The Global Language of Business

Minimum requirements for in-bound logistics for retailers and suppliers

The Perfect Order programme: Move phase

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Log of changes

Release	Date of change	Changed by	Summary of change
3.0	20 April 2016	JP/RJ	Major revision, including stakeholder comments received, for use in pilot projects.
4.0	17 June 2016	JP/SR	Included pilot and Daventry session feedback.
4.1	21 June 2016	JM/IW/JP	Updated ‘Introduction’ and included ‘Management’ and ‘Scope’ sections.
4.2	11 July 2016	JP/SR	Included final feedback from suppliers and retailers. Handover to GS1 UK marketing.
Final version for industry consultation	2 September 2016	Marketing	Style guide consistencies and minor layout changes
Industry approved version 1.0	15 November 2016	Marketing	Updated title for final industry distribution

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1 Introduction

The Perfect Order programme is a collaboration between leading retailers and suppliers, facilitated by GS1 UK, to harmonise in-bound delivery requirements for the UK Retail Grocery/CPG industry. Its purpose is to improve efficiency and remove significant avoidable costs from the supply chain in order to deliver real benefits for suppliers, retailers and their customers. This document sets out minimum requirements for suppliers and retailers for adherence to the Perfect Order programme.

This is a working document for the *move* phase of the Perfect Order programme. More standards and best practices will be included within the future scope of the project. This document has been developed collaboratively by the Perfect Order working group comprising several UK suppliers and retailers, supported by GS1 UK. The standards and best practice set out in this guideline relate to current or aspirational requirements for the industry.

In consultation with the industry group, it was agreed that the first focus of the Perfect Order programme should be the in-bound product preparation and receipt to retailers (referred to as the *move* phase) and in particular where significant benefits may be realised through initial harmonisation of in-bound standards for both ambient and fresh product categories. It is the intent of the industry governing group to then assess opportunities for further efficiencies in the in-bound product receipt process and to prioritise this work against potential benefits of harmonisation in the broader order-to-cash process (product setup, order generation and processing, invoice match and payment).

This document covers the topics agreed and signed off by the working group as the scope for the *move* phase of the Perfect Order programme. As noted above, these elements are considered within the context of in-bound goods receipt into grocery retail in the UK. Where applications of these elements lie outside this scope, for example barcode scanning at point of sale, these have not been considered within this minimum standards requirement.

It is anticipated that participating organisations will work toward this minimum requirement over time and in line with their own priorities and adoption plans. In some cases, adoption will be in easy reach and in other cases an aspiration to work towards. GS1 UK remain available to facilitate the development and execution of these adoption plans, working with both suppliers and retailers on an individual and industry basis.

2 Management of the minimum standards requirement document

This document and its future evolution is facilitated and changes managed by GS1 UK on behalf of its members. The content of this minimum standards document, future additions and changes are governed by a representative Perfect Order working group comprising a number of members including both retailers and suppliers.

GS1 UK member organisations may apply to become part of the Perfect Order working group by contacting GS1 UK Member Support at freephone 0808 178 8799 or via email at support@gs1uk.org.

3 Scope

This document covers the following topics agreed by the working group as the scope for the *move* phase for the Perfect Order programme.

Product hierarchy

- Definition

Consumer unit barcode

- Type and placement
- Scannability

Traded unit barcode

- Type and placement
- Scannability

Pallet label

- Content and design
- Placement

Advanced Shipping Notice (ASN)

- Content
- Format
- Timing

Delivery documentation

- Content

Driver and vehicle standards

- Pallet loading
- Multi-drop
- Timeliness of deliveries
- Occupational health and safety

4 Product hierarchy

The following terminology, definitions and product hierarchy shall be applied consistently by suppliers and retailers in all external documentation and communications relating to the Perfect Order programme.

a) Pallet – A pallet is a flat transport structure designed to support a variety of goods in a stable and safe fashion while being lifted by any mobile forklift or other jacking device.

b) Break pack – A transit container, for example a large corrugated case, which may also be known as tertiary packaging (source: IGD). This level of packaging may not always be identified with a Global Trade Item Number (GTIN).

c) Case – The standard shipping unit level.

d) Inner pack – A logistical unit between a case and consumer unit. This may be a consumable inner pack, i.e. a carton of cigarettes, or it may be simply a logistical pack, i.e. dozens of toothbrushes.

e) Consumer unit – The lowest level of the item hierarchy intended or labelled for individual retail sale.

5 Barcode quality

The following section sets out key requirements for barcode quality, content and management for consumer and traded units. Barcodes and barcode management shall conform to these requirements to ensure that barcodes contain the correct data and are scannable on all correctly adjusted scanning equipment.

5.1 Barcode type and placement for consumer units

5.1.1 Scanners at the retail point of sale are designed to read EAN-13, UPC-A, EAN-8 and UPC-E barcodes, so one of these symbols must be used.

EAN-13

UPC-A

EAN-8

UPC-E

5.1.2 Barcodes must be in the same location on all similar shaped products.

5.1.3 The barcode must be no closer than 8mm to a seam or packaging fold.

5.1.4 The barcode must be on a flat or consistently curved surface.

5.1.5 For small cylindrical products, the barcode must be positioned vertically (ladder orientation), subject to the printing process and/or the direction of print.

5.1.6 For EAN-13, UPC-A, and UPC-E barcodes the height of the symbol at the nominal size is 22.85 millimetres (0.900 inch). For EAN-8 barcodes the height of the symbol at the nominal size is 18.23 millimetres (0.718 inch).

5.1.7 The EAN-13, EAN-8, UPC-A and UPC-E barcodes have a nominal or 100% size which may be varied, depending on the printing process and the quality of the inks and substrates being used. The target size for EAN-13, EAN-8, UPC-A and UPC-E barcodes should be 100%. Barcode size may be varied by between 80% and 200%. However, if print quality allows, barcode size should be within the magnification range of 80% to 120%.

5.1.8 All variation of barcode size shall be in accordance with the GS1 System Symbol Specification set out in GS1 General Specifications Version 16, section 5.5.2.7.1-1 on page 260.

5.2 Barcode type and placement for traded units

5.2.1 Scanners in warehousing and distribution and at the wholesale point of sale are designed to read EAN-13, UPC-A, ITF-14 and GS1-128 barcodes, so one of these must be used.

EAN-13

UPC-A

GS1-128

ITF-14

5.2.2 The barcodes must be upright, in picket fence orientation, so that the bars are vertical.

5.2.3 The minimum height of the bars of the barcode must be 32 mm.

5.2.4 The barcodes including their Quiet Zones must be no closer than 19 mm to a vertical edge of the packaging.

5.2.5 The barcodes must not be obscured by any final packaging.

5.3 Barcode scannability

5.3.1 Ensure that the check digit is correct.

5.3.2 Check that the contrast between the bars and the background is adequate and that the colours chosen will scan. Make sure that the colour of the contents of the packaging will not unduly affect the contrast between the bars and spaces.

5.3.3 To ensure the barcode scans accurately at the point of final production, check the print quality regularly throughout the print run.

5.3.4 Ensure that the barcode will remain readable in the environment in which the product will be stored, handled and distributed throughout the supply chain journey.

5.3.5 Carry out routine checks at all levels of packaging to ensure that the barcode complies with the required quality standard, and to identify any potential problems.

6 Pallet labels

6.1 Pallet label content and design

6.1.1 Each pallet shall be identified with a unique 18-digit tracking number called a Serial Shipping Container Code or SSCC.

6.1.2 When assigning an SSCC, an individual SSCC number must not be reallocated within one year of the shipment date from the SSCC assignor to a trading partner. However, prevailing regulatory or industry organization specific requirements may extend this period.

6.1.3 The SSCC shall only be shown in GS1-128 barcodes and the Application Identifier (AI) AI 00 shall always denote the SSCC.

6.1.4 The size of GS1-128 barcodes may be varied according to the amount of information shown in each barcode and the width of the bars and spaces. The width of the narrowest bars and spaces, known as the x-dimension, may be varied from 0.495 mm to 1.016 mm, while the height of the bars excluding the barcode boundary must be at least 32 mm. The maximum width of the symbol shall be 165 mm.

6.1.5 Bearer or horizontal bars should be used to provide a visual indicator of potential poor print quality.

6.1.6 SSCCs shall be constructed as follows:

a) **Extension digit**: This can take any value between 0 and 9 and allows users to create more SSCCs.

b) **GS1 Company Prefix number:** The length of the company prefix shall be between five and eleven digits depending on the member's needs.

c) **Serial number:** This number shall be between eleven and five digits in length depending on the length of the company prefix number, and shall be allocated by the company identifying the pallet.

d) **Check digit:** A calculation over the previous 17 digits. The calculation shall be the same as that used for other GS1 identifiers.

Examples of the 18-digit number structure follows:

Extension digit	GS1 Company Prefix number	Serial number	Check digit
O	5012345	123456789	3
O	50563456	12345678	8
O	506134567	1234567	1
O	5066345678	123456	7

6.1.7 The SSCC shall be used as an 18-digit number within companies' computer systems.

6.1.8 For pallet labels containing addition information such as destinations, batch codes and use by date, the barcode containing the SSCC must always be the lowest barcode on the pallet label.

6.1.9 The size of the label must ensure that the quality and accuracy of GS1-128 barcode requirement specified in section 6.1.4 is not diminished.

6.2 Pallet label placement

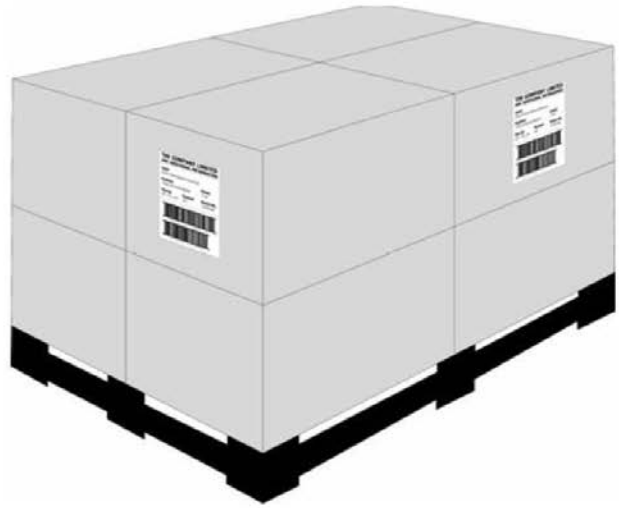
6.2.1 Use two identical labels for each pallet, one on a short side and one on a long side.

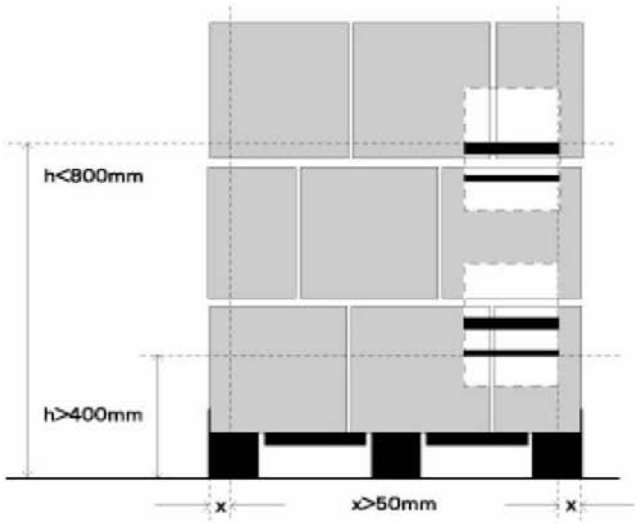
6.2.2 For units taller than 1,000mm, place the label so that the barcodes are no higher than 800mm and no lower than 400mm above the floor on which the unit stands.

6.2.3 For units lower than 1,000mm, place the label as high as possible but make sure that the barcodes are no higher than 800mm and no lower than 32mm from the base of the unit.

6.2.4 The edge of a barcode (including its Quiet Zones) shall be no closer than 50mm to a vertical edge of the logistics unit to avoid damage.

6.2.5 There should only be one version of a pallet label for each pallet board.





7 Pallet creation

Before dispatch, all pallets destined for UK customers must conform to the following requirements:

a) All pallet dimensions follow the UK industry standard of 1,200mm x 1,000mm.

b) All pallets to be of strong construction and free from breakages or damage.

c) All pallets to be secured to prevent movement and damage during transportation.

d) No overhang outside the perimeter of the pallet board.

8 Advanced Shipping Notice (ASN)

The use of Advanced Shipping Notices (ASNs) is recommended. Where ASNs are used, the minimum requirements set out in sections 8.1 to 8.3 shall be met.

8.1 ASN content

8.1.1 As a minimum, ASN messages shall contain the following elements, except where these are identified below as optional:

a) Global Location Numbers (GLNs), where available, identifying the trading partners:

1) Supplier.

2) Carrier (optional).

3) Retailer.

b) Purchase Order reference.

c) Delivery details including booking reference, delivery due date and time slot.

d) GLN identifying the delivery address.

e) Package type e.g. pallet type.

f) Total number of pallets.

g) SSCCs identifying each logistics unit.

h) All applicable AIs e.g. best before date, use by date, batch number.

i) GTINs to identify each product line.

j) Product description(s) including case size (optional).

k) Retailer/customer specific product reference (optional).

l) Total number of cases by line.

8.2 ASN format

The format of all ASN messages shall conform to GS1 EDI standards (EANCOM or GS1 XML).

8.3 ASN timing

8.3.1 ASNs shall only be created once the actual physical content for a delivery is known and accurately record that content.

8.3.2 ASNs shall be sent in a sufficiently timely manner to ensure receipt by the customer prior to arrival of the delivery at the customer's premises.

8.3.3 Suppliers, hauliers and retailers shall have an effective system in place to ensure:

a) Timely notification of ASN failures and

b) All relevant information is provided in a prompt manner and in a format agreed by all parties.

8.3.4 Where a supplier does not have ASN capability, an alternative mutually agreed electronic procedure may be in place to notify the customer in advance of items shipped according to the minimum content requirements for ASNs specified above.

9 Delivery documentation

9.1 The use of delivery documentation is recommended. Where delivery documentation is required by your customer, it shall accompany all supplier deliveries into a retailer distribution centre.

9.2 As a minimum, delivery documentation shall contain the following elements, except where these are identified below as optional:

a) Correct company names of the trading partners:

   1) Supplier.
   2) Carrier (optional).
   3) Retailer.

b) Purchase Order reference.

c) Delivery details including booking reference, delivery due date and time slot (provide if known).

d) Delivery address.

e) Package type e.g. pallet type.

f) Total number of pallets.

g) Product description(s).

h) Retailer/customer specific product reference (optional).

i) Total number of cases by line.

j) Total number of saleable units by line (optional).

k) Total weight of the load.

l) Handling instructions (applicable where there is a clear regulatory, legal, safety or product quality need).

m) Drop sequence (if applicable).

n) Legal statement.

o) Provision for signatures.

10 Driver and vehicle standards

10.1 Pallet loading

Pallets must be securely loaded on the vehicle to ensure their safety and stability, and shall be positioned in a manner that allows ease of unloading and avoids damage during transit.

10.2 Multi-drop

For multi-drop deliveries, all vehicles shall be loaded to ensure deliveries can be unloaded without obstruction to match the tipping order.

10.3 Timeliness of deliveries

10.3.1 All deliveries should be delivered and off-loaded to the agreed schedule specified by the commercial relationship. Chilled products shall be delivered in all circumstances within specified 'waves' designated by retailers per product type. Where this is not possible, the supplier and/or haulier shall provide notification to the retailer of the estimated time of arrival, and both parties shall confirm "agreement to tip" in advance of arrival.

10.3.2 Suppliers, hauliers and retailers shall implement an effective system to ensure accurate recording and reporting of events for all deliveries - including scheduling, arrivals, variance from schedule, causes and responsibilities, and mitigating actions taken.

10.4 Occupational health and safety

The following requirements must be adhered to by all suppliers:

a) Drivers shall comply at all times with site-specific requirements for all retailer and supplier delivery premises, including health and safety, and security.

b) All vehicles must be "ready to tip" and "ready to load" on arrival.

c) The vehicle must be clean and structurally sound and the condition of the vehicle shall not affect the quality of the product.

For the latest information on the Perfect Order programme please visit www.gs1uk.org/perfectorder.