FOODSERVICE

Voluntary GS1-128 Barcode Guideline
for Cases/Cartons in the Foodservice Industry

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THE GLOBAL LANGUAGE
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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.

INTRODUCTION

Operators, distributors and manufacturers are realizing the benefits of case-level barcoding and beginning to make the necessary investment in labeling and scanning technology. As a result, companies are grasping the importance of electronically capturing additional product information beyond the item number supplied in a standard ITF-14 barcode. In Foodservice, the preferred method for providing supplemental information, when requested, is through the use of GS1-128 barcodes.

GS1-128 barcodes are used to encode trade item data for logistics units such as cases and pallets that are not intended to pass through retail point-of-sale (POS). The use of this barcode supports fast and accurate data capture and inventory tracking, adding visibility to your supply chain.

Specific information can be encoded in GS1-128 barcodes through the use of Application Identifiers (AIs). GTIN, Batch/Lot Number, and Production Date are examples of the supplemental information that can be included. These identifiers, which are used in advanced barcoding, are increasingly viewed as important by many operators and distributors.

It should be noted that the use of GS1-128 barcodes is not a required standard by all trading partners in the foodservice supply chain. This guideline provides the recommended approach for case labeling using GS1-128 barcodes and associated Application Identifiers (AIs) for foodservice trading partners that choose to migrate to the GS1-128 barcode as a means to enable certain supply chain practices that trading partners have agreed to implement.

Foodservice industry manufacturers can continue marking cartons/cases with ITF-14 barcodes until further information is required, and/or their trading partners request and use GS1-128 barcodes and the associated product information contained in the GS1-128 barcodes.

GUIDELINE OBJECTIVES

The objective of this guideline is to:

- Identify recommended foodservice GS1-128 barcode requirements for cases/cartons as defined by operators, distributors, manufacturers, and other industry initiatives; and
- Define dynamic information that cannot be easily shared and referenced in a database. This dynamic information can be shared at the time of the transaction or movement of the product using a GS1-128 barcode.

When creating these guidelines, the Foodservice GS1 US Standards Initiative took into account perspectives from operators, distributors and manufacturers. Food safety and the ability to effectively trace and recover product was a guiding factor throughout the development of this document.

GS1-128 CONSTRAINTS

The GS1-128 barcode is only capable of encoding a *maximum of 48 characters*, which includes the AI codes. Given these inherent character limitations, companies must choose which Application Identifiers are most important for their particular products, customers and corporate objectives.

IMPLEMENTATION GUIDANCE

When considering implementing a GS1-128 barcode program, trading partners should evaluate the risk of the items in their portfolio. During this process, it is critical to understand what data is most important for your company to track and manage your business. For example, fresh categories (e.g., produce, seafood, meat and poultry, and dairy, deli, bakery) tend to be high risk items in the foodservice supply chain, and these categories have already established timelines and created guidelines for the use of GS1-128 barcodes (i.e., the *North American Industry Guidance for Standard Case Code Labeling for Extended Product Attributes*). The Foodservice GS1 US Standards Initiative recognizes and supports these industry programs. Trading partners should consider starting their GS1-128 barcode implementation programs, including scanning and storing the data encoded in GS1-128 barcodes, with these categories to enable supply chain tracking. Consult the *North American Industry Guidance for Standard Case Code Labeling for Extended Product Attributes* for more information regarding implementation considerations for hardware, software and business processes. (This document can be found at http://www.gs1us.org/industries/foodservice/tools-and-resources)

NOTE: Generally, GS1-128 barcoding is not required for non-food items.

FOODSERVICE APPLICATION IDENTIFIERS (AIs)

In order to enable cost-effective adoption by foodservice manufacturers, the Foodservice GS1 US Standards Initiative has prepared these voluntary guidelines for use by any company to code case-level supplemental information through the use of GS1-128 barcodes. When using GS1-128 barcodes for food items in the foodservice supply chain, it is recommended that the following information should be encoded in the barcode:

1. **Item Identifier** [Global Trade Item Number (GTIN)]

2. **Date** (Production, Packaging, Expiration, Sell By or Best Before)

3. **Production Information** (Batch/Lot Number or Serial Number)

Please Note: For produce, seafood, meat and poultry, and dairy, deli, bakery, the recommended Application Identifiers can be found in the North American Industry Guidance for Standard Case Code Labeling for Extended Product Attributes discussed above.

The recommended AIs for GS1-128 barcodes in the foodservice industry are listed below:

RECOMMENDED AIs FOR FOODSERVICE GS1-128			
ITEM IDENTIFIER	GTIN	**AI (01)**	14-digit number used to identify individual cases.
DATE	Production Date *or*	**AI (11)**	Production or assembly date determined by the manufacturer. The date may refer to the trade item itself or to items contained. For fresh foods, this may be the packing or packaging date. The format for the date field is YYMMDD.
	Packaging Date *or*	**AI (13)**	Date when the goods were packed as determined by the packager. The date may refer to the trade item itself or to items contained. The format for the date field is YYMMDD.
	Best Before Date *or*	**AI (15)**	This date on the label or package signifies the end of the period which the product will retain specific quality attributes or claims even though the product may continue to retain positive quality attributes after this date. The format for the date field is YYMMDD.
	Sell By Date *or*	**AI (16)**	Indicates the date specified by the manufacturer as the last date the retailer is to offer the product for sale to the Consumer. The product should not be merchandised after this date.
	Expiration Date	**AI (17)**	Signifies the last date in which the quality attributes expected by the consumer are guaranteed. The product should not be marketed after this date. For food, the date will indicate the possibility of a direct health risk resulting from the use of the product after the date. The format for the date field is YYMMDD.
PRODUCTION INFORMATION	Batch/ Lot Number or	**AI (10)**	Associates an item with information the manufacturer considers relevant for traceability of the trade item. The batch/lot number is 1-20 characters and is alpha-numeric. The number may be a production lot number, a shift number, a machine number a time or an internal production code.
	Serial Number	**AI (21)**	Where appropriate, a supplier might also choose to include AI 21 (Serial Number) in place of a lot number. Serial numbers are 1-20 characters and are alpha-numeric.

For variable weight and catch weight items, the following AI would be used:

AI FOR VARIABLE WEIGHT ITEMS		
NET WEIGHT	**AI (3202)**	(Net Weight, Pounds) Net Weight in hundredths of a pound, should be used when the product is variable in weight.
		The format for this is 6 digits with a decimal point between the 4th and 5th position of the six digit field (e.g. 000500 = 5.00 lbs).

BARCODE EXAMPLES

ENCODING GTIN, PRODUCTION DATE, AND BATCH/LOT NUMBER

(01) 1 0614141 00734 6 (11) 130715 (10) ABC123DEF

- AI (01) 10614141007346 denotes the GTIN
- AI (11) 130715 signifies a production date of July 15, 2013
- AI (10) ABC123DEF denotes the batch/lot number.

ENCODING GTIN, BEST BEFORE DATE, NET WEIGHT & SERIAL NUMBER

(01) 1 0614141 00734 6 (15) 130815 (3202) 000500 (21) HIJ12345

- AI (01) 10614141007346 denotes the GTIN
- AI (15) 130815 signifies a best before date of August 15, 2013
- AI (3202) 000500 denotes a net weight of 5.00 pounds
- AI (21) HIJ12345 denotes the serial number

ADDITIONAL RESOURCES

For more information and implementation considerations for these initiatives and guidelines, please see the websites and documentation listed below:

PROGRAM	ACRONYM	URL
DAIRY, DELI, BAKERY	DDB	http://www.gs1us.org/industries/fresh-foods/dairy-deli-bakery/guide
FOODSERVICE GS1 US STANDARDS INITIATIVE	Foodservice Initiative	www.gs1us.org/foodservice
MEAT & POULTRY DATA STANDARDS	mpXML	www.mpxml.org
NATIONAL FISHERIES INSTITUTE	NFI	www.aboutseafood.com/about/us-seafood-traceability-implementation-guide
NORTH AMERICAN GUIDELINE FOR USE OF GS1-128 (MULTIPLE CATEGORIES/INDUSTRIES)	NA Guideline	www.gs1us.org
PRODUCE TRACEABILITY INITIATIVE	PTI	www.producetraceability.org

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IAPMO

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CORPORATE HEADQUARTERS
Princeton Pike Corporate Center
1009 Lenox Drive, Suite 202, Lawrenceville, NJ 08648 USA
T +1 937.435.3870 E info@gs1us.org W www.gs1us.org

FOLLOW US: