this approach:

- Some data in GDSN can be different when published from different parties. For example, there are attributes in GDSN for how the item is sold. The Manufacturer could have the Case as the orderable, dispatch and invoice unit with an order quantity of even case count, and the Distributor could have the Each as orderable, dispatch and invoice unit with an order quantity of an even each. This approach ensures information shared is appropriate for the buying relationship.
- Manufacturers do not have visibility to all parties who are buying their products. This makes direct publication to all parties impractical.

The following chart depicts product information flow where the Manufacturer sells national and distributor-branded products to a Distributor, and the Distributor sells national and distributor-branded products to the Retailer.

**Figure 9-3** Retail Grocery Product Information Flow: Basic 3-Party Scenario



- *The blue line between the parties is the product information flow including the GDSN itself.*
- *The red line between the parties is the physical product flow.*

### 9.5 Retail Grocery Product Information Flow: Expanded

This scenario is the basic flow of product and product information from one side of the supply chain to the other for Multi-Source Manufacturer/National Brand and Distributor Brand products. For Multi-Source or Distributor Branded product, there can be several Manufacturers for the same GTIN. For example, a Distributor has a product made for them by a Manufacturer on the east coast and a different Manufacturer on the west coast. All Manufacturers produce the product to the same specification, recipe and requirements. To the user of the product, there is no noticeable difference. The item has one GTIN assigned by the Distributor -- it is the same product just physically manufactured by 2

different parties. The Distributor may ask each of the Manufacturers to send a GDSN message to the recipients of that item to ensure correct data from the production run measures.

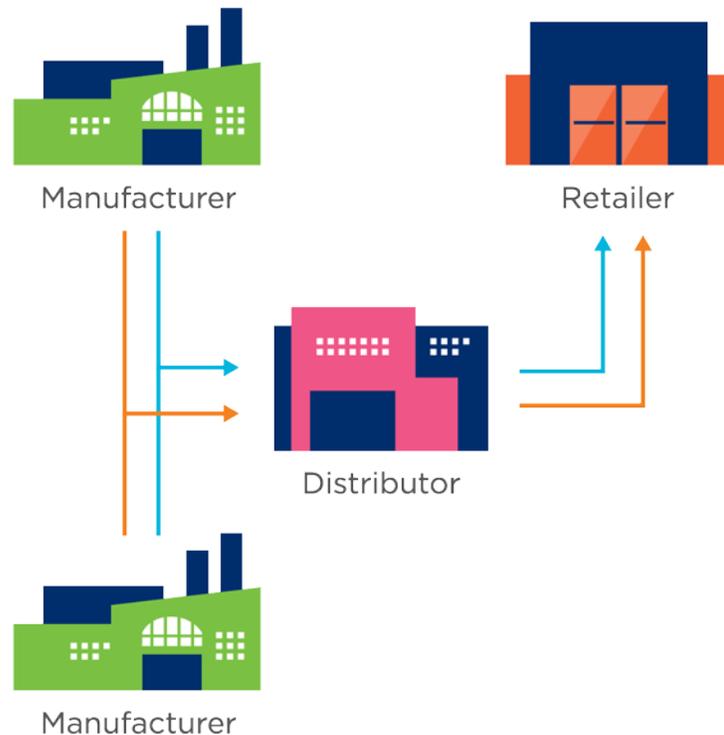
For this scenario, physical product flows from multiple Manufacturers to the Distributor to the Retailer. While not noted in the diagram for simplicity, the orders typically flow along the same line as the physical product. Product information should flow between the Trading Partners in the same fashion.

Rationales for this approach:

- Some data in GDSN can be different when published from different parties. For example, there are attributes in GDSN for how the item is sold. The Manufacturer could have the Case as the orderable, dispatch and invoice unit with an order quantity of even case count, and the Distributor could have the Each as orderable, dispatch and invoice unit with an order quantity of an even each. This approach ensures information shared is appropriate for the buying relationship.
- This approach minimizes the number of messages for the same product to Retailers.
- Manufacturers do not have visibility to all parties who are buying their products. This makes direct publication to all parties impractical.

The following chart depicts product information flow from one party to the next where multiple Manufacturers sell national and distributor branded products to a Distributor, and the Distributor sells national and distributor branded products to Retailers.

**Figure 9-4** Retail Grocery Product Information Flow: Expanded



- *The blue line between the parties is the product information flow including the GDSN itself.*
- *The red line between the parties is the physical product flow.*

## 9.6 Retail Grocery Product Information Flow: Brokers

For this scenario, the Manufacturer approves a Broker to represent the Manufacturer in a local marketplace. The Broker, representing the Manufacturer, negotiates the sale of product to Distributors. They also negotiate the sale of product to local Retailers through the Distributor on behalf of the Manufacturer.

This scenario is the basic flow of product and product information from one side of the supply chain to the other for Manufacturer/National Brand and Distributor Brand products where a Broker is involved in the ordering. The physical product flows from the Manufacturer to the Distributor to the Retailer. Orders flow through the Broker, who is acting as a clearinghouse for them. The Broker helps to bring Trading Partners together and/or establish contracts for purchasing products. Product information should flow between the Trading Partners along the physical product flow, with an additional feed being sent to the Broker for their use as well.

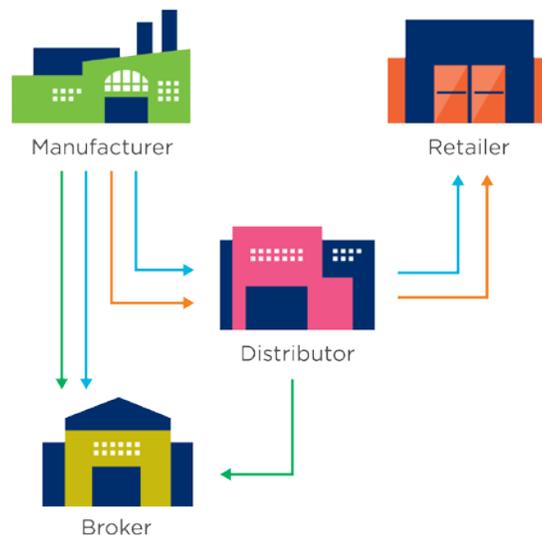
The Broker will only receive product information. Responsibility for sharing product information with the other parties via the GDSN remains with the Manufacturer. The Broker must become a GDSN-compliant entity and enable their systems to receive GDSN data, including receipt of the same GTIN from multiple sources as defined in other areas of this section.

Rationales for this approach:

- Some data in GDSN can be different when published from different parties. For example, there are attributes in GDSN for how the item is sold. The Manufacturer could have the Case as the orderable, dispatch and invoice unit with an order quantity of even case count, and the Distributor could have the Each as orderable, dispatch and invoice unit with an order quantity of an even each. This approach ensures information shared is appropriate for the buying relationship.
- Sharing the product information with the Broker allows for accurate records to be utilized in the sales and contracting phases.

The following chart depicts product information flow from one party to the next.

**Figure 9-5** Retail Grocery Product Information Flow: Brokers



- The blue line between the parties is the product information flow including the GDSN itself.
- The red line between the parties is the physical product flow.
- The green line between the parties is the order/PO flow.

## 9.7 Retail Grocery Product Information Flow: Re-Distributor

For this scenario, the Manufacturer sells National and Distributor-branded products to Re-Distributor. The Re-Distributor sells National and Distributor-branded products to the Distributor. The Distributor sells National and Distributor-branded products to the Retailer.

This scenario is the basic flow of product and product information from one side of the supply chain to the other for Manufacturer/National Brand and Distributor-Brand products where at least one Re-Distributor is involved. The physical product flows from the Manufacturer to the Re-Distributor to the Distributor to the Retailer. There can be more than one Re-Distributor utilized. While not noted in the diagram for simplicity, the orders typically flow along the same line as the physical product. Product information should flow between the Trading Partners in the same fashion.

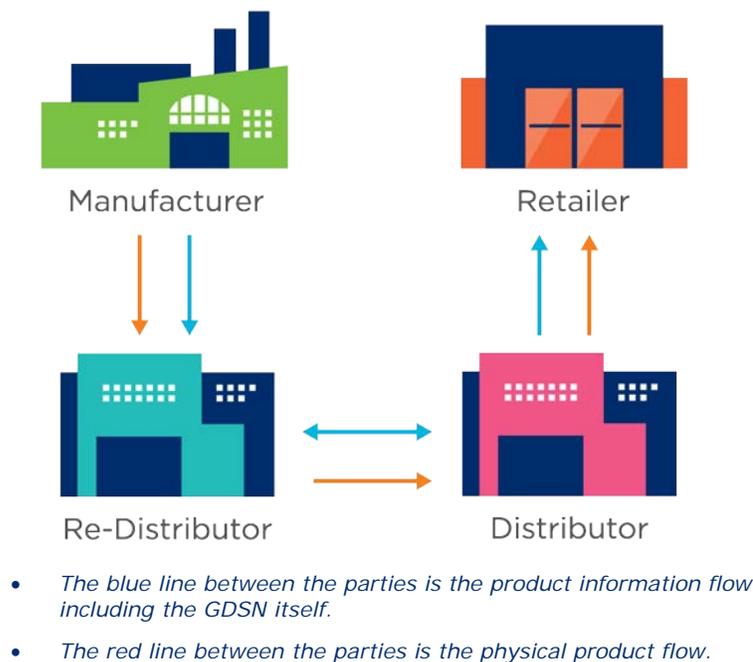
The Distributor may buy products directly from the Manufacturer on a regular basis and just “fill in” their inventory with purchases of the same item from the Re-Distributor. Differences in supply chain characteristics (such as Ti/Hi, Orderable Unit, or Available to Order Date) between the Manufacturer and the Re-Distributor will require the Distributor to receive multiple GDSN records for the same GTIN (similar to receiving product information on the same GTIN from multiple Manufacturers as defined in other areas of this section). A copy of the original GDSN attributes as published should always be maintained.

Rationales for this approach:

- Some data in GDSN can be different when published from different parties. For example, there are attributes in GDSN for how the item is sold. The Manufacturer could have the Case as the orderable, dispatch and invoice unit with an order quantity of even case count, and the Re-Distributor could have the Each as orderable, dispatch and invoice unit with an order quantity of an even each. This approach ensures information shared is appropriate for the buying relationship.
- Manufacturers do not have visibility to all parties who are buying their products. This makes direct publication to all parties impractical.

The following chart product information flow from one party to the next.

**Figure 9-6** Retail Grocery Product Information Flow: Re-Distributor



## 9.8 Retail Grocery Product Information Flow: Re-Distributor Expanded National Brand

Retail Organizations can deal directly with Manufacturers under certain conditions. They may establish large, often national, regional, or market supply contracts. These contracts typically account for variables in the supply chain such as transportation, promotions and marketing which serve to promote consistency in supply and other factors. “Retailers” in this scenario may include:

- National Chain Accounts
- Regional Chain Account
- Contract Management Organizations
- Schools, University and Healthcare Organizations
- Local Retail Stores

In this type of scenario, the Manufacturer negotiates the contract with the Retail Organization, and the Retailer approves the Distributor(s) from whom they will purchase the product(s) as there are often more than one Distributor in a given market, each serving a different channel. The Distributor then acquires product from the Manufacturer(s) or Re-Distributor and supplies the Retailer.

This scenario, encompassing most of the previous scenarios, is a complex flow of product and product information from one side of the supply chain to the other for Manufacturer/National Brand, and Distributor-Brand products where at least one Manufacturer and at least one Re-Distributor is involved.

For this scenario, the physical product flows from the Manufacturer(s) to the Re-Distributor(s) and/or to the Distributor, and from the Re-Distributor(s) to the Distributor then to the Retailer, based on approval from the Retailer. There can be more than one Manufacturer and/or Re-Distributor utilized. While not noted in the diagram for simplicity, the orders typically flow along the same line as the physical product for the main order flow. There are situations where orders flow from the Retailer and/or their Stores directly to the Distributor. Product information should flow between the Trading Partners as noted in previous scenarios. However, there may be additional Non-GDSN data flow from a Retailer to their Stores using internal systems.

The Retailer may receive product information directly from the Manufacturer in addition to the Distributor(s). The information received from the Manufacturers may align with specific contracts established between the two parties.

“Chain” Retail Store orders may be at the case or item level (not at the pallet level). Orders may be placed directly to the Distributor or via their corporate office depending on their internal systems. Product information used to generate these orders may be provided through the Retailer’s internal systems as opposed to GDSN. This non-GDSN Information should be built off of the product information supplied to the Retailer via its GDSN connection.

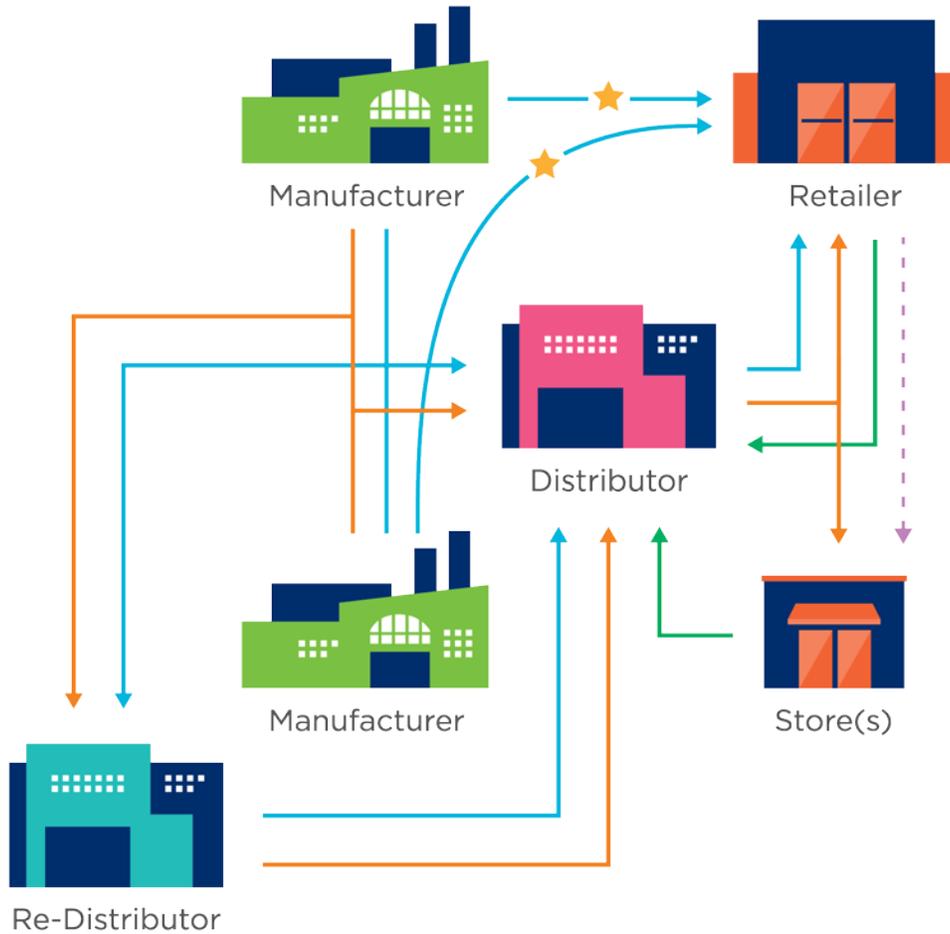
Product information may be received from multiple sources for the same product. Differences in supply chain characteristics (such as Ti/Hi, Orderable Unit, or Available to Order Date) from the different product information sources will require the Retailer to receive and reconcile multiple GDSN records for the same GTIN. A copy of the original GDSN attributes as published should always be maintained.

Rationales for this approach:

- Some data in GDSN can be different when published from different parties. For example, there are attributes in GDSN for how the item is sold. The Manufacturer could have the Case as the orderable, dispatch and invoice unit with an order quantity of even case count, and the Distributor could have the Each as orderable, dispatch and invoice unit with an order quantity of an even each. This approach ensures information shared is appropriate for the buying relationship.
- Product information can enable accurate information when a national contract is established.

The following chart depicts product information flow from one party to the next.

**Figure 9-7** Retail Grocery Product Information Flow: Re-Distributor Expanded National Brand



- The blue line between the parties is the product information flow including the GDSN itself.
- The red line between the parties is the physical product flow.
- The green line between the parties is the order/PO flow.
- The dashed purple line between the parties is non-GDSN product information flow.

## 9.9 Retail Grocery Product Information Flow: Re-Distributor Expanded Private Label

In this scenario, the Manufacturer negotiates a contract for product directly with a Retailer to produce **private label and/or proprietary branded** products. The Retailer approves local Distributor from whom they will purchase the product (s). The Distributor acquires product from Manufacturer(s) and/or Re-Distributors. The Retailers typically involved in this process are:

- National Chain Accounts
- Regional Chain Accounts

This scenario, encompassing most of the previous scenarios, is a complex flow of product and product information from one side of the supply chain to the other for the Retailer's Private Label or Proprietary products where at least one Manufacturer and at least one Re-Distributor is involved.

For this scenario, the physical product flows from the Manufacturer(s) to the Re-Distributor(s) and/or to the Distributor, and from the Re-Distributor(s) to the Distributor then to the Retailer, based on approval from the Retailer. There can be more than one Manufacturer and/or Re-Distributor utilized. While not noted in the diagram for simplicity, the orders typically flow along the same line as the physical product for the main order flow. There are situations where orders flow from the Retailer and/or their Stores directly to the Distributor. Product information should flow between the Trading Partners as noted in previous scenarios. However, there may be additional non-GDSN data flow from a Retailer to their Stores using internal systems.

The Retailer may receive product information directly from the Manufacturer in addition to the Distributor(s). The information received from the Manufacturers may align with specific contracts established between the two parties.

"Chain" Retailer Store orders may be at the case or item level (not the pallet level). Orders may be placed directly to the Distributor or via their corporate office depending on their internal systems. Product information used to generate these orders may be provided through the Retailer's internal systems as opposed to GDSN. This non-GDSN Information should be built off of the product information supplied to the Retailer via its GDSN connection.

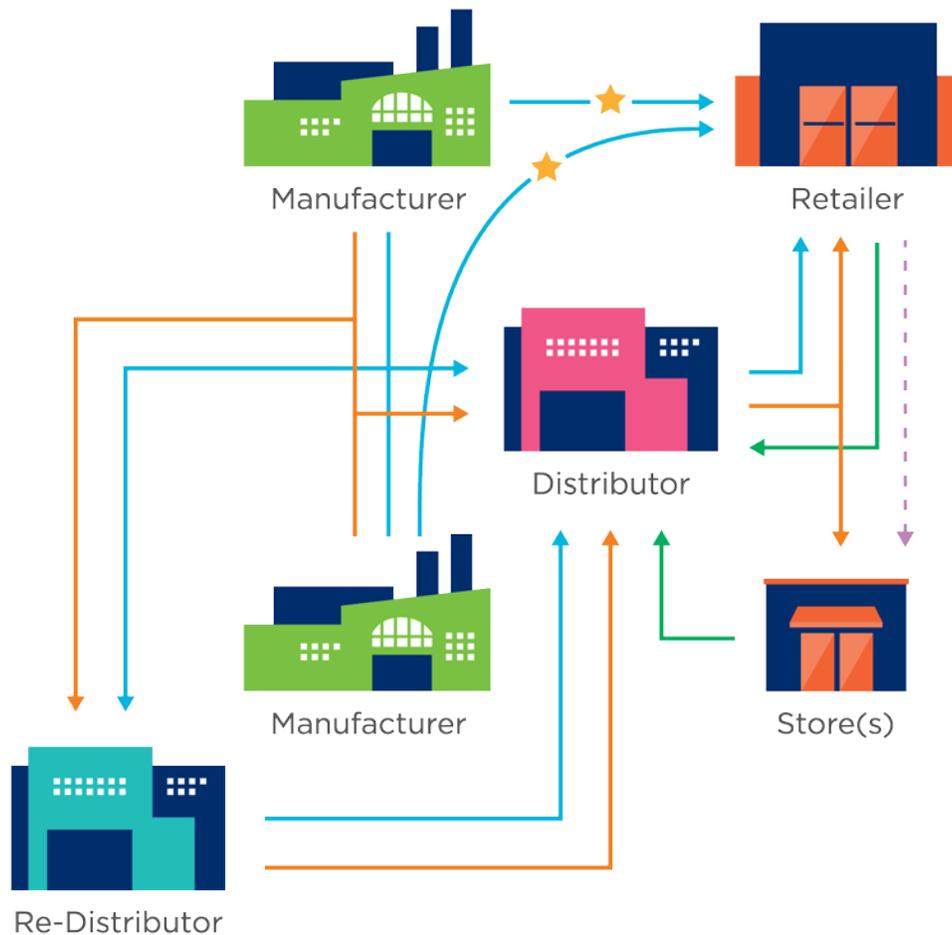
Product information may be received from multiple sources for the same product. Differences in supply chain characteristics (such as Ti/Hi, Orderable Unit, or Available to Order Date) from the different product information sources will require the Retailer to receive and reconcile multiple GDSN records for the same GTIN. A copy of the original GDSN attributes as published should always be maintained.

Rationales for this approach:

- Some data in GDSN can be different when published from different parties. For example, there are attributes in GDSN for how the item is sold. The Manufacturer could have the Case as the orderable, dispatch and invoice unit with an order quantity of even case count, and the Distributor could have the Each as orderable, dispatch and invoice unit with an order quantity of an even each. This approach ensures information shared is appropriate for the buying relationship.

The following chart depicts product information flow from one party to the next.

**Figure 9-8** Retail Grocery Product Information Flow: Re-Distributor Expanded Private Label



- The blue line between the parties is the product information flow including the GDSN itself.
- The red line between the parties is the physical product flow.
- The green line between the parties is the order/PO flow.
- The dashed purple line between the parties is non-GDSN product information flow.

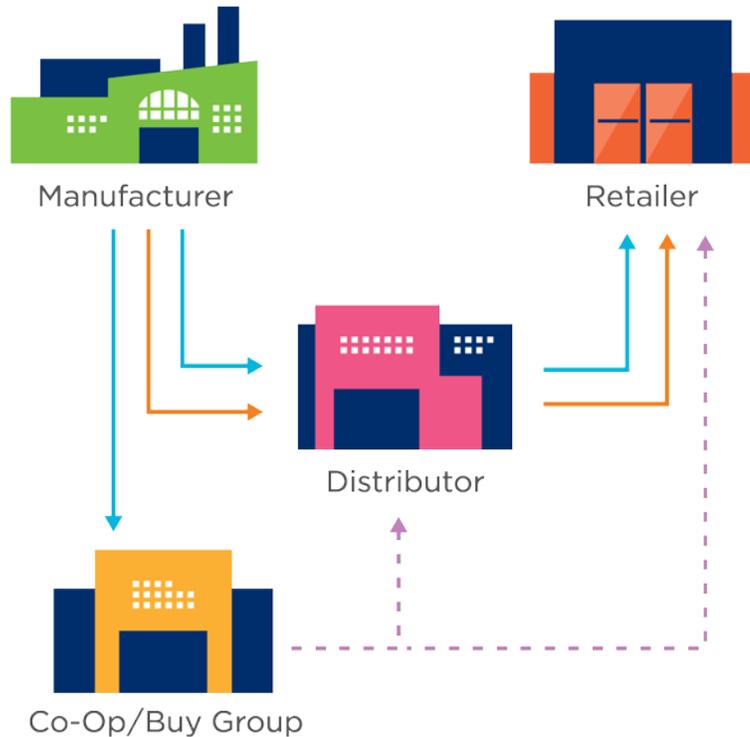
## 9.10 Retail Grocery Product Information Flow: Co-op / Buying Group

In this scenario, the Manufacturer negotiates contracts with a purchasing cooperative or buying group which utilizes a Distributor to handle product logistics. Retailers contract with the purchasing cooperative or buying group for products.

This scenario is a basic flow of product and product information from one side of the supply chain to the other where a Co-Op/Buying Group is involved. Distributors and Retailers utilizing a Co-op/Buying Group who have developed GDSN capability will receive product information through the GDSN from the Manufacturer. Distributors and Retailers utilizing a Co-op/Buying Group who have not developed GDSN capability will receive product information from the Co-Op/Buying Group through non-GDSN mechanisms. Non-GDSN product information should be marked with the effective date of last update from the Manufacturer. Product information received through the GDSN by the Co-op/Buying Group may be sent through the GDSN. Product Information received outside of the GDSN may not be sent through the GDSN.

The following chart depicts product information flow from one party to the next.

**Figure 9-9** Retail Grocery Product Information Flow: Co-op / Buying Group



- *The blue line between the parties is the product information flow including the GDSN itself.*
- *The red line between the parties is the physical product flow.*
- *The dashed purple line between the parties is non-GDSN product information flow.*

### 9.11 Retail Grocery Product Information Flow: 3rd Party Service Providers

Third Party Service Providers use product information for their tools and services offerings. Third Party Service Providers include:

- **Solution Providers** - Companies who act on behalf of an entity (e.g., Manufacturer, Distributor or Retailer) to facilitate product information publishing and/or receipt **via the GDSN**. They are an extension of the entity’s IT resources. These parties may receive product information via GDSN and/or non-GDSN messages. If receiving information via GDSN, the Solution Provider will need a GLN.
- **3<sup>rd</sup> Party IT Companies** - Companies who have a need to use foodservice product information for their tools and services offerings. Offerings may include services, web tools, and ordering catalogs. These parties may receive product information via GDSN and/or non-GDSN messages. If receiving information via GDSN, the 3<sup>rd</sup> Party IT Company will need a GLN.

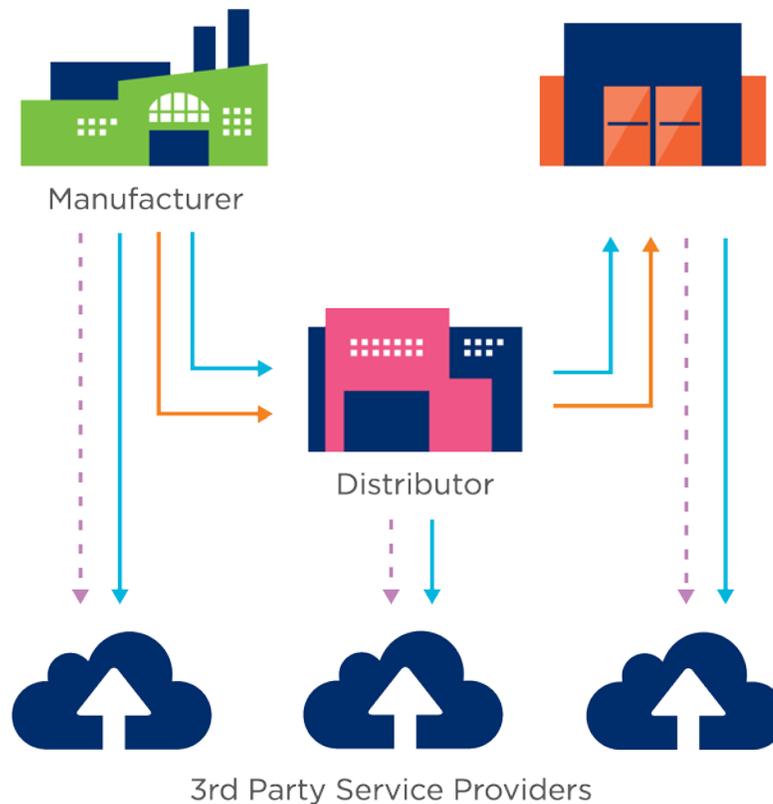
This scenario is a basic flow of product information from a Trading Partner to a 3rd Party Service Provider of their choosing.

Retail grocery companies may utilize 3rd Party Service Providers to work with GDSN data. For these services, product information may be shared directly between the company and the 3rd Party Service Providers as needed (i.e., does not require the use of GDSN). However, 3rd Party Service Providers should not be used to share data from one Trading Partner to the next. Instead, data should only be shared between and among Trading Partners via the GDSN in order to promote data integrity. For example:

- A Manufacturer may enter data into a 3<sup>rd</sup> Party Service Provider. Then, that data would be loaded into a GDSN-certified data pool to share with other Trading Partners using GDSN.
- A Data Recipient gets their data from a GDSN-certified data pool, and then may load the data into a 3<sup>rd</sup> Party Service Provider to integrate the information.

The following is a chart depicting product information flow from one party to the next.

**Figure 9-10** Retail Grocery Product Information Flow: 3<sup>rd</sup> Party Service Providers



- *The blue line between the parties is the product information flow including the GDSN itself.*
- *The red line between the parties is the physical product flow.*
- *The dashed purple line between the parties is non-GDSN product information flow.*

## 10 Downstream Changeability of Data Attributes

Based on the [Data Synchronization Information Flows](#) described in the previous section, there are several flows where an item message will be sent from a Manufacturer (Original Data Source) to a Distributor or other middle partner (i.e., Downstream Information Provider). At some point in the process, the Downstream Information Provider might elect to send a message on to their own set of Downstream Recipients (customers) which may include other Distributors or Retailers. In these scenarios, there are attributes which can be changed and others which should not be changed. This section is provided in order to mitigate any questions resulting from the business relationship as applied to GTIN attributes and the downstream GDSN message which contains them.

Examples of Attributes which can and cannot be changed:

- **Dimensions (Height, Depth, and Width)** - These attributes are inherent to the item and do not change just because a different party is selling the item.
- **Is Trade Item Orderable, Despatch Unit, Invoice Unit** - These values can change based on the selling relationship and are not inherent to the item only. A Manufacturer may only sell in even case amounts, but the Distributor may break the case and allow orders, shipments, and invoices at lower levels.

### 10.1 Basic Rules

1. All efforts should be made to have the information populated in the original message from the Manufacturer to avoid the possibility of incorrect data being populated by a Downstream Information Provider.
2. While an attribute is allowed to be changed, an attribute does not have to change.
3. The business relationship between the Downstream Information Provider and the Downstream Recipient will determine if a change is necessary or warranted.
4. If an attribute is not provided by the Manufacturer, but is needed in downstream processes, a Downstream Information Provider **may** populate the attribute with the correct value.
5. Attribute content which has not been provided by the Manufacturer **may** be provided by the Downstream Information Provider even if this table states the attribute is not changeable.

### 10.2 Working with the Table

Where an attribute is changeable, the table includes examples of potential rationales for why a change might occur to help clarify the ability to change.

**Table 10-1** Downstream Changeability of Attributes

RGI Common Name	GS1 Global Data Dictionary Tag	RGI Changeable Downstream?
Additives	additiveName	NO
Additives	levelOfContainmentCode	NO
Alcohol Information	alcoholicBeverageSubregion	NO
Alcohol Information	alcoholicBeverageSugarContent ( <i>value and UOM</i> )	NO
Alcohol Information	alcoholicPermissionLevel	NO
Alcohol Information	alcoholProof	NO
Alcohol Information	degreeOfOriginalWort	NO
Alcohol Information	percentageOfAlcoholByVolume	NO
Alcohol Information	vintage	NO
Alcohol Information	vintner	NO (not Currently Recommended for use)
Alcohol Information	isTradeItemAQualityVintageAlcoholProduct	NO
Allergen Information	allergenStatement	NO
Allergen Information	allergenSpecificationAgency	NO
Allergen Information	allergenSpecificationName	NO
Allergen Information	allergenTypeCode	NO
Allergen Information	isAllergenRelevantDataProvided	NO
Allergen Information	levelOfContainmentCode	NO
Allergen Information	allergenRelevantDataProvidedDateTime	NO
BarCode / Data Carrier	dataCarrierTypeCode	YES - Can only Add additional values if applied by the downstream Information Provider.
BarCode / Data Carrier	dataCarrierFamilyTypeCode	YES - Can only Add additional values if applied by the downstream Information Provider.
Battery Information	areBatteriesBuiltIn	NO
Battery Information	areBatteriesIncluded	NO
Battery Information	areBatteriesRequired	NO
Battery Information	batteryTechnologyTypeCode	NO
Battery Information	batteryTypeCode	NO
Battery Information	batteryWeight ( <i>value and UOM</i> )	NO
Battery Information	powerSupplyTypeCode	NO
Battery Information	quantityOfBatteriesBuiltIn	NO
Battery Information	quantityOfBatteriesRequired	NO
Brand Name	brandName	NO
Brand Name	subBrand	NO
Brand Name	languageSpecificBrandName	NO

RGI Common Name	GS1 Global Data Dictionary Tag	RGI Changeable Downstream?
Brand Name	languageSpecificSubbrandname	NO
Catch Weight	isTradeItemAVariableUnit	NO
Certifications	certificationAgency	YES - Can only Add additional values if applied by the downstream Information Provider.
Certifications	certificationEffectiveEndDateTime	YES - Can only Add additional values if applied by the downstream Information Provider.
Certifications	certificationEffectiveStartDateTime	YES - Can only Add additional values if applied by the downstream Information Provider.
Certifications	certificationIdentification	YES - Can only Add additional values if applied by the downstream Information Provider.
Certifications	certificationStandard	YES - Can only Add additional values if applied by the downstream Information Provider.
Certifications	additionalCertificationOrganisationIdentifier	YES - Can only Add additional values if applied by the downstream Information Provider.
Certifications	certificationAssessmentDateTime	YES - Can only Add additional values if applied by the downstream Information Provider.
Certifications	certificationIssuanceDateTime	YES - Can only Add additional values if applied by the downstream Information Provider.
Certifications	certificationOrganisationIdentifier	YES - Can only Add additional values if applied by the downstream Information Provider.
Certifications	certificationValue	YES - Can only Add additional values if applied by the downstream Information Provider.
Chemical Ingredient	chemicalIngredientConcentration ( <i>value and UOM</i> )	NO
Chemical Ingredient	chemicalIngredientConcentrationBasis	NO
Chemical Ingredient	chemicalIngredientName	NO
Chemical Ingredient	rEACHChemicalRegistrationNumber	NO
Chemical Ingredient	chemicalPhysicalStateCode	NO
Chemical Ingredient	chemicalPropertyAdditionalDescription	NO
Chemical Ingredient	chemicalPropertyCode	NO
Chemical Ingredient	chemicalPropertyName	NO
Chemical Ingredient	chemicalPropertyTypeCode	NO
Chemical Ingredient Organization List	chemicalIngredientIdentification	NO
Chemical Ingredient Organization List	chemicalIngredientScheme	NO
Chemical Ingredient Organization List	chemicalIngredientOrganisation	NO
Chemical Regulation Information	chemicalRegulationAgency	NO

RGI Common Name	GS1 Global Data Dictionary Tag	RGI Changeable Downstream?
Chemical Regulation Information	chemicalRegulationName	NO
Chemical Regulation Information	regulatedChemicalDescription	NO
Chemical Regulation Information	regulatedChemicalIdentifierCodeReference	NO
Chemical Regulation Information	regulatedChemicalName	NO
Chemical Regulation Information	regulatedChemicalSunsetDateTime	NO
Chemical Regulation Information	technicalChemicalName	NO
Chemical Regulation Information	testCriteriaDescription	NO
Child Trade Item	quantityOfNextLowerLevelTradeItem	NO
Child Nutrition Information	childNutritionQualifierCode	NO
Color	colourCode	YES
Color	codeListAgencyName	YES
Color	colourDescription	YES
Color	colourCodeListCode	YES
Company Name (Brand Owner)	brandOwner	NO
Company Name (Brand Owner)	partyRoleCode (=Brand Owner)	NO
Company Name (Brand Owner)	partyName	NO
Company Name (Brand Owner)	gln	NO
Company Name (Brand Owner)	partyAddress	NO
Company Name (Brand Owner)	additionalPartyIdentification	NO
Company Name (Brand Owner)	additionalPartyIdentificationTypeCode	NO
Company Name (Information Provider)	informationProviderOfTradeItem	YES - GDSN Rules require the actual provider of the message be listed.
Company Name (Information Provider)	partyRoleCode (=Information Provider)	YES - GDSN Rules require the actual provider of the message be listed.
Company Name (Information Provider)	partyName	YES - GDSN Rules require the actual provider of the message be listed.
Company Name (Information Provider)	gln	YES - GDSN Rules require the actual provider of the message be listed.

RGI Common Name	GS1 Global Data Dictionary Tag	RGI Changeable Downstream?
Company Name (Information Provider)	partyAddress	YES - GDSN Rules require the actual provider of the message be listed.
Company Name (Information Provider)	additionalPartyIdentification	YES - GDSN Rules require the actual provider of the message be listed.
Company Name (Information Provider)	additionalPartyIdentificationTypeCode	YES - GDSN Rules require the actual provider of the message be listed.
Company Name (Manufacturer)	manufacturerOfTradeItem	YES - Can only be changed if downstream Information Provider or Retailer is the Private Brand Owner and lists themselves as the Manufacturer for the downstream recipients.
Company Name (Manufacturer)	partyRoleCode (=Manufacturer)	YES - Can only be changed if downstream Information Provider or Operator is the Private Brand Owner and lists themselves as the Manufacturer for the downstream recipients.
Company Name (Manufacturer)	partyName	YES - Can only be changed if downstream Information Provider or Operator is the Private Brand Owner and lists themselves as the Manufacturer for the downstream recipients.
Company Name (Manufacturer)	gln	YES - Can only be changed if downstream Information Provider or Operator is the Private Brand Owner and lists themselves as the Manufacturer for the downstream recipients.
Company Name (Manufacturer)	partyAddress	YES - Can only be changed if downstream Information Provider or Operator is the Private Brand Owner and lists themselves as the Manufacturer for the downstream recipients.
Company Name (Manufacturer)	additionalPartyIdentification	YES - Can only be changed if downstream Information Provider or Operator is the Private Brand Owner and lists themselves as the Manufacturer for the downstream recipients.
Company Name (Manufacturer)	additionalPartyIdentificationTypeCode	YES - Can only be changed if downstream Information Provider or Operator is the Private Brand Owner and lists themselves as the Manufacturer for the downstream recipients.
Components of a Product	componentDescription	NO
Components of a Product	componentIdentification	NO
Components of a Product	componentNumber	NO
Components of a Product	extension	VARIABLES - See the actual attributes which are being populated for their ability to change or not.
Components of a Product	contentsDescription	NO
Components of a Product	gpcCategoryCode (for component)	NO
Components of a Product	nonMarkedTradeItemComponents	NO
Components of a Product	totalNumberOfComponents	NO
Components of a Product	numberOfPiecesInSet	NO

RGI Common Name	GS1 Global Data Dictionary Tag	RGI Changeable Downstream?
Consumer Instructions	productUsageBodyLocationCode	NO
Country of Origin (Item Level)	countryCode <i>(for countryOfOrigin)</i>	YES - Can only Add additional values if applied by the downstream Information Provider.
Country of Origin (Item Level)	countryOfOrigin	YES - Can only Add additional values if applied by the downstream Information Provider.
Country of Origin (Item Level)	countrySubdivisionCode <i>(for countryOfOrigin)</i>	YES - Can only Add additional values if applied by the downstream Information Provider.
Country of Origin (Item Level)	countryOfActivity	YES - Can only Add additional values if applied by the downstream Information Provider.
Country of Origin (Item Level)	productActivityRegionDescription	YES - Can only Add additional values if applied by the downstream Information Provider.
Country of Origin (Item Level)	productActivityTypeCode	YES - Can only Add additional values if applied by the downstream Information Provider.
Country of Origin (Item Level)	countryOfOriginStatement	YES - Can only Add additional values if applied by the downstream Information Provider.
Country of Origin (Item Level)	productActivityRegionZoneCodeReference	YES - Can only Add additional values if applied by the downstream Information Provider.
Country of Origin (Item Level)	provenanceStatement	YES - Can only Add additional values if applied by the downstream Information Provider.
Dairy Fish Meat Poultry Information	casingTareWeight <i>(value and UOM)</i>	NO
Dairy Fish Meat Poultry Information	catchMethodCode	NO
Dairy Fish Meat Poultry Information	fatInMilkContent	NO
Dairy Fish Meat Poultry Information	isHomogenised	NO
Dairy Fish Meat Poultry Information	productionMethodForFishAndSeafoodCode	NO
Dairy Fish Meat Poultry Information	speciesForFisheryStatisticsPurposesCode	NO
Dairy Fish Meat Poultry Information	speciesForFisheryStatisticsPurposesName	NO
Dairy Fish Meat Poultry Information	storageStateCode	NO
Dangerous Goods/Hazardous Information	classOfDangerousGoods	NO
Dangerous Goods/Hazardous Information	dangerousGoodsPackingGroup	NO
Dangerous Goods/Hazardous Information	dangerousGoodsTechnicalName	NO
Dangerous Goods/Hazardous Information	unitedNationsDangerousGoodsNumber	NO

RGI Common Name	GS1 Global Data Dictionary Tag	RGI Changeable Downstream?
Dangerous Goods/ Hazardous Information	dangerousGoodsClassificationCode	NO
Dangerous Goods/ Hazardous Information	dangerousGoodsHazardousCode	NO
Dangerous Goods/ Hazardous Information	dangerousGoodsShippingName	NO
Dangerous Goods/ Hazardous Information	dangerousGoodsSpecialProvisions	NO
Dangerous Goods/ Hazardous Information	dangerousGoodsTransportCategoryCode	NO
Dangerous Goods/ Hazardous Information	dangerousHazardousLabelNumber	NO
Dangerous Goods/ Hazardous Information	dangerousHazardousLabelSequenceNumber	NO
Dangerous Goods/ Hazardous Information	eRGNumber	NO
Dangerous Goods/ Hazardous Information	extremelyHazardousSubstanceQuantity	NO
Dangerous Goods/ Hazardous Information	hazardousClassSubsidiaryRiskCode	NO
Dangerous Goods/ Hazardous Information	netMassOfExplosives ( <i>value and UOM</i> )	NO
Dangerous Goods/ Hazardous Information	dangerousGoodsLimitedQuantitiesCode	NO
Dangerous Goods/ Hazardous Information	dangerousGoodsPackagingTypeCode	NO
Dangerous Substance (Ingredient Level)	isDangerousSubstance	NO
Dangerous Substance (Ingredient Level)	controlOfHazardousSubstancesRegulationsAgency	NO
Dangerous Substance (Ingredient Level)	controlOfHazardousSubstancesRegulationsRegulationName	NO
Dangerous Substance (Ingredient Level)	dangerousSubstanceGasDensity ( <i>value and UOM</i> )	NO
Dangerous Substance (Ingredient Level)	dangerousSubstanceHeatOfCombustion	NO
Dangerous Substance (Ingredient Level)	dangerousSubstanceName	NO
Dangerous Substance (Ingredient Level)	dangerousSubstancePhaseOfMatterCode	NO
Dangerous Substance (Ingredient Level)	dangerousSubstancesWaterSolubilityCode	NO
Dangerous Substance (Ingredient Level)	dangerousSubstanceWasteCode	NO

RGI Common Name	GS1 Global Data Dictionary Tag	RGI Changeable Downstream?
Dangerous Substance (Ingredient Level)	flammableSubstanceMaximumPercent	NO
Dangerous Substance (Ingredient Level)	flammableSubstanceMinimumPercent	NO
Dangerous Substance (Ingredient Level)	isDangerousSubstanceAMixture	NO
Dangerous Substance (Ingredient Level)	riskPhraseCode	NO
Dangerous Substance (Ingredient Level)	safetyPhraseCode	NO
Dangerous Substance (Ingredient Level)	waterHazardCode	NO
Date information on Package	tradeItemDateOnPackagingFormatName	NO
Date information on Package	tradeItemDateOnPackagingFormatTypeCode	NO
Date information on Package	tradeItemDateOnPackagingLocation	NO
Delivery Purchasing Information	orderSizingFactor	YES - Can be changed or added (if not provided from supplier) based on how the downstream Information Provider is set up to build loads. This can specifically be different if the downstream Information Provider breaks cases and the original Data Source does not.
Delivery Purchasing Information	startAvailabilityDateTime	YES - Will change with each publication of the message. This signifies when the item is available from the Information Provider of the message. This may not be a date in the past.
Delivery Purchasing Information	consumerFirstAvailabilityDateTime	NO
Delivery Purchasing Information	firstDeliveryDateTime	YES
Delivery Purchasing Information	firstOrderDateTime	YES
Delivery Purchasing Information	firstShipDateTime	YES
Delivery Purchasing Information	goodsPickupLeadTime	YES
Delivery Purchasing Information	isOneTimeBuy	YES
Delivery Purchasing Information	isProductCustomizable	NO
Delivery Purchasing Information	isTradeItemShippedInMultipleContainers	NO
Delivery Purchasing Information	lastOrderDateTime	YES

RGI Common Name	GS1 Global Data Dictionary Tag	RGI Changeable Downstream?
Delivery Purchasing Information	lastShipDateTime	YES
Delivery Purchasing Information	orderingUnitOfMeasure	YES - Can be changed or added (if not provided from supplier) based on how the downstream Information Provider is set up to build loads. This can specifically be different if the downstream Information Provider breaks cases and the original Data Source does not.
Delivery Purchasing Information	orderQuantityMaximum	YES - Can be changed or added (if not provided from supplier) based on how the downstream Information Provider is set up to build loads. This can specifically be different if the downstream Information Provider breaks cases and the original Data Source does not.
Delivery Purchasing Information	orderQuantityMinimum	YES - Can be changed or added (if not provided from supplier) based on how the downstream Information Provider is set up to build loads. This can specifically be different if the downstream Information Provider breaks cases and the original Data Source does not.
Delivery Purchasing Information	orderQuantityMultiple	YES - Can be changed or added (if not provided from supplier) based on how the downstream Information Provider is set up to build loads. This can specifically be different if the downstream Information Provider breaks cases and the original Data Source does not.
Delivery Purchasing Information	shippingQuantityMinimum	YES - Can be changed or added (if not provided from supplier) based on how the downstream Information Provider is set up to build loads. This can specifically be different if the downstream Information Provider breaks cases and the original Data Source does not.
Delivery Purchasing Information	startDateTimeOfExclusivity	YES
Display Information	displayTypeCode	NO
Display Information	hasDisplayReadyPackaging	NO
Display Information	isTradeItemADisplayUnit	NO
Distribution Information	distributionMethodCode	YES
Distribution Information	isDistributionMethodPrimary	YES
Distribution Information	orderingLeadTime	YES
EAN UCC Code and Type	gs1TradeItemIdentificationKeyCode	NO
EAN UCC Code and Type	gs1TradeItemIdentificationKeyValue	YES - Can only Add additional values if applied by the downstream Information Provider.
EAN UCC Code and Type	isBarcodeDerivable	YES - Can only Add additional values if applied by the downstream Information Provider.

RGI Common Name	GS1 Global Data Dictionary Tag	RGI Changeable Downstream?
Effective Date of Change	effectiveDateTime	YES
Farming and Processing Information	geneticallyModifiedDeclarationCode <i>(Item level)</i>	NO
Farming and Processing Information	growingMethodCode	YES - Can only Add additional values if applied by the downstream Information Provider.
Farming and Processing Information	irradiatedCode	YES - Can only Add additional values if applied by the downstream Information Provider.
Farming and Processing Information	maturationMethodCode	NO
Farming and Processing Information	postHarvestTreatmentChemicalCode	NO
Farming and Processing Information	postProcessTradeItemTreatmentPhysicalCode	NO
Farming and Processing Information	sourceAnimalCode	NO
File Link Information	alternateText	NO
File Link Information	fileSequenceNumber	NO
File Link Information	titleText	NO
Fire Fighting Information	extinguishingMediaDescription	NO
Fire Fighting Information	fireFighterProtectiveEquipmentDescription	NO
Fire Fighting Information	flammablePropertiesDescription	NO
Food Preparation Information	convenienceLevelPercent	NO
Food Preparation Information	manufacturerPreparationTypeCode	NO
Food Preparation Information	maximumOptimumConsumptionTemperature <i>(value and UOM)</i>	NO
Food Preparation Information	minimumOptimumConsumptionTemperature <i>(value and UOM)</i>	NO
Food Preparation Information	numberOfServingsRangeDescription	NO
Food Preparation Information	preparationConsumptionPrecautions	NO
Food Preparation Information	recipe	YES

RGI Common Name	GS1 Global Data Dictionary Tag	RGI Changeable Downstream?
For More Information (Contact Information)	partyRoleCode (= Other)	YES - Contact information is based on the sales relationship. The downstream Information Provider should only pass their Consumer Support contact as this is the consumer facing information contact. All other contacts are for the relationship between the Supplier and the downstream Information Provider as part of their sales relationship and not applicable to any other sales relationship.
For More Information (Contact Information)	gln (Entity)	YES - Contact information is based on the sales relationship. The downstream Information Provider should only pass their Consumer Support contact as this is the consumer facing information contact. All other contacts are for the relationship between the Supplier and the downstream Information Provider as part of their sales relationship and not applicable to any other sales relationship.
For More Information (Contact Information)	partyName	YES - Contact information is based on the sales relationship. The downstream Information Provider should only pass their Consumer Support contact as this is the consumer facing information contact. All other contacts are for the relationship between the Supplier and the downstream Information Provider as part of their sales relationship and not applicable to any other sales relationship.
For More Information (Contact Information)	contactTypeCode	YES - Contact information is based on the sales relationship. The downstream Information Provider should only pass their Consumer Support contact as this is the consumer facing information contact. All other contacts are for the relationship between the Supplier and the downstream Information Provider as part of their sales relationship and not applicable to any other sales relationship.
For More Information (Contact Information)	availableTime	YES - Contact information is based on the sales relationship. The downstream Information Provider should only pass their Consumer Support contact as this is the consumer facing information contact. All other contacts are for the relationship between the Supplier and the downstream Information Provider as part of their sales relationship and not applicable to any other sales relationship.
For More Information (Contact Information)	communicationChannelCode	YES - Contact information is based on the sales relationship. The downstream Information Provider should only pass their Consumer Support contact as this is the consumer facing information contact. All other contacts are for the relationship between the Supplier and the downstream Information Provider as part of their sales relationship and not applicable to any other sales relationship.

RGI Common Name	GS1 Global Data Dictionary Tag	RGI Changeable Downstream?
For More Information (Contact Information)	communicationValue	YES - Contact information is based on the sales relationship. The downstream Information Provider should only pass their Consumer Support contact as this is the consumer facing information contact. All other contacts are for the relationship between the Supplier and the downstream Information Provider as part of their sales relationship and not applicable to any other sales relationship.
For More Information (Contact Information)	afterHoursCommunicationChannel	YES - Contact information is based on the sales relationship. The downstream Information Provider should only pass their Consumer Support contact as this is the consumer facing information contact. All other contacts are for the relationship between the Supplier and the downstream Information Provider as part of their sales relationship and not applicable to any other sales relationship.
For More Information (Contact Information)	communicationChannelName	YES - Contact information is based on the sales relationship. The downstream Information Provider should only pass their Consumer Support contact as this is the consumer facing information contact. All other contacts are for the relationship between the Supplier and the downstream Information Provider as part of their sales relationship and not applicable to any other sales relationship.
For More Information (Contact Information)	departmentName	YES - Contact information is based on the sales relationship. The downstream Information Provider should only pass their Consumer Support contact as this is the consumer facing information contact. All other contacts are for the relationship between the Supplier and the downstream Information Provider as part of their sales relationship and not applicable to any other sales relationship.
For More Information (Contact Information)	jobTitle	YES - Contact information is based on the sales relationship. The downstream Information Provider should only pass their Consumer Support contact as this is the consumer facing information contact. All other contacts are for the relationship between the Supplier and the downstream Information Provider as part of their sales relationship and not applicable to any other sales relationship.
For More Information (Contact Information)	personName	YES - Contact information is based on the sales relationship. The downstream Information Provider should only pass their Consumer Support contact as this is the consumer facing information contact. All other contacts are for the relationship between the Supplier and the downstream Information Provider as part of their sales relationship and not applicable to any other sales relationship.

RGI Common Name	GS1 Global Data Dictionary Tag	RGI Changeable Downstream?
For More Information (Contact Information)	responsibility	YES - Contact information is based on the sales relationship. The downstream Information Provider should only pass their Consumer Support contact as this is the consumer facing information contact. All other contacts are for the relationship between the Supplier and the downstream Information Provider as part of their sales relationship and not applicable to any other sales relationship.
For More Information (Contact Information)	additionalPartyIdentification	YES - Contact information is based on the sales relationship. The downstream Information Provider should only pass their Consumer Support contact as this is the consumer facing information contact. All other contacts are for the relationship between the Supplier and the downstream Information Provider as part of their sales relationship and not applicable to any other sales relationship.
For More Information (Contact Information)	partyAddress	YES - Contact information is based on the sales relationship. The downstream Information Provider should only pass their Consumer Support contact as this is the consumer facing information contact. All other contacts are for the relationship between the Supplier and the downstream Information Provider as part of their sales relationship and not applicable to any other sales relationship.
For More Information (Contact Information)	additionalPartyIdentification	YES - Contact information is based on the sales relationship. The downstream Information Provider should only pass their Consumer Support contact as this is the consumer facing information contact. All other contacts are for the relationship between the Supplier and the downstream Information Provider as part of their sales relationship and not applicable to any other sales relationship.
For More Information (Contact Information)	contactAddress	YES - Contact information is based on the sales relationship. The downstream Information Provider should only pass their Consumer Support contact as this is the consumer facing information contact. All other contacts are for the relationship between the Supplier and the downstream Information Provider as part of their sales relationship and not applicable to any other sales relationship.
For More Information (Contact Information)	contactDescription	YES - Contact information is based on the sales relationship. The downstream Information Provider should only pass their Consumer Support contact as this is the consumer facing information contact. All other contacts are for the relationship between the Supplier and the downstream Information Provider as part of their sales relationship and not applicable to any other sales relationship.

RGI Common Name	GS1 Global Data Dictionary Tag	RGI Changeable Downstream?
For More Information (Contact Information)	contactName	YES - Contact information is based on the sales relationship. The downstream Information Provider should only pass their Consumer Support contact as this is the consumer facing information contact. All other contacts are for the relationship between the Supplier and the downstream Information Provider as part of their sales relationship and not applicable to any other sales relationship.
GHS Detail	gHSSignalwordsCode	NO
GHS Detail	gHSSymbolDescriptionCode	NO
GHS Hazard Statement	hazardStatementsCode	NO
GHS Hazard Statement	hazardStatementsDescription	NO
GHS Precautionary Statement	precautionaryStatementsCode	NO
GHS Precautionary Statement	precautionaryStatementsDescription	NO
Global Product Classification (GPC)	additionalTradeItemClassificationCodeSequenceNumber	NO
Global Product Classification (GPC)	gpcCategoryCode	NO
Global Product Classification (GPC)	gpcAttributeTypeCode	NO
Global Product Classification (GPC)	gpcAttributeTypeDefinition	NO
Global Product Classification (GPC)	gpcAttributeTypeName	NO
Global Product Classification (GPC)	gpcAttributeValueCode	NO
Global Product Classification (GPC)	gpcAttributeValueName	NO
Global Product Classification (GPC)	gpcCategoryDefinition	NO
Global Product Classification (GPC)	gpcCategoryName	NO
Grade Code	gradeCodeReference	NO
Grade Code	codeListAgencyName	NO
Grade Code	codeListName	NO
GTIN	gtin	NO
Handling Information	stackingPatternTypeCode	NO
Handling Information	handlingInstructionsDescription	NO
Hazardous Information	aDRTunnelRestrictionCode	NO
Hazardous Information	dangerousGoodsRegulationAgency	NO

RGI Common Name	GS1 Global Data Dictionary Tag	RGI Changeable Downstream?
Hazardous Information	dangerousGoodsRegulationCode	NO
Hazardous Information	hazardousMaterialAdditionalInformation	NO
Hazardous Transportation Classification Information	marinePollutantTechnicalName	NO
Hazardous Transportation Classification Information	reportableQuantityTechnicalName	NO
Hazardous Transportation Classification Information	transportationModeRegulatoryAgency	NO
Hazardous Waste Information	hazardousWasteAgency	NO
Hazardous Waste Information	hazardousWasteCode	NO
Hazardous Waste Information	hazardousWasteDescription	NO
Hazardous Waste Information	isAcutelyHazardousWaste	NO
Hazardous Waste Information	isUniversalWaste	NO
Hazardous Waste Information	nonHazardousWasteDescription	NO
Hazardous Waste Information	specificGravity	NO
Health Claim & Product Label	healthClaimCode	YES - Can only Add additional values if applied by the downstream Information Provider.
Health Claim & Product Label	healthClaimDescription	YES - Can only Add additional values if applied by the downstream Information Provider.
Health Claim & Product Label	nutritionalLabelTypeCode	NO
Health Claim & Product Label	codeListAgencyName	NO
Health Related Information	nutritionalProgramDetail	NO
Health Related Information	sunProtectionFactor	NO
Health Related Information	tradeItemUVRating	NO
Health Related Information	doesTradeItemContainLatex	NO
Health Related Information	isTradeItemConsideredGeneric	NO
Health Wellness Packaging Marking	isPackagingMarkedWithIngredients	NO
Health Wellness Packaging Marking	packagingMarkedDietAllergenCode	NO
Health Wellness Packaging Marking	packagingMarkedFreeFromCode	NO
Individual Unit Measures	individualUnitMaximumSize <i>(value and UOM)</i>	NO

RGI Common Name	GS1 Global Data Dictionary Tag	RGI Changeable Downstream?
Individual Unit Measures	individualUnitMinimumSize ( <i>value and UOM</i> )	NO
Ingredient Information	ingredientPlaceOfActivity	NO
Ingredient Information	ingredientName	NO
Ingredient Information	ingredientSequence	NO
Ingredient Information	ingredientStatement	NO
Ingredient Information	ingredientFarmingAndProcessing	NO
Ingredient Information	isIngredientRelevantDataProvided	NO
Ingredient Information	grapeVarietyCode	NO
Ingredient Information	ingredientContentPercentage	NO
Ingredient Information	ingredientDefinition	NO
Ingredient Information	ingredientOfConcernCode	NO
Ingredient Information	ingredientOrganicInformation	NO
Ingredient Information	ingredientParty	NO
Ingredient Information	ingredientPurpose	NO
Ingredient Information	isIngredientEmphasised	NO
Ingredient Information	juiceContentPercent	NO
Ingredient Information	additiveStatement	NO
Inner Pack - Quantity (No GTIN Assigned)	quantityOfInnerPack	NO
Inner Pack - Quantity of Items Within (No GTIN Assigned)	quantityOfNextLevelTradeItemWithinInnerPack	NO
Is a Non Physical Trade Item?	isTradeItemNonphysical	NO
Is Item the Base Unit (Lowest Packaging Level)	isTradeItemABaseUnit	NO
Is Trade Item a Service?	isTradeItemAService	NO
Is Trade Item Consumer Unit?	isTradeItemAConsumerUnit	NO
Is Trade Item Invoice Unit?	isTradeItemAnInvoiceUnit	YES - Can change to match the sales agreement between the downstream Information Provider and their customers.
Is Trade Item Orderable?	isTradeItemAnOrderableUnit	YES - Can change to match the sales agreement between the downstream Information Provider and their customers.
Is Trade Item Probiotic?	microbiologicalOrganismCode	NO
Is Trade Item Reinstated	isTradeItemReinstated	NO

RGI Common Name	GS1 Global Data Dictionary Tag	RGI Changeable Downstream?
Is Trade Item Shipping Unit?	isTradeItemADespatchUnit	YES - Can change to match the sales agreement between the downstream Information Provider and their customers.
Kosher, Gluten, Vegetarian, etc.	dietTypeCode	NO
Kosher, Gluten, Vegetarian, etc.	dietTypeSubcode	NO
Kosher, Gluten, Vegetarian, etc. Certification	dietCertification	NO
Lethal Dose Concentration	lethalConcentration50	NO
Lethal Dose Concentration	lethalConcentration50Basis	NO
Lethal Dose Concentration	lethalDose50	NO
Lethal Dose Concentration	lethalDose50Basis	NO
Lethal Dose Concentration	routeOfExposureCode	NO
Lethal Dose Concentration	testSpeciesCode	NO
Lethal Dose Concentration	testSpeciesDescription	NO
Lighting Device Information	lightBulbBaseType	NO
Lighting Device Information	lightBulbDiameterValue ( <i>value and UOM</i> )	NO
Lighting Device Information	lightBulbLampTypeCode	NO
Lighting Device Information	lightBulbShapeCode	NO
Lighting Device Information	lightBulbTypeDescription	NO
Links to Safety Data Sheet	contentDescription	YES - Can add safety data sheet files, but should not remove existing files.
Links to Safety Data Sheet	fileEffectiveEndDateTime	YES - Can add safety data sheet files, but should not remove existing files.
Links to Safety Data Sheet	fileEffectiveStartDateTime	YES - Can add safety data sheet files, but should not remove existing files.
Links to Safety Data Sheet	fileFormatName	YES - Can add safety data sheet files, but should not remove existing files.
Links to Safety Data Sheet	fileName	YES - Can add safety data sheet files, but should not remove existing files.
Links to Safety Data Sheet	referencedFileTypeCode	YES - Can add safety data sheet files, but should not remove existing files.
Links to Safety Data Sheet	uniformResourceIdentifier	YES - Can add safety data sheet files, but should not remove existing files.
Links to Websites, Images, Documents, Video, Audio Files	contentDescription	YES - Can add images and other files, but should not remove existing images or files.
Links to Websites, Images, Documents, Video, Audio Files	fileEffectiveEndDateTime	YES - Can add images and other files, but should not remove existing images or files.

RGI Common Name	GS1 Global Data Dictionary Tag	RGI Changeable Downstream?
Links to Websites, Images, Documents, Video, Audio Files	fileEffectiveStartDateTime	YES - Can add images and other files, but should not remove existing images or files.
Links to Websites, Images, Documents, Video, Audio Files	fileFormatName	YES - Can add images and other files, but should not remove existing images or files.
Links to Websites, Images, Documents, Video, Audio Files	fileName	YES - Can add images and other files, but should not remove existing images or files.
Links to Websites, Images, Documents, Video, Audio Files	referencedFileTypeCode	YES - Can add images and other files, but should not remove existing images or files.
Links to Websites, Images, Documents, Video, Audio Files	uniformResourceIdentifier	YES - Can add images and other files, but should not remove existing images or files.
Links to Websites, Images, Documents, Video, Audio Files	fileFormatDescription	NO
Links to Websites, Images, Documents, Video, Audio Files	fileVersion	YES
Manufacturer Product Number	additionalTradeItemIdentificationTypeCode (= <i>Manufacturer Part Number</i> )	YES
Manufacturer Product Number	additionalTradeItemIdentification ( <i>number</i> )	YES - Should only be changed if downstream Information Provider or Operator is the Private Brand Owner and does not wish to have the source Manufacturer's number known to downstream recipients. Can add additional values as needed or applicable.
Marketing Information	tradeItemFeatureBenefit	YES - Can only Add additional values if applied by the downstream Information Provider.
Marketing Information	tradeItemMarketingMessage	YES - Can only Add additional values if applied by the downstream Information Provider.
Marketing Information	couponFamilyCode	NO
Marketing Information	specialItemCode	YES - Can only Add additional values if applied by the downstream Information Provider.
Marketing Information	tradeItemFeatureCodeReference	YES - Can only Add additional values if applied by the downstream Information Provider.
Marketing Information	codeListAgencyName	YES - Can only Add additional values if applied by the downstream Information Provider.
Marketing Information	tradeItemIncludedAccessories	YES - Can only Add additional values if applied by the downstream Information Provider.
Marketing Information	brandMarketingDescription	NO
Marketing Information	tastingNotes	YES
Marketing Information	econtentEnvironmentTypeCode	YES
Marketing Information	econtentTradeItemStatement	YES

RGI Common Name	GS1 Global Data Dictionary Tag	RGI Changeable Downstream?
Marketing Information	tradeltemStory	NO
Marketing Information	targetConsumerMaximumUsage	NO
Marketing Information	targetConsumerMinimumUsage	NO
Marketing Information	targetConsumerUsageTypeCode	NO
Nesting Information	nestingDirectionCode	NO
Nesting Information	nestingIncrement ( <i>value and UOM</i> )	NO
Nesting Information	nestingTypeCode	NO
Non Food Ingredient Information	ingredientStrength ( <i>value and UOM</i> )	NO
Non Food Ingredient Information	ingredientStrengthBasis	NO
Non Food Ingredient Information	isIngredientActive	NO
Non Food Ingredient Information	isIngredientGeneric	NO
Non Food Ingredient Information	nonfoodIngredientCodeReference	NO
Non Food Ingredient Information	codeListAgencyName	NO
Non Food Ingredient Information	nonfoodIngredientName	NO
Non Food Ingredient Information	nonfoodIngredientOfConcernCode	NO
Non Food Ingredient Information	nonfoodIngredientStatement	NO
Non Food Ingredient Information	additiveStatement	NO
Number of Next Lower Level GTINs	quantityOfChildren	NO
Nutrient Database Number	foodBeverageCompositionCode	YES - Can only Add additional values if applied by the downstream Information Provider.
Nutrient Database Number	foodBeverageCompositionDatabaseCode	YES - Can only Add additional values if applied by the downstream Information Provider.
Nutrient Label Contents & Measures	dailyValueIntakeReference	NO
Nutrient Label Contents & Measures	measurementPrecisionCode	NO
Nutrient Label Contents & Measures	nutrientBasisQuantity	NO
Nutrient Label Contents & Measures	nutrientBasisQuantityDescription	NO
Nutrient Label Contents & Measures	nutrientBasisQuantityTypeCode	NO

RGI Common Name	GS1 Global Data Dictionary Tag	RGI Changeable Downstream?
Nutrient Label Contents & Measures	nutrientTypeCode	NO
Nutrient Label Contents & Measures	nutrientValueDerivationCode	NO
Nutrient Label Contents & Measures	dailyValueIntakePercent	NO
Nutrient Label Contents & Measures	preparationStateCode	NO
Nutrient Label Contents & Measures	quantityContained <i>(value and UOM)</i>	NO
Nutrient Label Contents & Measures	nutritionalClaim	NO
Nutrient Label Contents & Measures	nutritionalClaimNutrientElementCode	NO
Nutrient Label Contents & Measures	nutritionalClaimTypeCode	NO
Nutrient Label Information	nutrientSource	NO
Nutrient Label Information	descriptionOnNutrientQualifier	NO
Nutrient Relevant Data Provided	isNutrientRelevantDataProvided	NO
Nutrition Fact Serving Size & UOM	servingSize <i>(value and UOM)</i>	NO
Nutrition Program	nutritionalProgramCode	YES - Can only Add additional values if applied by the downstream Information Provider.
Organic (Ingredient Level)	organicClaimAgencyCode <i>(for Ingredient level)</i>	NO
Organic (Ingredient Level)	organicTradeItemCode <i>(for Ingredient level)</i>	NO
Organic (Ingredient Level)	organicPercentClaim <i>(for Ingredient level)</i>	NO
Organic (Ingredient Level)	organicProductPlaceOfFarmingCode <i>(for Ingredient level)</i>	NO
Organic (Item Level)	organicClaimAgencyCode <i>(for Item level)</i>	NO
Organic (Item Level)	organicTradeItemCode <i>(for Item level)</i>	NO
Organic (Item Level)	organicPercentClaim <i>(for Item level)</i>	NO
Organic (Item Level)	organicProductPlaceOfFarmingCode <i>(for Item level)</i>	NO
Organic Certification	organicCertificationEffectiveEndDateTime	NO
Organic Certification	organicCertificationEffectiveStartDateTime	NO
Organic Certification	organicCertificationIdentification	NO

RGI Common Name	GS1 Global Data Dictionary Tag	RGI Changeable Downstream?
Organic Certification	organicClaimAgencyTypeCode	NO
Organism Classification Information	genus	NO
Organism Classification Information	rankBelowSpecies	NO
Organism Classification Information	species	NO
Out-Of-Box Dimensions	dimensionTypeCode	NO
Out-Of-Box Dimensions	depth <i>(Out of Box) (value and UOM)</i>	NO
Out-Of-Box Dimensions	height <i>(Out of Box) (value and UOM)</i>	NO
Out-Of-Box Dimensions	width <i>(Out of Box) (value and UOM)</i>	NO
Package Deposit	depositValueEffectiveDateTime	NO
Package Deposit	depositValueEndDateTime	NO
Package Deposit	returnablePackageDepositAmount <i>(value and currency code)</i>	NO
Package Deposit	returnablePackageDespositRegion	NO
Package Marks	hasBatchNumber	NO
Package Marks	isPackagingMarkedReturnable	NO
Package Marks	isTradeItemMarkedAsRecyclable	NO
Package Marks	packagingMarkedLabelAccreditationCode	NO
Package Marks	tradeItemDateOnPackagingTypeCode	NO
Package Marks	consumerPackageDisclaimer	NO
Package Marks	consumerWarningDescription	NO
Package Marks	consumerWarningTypeCode	NO
Package Marks	isPriceOnPack	NO
Package Marks	packagingMarkedLanguageCode	NO
Package Marks	packagingMarkedRecyclableScheme	NO
Package Marks	serialNumberLocationCode	NO
Package Marks	warningCopyDescription	NO
Package Marks	consumerFriendlyDateOnPackagingDescription	NO
Packaging Information	isTradeItemBiodegradable	NO
Packaging Information	packagingSustainabilityStatement	NO
Packaging Information	packagingTypeCode	NO
Packaging Information	shippingContainerQuantityDescription	NO
Packaging Information	shippingContainerQuantity	NO
Packaging Information	averageDistanceTravelledToPointOfPackagingCode	NO

RGI Common Name	GS1 Global Data Dictionary Tag	RGI Changeable Downstream?
Packaging Information	doesPackagingHaveWheels	NO
Packaging Information	isPackagingExemptFromRefuseObligation	NO
Packaging Information	isPackagingSuitableForAirShipment	NO
Packaging Information	packagingFeatureCode	NO
Packaging Information	packagingFunctionCode	NO
Packaging Information	packagingLevel	NO
Packaging Information	packagingOwnerIdentification	NO
Packaging Information	packagingOwnerName	NO
Packaging Information	packagingRecyclingProcessTypeCode	NO
Packaging Information	packagingRecyclingSchemeCode	NO
Packaging Information	packagingShapeCode	NO
Packaging Information	packagingSustainabilityFeatureCode	NO
Packaging Information	packagingTermsAndConditionsCode	NO
Packaging Information	packagingWeight <i>(value and UOM)</i>	NO
Packaging Information	platformTermsAndConditionsCode	NO
Packaging Information	platformTypeCode	NO
Packaging Information	usableProductVolume <i>(value and UOM)</i>	NO
Packaging Material	packagingMaterialLaunchDateTime	NO
Packaging Material	packagingMaterialPerformanceCode	NO
Packaging Material	packagingMaterialTypeCode	NO
Packaging Sustainability	packagingRenewableContentDescription	NO
Packaging Sustainability	packagingWeightReduction <i>(value and UOM)</i>	NO
Packaging Sustainability	numberOfCyclesPriorToWithdrawal	NO
Packaging Sustainability	packagingRenewableContentRatio	NO
Packaging Sustainability	packagingRenewableContentTypeCode	NO
Packaging Sustainability	packagingReusabilityStandardCode	NO
Packaging Sustainability	packagingReusabilityStandardDescription	NO
Packaging Sustainability	packagingReuseRate	NO
Packaging Sustainability	packagingWeight <i>(value and UOM)</i>	NO
Packaging Sustainability	packagingWeightReductionProtocolName	NO
Packaging Sustainability	previousPackagingWeight <i>(value and UOM)</i>	NO

RGI Common Name	GS1 Global Data Dictionary Tag	RGI Changeable Downstream?
Packaging Sustainability	proofOfOptimizedPackagingWeightStandardCode	NO
Packaging Sustainability	proofOfOptimizedPackagingWeightStandardDescription	NO
Packaging Sustainability	proofOfPackagingWeightReductionDescription	NO
Packaging Sustainability	proofOfPackagingWeightReductionStandardCode	NO
Pallet TI Hi (No Pallet GTIN)	quantityOfLayersPerPallet	YES - If the downstream Information Provider has configured the items into a standard pallet configuration different from what was supplied to them and has not assigned a Pallet GTIN, these attributes can be different than received.
Pallet TI Hi (No Pallet GTIN)	quantityOfTradeItemsPerPallet	YES - If the downstream Information Provider has configured the items into a standard pallet configuration different from what was supplied to them and has not assigned a Pallet GTIN, these attributes can be different than received.
Pallet TI Hi (No Pallet GTIN)	quantityOfTradeItemsPerPalletLayer	YES - If the downstream Information Provider has configured the items into a standard pallet configuration different from what was supplied to them and has not assigned a Pallet GTIN, these attributes can be different than received.
Pallet TI Hi (No Pallet GTIN)	isNonGTINLogisticsUnitPackedIrregularly	YES - If the downstream Information Provider has configured the items into a standard pallet configuration different from what was supplied to them and has not assigned a Pallet GTIN, these attributes can be different than received.
Pallet TI Hi (Pallet GTIN)	quantityOfCompleteLayersContainedInATradeItem	NO
Pallet TI Hi (Pallet GTIN)	quantityOfTradeItemsContainedInACompleteLayer	NO
Pallet TI Hi (Pallet GTIN)	isTradeItemPackedIrregularly	NO
Peg Information	pegHoleNumber	YES - If peg holes are added by downstream partner.
Peg Information	pegHoleTypeCode	YES - If peg holes are added by downstream partner.
Peg Information	pegHorizontal	YES - If peg holes are added by downstream partner.
Peg Information	pegVertical	YES - If peg holes are added by downstream partner.
pH Information	exactPH	NO
pH Information	maximumPH	NO
pH Information	minimumPH	NO
Physical Chemical Property Information	autoIgnitionTemperature (value and UOM)	NO

RGI Common Name	GS1 Global Data Dictionary Tag	RGI Changeable Downstream?
Physical Chemical Property Information	boilingPoint ( <i>value and UOM</i> )	NO
Physical Chemical Property Information	freezingMeltingPoint ( <i>value and UOM</i> )	NO
Physical Chemical Property Information	physicalStateCode	NO
Physical Chemical Property Information	waterSolubilityTypeCode	NO
Preliminary Information	preliminaryItemStatusCode	NO
Preparation & Cooking Instructions	preparationInstructions	NO
Preparation & Cooking Instructions	preparationTypeCode	NO
Preparation & Cooking Instructions	servingSizeDescription	NO
Preparation & Cooking Instructions	servingSuggestion	NO
Private Label/ Restricted Distribution	brandDistributionTypeCode	YES - Can only Add additional values if applied by the downstream Information Provider.
Product Characteristics	productCharacteristicSequenceNumber	NO
Product Names & Descriptions	functionalName	YES
Product Names & Descriptions	tradeItemDescription	YES
Product Names & Descriptions	additionalTradeItemDescription	YES
Product Names & Descriptions	descriptionShort	YES
Product Names & Descriptions	regulatedProductName	YES
Product Variant	productionVariantDescription	YES - Can only Add additional values if applied by the downstream Information Provider.
Product Variant	productionVariantEffectiveDateTime	YES - Can only Add additional values if applied by the downstream Information Provider.
Product Variant	extension	YES - Can only Add additional values if applied by the downstream Information Provider.
Product Yield	productYield ( <i>value and UOM</i> )	NO
Product Yield	productYieldTypeCode	NO
Product Yield	productYieldVariationPercentage	NO
Promotional Information	freeQuantityOfNextLowerLevelTradeItem ( <i>value and UOM</i> )	YES - Can only Add additional values if applied by the downstream Information Provider.
Promotional Information	freeQuantityOfProduct ( <i>value and UOM</i> )	YES - Can only Add additional values if applied by the downstream Information Provider.

RGI Common Name	GS1 Global Data Dictionary Tag	RGI Changeable Downstream?
Promotional Information	nonPromotionalTradeItem	YES - Can only Add additional values if applied by the downstream Information Provider.
Promotional Information	promotionTypeCode	YES - Can only Add additional values if applied by the downstream Information Provider.
Protective Equipment Information	protectiveEquipment	NO
Protective Equipment Information	protectiveEquipmentAdditionalDescription	NO
Protective Equipment Information	protectiveEquipmentBodyAreaCode	NO
Protective Equipment Information	protectiveEquipmentStatusCode	NO
REACH Information	isSubstanceOfVeryHighConcern	NO
REACH Information	isTradeItemREACHRelevant	NO
REACH Use Information	rEACHChemicalProductUseDescriptorCode	NO
REACH Use Information	rEACHEnvironmentReleaseUseDescriptorCode	NO
REACH Use Information	rEACHProcessUseDescriptorCode	NO
REACH Use Information	rEACHSectorUseDescriptorCode	NO
Referenced Trade Item	referencedTradeItemTypeCode	YES - Can only Add additional values if applied by the downstream Information Provider.
Registration Information	registrationAgency	YES - Can only Add additional values if applied by the downstream Information Provider.
Registration Information	registrationEndDateTime	YES - Can only Add additional values if applied by the downstream Information Provider.
Registration Information	registrationNumber	YES - Can only Add additional values if applied by the downstream Information Provider.
Registration Information	restrictionDescription	YES - Can only Add additional values if applied by the downstream Information Provider.
Regulated Trade Item Information	isTradeItemRegulationCompliant	NO
Regulated Trade Item Information	regulatoryActComplianceLevelCode	NO
Regulated Trade Item Information	doesTradeItemContainElectricalComponents	NO
Regulated Trade Item Information	regulationLevelCodeReference	NO
Regulated Transportation Information	isProhibitedForTransportation	YES - Can only Add additional values if applied by the downstream Information Provider.
Regulated Transportation Information	prohibitedForTransportationReason	YES - Can only Add additional values if applied by the downstream Information Provider.

RGI Common Name	GS1 Global Data Dictionary Tag	RGI Changeable Downstream?
Regulated Transportation Information	shippingRegulationException	YES - Can only Add additional values if applied by the downstream Information Provider.
Regulated Transportation Information	specialPermitOrExemptionIdentification	YES - Can only Add additional values if applied by the downstream Information Provider.
Regulated Transportation Information	specialRequirementsDescription	YES - Can only Add additional values if applied by the downstream Information Provider.
Regulated Transportation Information	transportationMaximumQuantity ( <i>value and UOM</i> )	YES - Can only Add additional values if applied by the downstream Information Provider.
Regulatory Information	regulationTypeCode	YES - Can only Add additional values if applied by the downstream Information Provider.
Regulatory Information	regulatoryAct	YES - Can only Add additional values if applied by the downstream Information Provider.
Regulatory Information	regulatoryAgency	YES - Can only Add additional values if applied by the downstream Information Provider.
Regulatory Permit Information	permitEndDateTime	YES - Can only Add additional values if applied by the downstream Information Provider.
Regulatory Permit Information	permitStartDateTime	YES - Can only Add additional values if applied by the downstream Information Provider.
Regulatory Permit Information	regulatoryPermitIdentification	YES - Can only Add additional values if applied by the downstream Information Provider.
Return Information	isNonSoldTradeItemReturnable	YES - Can only Add additional values if applied by the downstream Information Provider.
Return Information	returnGoodsPolicyCode	YES - Can only Add additional values if applied by the downstream Information Provider.
Returnable Asset Information	grai	NO
Returnable Asset Information	alternativeReturnableAssetIdentification	NO
Returnable Asset Information	additionalReturnableAssetIdentificatonTypeCode	VARIES - See the actual attributes which are being populated for their ability to change or not.
Returnable Asset Information	isReturnableAssetEmpty	NO
Returnable Asset Information	returnableAssetCapacityContent ( <i>value and UOM</i> )	NO
Returnable Asset Information	returnableAssetOwnerId	NO
Returnable Asset Information	returnableAssetOwnerName	NO
Returnable Asset Information	returnableAssetPackageDeposit	NO
Returnable Asset Information	returnableAssetsContainedQuantity ( <i>value and UOM</i> )	NO
Reusability	maximumCyclesReusable	NO
Safety Data Sheet (SDS) Information	sDSStandardCode	NO

RGI Common Name	GS1 Global Data Dictionary Tag	RGI Changeable Downstream?
Safety Data Sheet (SDS) Information	sDSSstandardVersion	NO
Safety Data Sheet (SDS) Information	sDSSsheetNumber	NO
Safety Data Sheet (SDS) Information	firstAidProceduresDescription	NO
Safety Data Sheet (SDS) Information	flashPointTemperature <i>(value and UOM)</i>	NO
Safety Data Sheet (SDS) Information	lowerExplosiveLimit	NO
Safety Data Sheet (SDS) Information	physicalFormDescription	NO
Safety Data Sheet (SDS) Information	upperExplosiveLimit	NO
Safety Data Sheet (SDS) Information	flashPointTestMethodCode	NO
Safety Data Sheet (SDS) Information	accidentalReleaseMeasuresDescription	NO
Safety Data Sheet (SDS) Information	additionalSDSInformation	NO
Safety Data Sheet (SDS) Information	conditionsToAvoid	NO
Safety Data Sheet (SDS) Information	ecologicalInformationDescription	NO
Safety Data Sheet (SDS) Information	hazardousMaterialsHandlingProcedures	NO
Safety Data Sheet (SDS) Information	isRegulatedForTransportation	NO
Safety Data Sheet (SDS) Information	noteToPhysician	NO
Safety Data Sheet (SDS) Information	storageRequirementsDescription	NO
Safety Data Sheet (SDS) Information	toxicologicalInformationDescription	NO
Safety Data Sheet (SDS) Information	volatileOrganicCompound <i>(value and UOM)</i>	NO
Safety Data Sheet (SDS) Information	volatileOrganicCompoundBasis <i>(value and UOM)</i>	NO
Safety Data Sheet (SDS) Information	volatileOrganicCompoundPercent	NO
Sales and Distribution Information	brandDistributionTypeCode	YES - Can only Add additional values if applied by the downstream Information Provider.
Sales and Distribution Information	consumerSalesConditionCode	NO

RGI Common Name	GS1 Global Data Dictionary Tag	RGI Changeable Downstream?
Sales and Distribution Information	tradeItemConditionCode	NO
Sales Information	targetMarketConsumerSalesConditionCode	NO
Sales Information	salesConditionTargetMarketCountry	NO
Seasonal	isTradeItemSeasonal	NO
Seasonal	seasonalAvailabilityEndDateTime	NO
Seasonal	seasonalAvailabilityStartDateTime	NO
Seasonal	seasonCalendarYear	NO
Seasonal	seasonName	NO
Seasonal	seasonParameterCode	NO
Security Tag	securityTagLocationCode	YES - Can only Add additional values if applied by the downstream Information Provider.
Security Tag	securityTagTypeCode	YES - Can only Add additional values if applied by the downstream Information Provider.
Servings of the Trade Item Unit	numberOfServingsPerPackage	NO
Servings of the Trade Item Unit	numberOfServingsPerPackageMeasurementPrecisionCode	NO
Shelf Life	minimumTradeItemLifespanFromTimeOfProduction	NO
Shelf Life	minimumTradeItemLifespanFromTimeOfArrival	YES - Can change to match the sales agreement between the downstream Information Provider and their customers.
Shelf Life	itemPeriodSafeToUseAfterOpening	NO
Shelf Life	openedTradeItemLifespan	YES - Can change to match the sales agreement between the downstream Information Provider and their customers.
Shelf Life	supplierSpecifiedMinimumConsumerStorageDays	YES - Can change to match the sales agreement between the downstream Information Provider and their customers.
Size	descriptiveSize	VARIABLES -- Modules, associations, and attributes used as data types can vary based on the qualifying association or attribute under which it is populated.
Specific Gravity	specificGravityReferenceMaterialCode	NO
Storage & Usage	consumerStorageInstructions	YES
Storage & Usage	consumerUsageInstructions	YES
Storage Compatibility Information	storageCompatibilityAgency	YES
Storage Compatibility Information	storageCompatibilityCode	YES

RGI Common Name	GS1 Global Data Dictionary Tag	RGI Changeable Downstream?
Storage Compatibility Information	storageCompatibilityDescription	YES
Storage Temperature Max & Min with UoM	maximumTemperature <i>(value and UOM)</i>	NO
Storage Temperature Max & Min with UoM	minimumTemperature <i>(value and UOM)</i>	NO
Storage Temperature Max & Min with UoM	temperatureQualifierCode	NO
Sustainability Information	doesTradeItemContainPesticide	NO
Sustainability Information	isTradeItemRigidPlasticPackagingContainer	NO
Sustainability Information	isTradeItemROHSCompliant	NO
Sustainability Information	postConsumerRecycledContentPercentage	NO
Sustainability Information	renewablePlantBasedPlasticComponentsPercent	NO
Sustainability Information	rOHSComplianceFailureMaterial	NO
Sustainability Information	totalRecyclableContentPercentage	NO
Sustainability Information	tradeItemSustainabilityFeatureCode	NO
Target Market	targetMarketCountryCode	YES - Can only Add additional values if applied by the downstream Information Provider.
Target Market	targetMarketSubdivisionCode	YES - Can only Add additional values if applied by the downstream Information Provider.
Temperature Information	tradeItemTemperatureConditionTypeCode	NO
Total Quantity of Next Lower Package Level	totalQuantityOfNextLowerLevelTradeItem	NO
Trade Channel	tradeItemTradeChannelCode	YES
Trade Item Dates	cancelledDateTime	YES
Trade Item Dates	discontinuedDateTime	YES
Trade Item Dates	lastChangeDateTime	YES
Trade Item Dates	publicationDateTime	YES
Trade Item Material Information	materialAgencyCode	NO
Trade Item Material Information	materialCode	NO
Trade Item Material Information	materialContent	NO

RGI Common Name	GS1 Global Data Dictionary Tag	RGI Changeable Downstream?
Trade Item Material Information	materialPercentage	NO
Trade Item Material Information	materialThreadCount	NO
Trade Item Material Information	materialWeight ( <i>value and UOM</i> )	NO
Trade Item Measurements	depth ( <i>value and UOM</i> )	NO
Trade Item Measurements	height ( <i>value and UOM</i> )	NO
Trade Item Measurements	width ( <i>value and UOM</i> )	NO
Trade Item Measurements	inBoxCubeDimension ( <i>value and UOM</i> )	NO
Trade Item Measurements	isSizeTypeVariant	NO
Trade Item Measurements	netContent ( <i>value and UOM</i> )	NO
Trade Item Measurements	descriptiveSizeDimension	NO
Trade Item Measurements	netContentStatement	NO
Trade Item Measurements	tradeItemCompositionDepth ( <i>value and UOM</i> )	NO
Trade Item Measurements	tradeItemCompositionWidth ( <i>value and UOM</i> )	NO
Trade Item Measurements	frontFaceTypeCode	NO
Trade Item Orientation	orientationPreferenceSequence	NO
Trade Item Orientation	orientationTypeCode	NO
	cardPriceGroupIdentifier	YES
Trade Item Price Information	cataloguePrice ( <i>value and currency code</i> )	YES
Trade Item Price Information	priceBasisQuantity ( <i>value and UOM</i> )	YES
Trade Item Price Information	priceEffectiveEndDate	YES
Trade Item Price Information	priceEffectiveStartDate	YES
Trade Item Price Information	sheetName	YES
Trade Item Price Information	suggestedRetailPrice ( <i>value and currency code</i> )	YES
Trade Item Price Information	tradeItemPrice ( <i>value and currency code</i> )	YES
Trade Item Price Information	tradeItemPriceTypeCode	YES
Trade Item Unit Descriptor	tradeItemUnitDescriptorCode	NO
Trade Item Variant	tradeItemVariantTypeCode	NO

RGI Common Name	GS1 Global Data Dictionary Tag	RGI Changeable Downstream?
Trade Item Variant	tradeItemVariantValue	NO
Trade Item Weights	drainedWeight ( <i>value and UOM</i> )	NO
Trade Item Weights	GrossWeight ( <i>value and UOM</i> )	NO
Trade Item Weights	NetWeight ( <i>value and UOM</i> )	NO
Units per trade item	unitsPerTradeItem ( <i>value and UOM</i> )	NO
Warranty Conditions	warrantyConstraint	NO
Warranty Conditions	WarrantyDuration ( <i>value and UOM</i> )	NO
Warranty Information	warrantyDescription	NO
Warranty Information	warrantyEffectiveDateType	NO
Warranty Information	warrantyType	NO

## 11 Additional Resources

For more guidance and updated references for these and other topics, please see the following additional resources:

- [\*GDSN Foodservice and Retail Grocery Attribute Interactive Spreadsheet Tool\*](#)
- [\*GDSN Trade Item Implementation Guide\*](#)
- [\*GS1 Package Measurement Rules\*](#)
- [\*GS1 US Education and Training\*](#)
- [\*GS1 US Retail Grocery Initiative\*](#)



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\*If applicable

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