FOODSERVICE

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

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GS1
Australia

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ABOUT GS1

GS1 is a neutral, not-for-profit organisation that develops and maintains the most widely used global standards for efficient business communication. We are best known for the barcode, named by the BBC as one of "the 50 things that made the world economy".

GS1 standards improve the efficiency, safety and visibility of supply chains across physical and digital channels in 25 sectors.

Our scale and reach – local Member Organisations in 112 countries, 1.5 million user companies and 6 billion transactions every day – help ensure that GS1 standards create a common language that supports systems and processes across the globe.

Find out more at www.gs1au.org

ABOUT FOODSERVICE

The continued success of the Foodservice Industry in Australia relies heavily on efficient supply chain management practices and the improvement of visibility of product from supplier through to the end customer.

The Australian Foodservice Industry has a unique opportunity for all industry participants to collaborate and achieve the
same objective – simplify supply chain systems for the Foodservice Industry utilising the GS1 System.

The GS1 System is administered locally by GS1 Australia, a not-for profit organisation created to help Australian businesses become more efficient.

INTRODUCTION

Operators, distributors and manufacturers are realising the benefits of case-level barcoding and beginning to make the necessary investment in labelling 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 labelling 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, perspectives from operators, distributors and manufacturers were taken into account. 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 *per symbol*, which includes the AI codes and any FNC1 characters. Given these inherent character limitations, companies must choose which Application Identifiers are most important for their particular products, customers and corporate objectives however note, that a GS1-128 barcode may be made up of more than one symbol.

FOODSERVICE APPLICATION IDENTIFIERS (AIs)

In order to enable cost-effective adoption by foodservice manufacturers, these voluntary guidelines should be used 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, or Best Before)

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

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.
	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 (310n)**	(Net Weight, kilograms) Net Weight in <u>kilograms</u>, should be used when the product is variable in weight. The fourth digit of the AI indicates the number of decimal places (and in that way the implied decimal point position). The format of the value is 6 digits. Examples: AI 3100 = Net weight in kg without a decimal point (e.g. 000015 = 15 kg) AI 3102 = Net weight in kg with two decimal places (e.g. 000225 = 2.25 kg)

BARCODE EXAMPLES

ENCODING GTIN, PRODUCTION DATE, AND BATCH/LOT NUMBER

(01) 1 9312345 678904 (11) 180515 (10) ABC123DEF

- AI (01) 19312345678904 denotes the GTIN
- AI (11) 180515 signifies a production date of May 15, 2018
- AI (10) ABC123DEF denotes the batch/lot number.

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

(01) 1 9312345 678904 (15) 180615 (3102) 000500 (21) HIJ12345

- AI (01) 19312345678904 denotes the GTIN
- AI (15) 180615 signifies a best before date of June 15, 2018
- AI (3102) 000500 denotes a net weight of 5.00 kilograms
- AI (21) HIJ12345 denotes the serial number

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