

## FOODSERVICE

# GS1 GTIN® Allocation Rules for Foodservice PREPARED BY THE FOODSERVICE GS1 US STANDARDS INITIATIVE WORKGROUP

R4.0 — AUG 26 2014





## **CONTENTS**

Pre	fac	Ce	6
1	D	Document Information	7
	1.1	Document Summary	7
	1.2	Normative References	7
2	S	Scope and Background	8
3	In	ntroduction to the Global Trade Item Number (GTIN)	9
	3.1	Definition of a GTIN	9
	3.2	Structure of a GTIN	9
	3.3	GTIN Data Format	10
	3.4	GS1 Company Prefix	10
	3.5	Item Reference	10
	3.6	Check Digit	10
	3.7	Indicator Digit	10
	3.8	Building a GTIN Hierarchy	11
4	D	Definitions	12
	4.1	20% Rule	12
	4.2	Bonus Pack	12
	4.3	Pre-Defined Assortment	12
	4.4	Retail Consumer Trade Item	12
GS	1 G	GTIN Allocation Rules	13
1	T	arget Market (Language)	14
	1.1	New Language	14
	1.2	Add Additional Language	15
	1.3	Trade Item Sold in Different Locations	15
2	В	Brand	16
	2.1	Branding	16
	2.2	Brand Graphics	16
	2.3	Brand Addition	17
	2.4	•	
	2.5	Artwork	17
3	Р	Packaging	18
	3.1	Packaging with Major Impact	18
	3.2	71	
	3.	3.2.1 Packaging with Minor Impact	
	3.	3.2.2 Packaging - Standard Trade Item Grouping Level	19



3.3	Ne	w/Additional Pallet Layout	19					
3.4	Ele	Electronic Article Surveillance (EAS) System (theft protection)						
3.5	Ad	dition of an EPC Tag	20					
3.6	Inc	lusion or Removal of a Certification Mark	20					
4 P	Product	t	21					
4.1	Co	ntentntent	21					
4	.1.1	Count of Items in a Pack	21					
4	.1.2	Non-Declared Change (net weight, count or volume)	22					
4	.1.3	Changes to Declared Net Content	23					
4	.1.4	Content of a Dynamic Assortment	24					
4	.1.5	Additional Declared Net Content Unit of Measure	24					
4	.1.6	Removal of One Declared Net Content on a Product with Multiple Net Content	25					
4	.1.7	Marketing Declarations	25					
4.2	Fo	rmulation	25					
4	.2.1	Minor Formulation	25					
4	.2.2	Major Formulation						
4	.2.3	Fresh vs. Frozen						
4.3	Fu	nctionality - Major Change						
4.4	Mix	of Product	28					
4	.4.1	Random Packs Assortment						
4	.4.2	Changes to a Pre-Defined Assortment	28					
4.5	Co	mbination Pack	29					
5 P	romot	ional	29					
5.1	Sa	mple or Test Trade Items	29					
5.2	Во	nus Pack	30					
5.3	Fre	ee Gifts	30					
5	5.3.1	Free Item - Two Retail Consumer Trade Items	30					
5	5.3.2	Two (or more) Retail Consumer Trade Items Bound Together	30					
5	5.3.3	Free Item in Retail Consumer Trade Item	30					
5	5.3.4	Two or More Retail Consumer Trade Items Near Each Other	31					
5.4	Tin	ne Critical Promotion	31					
5.5	Re	configuration of Consumer Pack	31					
5.6	Ma	Mail In with Proof of Purchase						
5.7	Me	rchandise Sold with Allowance	32					
6 N	Manufacturing							
6.1	Pro	Produced in Different Locations						
6.2	Dif	Different Manufacturer - Identical Trade Item						



7	Sell	ing F	Price	33
7	<b>7</b> .1	Diffe	erent Retail Price	33
7	7.2	Reta	ailer Price Label	33
7	7.3	Any	Marked Price Change for Fixed Measure Items	33
7	7.4	Pric	e-Off Coupon	34
8	Sea	isons	3	34
8	3.1	Mod	dified for Season	34
8	3.2	San	ne Brand – Trade Item Vintage	34
	8.2.	.1	Vintage Impacts Pricing/Ordering/Invoicing	34
	8.2.	2	Vintage Has No Impact on Pricing/Ordering/Invoicing	35
9	Ups	strear	m	35
ç	9.1	Diffe	erent Logistical Size	35
	9.1.	1	Trade Item Sold in Variable Measure Varies in Total Weight	35
	9.1.	2	Trade Item Supplied in New Size	36
	9.1.	3	Major Packaging Change	36
	9.1.	4	Same Trade Item but Different Handling Parameters	36
Ś	9.2	Diffe	erent Substance	37
	9.2.	.1	New Specification	37
	9.2.	2	Variations in the Grade - Trade Item	37
	9.2.	3	Specification Varies within the Parameters	37
	9.2.	4	Print Design Change	37
	9.2.	5	Different Finishing	38
ç	9.3	Diffe	erent Trading Partners	38
	9.3.	1	Supplier Change - Supplier Assigned GTIN	38
	9.3.	2	Supplier Change - Customer Assigned GTIN	38
	9.3.	3	Customer Change - Supplier Assigned GTIN	38
10	Fre	sh Fo	ood	39
1	0.1	Diffe	erence in Weight	39
1	0.2	Solo	d Individually then Cut and Sold by Weight	39
1	0.3	Item	n Sold Individually or by Weight	40
1	0.4	Bulk	k Items	40
1	0.5	Item	n Placed in a Bag	41
11	App	endi	x: Additional Foodservice Attributes for Consideration	42



#### **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 the global information standards organization GS1, brings industry communities together to solve supply-chain problems through the adoption and implementation of GS1 Standards. Nearly 300,000 businesses in 25 industries rely on GS1 US for trading-partner collaboration and for maximizing the cost effectiveness, speed, visibility, security and sustainability of their business processes. They achieve these benefits through solutions based on GS1 global unique numbering and identification systems, barcodes, Electronic Product Code (EPC®)-enabled RFID, data synchronization, and electronic information exchange. GS1 US also manages the United Nations Standard Products and Services Code® (UNSPSC®). <a href="https://www.GS1US.org">www.GS1US.org</a>.

## ABOUT FOODSERVICE GS1 US STANDARDS INITIATIVE

The Foodservice GS1 US Standards Initiative serves as a strategic effort in which industry trade associations and individual companies may choose to join on a voluntary basis to assist with their company's adoption and implementation of GS1 Standards. Nothing herein should be construed as constituting or implying an agreement among foodservice companies to adopt or implement GS1 Standards. Nothing herein should be construed as constituting or implying an agreement regarding any company's prices, output, markets, or dealings with customers and suppliers. Nothing herein is inconsistent with the proposition that each participating company must and will exercise its independent business judgment on all standards adoption.



## **Preface**



## 1 DOCUMENT INFORMATION

This document was prepared by the Foodservice GS1 US Standards Initiative Workgroup to provide guidance about when a new Global Trade Item Number® (GTIN®) should be assigned to foodservice products.

## 1.1 DOCUMENT SUMMARY

DOCUMENT ITEM	CURRENT VALUE
DOCUMENT TITLE	GS1 Global Trade Item Number (GTIN) for Foodservice
DATE LAST MODIFIED	July-2014
CURRENT DOCUMENT RELEASE	R4.0
STATUS	Approved
DOCUMENT DESCRIPTION	GTIN Allocation Rules for the Foodservice Sector

Table A. Document Summary

① Note: This document is based on the GS1 General Specifications Version 13 i1- July 2013.

## 1.2 NORMATIVE REFERENCES

This guide is based on the *GS1 General Specifications*. The specific standards referenced in this guide are listed below, and the relevant provisions of these standards/specifications are to be considered provisions of this guide:

- GS1 General Specifications Available in the Resources section of the GS1 US website at <a href="http://www.gs1us.org/resources/standards/standards-library">http://www.gs1us.org/resources/standards/standards-library</a>
- GS1 GTIN Allocation Rules -- <a href="http://www.gs1.org/1/gtinrules/">http://www.gs1.org/1/gtinrules/</a>



## 2 SCOPE AND BACKGROUND

The Foodservice GS1 US Standards Initiative GTIN Workgroup was initiated to make recommendations for when a new GTIN should be assigned to foodservice products. This Workgroup identified which changes in a product's attributes drive the need for the assignment of a new GTIN, and addressed GTIN changes at all levels of the product hierarchy. The Group reviewed all of the current GTIN Rules, as well as Phase 1 and Phase 2 foodservice attributes using the following methodology:

- Reviewed the current "GS1 GTIN Allocation Rules" to determine applicability to foodservice items
- Reviewed current "Foodservice Product and Location Guide" and the "GS1 US Foodservice Implementation Guide v.1" from the Foodservice GS1 US Standards Initiative Resource Library
- Identified recommendations for GTIN Allocation Rules for foodservice
- Defined any necessary updates to the GTIN Allocation Rules for Foodservice which should be included within the next release of the GS1 General Specifications document
  - Changes or additions made in this document to the GS1 GTIN Allocation Rules specifically to aid the Foodservice Community will be noted with the icon used to mark this bullet.
- Provided guidance for GTIN allocation for both food and non-food products

The Group utilized the following evaluation criteria and guiding principles when reviewing the existing GTIN Allocation Rules and foodservice attributes:

- Impact on the entire supply chain
- Impact on food vs. non-food items
- Sector-specific for foodservice
- The ultimate business reason to change the GTIN (i.e., why?)
- Does the change impact the supply chain from a transportation/warehouse perspective? (e.g., dimensions, packaging, etc.)

Yes - New GTIN

No - Same GTIN

• Does the change create a consumer risk? (e.g., allergens, recognizable change in quality or taste, etc.)

Yes - New GTIN

No - Same GTIN

Does the change impact content significantly? (e.g., pack change, significant size change, etc.)

Yes - New GTIN

No - Same GTIN

 Is there a business reason supply chain partners will need to distinguish between existing and new products? (e.g., holiday promotion; label modification; change in nutritional panel; changes in functionality; sample item; language change when original language is no longer present on label; consumer declaration change in item description or brand; etc.)

Yes - New GTIN

No - Same GTIN



## 3 INTRODUCTION TO THE GLOBAL TRADE ITEM NUMBER (GTIN)

## 3.1 DEFINITION OF A GTIN

A Global Trade Item Number (GTIN) is the globally unique GS1 Identification Number used worldwide to identify "trade items" (i.e., products and services upon which there is a need to retrieve pre-defined information and that may be priced, ordered, or invoiced at any point in the supply chain). GTINs are used to identify individual trade item units (like a box of Brand X cereal), as well as all of their different configurations in different types of packaging (like a case of six boxes of Brand X cereal). GTINs are assigned by the brand owner or manufacturer of the product, and are used to identify products as they move through the global supply chain.

GTINs have an administrative structure comprising various element strings to ensure that they are unique. However, no part of the number relates to any classification or conveys any information. Therefore, GTINs should always be recorded and processed in their entirety and treated as non-significant numbers.

## 3.2 STRUCTURE OF A GTIN

GTINs may be allocated as 8-digits, 12-digits, 13-digits or 14-digits in length (known as GTIN-8, GTIN-12, GTIN-13 and GTIN-14 respectively). All of these GTIN structures include the following element strings: a GS1 Company Prefix, an Item Reference, and a Check Digit. The GTIN-14 structure includes an additional element string known as the Indicator Digit. Figure 1 illustrates the three element strings within the GTIN-12 data structure. Figure 2 illustrates the three element strings within the GTIN-14 data structure.

U.P.C.	U.P.C. Company Prefix		Itei	n R	efere	Check Digit				
N <sub>1</sub> N <sub>2</sub>	N <sub>3</sub>	N <sub>4</sub>	N <sub>5</sub>	N <sub>6</sub>	N <sub>7</sub>	N <sub>8</sub>	N <sub>9</sub>	N <sub>10</sub>	N <sub>11</sub>	<b>N</b> <sub>12</sub>

Figure 1. Data Structure of a GTIN-12

GS1 Company Prefix			Item Reference					Check Digit			
$N_1$ $N_2$	N <sub>3</sub>	N <sub>4</sub>	N <sub>5</sub>	N <sub>6</sub>	N <sub>7</sub>	N <sub>8</sub>	N <sub>9</sub>	N <sub>10</sub>	N <sub>11</sub>	N <sub>12</sub>	<b>N</b> <sub>13</sub>

① Note 2: This GTIN format is used in business transactions, especially for eCom (e.g., electronic orders, invoices, price catalogues, etc.).

Figure 2. Data Structure of a GTIN-13

Indicator Digit	GS1 Company Prefix Item Reference	Check Digit
N <sub>1</sub>	N <sub>2</sub> N <sub>3</sub> N <sub>4</sub> N <sub>5</sub> N <sub>6</sub> N <sub>7</sub> N <sub>8</sub> N <sub>9</sub> N <sub>10</sub> N <sub>11</sub> N <sub>12</sub> N <sub>13</sub>	N <sub>14</sub>

Figure 3. Data Structure of a GTIN-14



Each element string is discussed in more detail below. Upon joining a GS1 Member Organization, each company receives a GS1 Company Prefix, and full documentation on how to allocate GTINs to its products. In addition, detailed instructions for how to construct each of the four GTIN structures are also provided on the web site at <a href="http://www.gs1.org/barcodes/technical/id-keys">http://www.gs1.org/barcodes/technical/id-keys</a>.

## 3.3 GTIN DATA FORMAT

Because GTIN data structures require up to 14-digits, a GTIN should always be represented in software applications as a 14-digit field by right justifying and zero-filling to the left (i.e., for leading zeros where necessary). In order to preserve any leading zeros that may be present, the GTIN field should be represented in a database as a text field (not numeric).

## 3.4 GS1 COMPANY PREFIX

The *GS1 Company Prefix* is a globally unique number assigned to a company by a GS1 Member Organization (e.g., GS1 US) to serve as the foundation for generating GS1 identifiers (e.g., GTINs). The *GS1 Company Prefix* consists of a *GS1 Prefix* and a *Company Number*. A *GS1 Prefix* is an identifier allocated to a GS1 Member Organization by the GS1 Global Office. (It does not mean that the item is produced or distributed in the country to which the prefix has been allocated.) A *GS1 Company Number* is an identifier allocated to a company by its GS1 Member Organization. Together, these two numbers form the *GS1 Company Prefix*.

GS1 Company Prefixes are assigned in varying lengths depending on the company/organization's needs. In general, the GS1 Company Prefix comprises six to ten digits, depending on the capacity needs of the company. The first two or three digits (i.e., N1, N2, and N3) constitute the GS1 Prefix. The remaining digits constitute the Company Number.

## 3.5 ITEM REFERENCE

The *Item Reference* is a number assigned by the owner of the *GS1 Company Prefix* (or *U.P.C. Company Prefix*) to create a unique GTIN that uniquely identifies a trade item. It varies in length as a function of the *Company Prefix* length. The *Item Reference* is a non-significant number, which means that the individual digits in the number do not relate to any classification or convey any specific information. The simplest way to allocate *Item References* is to allocate them sequentially (i.e., 000, 001, 002, 003, etc.).

## 3.6 CHECK DIGIT

The Check Digit is the last digit of a GTIN. It is a one-digit number calculated from all preceding digits of the GTIN used to ensure data integrity. GS1 US provides a check digit calculator to automatically calculate check digits for you. The check digit calculator can be found at <a href="http://www.gs1us.org/resources/tools/check-digit-calculator">http://www.gs1us.org/resources/tools/check-digit-calculator</a>.

## 3.7 INDICATOR DIGIT

The *Indicator Digit* a number assigned by a manufacturer or supplier to identify <u>groupings</u> of trade items (i.e., packaging levels). It is only used in the GTIN-14 data structure. The *Indicator Digit* consists of a numeric value from 1 to 8 (see the Note below). *Indicator Digits* have no meaning. The digits do not have to be used in sequential order and some may not be used at all. Nonetheless, the simplest way to allocate *Indicator Digits* is to allocate them sequentially to each grouping of a trade unit (i.e., 1 = consumer unit; 2 = carton; 3 = case; etc.). *Indicator Digits* can be re-used. ① *Note: The value "0" can be used as a fill character. The value "9" is reserved for variable quantity items.* 



A uniform grouping of trade items is a standard and stable grouping of identical trade items (e.g., a packaging level). A manufacturer or supplier has the option of either assigning a unique GTIN-13 or GTIN-12 to each grouping, or using a GTIN-14 with a unique *Indicator Digit* assigned to each grouping. The benefit of using the GTIN-14 structure for groupings is that it creates extra numbering capacity because it uses the same *Item Reference* for <u>all groupings</u> of the <u>same trade item</u> (i.e., up to eight unique GTINs based on the same *Item Reference* can be created by assigning a unique *Indicator Digit* to each grouping and then recalculating the *Check Digit*).

The 8-, 12- or 13-digit GTIN of the trade item contained in the grouping should always be the one of the relevant packaging levels, usually the lowest level. GTINs for restricted distribution must not be used in this Element String.

## 3.8 BUILDING A GTIN HIERARCHY

There are three methods to building a GTIN hierarchy as illustrated below:

1. Assign a completely unique GTIN for each level of the hierarchy.



Figure 4. Hierarchy with completely unique GTINs for each level

2. Assign the same *Item Reference* to each level of the hierarchy, differentiating each level with the *Indicator Digit* and a recalculated *Check Digit*.

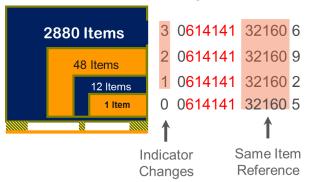


Figure 5. Hierarchy with the same Item Reference but different Indicator Digits for each level



## 3. Use a combination of methods 1 and 2.

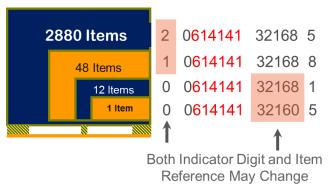


Figure 6. Hierarchy using a hybrid approach

## 4 DEFINITIONS

The following definitions are provided in the text of some of the GTIN Allocation Rules that follow. They are repeated here to facilitate reading of the rules:

## 4.1 20% RULE

As a general guideline, a change should be considered "major" if any dimension changes by more than 20% in any axis or any logistic measure changes by more than 20%. This is known as the 20% Rule. Although 0% is unacceptable to manufacturers and 100% is unacceptable to Buyers, in-depth canvassing of GCI companies led to the selection of 20% as a reasonable threshold.

#### 4.2 BONUS PACK

An item that has increased quantity (e.g., net weight, count, volume) and is sold at the same price as the regular item.

#### 4.3 PRE-DEFINED ASSORTMENT

A standard trade item grouping that comprises a fixed configuration of two or more different retail consumer trade items, each identified with a GTIN. Any change in the configuration of the assortment is considered a new trade item.

#### 4.4 RETAIL CONSUMER TRADE ITEM

The GTIN Allocation rules often refer to "Retail Consumer Trade Item". This is a specifically defined term currently used in the Retail Consumer Goods industry. This definition cannot be changed in the formal GTIN Allocation Rules, so for purposes of this document, wherever the term "Retail Consumer Trade Item" is used, the term "individual trade item" should be inferred.



## **GS1 GTIN Allocation Rules**

Note: All of the rules noted in this guide are direct quotes from the online GS1 GTIN Allocation Rules. Any changes or deletions to the quoted rules for the Foodservice Industry are highlighted by the use of the yellow shaded flag icon.



## 1 TARGET MARKET (LANGUAGE)

#### 1.1 NEW LANGUAGE

New language on a package sold in one market/country

The introduction of another package with a different language or language group on an otherwise identical trade item that is not substitutable

#### **Examples**

One package with English, another package with Spanish (single language)
Language A, B and C appear on one pack, and languages A, D and E on another (multiple language)

#### Rules

New GTIN – Retail Consumer Trade Item New GTIN - Standard Trade Item Grouping

#### Rationale

Multiple packages each with a different Language or Language cluster must be uniquely identified.

Efficient shipping (at Retailer's Distribution Center) requires distinction between non-substitutable trade items.

The release of a new language market/country pack requires compliance with local labelling laws (hence a new trade item and GTIN).

## Consequence if rule not applied

Unable to identify trade item in supply chain.

#### **Notes**

The Brand Owner determines whether an item is substitutable for a particular market(s) - if an item is substitutable as defined by the Brand Owner, then a new GTIN is not required.

The language change does not apply to the Brand Name. If the language change causes the Brand Name to change, then the GTIN at all levels must change.

In certain industries, such as apparel and home fashion environment, the human readable is added as part of the distribution process. In this case there is no need to change a GTIN when the language is added.

## Foodservice example

A manufacturer produces Product A which is branded in a single language, English. The manufacturer decides to sell the same identical product in another market where Spanish is the primary language. The decision is made to brand the product in Spanish, as well as English. Both will co-exist in the supply chain at the same time, although in different markets. Each product will be labeled with a single language, either English or Spanish.



#### 1.2 ADD ADDITIONAL LANGUAGE

## Add additional language on a package sold in several markets (multi language label)

#### **Rules**

Same GTIN - Retail Consumer Trade Item Same GTIN - Standard Trade Item Grouping

#### Rationale

A re-cluster (adding an additional language at the retail level) does not impact existing markets. For example, if languages A, B and C appear on one pack, the addition of another language (D) has no impact on existing trading partners.

## Consequence if rule not applied

Unnecessary introduction of new GTINs

## Foodservice example

A case of Peppercorn Ranch dressing is sold in several countries requiring the label in Spanish and English. It is sold to a new customer in Brazil. The label is modified to include Portuguese. The additional language does not adversely affect the current customers but it allows the expansion of the sales territory.

#### **Notes**

GTIN for Standard Trade Item Grouping: a separate GTIN is required for each language cluster

## 1.3 TRADE ITEM SOLD IN DIFFERENT LOCATIONS

#### Trade Item sold in different locations

#### Rules

Same GTIN - Retail Consumer Trade Item Same GTIN - Standard Trade Item Grouping

#### **Rationale**

Different GTINs for the same trade item could cause serious problems for the supplier (e.g., inventory management).

#### Consequence if rule not applied

Global players supplying the same trade item to different locations would have to assign different GTINs even though no change was declared to the consumer.



## 2 BRAND

## 2.1 BRANDING

A change to the primary Brand that appears on the product. Brand is defined as the recognizable name used by a brand owner to uniquely identify a line of trade items or services. This is recognizable by the consumer.

It is always in the decision of the Brand Owner and national regulation as to what is communicated to the consumer. If the secondary or sub-brand is a key identifier to the consumer in addition to the primary brand, a new GTIN must be assigned (per the *GS1 General Specifications*).

#### **Rules**

New GTIN - Retail Consumer Trade Item New GTIN - Standard Trade Item Grouping

#### Rationale

The change leads to a change in the Order Guide and /or consumer declaration. Brand changes must be clearly communicated and old stock phased out.

#### Consequence if rule not applied

Brand changes could not be registered effectively. This could potentially lead to the failure to provide the consumer with accurate retail consumer trade item information (e.g., via the Order Guide).

#### **Notes**

This includes removal of existing branding used to describe the product in the Supply Chain and to the consumer.

When the Brand Change is gradual and both the old brand and the new brand co-exist for a time, the new GTIN is assigned at the time the Primary Brand becomes secondary, or is removed from the packaging. The brand owner decides exactly when the new GTIN is assigned.

#### Foodservice examples

Icing vs. Frosting - SAME GTIN

Bob's Soda vs. Good Soda – NEW GTIN.

## 2.2 BRAND GRAPHICS

Change in brand graphics (e.g., graphic color, size, font, etc.)

#### Rules

Same GTIN - Retail Consumer Trade Item Same GTIN - Standard Trade Item Grouping

#### Rationale

The change has no impact on supply chain partners.

A brand may be printed on packaging, but not used to describe and/or identify the product to the consumer (e.g., printed on a back panel in small text). In this circumstance, a change in text does not require a change in the order guide; therefore, no GTIN change required.

## Consequence if rule not applied

An explosion in the number of GTIN changes within the supply chain that imposes unnecessary cost.



#### 2.3 BRAND ADDITION

## Brand addition (e.g., a corporate brand name is added to the existing product brand on the package)

#### **Rules**

Same GTIN - Retail Consumer Trade Item Same GTIN - Standard Trade Item Grouping

#### **Rationale**

The change has no impact on supply chain partners.

## Consequence if rule not applied

An explosion in the number of GTIN changes within the supply chain that imposes unnecessary cost.

## 2.4 PRODUCT NAME AND DESCRIPTION

Changes to the wording of the existing product name and description (trade item description, short description, additional trade item description) that appear on the product and do not trigger a new GTIN under other rules. However, for Healthcare, regulations will require a new GTIN for any product name or description change. For some countries or regions, local or regional legislation may also require a new GTIN for product name.

## **Examples**

Spicy potatoes to Bold & Spicy Potatoes Creamy Ice Cream to Smooth Ice Cream

## **Rules**

Same GTIN - Retail Consumer Trade Item Same GTIN - Standard Trade Item Grouping

#### **Rationale**

Changes to a product name or description can be made to encourage the consumer to purchase and do not impact supply chain operations.

## Consequence if rule not applied

(Unnecessary) changes to the GTIN at the retail consumer trade item level increase supply chain cost. Historic sales data from the point of sale can be used to assess the impact of the change by keeping track of the date.

## 2.5 ARTWORK

#### Minor artwork changes

## **Rules**

Same GTIN - Retail Consumer Trade Item Same GTIN - Standard Trade Item Grouping

## Rationale

Minor artwork changes (possibly associated with a trade item re-vamping or seasonal/ promotional flow through) that do not impact other GTIN Rules, should not cause a new GTIN to be assigned.

## Consequence if rule not applied

GTIN assignment would be impractical to manage.



## 3 PACKAGING

#### 3.1 PACKAGING WITH MAJOR IMPACT

Packaging changes with major impact (i.e., any dimensional change of more than 20% in any axis or any gross weight change of more than 20%) requires a new GTIN (per the *GS1 General Specifications*).

#### **Rules**

New GTIN - Retail Consumer Trade Item New GTIN - Standard Trade Item Grouping

#### **Rationale**

Shelf management software and logistic systems need to be updated to ensure optimal shelf space allocation.

## Consequence if rule not applied

The 20% Rule meets the "reasonability" test (i.e., 0% is unacceptable to manufacturers, and 100% is unacceptable to Buyers). In-depth canvassing of GCI companies led to the selection of 20%)

#### 3.2 MATERIAL OR TYPE

#### 3.2.1 PACKAGING WITH MINOR IMPACT

Minor packaging material changes to the retail consumer trade item level (e.g. PET to HDPE or reduction in packaging size) that do not significantly affect the dimensions of the trade item on the retail shelf or within the order guide/catalog.

As a general guideline, the change should be considered "significant" (and therefore require a new GTIN), if there is any dimensional change of more than 20% in any axis or any gross weight change of more than 20%.

#### **Rules**

Same GTIN - Retail Consumer Trade Item Same GTIN - Standard Trade Item Grouping

#### Rationale

Trade item dimensions for both retail consumer and standard trade item grouping should be part of the Item File Master Data, which is best communicated between trading partners via a certified data pool.

#### Consequence if rule not applied

(Unnecessary) changes to the GTIN at the retail consumer trade item level increase supply chain cost. Historic sales data from the point of sale can be used to assess the impact of the change by keeping track of the date.

#### **Notes**

This rule addresses packaging only, any change in Declared Net Content requires a new GTIN (per the GS1 General Specifications).



#### 3.2.2 PACKAGING - STANDARD TRADE ITEM GROUPING LEVEL

A minor change in the packaging at the standard trade item grouping level, is made that will not impact how the trade item grouping is handled in the supply chain (e.g., optimization of packaging material or changing supplier of the packaging material).

#### Rules

Same GTIN - Retail Consumer Trade Item Same GTIN - Standard Trade Item Grouping

#### Rationale

The change has no impact on supply chain partners.

Manufacturer assigned Batch Numbers can be used to track changes not related to "trade."

## Consequence if rule not applied

An explosion in the number of GTIN changes within the supply chain as any change relevant only to the manufacturer will have to be signalled by a new GTIN. This imposes unnecessary cost.

## Foodservice examples

Changes to: box crush weight; supplier of the packaging material; packaging graphics; from brown box to a white box or from a box with flaps to a box with a lid

Changing a corrugated case to a shrink wrap tray: although this situation would not require a new GTIN, this type of change would require early and thorough communication between trading partners to ensure receiving, storage and distribution processes are addressed.

## 3.3 NEW/ADDITIONAL PALLET LAYOUT

New / additional pallet layout to co-exist permanently with the original layout.

#### Rules

Same GTIN - Retail Consumer Trade Item

Same GTIN - Standard Trade Item Grouping

#### **Rationale**

The pallet pattern / layout does not impact the quantity of retail consumer trade items or cases contained. If two pallet layout configurations are supplied to a market in parallel, and can be ordered separately, a different GTIN is required for each pallet configuration. In effect, the pallet then becomes the ordering unit.

## Consequence if rule not applied

Robotic picking requires a known (i.e., pre-determined) pallet layout and stacking order.

Efficient logistics applications require pre-determined pallet configurations.

#### **Notes**

GTIN for Standard Trade Item Grouping: no change at the case level but (If pallet layout is important to the retailer, then retailer should order by the pallet. This would require a GTIN at the pallet level.)

In times of transition where there will be only one pallet configuration, a new GTIN will not be required.

## Foodservice example

ltems placed on a pallet in one pattern by the manufacturer but stored in a different pattern by the distributor

A multi-DC distributor may have varying pallet patterns based on each DC's needs.



## 3.4 ELECTRONIC ARTICLE SURVEILLANCE (EAS) SYSTEM (THEFT PROTECTION)

#### NOT FOODSERVICE RELEVANT

#### 3.5 ADDITION OF AN EPC TAG

NOTE: Where an item has an EPC Tag and a barcode, the encoded GTIN must be identical.

#### **Rules**

Same GTIN - Retail Consumer Trade Item Same GTIN - Standard Trade Item Grouping

#### **Rationale**

The requirement to use EPC Tags is driven by trading partner agreement. Otherwise identical items, with and without an EPC Tag, must have the same GTIN (per the GS1 General Specifications) to enable the smooth operation of the supply chain.

## Consequence if rule not applied

The introduction of EPC Tags to existing product lines would require reallocation of GTIN. This would add significant cost to the global supply chain and avoids the additional costs associated with an explosion of new GTINs.

## 3.6 INCLUSION OR REMOVAL OF A CERTIFICATION MARK

A certification mark is a symbol, logo or wording on a product that declares conformance to a regulated set of criteria (e.g., European Certification Mark CE). When a product is changed to include or remove a certification mark, a new GTIN should be allocated for markets where the certification mark is of particular relevance.

#### Rules

New GTIN - Retail Consumer Trade Item New GTIN - Standard Trade Item Grouping

## Rationale

It is a key principle of GTIN Allocation that the GTIN uniquely identifies the product and its packaging configuration. Within the healthcare sector in particular, the use of a certification marks has a major impact on regulatory conformance.

#### Consequence if rule not applied

Inability to distinguish between product with or without the Certification Mark. In doing so there is a risk product will not be acceptable in certain markets.



## Foodservice examples

Kosher vs. Non-Kosher

Organic vs. Non-organic

## **Notes**

Brand owners are responsible for internal control of their inventory and any return systems. It is important that such systems, as well as phase-in & phase-out logistic management, can distinguish between 'old' and 'new' product. When this can be effectively achieved, for example using the batch number or product variant, there is



no need to allocate a new GTIN in the scenario above. It should also be noted that when a certification mark is added to enable sales in a new country/market it has no impact on countries/markets where the product was previously sold – in this case there is no need to allocate a new GTIN in the scenario above.

## 4 PRODUCT

## 4.1 CONTENT

#### 4.1.1 COUNT OF ITEMS IN A PACK

A different declared count of trade items in a grouping

Any change to the declared count of trade items at any level of packaging will require a new GTIN at that level and any packaging level above it (per the *GS1 General Specifications*).

When a Pack is sold by count and labelled only by count and the count changes, a new GTIN is required (per the *GS1 General Specifications*).

When a Pack is sold by weight and labelled only by weight (not count) and the count changes, a new GTIN is not required.

#### **Rules**

N/A - Retail Consumer Trade Item New GTIN - Standard Trade Item Grouping

#### Rationale

Different GTIN necessary to distinguish between the different pack sizes/declared trade item counts throughout the supply chain.

## Consequence if rule not applied

The GTIN identifies all aspects of the standard trade item grouping for ordering, stocking or billing systems. Using the same GTIN for the standard trade item grouping containing different quantities invalidates these systems.

## Foodservice examples

Case of 150 BBQ Dipping Cups (2 oz each) total 18.75 pounds – changes to – Case of 200 BBQ Dipping Cups (1.5 oz ea) total 18.75 pounds. GTIN change is required if the label declares the count.

Bulk candy is packed by weight (not by individual count), and the grouping label only reflects the net weight (not the count). Note: the individual candy is not labeled with a GTIN for retail sale. No new GTIN is required for that grouping if the count changes but the net weight remains the same.

## **Notes**

GTIN of retail consumer trade item not impacted.

Each standard trade item grouping has a unique GTIN.



## **Explanation graphic**

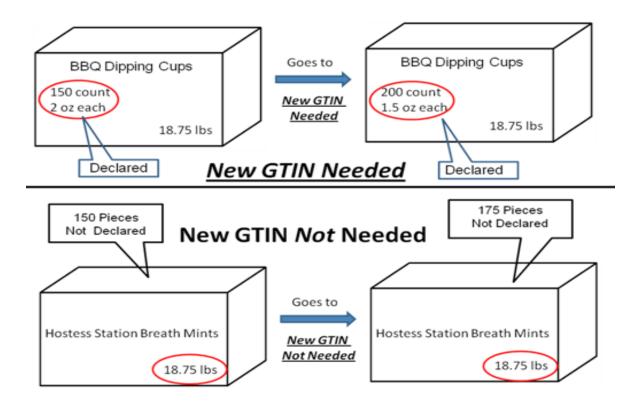


Figure 7. Count of Items in a Pack explanation graphic

## 4.1.2 NON-DECLARED CHANGE (NET WEIGHT, COUNT OR VOLUME)

Minor (not declared) change in net weight / count / volume (e.g., changes in manufacturing tolerances do not impact the declaration to the consumer)

#### **Rules**

Same GTIN - Retail Consumer Trade Item

Same GTIN - Standard Trade Item Grouping

## **Rationale**

The changes possibly associated with an improved product manufacturing or processing tolerance that do not impact other GTIN Rules, should not cause a new GTIN to be assigned.

## Consequence if rule not applied

GTIN assignment would be impractical to manage.



#### 4.1.3 CHANGES TO DECLARED NET CONTENT

This rule applies when the Brand Owner makes ANY change to the Declared Net Content. Declared Net Content is defined as the net weight, count or volume that is declared to the consumer. This definition does not include other declarations such as serving suggestions, usages or nutrition information which are covered under separate rules.

Following are examples of changes which will require a new GTIN:

## Single Net Content.

Count: Changing the number of tablets in an aspirin bottle, or changing the number of diapers in a pack of disposable diapers.

Net Weight: Changing the declared net weight of a can of soup from 10.3 ounces to 10.5 ounces. Volume: Changing the declared volume of fabric softener from 51 fluid ounces to 48 fluid ounces.

## Multiple Net Content Declarations to the consumer.

Snack bars with a Declared Net Weight of 12 Bars (40 g NET / 1.4 oz) and a Declared Net Weight of 480 g 16.8 oz.). Changing the net weight and count of the individual bars, but not changing the total Declared Net Weight would still require a new GTIN (per the GS1 General Specifications).

#### **Rules**

New GTIN - Retail Consumer Trade Item New GTIN - Standard Trade Item Grouping

#### **Rationale**

The change leads to a change in the order guide (consumer declaration). Failure to distinguish between "old" and "new" retail consumer trade items could lead to inaccurate unit pricing.

## Consequence if rule not applied

This potentially could lead to the failure to provide the consumer with accurate retail consumer trade item information (e.g. via the Order Guide) and may lead to legal penalties. All supply chain partners need to "phase in" and "phase out" the new and old trade item. Using separate GTINs does this most efficiently.

- Foodservice examples
- 5 gallon milk vs. 6 gallon milk NEW GTIN
- Six #10 cans of soup net weight of each can changed NEW GTIN
- ltem of 400 grams in 4 helpings of 100 grams changed to 400 grams in 8 helpings of 50 grams NEW GTIN

#### **Notes**

Where all Declared Net Contents are changed, a new GTIN is required.

Even if associated changes (e.g. dimensions) may not require a new GTIN, any change to the net content will require a new GTIN.



#### 4.1.4 CONTENT OF A DYNAMIC ASSORTMENT

## A change in the content of a dynamic assortment

An assortment that comprises a fixed count of a changing assortment of two or more different retail consumer trade items, each identified with a unique GTIN. All of the retail consumer trade items and their GTINs will have been communicated to the recipient before trading takes place and are declared on the package. The recipient has accepted that the supplier may change the assortment without any prior notice.

#### **Rules**

Same GTIN - Retail Consumer Trade Item Same GTIN - Standard Trade Item Grouping

#### Rationale

If the assortment is dynamic the change has no impact on the consumer declaration or supply chain partners

#### Consequence if rule not applied

An explosion in the number of GTIN changes and an unnecessary increase in cost

## Foodservice example

Danish mix not specified. Sometimes 4 cheese, 4 apple, 4 lemon, then sometimes 3 cheese, 5 apple, and 4 lemon.

#### **Notes**

New GTIN for Standard Trade Item Grouping: No change, even if a retail consumer trade item is introduced to or removed from the assortment.

#### 4.1.5 ADDITIONAL DECLARED NET CONTENT UNIT OF MEASURE

Where the Net Content of a product is unchanged but the packaging is modified to include a new additional unit of measure (e.g., the Declared Net Content is expressed in metric and an imperial measurement is added to enable trade in expanded markets)

#### **Rules**

Same GTIN - Retail Consumer Trade Item Same GTIN - Standard Trade Item Grouping

## **Rationale**

The trade item is unchanged.

#### Consequence if rule not applied

As the product is not changed, (unnecessary) changes to the GTIN at the retail consumer trade item level increase supply chain cost.



## 4.1.6 REMOVAL OF ONE DECLARED NET CONTENT ON A PRODUCT WITH MULTIPLE NET CONTENT

For products with Multiple Net Content Consumer Declarations (e.g., soup with a Declared Net Volume of 1 liter and a Declared Number of Servings of 4), all of the Net Content quantities remain the same and one declaration is removed from the package (e.g., the number of servings is removed).

#### **Rules**

Same GTIN – Retail Consumer Trade Item Same GTIN - Standard Trade Item Grouping

#### Rationale

As the product is not changed, (unnecessary) changes to the GTIN at the retail consumer trade item level increase supply chain cost.

## Consequence if rule not applied

Because the product is not changed, (unnecessary) changes to the GTIN increase supply chain cost.

#### **Notes**

Where a Declared Net Content removal would impact the price comparison information, a new GTIN should be assigned.

#### 4.1.7 MARKETING DECLARATIONS

Marketing declarations other than net content include serving suggestions, usages and other marketing statements such as "Improved Flavor." This is information just for the consumer's knowledge, but not directly related to pricing, brand, government regulations or the name of the product which are covered under separate rules.

#### **Rules**

Same GTIN - Retail Consumer Trade Item Same GTIN - Standard Trade Item Grouping

#### **Rationale**

Although a change is made in the information given to the consumer, these changes do not impact the supply chain, thus a new GTIN is not required. These changes should be communicated through GDSN and updated in the buyer's system. Associated images should also be replaced reflecting the new declarations.

## **Notes**

Packaging changes should be associated with an identifier that will allow for accurate depiction of images and related data for consumer information.

## 4.2 FORMULATION

#### 4.2.1 MINOR FORMULATION

#### Minor formulation or characteristic change

Any change in the formula that does not require a change in the consumer declaration as defined by legislation such as declared allergens or any change that the end user would not recognize or need to interact with differently would keep the same GTIN.



The following examples are intended to illustrate the general rule. For some countries or regions, these examples may be treated differently due to local or regional legislation:

- . A change in nutrition such as an increase or decrease in the existing amount of Vitamin A,
- A change due to seasonal availability such as wild blueberries to cultivated blueberries.
- A change in characteristic, fit or function such as changing the composition of the plastic handle of a mop to make it stronger or changing the shape of dog food from an "X" to a "Y."

#### **Rules**

Same GTIN - Retail Consumer Trade Item Same GTIN - Standard Trade Item Grouping

#### Rationale

The change has no impact on supply chain partners. Minor ingredient changes do not change the trade item description.

## Consequence if rule not applied

An explosion in the number of GTIN changes within the supply chain as any change relevant only to the manufacturer will have to be signalled by a new GTIN. This imposes unnecessary cost.

## Foodservice example

A manufacturer has a long-standing, scented cleaner known by the name of "Citrus Explosion." This product, named appropriately, features a noticeably citrusy scent. Months later, the company decides to alter the formula from Citrus 1.2 to Citrus 2.1.

A supplier of muffin mix changes the concentration of blueberry scent from .5% to .7% with no change in form, fit, function or taste or texture.

## 4.2.2 MAJOR FORMULATION

Major formulation or characteristic change that will alter the existing trade item. If the consumer is expected to distinguish the new from the old trade item and order accordingly, or if regulations or other requirements dictate so, or if changes alter the fundamental consumer benefit. Examples would include changing the flavor from lemon to lime, or changing the cookie from a sugar cookie with chocolate chips to an oatmeal cookie with chocolate chips.

A change to the legally governed declarations to the consumer such as declared allergens or healthcare requirements. Examples would include eliminating sugar to make the trade item "sugar free" or adding/removing an allergen.

A change in characteristic, fit or function or any change that the end user would need to interact with differently, or changes to the fundamental benefits as it relates to the consumer. Examples would include changing the aroma of an air freshener from orange to cherry, or adding bleach to a laundry detergent.

#### **Rules**

New GTIN - Retail Consumer Trade Item New GTIN - Standard Trade Item Grouping



P Th

The change leads to a change in the order guide (consumer declaration).

## Consequence if rule not applied

Failure to provide the consumer with accurate retail consumer trade item information (e.g., provide the correct label for "sugar free" product).

P

## Foodservice example

A can of soup that initially contained sodium is now sodium-free.

#### 4.2.3 FRESH VS. FROZEN

A fresh product (e.g., sausage) that is then made available on the market as a frozen product.

#### Rules

New GTIN - Retail Consumer Trade Item New GTIN - Standard Trade Item Grouping

#### **Rationale**

A different GTIN is necessary to distinguish for ordering, pricing and handling purposes. Master data requirements, such as Storage Condition and Product Classification, as well as consumer labelling requirements will all be different between the fresh and frozen versions.

## Consequence if rule not applied

The GTIN identifies all aspects of the standard trade item for ordering, stocking or billing systems. Using the same GTIN for items with fundamentally different consumer benefits invalidates these systems.

#### **Notes**

GTIN allocation is independent of normal supply chain temperature management requirements (e.g., some products must be kept within a defined temperature range during storage and transport).

However, if a distributor decides to freeze product that has been offered only as fresh, a new GTIN is not required. If that distributor has customers that only order using the GTIN, the distributor will annotate the customer profile with the customer preference of fresh or frozen product. If the customer orders by the reorder number, then the present system will manage itself. Some brand owners may require prior agreement for this business practice.

## 4.3 FUNCTIONALITY - MAJOR CHANGE

Major change in functionality: if the change introduces new features or functionality (e.g., new software Version, New features on electronic trade items, etc.).

## **Rules**

New GTIN - Retail Consumer Trade Item New GTIN - Standard Trade Item Grouping

## **Rationale**

It is recommended to assign a new GTIN at both the retail consumer and standard trade item grouping levels to ensure all supply chain partners are able to distinguish the "old" from the "new."



#### Consequence if rule not applied

Unable to phase-in / phase-out old stock

## Foodservice example

A new dishwasher with a de-spotting feature would require a different GTIN so the supply chain knows what to order or receive.

## 4.4 MIX OF PRODUCT

#### 4.4.1 RANDOM PACKS ASSORTMENT

An assortment that comprises items that are not uniquely identified on the package and are not marked for individual sale (e.g., a trade item that is a bag of individually wrapped candy or a package with different colors of tooth brushes) and the random assortment is modified.

#### **Rules**

Same GTIN - Retail Consumer Trade Item Same GTIN - Standard Trade Item Grouping

#### **Rationale**

If the assortment is random the change has no impact on the consumer declaration or supply chain partners.

## Consequence if rule not applied

An explosion in the number of GTIN changes - imposing unnecessary cost

## Foodservice examples

Danish mix not specified. Sometimes 4 cheese, 4 apple, 4 lemon. Sometimes 3 cheese, 5 apple, 4 raspberry.

Popsicle mix not specified. Sometimes 4 lemon, 4 cherry, 4 grape. Sometimes 4 raspberry, 4 cherry, 4 grape.

#### 4.4.2 CHANGES TO A PRE-DEFINED ASSORTMENT

An assortment that comprises a fixed count of two or more different trade items, each identified with a unique GTIN that is declared on the package. The trade items contained within the assortment may be trade items of one or more manufacturers. When an assortment contains items from multiple manufacturers the GTIN requirements for the assortment is the responsibility of the organization that creates the assortment.

Any change in the configuration of the assortment is considered a new trade item.

#### **Rules**

Same GTIN - for the individual trade items contained in the assortment New GTIN - is required for the assortment and any levels above the assortment

#### **Rationale**

The standard trade item grouping is a new trade item which must be uniquely identified throughout the supply chain.



#### Consequence if rule not applied

Unable to identify the content within the assortment.

#### Notes

Changes to the configuration of the assortment are not applicable to the GTIN of lower packaging levels.

## Foodservice example

Lelly assortment that is declared to be 40 packs of grape and 40 packs of strawberry. The assortment cannot change the quantity or the flavor declared on the item.

#### 4.5 COMBINATION PACK

Combination Pack is two or more retail trade items normally sold separately, that are bound together creating a new trade item (e.g., a bottle of shampoo bound together with a bottle of conditioner).

#### Rules

New GTIN - Retail Consumer Trade Item

New GTIN - Standard Trade Item Grouping

#### **Rationale**

A new GTIN is required for the retail consumer trade item because it is a new and unique product.

## Consequence if rule not applied

If separate new GTINs are not assigned, the combination pack cannot be identified for ordering and invoice processing.

#### **Notes**

For all combination packs, it is important to obscure the barcode on the individual trade items. If more than one barcode is visible, the operator is unsure which one to scan.

## 5 PROMOTIONAL

## 5.1 SAMPLE OR TEST TRADE ITEMS

## Sample or test trade items

#### Rules

N/A GTIN - Retail Consumer Trade Item

N/A GTIN - Standard Trade Item Grouping

#### Rationale

If the trade item is released to market for use in any form, it requires a GTIN. The GTIN used on the test/sample trade item can be maintained if the trade item test is successful and becomes orderable.

## Consequence if rule not applied

Unable to identify trade item in supply chain

#### **Notes**

Retail Consumer Trade Item has a unique GTIN if ever sold at retail

Standard Trade Item Grouping has a unique GTIN if ever traded in supply chain



#### 5.2 BONUS PACK

A bonus pack is an item that has an increased quantity (net weight, count, volume) and is sold at the same price as the regular item E.g. a bottle of product x of -12oz for the same price as the 10 oz product x, a pack of 4 pens with an additional bonus quantity of 2 pens.

#### **Rules**

New GTIN - Retail Consumer Trade Item New GTIN - Standard Trade Item Grouping

#### Rationale

Quantity increase affects unit pricing and information found on order guides, and the consumer is getting something different.

An increase in quantity resulting in a change of weight or dimensions of the item could impact the handling of the item in the supply chain.

## Consequence if rule not applied

Danger that the price declaration to the consumer (on the pack) is different to the price charged (price in the file look up table).

#### Notes

GTIN for Standard Trade Item Grouping: standard trade item grouping net weight and case cube can change



Box of cereal contains an extra 20%

#### 5.3 FREE GIFTS

## 5.3.1 FREE ITEM - TWO RETAIL CONSUMER TRADE ITEMS

NOT FOODSERVICE RELEVANT

## 5.3.2 TWO (OR MORE) RETAIL CONSUMER TRADE ITEMS BOUND TOGETHER

NOT FOODSERVICE RELEVANT

#### 5.3.3 FREE ITEM IN RETAIL CONSUMER TRADE ITEM

A free item packed inside the primary retail consumer trade item package with no change in quantity of trade item, and the promotion package is sold at the same price as the regular package.

#### **Rules**

Same GTIN - Retail Consumer Trade Item Same GTIN - Standard Trade Item Grouping

#### Rationale

The change has no impact on supply chain partners.

## Consequence if rule not applied

An explosion in the number of GTIN changes, imposing unnecessary cost



#### 5.3.4 TWO OR MORE RETAIL CONSUMER TRADE ITEMS NEAR EACH OTHER

#### NOT FOODSERVICE RELEVANT

#### 5.4 TIME CRITICAL PROMOTION

## Push promotion for a (time-critical) event

#### **Rules**

Same GTIN - Retail Consumer Trade Item New GTIN - Standard Trade Item Grouping

#### **Rationale**

Certain time critical promotion (e.g., World Animal Day) where the promotion item has to be on display on a given day. In this instance normal FIFO rules cannot be effectively applied.

Other, longer term, critical promotions (e.g., seasonal soft drink package versus shipment that may not arrive on the shelf until a movie is launched) require no change as normal FIFO rules can be applied.

Standard trade item grouping distinction required for efficient Phase In – Phase Out.

## Consequence if rule not applied

Different buyers impose different rules on the same supplier causing unnecessary supply chain cost.

Keeping the retail consumer trade item level GTIN allows historic data file referral.

#### **Notes**

GTIN for Standard Trade Item Grouping: new GTIN where FIFO is inappropriate.

## Foodservice example

A movie promotion on a soda cup needs to be monitored to coincide with the movie release date.

## 5.5 RECONFIGURATION OF CONSUMER PACK

A consumer package reconfigured for promotional purposes (e.g., memorial edition coffee can), which contains the same quantity of trade item as the regular package and is sold at the same price

#### **Rules**

Same GTIN - Retail Consumer Trade Item Same GTIN - Standard Trade Item Grouping

#### Rationale

The change has no impact on supply chain partners.

The consumer declaration is not changed.

The net weight is not affected.

## Consequence if rule not applied

An explosion in the number of GTIN changes - imposing unnecessary cost

#### **Notes**

GTIN for Retail Consumer Trade Item: no change. Where the retail consumer trade item footprint does not change more than 20% in any dimension.



#### 5.6 MAIL IN WITH PROOF OF PURCHASE

A retail consumer trade item may have a coupon or other identifiable printed matter that would offer proof of having purchased that item. The coupon would be returned by mail by the consumer for refund, for other items or for purchase of other items at a reduced price.

#### Rules

Same GTIN - Retail Consumer Trade Item Same GTIN - Standard Trade Item Grouping

#### Rationale

The change has no impact on supply chain partners.

## Consequence if rule not applied

An explosion in the number of GTIN changes - imposing unnecessary cost

#### **Notes**

GTIN for Standard Trade Item Grouping: no change

However, if the coupon is time-critical, it should be treated as such.

## 5.7 MERCHANDISE SOLD WITH ALLOWANCE

NOT FOODSERVICE RELEVANT

## 6 MANUFACTURING

#### 6.1 PRODUCED IN DIFFERENT LOCATIONS

## Trade item produced in different locations

#### **Rules**

Same GTIN - Retail Consumer Trade Item Same GTIN - Standard Trade Item Grouping

#### Rationale

Different GTIN for the same trade item could cause serious problems for buyer (e.g. price lookup file, replenishment).

## Consequence if rule not applied

Global players supplying the same trade item, from factories in different countries, would have to use different GTINs even though no change to the consumer.

#### 6.2 DIFFERENT MANUFACTURER - IDENTICAL TRADE ITEM

Different manufacturer for an (apparently) identical trade item made for a specific buyer

#### Rules

Same GTIN - Retail Consumer Trade Item Same GTIN - Standard Trade Item Grouping



The Retail Price is not relevant to the GTIN.

## Consequence if rule not applied

GTIN assignment would be impossible to manage.

#### **Notes**

CTIN for Retail Consumer Trade Item: the buyer is the brand owner

## 7 SELLING PRICE

## 7.1 DIFFERENT RETAIL PRICE

Different Retail Price (e.g., for different regions in one country) and the price is <u>not</u> marked on the packaging

#### **Rules**

Same GTIN - Retail Consumer Trade Item Same GTIN - Standard Trade Item Grouping

## **Rationale**

The retail price is not relevant to the GTIN unless it is pre-priced by the supplier on the package.

## Consequence if rule not applied

CTIN assignment would be impossible to manage if linked to buyers' price files.

#### Notes

GTIN for Retail Consumer Trade Item: no change Exception if the trade item is pre-priced

#### 7.2 RETAILER PRICE LABEL

NOT FOODSERVICE RELEVANT

## 7.3 ANY MARKED PRICE CHANGE FOR FIXED MEASURE ITEMS

If the price is shown on the trade item (not recommended) any addition, change or deletion in price must be communicated to supply chain partners by a change of GTIN. Examples:

- MSRP: When the manufacturer includes pre-pricing as part of the package graphics, such as is normally done with a Manufacturer's Suggested Retail Price (MSRP)
- Any Other Marked Price Change (Pre-priced): Any other marked price as part of the packaging (pre-priced). Selling price is the price marked on the packaging
- Price reduction: Explicitly specified on the pack (flash packs), (e.g., 10 cents off).

#### **Rules**

New GTIN - Retail Consumer Trade Item New GTIN - Standard Trade Item Grouping



The change requires supply chain partners to distinguish between differently priced items. Newspapers, magazines and some books tend to be price marked. If the cover price changes, the GTIN should change. Prepricing needs to comply with the law.

## Consequence if rule not applied

Danger that the price declaration to the consumer (on the pack) is different than the price charged (price in the file look up table). Pricing legislation normally means that the price shown must equal (or be greater than) the price charged to the consumer.

## 7.4 PRICE-OFF COUPON

## NOT FOODSERVICE RELEVANT

## 8 SEASONS

## 8.1 MODIFIED FOR SEASON

Trade items modified for seasonal reason (e.g. holiday pack, candy over-wrapped for Easter).

#### Rules

New GTIN - Retail Consumer Trade Item New GTIN - Standard Trade Item Grouping

#### **Rationale**

Facilitates efficient pricing, invoicing, reordering and stock-management at the standard trade item grouping level and seamless trade item substitution at the retail consumer trade item level.

#### Consequence if rule not applied

Additional complexity (cost) in the phase-in / phase-out of seasonal trade items

Rate sale, re-order and (seasonal) promotions management more complex

#### **Notes**

GTIN for Retail Consumer Trade Item: note Recurring Seasonals (e.g., white T-shirt sold each summertime or a cake supplied only during the Christmas period) should use the same GTIN each season

## Foodservice examples

- Eggnog with both Thanksgiving and Christmas graphics SAME GTIN
- Lasagne sold in holiday pan and regular pan SAME GTIN
- Candy over wrapped with Halloween or Valentine's Day Designs NEW GTIN

#### 8.2 SAME BRAND - TRADE ITEM VINTAGE

#### 8.2.1 VINTAGE IMPACTS PRICING/ORDERING/INVOICING

Vintage impacts pricing or ordering or invoicing at any point in the supply chain

#### Rules

New GTIN - Retail Consumer Trade Item New GTIN - Standard Trade Item Grouping



An assigned GTIN must never be changed as long as the item is not modified so that it needs to be discriminated from the initial trade item for ordering, stocking or billing. The example of "wine" clearly highlights the grey area within this definition. For exactly the same "brand" of wine, the price of top quality vintage varies enormously by year. For other "brands" of wine, the year is of no consequence. Therefore, it is ultimately for the brand owner (whoever markets the wine) to decide GTIN allocation rules.

## Consequence if rule not applied

The brand owner is ultimately responsible for the correct GTIN assignment to their trade items. The GTIN assignment impacts how their trade items are traded. Failure to use the brand owner's identification scheme means that all benefit of source numbering is lost.

#### 8.2.2 VINTAGE HAS NO IMPACT ON PRICING/ORDERING/INVOICING

Vintage has no impact on pricing or ordering or invoicing at any point in the supply chain

#### Rules

Same GTIN – Retail Consumer Trade Item Same GTIN - Standard Trade Item Grouping

#### Rationale

An assigned GTIN must never be changed as long as the item is not modified so that it needs to be discriminated from the initial trade item for ordering, stocking or billing. The example of "wine" clearly highlights the grey area within this definition. For exactly the same "brand" of wine, the price of top quality vintage varies enormously by year. For other "brands" of wine, the year is of no consequence. Therefore, it is ultimately for the brand owner (whoever markets the wine) to decide GTIN allocation rules.

## Consequence if rule not applied

The brand owner is ultimately responsible for the correct GTIN assignment to their trade items. The GTIN assignment impacts how their trade items are traded. Failure to use the brand owner's identification scheme means that all benefit of source numbering is lost.

## 9 UPSTREAM

## 9.1 DIFFERENT LOGISTICAL SIZE

## 9.1.1 TRADE ITEM SOLD IN VARIABLE MEASURE VARIES IN TOTAL WEIGHT

Trade item sold in variable measure varies in total weight

#### **Rules**

Same GTIN -Trade Item

#### Rationale

All identification includes the measure as an attribute of the GTIN, so no new GTIN is required. (See GS1 General Specifications for further guidance on variable measure items.)

## Consequence if rule not applied

Unnecessary introduction of new GTINs



#### 9.1.2 TRADE ITEM SUPPLIED IN NEW SIZE

#### Trade item supplied in new size.

#### **Rules**

New GTIN - Trade Item

#### **Rationale**

Different sized trade items must have different GTINs.

## Consequence if rule not applied

Impossible to distinguish between different sizes of trade item.

#### 9.1.3 MAJOR PACKAGING CHANGE

## Any dimensional change of more than 20%, but net weight remains unchanged

#### **Rules**

New GTIN -Trade Item

#### Rationale

Inventory and logistics systems need to be updated to ensure optimal space allocation.

The 20% Rule meets the "reasonability" test (i.e., 0% is unacceptable to manufacturers, and 100% is unacceptable to Buyers. In-depth canvassing of GCI companies led to the selection of 20%)

## Consequence if rule not applied

20% rule meets reasonability test (e.g. 0% is unacceptable to suppliers, and 100% is unacceptable to customers). Note: Any change in Net Declared Weight requires a new GTIN.

#### Note

Any change in Net Declared Weight requires a new GTIN.

#### 9.1.4 SAME TRADE ITEM BUT DIFFERENT HANDLING PARAMETERS

Same trade item but different handling parameters (e.g. change of container or packaging)

#### **Rules**

Same GTIN -Trade Item

#### Rationale

The trade item is unaffected by how it is delivered.

## Consequence if rule not applied

Unnecessary introduction of new GTINs



#### 9.2 DIFFERENT SUBSTANCE

#### 9.2.1 NEW SPECIFICATION

The party that assigns the GTIN has issued a new specification for the trade item.

#### **Rules**

New GTIN - Trade Item

#### Rationale

Trade item must be distinguished from previous trade item.

#### Consequence if rule not applied

Old and new trade items are confused with each other.

## 9.2.2 VARIATIONS IN THE GRADE - TRADE ITEM

Variations in the grade of the trade item.

#### Rules

New GTIN - Trade Item

#### Rationale

Different grades of a trade item must be distinguished from one another.

#### Consequence if rule not applied

Different grades are confused with one another.

#### 9.2.3 SPECIFICATION VARIES WITHIN THE PARAMETERS

Trade item specification varies within the parameters of the party assigning the GTIN.

#### **Rules**

Same GTIN - Trade Item

#### **Rationale**

The trade item still falls within the specification defined for trading purposes so no new GTIN is required. The supplier could use the Application Identifier for Product Variant (AI (20)) to distinguish the technical improvement.

## Consequence if rule not applied

Unnecessary introduction of new GTINs.

#### 9.2.4 PRINT DESIGN CHANGE

The trade item is printed packaging material, and the print design has changed.

#### **Rules**

New GTIN - Trade Item

## Rationale

The change in print design will affect where and how the trade item can be used in the manufacturing process.

## Consequence if rule not applied

Unable to ensure that correct packaging is used for the appropriate production process and batch.



#### 9.2.5 DIFFERENT FINISHING

Different finishing (e.g., a trade item is finished or converted to order).

#### Rules

New GTIN - Trade Item

#### **Rationale**

The final conversion produces different trade item which must be separately identified.

## Consequence if rule not applied

Unable to distinguish between different trade items.

## 9.3 DIFFERENT TRADING PARTNERS

#### 9.3.1 SUPPLIER CHANGE - SUPPLIER ASSIGNED GTIN

Change of supplier and the GTIN is assigned by the supplier.

#### Rules

New GTIN - Trade Item

#### **Rationale**

Each supplier's trade items need to be identified separately from those of another supplier.

## Consequence if rule not applied

Impossible to track and trace trade items manufactured or supplied by different companies.

#### 9.3.2 SUPPLIER CHANGE - CUSTOMER ASSIGNED GTIN

Change of supplier and the GTIN is assigned by the customer.

#### **Rules**

Same GTIN - Trade Item

#### Rationale

The trade item is specified by the customer who allocates the GTIN to the trade item.

## Consequence if rule not applied

Unnecessary introduction of new GTINs.

#### 9.3.3 CUSTOMER CHANGE - SUPPLIER ASSIGNED GTIN

Change of customer and the GTIN is assigned by the supplier.

#### Rules

Same GTIN - Trade Item

#### **Rationale**

The trade item is unaffected by the change in customer.

## Consequence if rule not applied

Unnecessary introduction of new GTINs.



## 10 FRESH FOOD

#### 10.1 DIFFERENCE IN WEIGHT

Where a fresh food, pre-packed package item differs in weight, is sold by weight, but ordered by specific separate pack size, a new / unique GTIN will be assigned to each type of pack size

#### **Rules**

New GTIN - Retail Consumer Trade Item N/A - Standard Trade Item Grouping

#### **Rationale**

Pre-packaged chicken drumsticks, each package differs in weight, sold by weight but ordered by specific pack size (GTIN A = 10pk and GTIN B = 14pk)





**GTIN A** 

**GTIN B** 

## Consequence if rule not applied

GTIN assignment would be inaccurate

## 10.2 SOLD INDIVIDUALLY THEN CUT AND SOLD BY WEIGHT

Where a loose produce item is sold as an each (product 1), then cut and packaged to be sold by weight (product 2), product 1 and 2 require separate unique GTINs.

#### **Rules**

New GTIN - Retail Consumer Trade Item N/A - Standard Trade Item Grouping

## Rationale

A whole watermelon is sold for \$4.00 each. The retailer decides to cut the watermelon into halves and sell the quarters for \$1.99 per kilo/pound.

## Consequence if rule not applied

GTIN assignment would be inaccurate





Product 1 with GTIN C



Product 2 with GTIN D



#### 10.3 ITEM SOLD INDIVIDUALLY OR BY WEIGHT

Loose produce item is sold as an each (individual piece) or weight.

Where a loose produce item is sold as an each or by weight (product 3), and is then packaged instore and sold as a fixed measure (product 4), product 3 and 4 require separate unique GTINs.

#### Rules

New GTIN – Retail Consumer Trade Item N/A - Standard Trade Item Grouping

#### **Rationale**

An apple is sold by each or weight for 1.29 per kilo/pound. It is also packed in-store as a fixed measure container and sold as 3.00 for a 6 pack of apples.



Product 3 with GTIN E



Product 4 with GTIN F

Consequence if rule not applied GTIN assignment would be inaccurate

## 10.4 BULK ITEMS

Fresh bulk items not intended for Point-of-Sale.

Where a bulk fresh food item of fixed or variable measure, not intended for Point-of-Sale, (product 5), is cut and packaged in-store and sold by weight (product 6), product 5 and 6 will require separate GTINs based on the requirement to use Indicator digit 9 in a GTIN-14 on product 5 and the requirement to use GTIN-12 or GTIN-13 on product 6 because it will be scanned at Point-of-Sale.

#### Rules

New GTIN - Retail Consumer Trade Item N/A - Standard Trade Item Grouping

## Rationale

Example 1: A wheel of cheese (not intended for Point-of-Sale) is ordered by a GTIN-14 inclusive of Indicator digit 9, is cut and packaged in variable weight packages in the deli department and sold by weight, will require a new GTIN, either GTIN-12 or GTIN-13 at Point-of-Sale.

Example 2: Bulk chicken breast (not intended for POS) is ordered by a GTIN-14 inclusive of Indicator digit 9,



then packaged into individual variable weight packages and sold by weight, will require a new GTIN, either GTIN-12 or GTIN-13 at Point-of-Sale.



**Consequence if rule not applied**GTIN assignment would be inaccurate

#### 10.5 ITEM PLACED IN A BAG

Loose produce item placed in a bag.

Where a loose produce item (product 9) is placed in a bag (product 10) by the consumer, product 9 and 10 have the same GTIN.

#### Rules

Same GTIN - Retail Consumer Trade Item N/A - Standard Trade Item Grouping

#### **Rationale**

Loose produce items presented for sale at the point-of-sale, either individually or in a bag (placed by the consumer) will be identified with the same GTIN. Placing the loose produce items in a bag by the consumer does not change the GTIN.

## Consequence if rule not applied

GTIN assignment would be inaccurate



## 11 APPENDIX: ADDITIONAL FOODSERVICE ATTRIBUTES FOR CONSIDERATION

ADDITIONAL FOODSERVICE ATTRIBUTES TO BE CONSIDERED							
MANUFACTURER PRODUCT NUMBER	A new GTIN is not required						
SHELF LIFE FROM PRODUCTION	A new GTIN is not required; however, additional process changes may be needed.						
INNER PACK QUANTITY (NO GTIN ASSIGNED)	If there is not a GTIN assigned, the inner pack is not intended to be sold, shipped or distributed. The inner pack is not identified in the GDSN packaging hierarchy, which means the manufacturer may not realize that the GTIN needs to be changed if the inner pack changes.  Suggestion: If inner pack is being distributed, work with the manufacturer to assign a GTIN to the inner pack which would then follow the rules for a new parent GTIN if the quantity changes.						
ITEM IN INNER PACK QUANTITY (NO GTIN ASSIGNED)	Where a GTIN is not assigned to an item in the inner pack (inner pack may or may not have a GTIN assigned), this number denotes the number of items contained in the inner pack GTIN. If the item quantity changes within an inner pack (or parent) GTIN, this should be a declared net content change for the inner pack/parent which is already covered by the GTIN Allocation Rules. If the quantity changing is not declared, it probably is not captured in GDSN which would make it difficult to know a new GTIN is required.						
NUTRITION FACT SERVING & UNIT OF MEASURE	Although a new GTIN is not always required, the manufacturer should ensure the change is communicated throughout the supply chain. Any changes in Nutrition Facts are subject to the GTIN Allocation Rule for Formulation Changes (see Section 4.2 of the online GTIN Allocation Rules).						
LINKS TO WEBSITES, IMAGES, DOCUMENTS, VIDEO, AUDIO FILE	A new GTIN is not required. However, the change does need to be communicated.						
SERVINGS OF THE TRADE ITEM UNIT	A new GTIN is not required. However, the change does need to be communicated.						

Table B. Additional Foodservice Attributes to be Considered



#### PROPRIETARY STATEMENT

This document contains proprietary information of GS1 US. Such proprietary information may not be changed for use with any other parties for any other purpose without the expressed written permission of GS1 US.

#### **IMPROVEMENTS**

Improvement and changes are periodically made to publications by GS1 US. All material is subject to change without notice. Please refer to GS1 US website for the most current publication available.

#### **DISCLAIMER:**

Except as may be otherwise indicated in specific documents within this publication, you are authorized to view documents within this publication, subject to the following:

- 1. You agree to retain all copyright and other proprietary notices on every copy you make.
- Some documents may contain other proprietary notices and copyright information relating to that document. You agree that GS1 US has not conferred by implication, estoppels or otherwise any license or right under any patent, trademark or copyright (except as expressly provided above) of GS1 US or of any third party.

This publication is provided "as is" without warranty of any kind, either express or implied, including, but not limited to, the implied warranties of merchantability, fitness for a particular purpose, or non-infringement. Any GS1 US publication may include technical inaccuracies or typographical errors. GS1 US assumes no responsibility for and disclaims all liability for any errors or omissions in this publication or in other documents which are referred to within or linked to this publication. Some jurisdictions do not allow the exclusion of implied warranties, so the above exclusion may not apply to you.

Several products and company names mentioned herein may be trademarks and/or registered trademarks of their respective companies. GS1 US does not, by promulgating this document on behalf of the parties involved in the creation of this document, represent that any methods, products, and/or systems discussed or recommended in the document do not violate the intellectual property rights of any third party. GS1 US has not performed a search to determine what intellectual property may be infringed by an implementation of any strategies or suggestions included in this document. GS1 US hereby disclaims any liability for any party's infringement of intellectual property rights that arise as a result of any implementation of strategies or suggestions included in this document.

This publication may be distributed internationally and may contain references to GS1 US products, programs and services that have not been announced in your country. These references do not imply that GS1 US intends to announce such products, programs or services in your country.

#### NO LIABILITY FOR CONSEQUENTIAL DAMAGE

In no event shall GS1 US or anyone else involved in the creation, production, or delivery of the accompanying documentation be liable for any damages whatsoever (including, without limitation, damages for loss of business profits, business interruption, loss of business information, or other loss) arising out of the use of or the results of use of or inability to use such documentation, even if GS1 US has been advised of the possibility of such damages.

#### **IAPMO**

In this publication, the letters "U.P.C." are used solely as an abbreviation for the "Universal Product Code" which is a product identification system. They do not refer to the UPC, which is a federally registered certification mark of the International Association of Plumbing and Mechanical Officials (IAPMO) to certify compliance with a Uniform Plumbing Code as authorized by IAPMO.



CORPORATE HEADQUARTERS
Princeton Pike Corporate Center
1009 Lenox Drive, Suite 202, Lawrenceville, NJ 08648 USA
T +1 937.435.3870 E info@gslus.org W www.gslus.org

FOLLOW US:







