



Best practices for implementing GS1 standards for **wine trade**



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Foreword

The standard reference is still the latest version of the *GS1 General Specifications*⁽¹⁾ available on the GS1 France website.

The recommendations in this guide are also based on those in the following guides (in French):

- *Manuel pratique GS1 France - Applications logistiques des standards GS1 (2006)*
- *Cahier des charges de l'Excellence Logistique (2009)*.

The GS1 training centre is available to train your teams in implementation for identifying and printing best practices detailed in this Guide.

To find out more, see **www.formation.gs1.fr** or call the Training Department on **+33(0)1 40 95 51 11**.

Adoption of GS1 standards and guides to best practices by companies is voluntary. Their implementation timescale results either from bilateral discussions between trade partners, or from discussions between retailers and trade organisations.

(1) Source: GS1 Global Office website <http://www.publications.gs1.fr/Publications/GS1-General-Specifications>

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Introduction

On the importance of standards in the wine-growing industry

Standardisation of GS1 information exchanges is organised **jointly by manufacturers and retailers**. GS1, an **international non-profit organisation** assists companies with the use of communication standards developed in response to market demand.

A standard is an agreement that **structures company activity**. It may take the form of rules or recommendations applied by all or a way of measuring, describing and classifying products or services. GS1 standards form a set of usage rules and a common language adopted by a market. The standards enable **efficient management** of global supply chains by uniquely identifying products, logistic units, places and services, and ensuring reliable exchanges of information between independent partners.

By using GS1 standards, the winegrowing industry aims to create added value throughout a global supply chain.

Background

The strategic deployment of GS1 standards to 8,000 companies in the wine community of GS1 France is piloted by a steering committee. The committee's goal is to make companies' trade processes more efficient. To achieve this goal, GS1 France has produced guides to best practices:

- This guide to implementing GS1 standards for wine marketing
- The second concerns the upstream sector of the winegrowing industry, on identification of inputs and dematerialisation of sales and logistics documents.

Both of these guides are available for download at www.publications.gs1.fr

Objectives

This guide to best practices for implementing GS1 standards for wine marketing is designed to help users to adopt and use the GS1 standard within their company. It details the **rules for identifying and barcode printing** of products and logistic units in respect of the following requirements:

- 1. How do I assign a GS1 code** to my product? To my box containing products? And to my pallet consisting of these boxes?
- 2. How do I represent** each of these codes through a barcode? What are the technical specifications applicable for printing a code on my products?
- 3. How can I pass on securely** the codes and other information associated with my products to my trade partners?

This guide may be used as a frame of reference for barcode printing requirements included in General Purchasing Conditions (GPC) and retailers' logistics specifications.



The collective adoption of these best practices is an essential prerequisite for optimisation of repetitive trade and logistics operations between trade partners.

1

SCOPE *of the guide*

1.1. Who is this guide for?

This guide is intended for all those responsible for identification and barcode printing of wines, mainly the following:

• Wine producers

who own the vines and are responsible for producing the grapes and the wine and maturing it, blending it and bottling it until the marketing stage.

• Wine merchants

who buy batches of wine and are responsible for maturing it, blending it and bottling it until the marketing stage.

• Wine bottlers/packers

who organise the bottling process (cf. article 22, regulation EC 436/2009). Even if the packer is not involved in terms of production, it is still concerned by the control and tracking of the product it packs.

• Logisticians

who are responsible for managing procurement and stocks, orders and shipments.

• Wholesalers

who receive pallets, manage product stocks, unpack and repack, prepare orders and ship the merchandise, like the logistics platform.

• Retailers

who receive the merchandise, manage product stocks (own brand or not) and sell the products. This term covers cash and carry stores, hard discount stores, hypermarkets, supermarkets, specialist stores (independent wine merchants and chains), wholesalers and owners of e-commerce sites. Their Procurement, Purchasing, Commercial Management, Logistics and Supply Chain are particularly concerned by this guide.

• Carriers

who transport the wine from the winery to the retailer or even to the end consumer.

• Logistics service providers

who may be responsible for stocking, bottling, labelling and packing the wine and storing it

• Solution providers

service providers specialising in printing, supplying printing materials, development of software applications for tracking, enterprise and warehouse management and database development.

1.2. What products does it cover?

All wine trade items are concerned by GS1 recommendations.

DEFINITIONS:

Trade item:

A trade item is any item (product or service) upon which there is a need to retrieve pre-defined information and that may be priced, or ordered, or invoiced at any point in any supply chain. This definition covers services and products, from raw materials through to end user products, all of which may have pre-defined characteristics.

Non-Retail Trade Items:

Any trade item that does not cross Retail POS.

Logistic unit:

A logistic unit is an item of any composition established for transport and/or storage that needs to be managed through the supply chain.

> Examples of trade and logistic units (non-exhaustive list):



→ **NOTE:** The guide is based on the normal product management practices of wine suppliers and retailers. For any case of identification and barcode printing not covered, GS1 France's Technical Support staff is at your disposal **on +33 (0)1 40 95 54 10**

2

GENERAL PRINCIPLES *of code assignment and barcode printing*

2.1. Being a GS1 member

The GS1 system is based on assignment to any company of a unique, unambiguous code called a company prefix for identifying its products. Assigned exclusively by the GS1 organisation, the **company prefix** is the root of each code identifying the products whose brand you own. Your trade partners therefore have access to your company identity throughout the wine supply chain.

On payment of your subscription, GS1 France you sends a letter containing all the identification codes enabling you to start identifying your products and your electronic exchanges with your partners (**EDI**)

2.2. Who can help me with any questions I have concerning my subscription or identification?

Your need	Who can assist you?	Contact Help
Administration and invoicing of your membership Initial membership or renewal of your annual dues	GENFA if you are a producer, merchant or importer	Tel.: +33 (0)1 44 51 09 62 E-mail: genfa@gs1fr.org
	GENDI if you are a wholesaler, carrier, logistics service provider or retailer	Tel.: +33 (0)1 48 74 32 27 E-mail: gendi@gendi.fr Web: www.gendi.fr
Technical support and hotline <ul style="list-style-type: none">• Services included with your membership<ul style="list-style-type: none">- Technical support with barcodes- Technical support with dematerialisation of documents (EDI and GDSN)- Access to industry documentation- Call for tenders to service providers• Special assistance services (paid services)<ul style="list-style-type: none">- Check of barcodes- Customised in-house training	GS1 France	Tel.: +33 (0)1 40 95 54 10 Web: www.adherents.gs1.fr

2.3. What happens in the case of a company takeover or merger, or takeover of a brand or a product range?

Company takeover or merger	GS1 France Technical Support staff are at your disposal for any information you require.
Takeover of brands or product ranges	Change the product code within a maximum of one year.

2.4. Who should assign the code to the products?

The GS1 international identification system is based on the principle that it is the owner of the product brand who assigns the international item number based on its company prefix. This item number is the GTIN.

Compliance with this rule guarantees identification of the product and of the brand owner, which may be a producer, a merchant, an importer or a retailer selling an own brand wine (non-exhaustive list).

Once defined, the GTIN code must be represented, i.e. printed on the item, in barcode form.

2.5. How do I print my barcodes from the product code?

Produced via a software application, the barcode allows fast and reliable acquisition of the product GTIN by optical scanning at the checkout or in a warehouse.

▶ 2.5.1. WHAT PRINTING TECHNIQUES ARE USED?

- **Direct printing**, also known as *traditional printing*, on the commercial unit by different processes such as offset, screen printing, flexography, etc.
- **Printing on an added label** by thermal transfer, laser, etc. If the printing software allows it, barcode printing may include other information to be added to the product.

▶ 2.5.2. WHO CAN I GO TO FOR HELP WITH THE PRINTING?

- **Your company** if it has barcode printing equipment,
- **Outside service providers:** printers, suppliers of printing applications and equipment.

→ **NOTE:** to help you to print your bar codes, the GS1 France website has a list of companies whose solutions meet GS1 standards.

3

PRACTICAL GUIDELINES for the consumer trade item barcode

3.1. Definition

• A consumer trade item

is an item intended for sale to the consumer at a point of sale. The consumer trade item is defined as the most elementary unit that is or can be offered to the consumer for purchase in a given form.

> Examples of consumer trade items (non-exhaustive list):

Any item designed
to be read at the
store checkout

- a 75 cl glass bottle
- a BIB[®]
- a box of 6 bottles
- a magnum
- a carton
- a single bottle pack
- a 3-bottle pack
- a cubitainer

→ **NOTE:** the profession generally uses the terms “item”, “reference” or “product” to refer to the consumer trade item.

3.2. Consumer trade item identification: the GTIN

Each consumer trade item will be identified by a GTIN, or Global Trade Item Number, referred to as **GTIN-13**.

▶ 3.2.1. FUNCTIONS OF THE GTIN-13

The GTIN-13:

- uniquely identifies a consumer trade item in your catalogue of products.
- is used in electronic data exchanges from the product datasheet to the invoicing stage to identify the product marketed. It replaces the item description in messages transmitted via electronic data interchange (EDI).

3.2.2. STRUCTURE OF THE GTIN-13

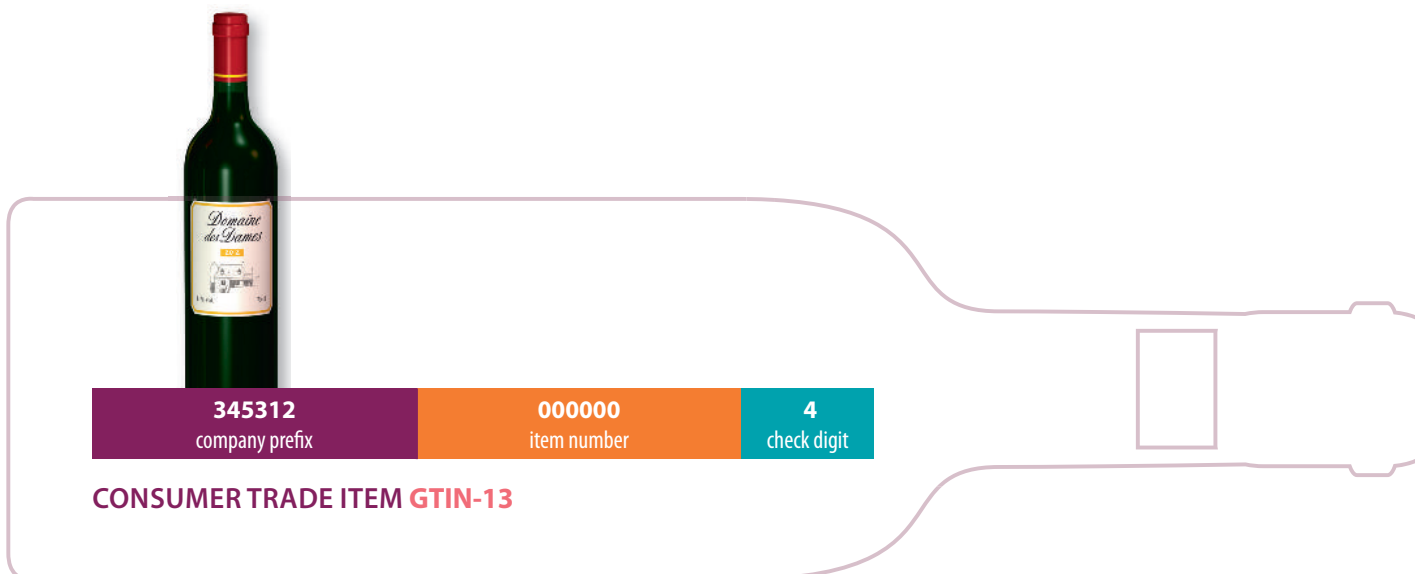
The GTIN-13 is a **13-digit number** composed of the following three parts:

Company prefix	Item number	Check digit
Assigned by GS1	Assigned by the company	Calculated by the company
The root of all GTIN codes, and by extension all GS1 codes, is the company prefix, which serves as a globally unique identifier for the company. When the company joins, GS1 France assigns it this identifier, with which it will be able to code all its trade units. The length of the company prefix varies according to the company's coding needs, from 6 to 11 digits (from 10 to 1 million different items).	The item code corresponds to the item reference of the consumer trade item created by the member company.	The check digit is the thirteenth character of the code calculated using a given algorithm, making barcode scanning more reliable.

→ **NOTE:** for easy calculation of your check digits, see the *GS1 France technical support page*.

3.2.3. EXAMPLE OF CONSUMER TRADE ITEM IDENTIFICATION

The French merchant *French Wines* is marketing a new consumer trade item to a retailer under its own brand. For easier commercial and logistics management, the merchant wants to print a barcode on the wine label. The merchant has therefore joined GS1 France which has assigned it the **company prefix 345312** from which it will code its consumer trade items.



3.3. Rules for assigning the GTIN-13

3.3.1. WHO SHOULD ASSIGN THE GTIN TO THE PRODUCTS?

As seen in point 2.1., **coding is the responsibility of the company owning the brand of the consumer trade item.** For identifying an **own brand or reserved brand** consumer trade item, GS1 recommendations are as follows:

	Own brand wine	Reserved brand wine
Definitions	Brand created and owned by a retailer for a given consumer trade item, developed at its request by a supplier. Own brands are defined by the French Consumer Code (article L 112-6 of the law no. 2001-420 of 15 May 2001).	Brand created and owned by the wine producer or merchant made available to one or more retailers, exclusively or not, for a given period.
Who codes?	The retailer, owner of the wine brand, uses its company prefix to assign a GTIN-13 to the consumer trade item and sends it to its supplier partner.	The wine producer or merchant, owner of the brand, uses its company prefix to assign a GTIN-13 to the consumer trade item and sends it to its retailer partner.

3.3.2. HOW DO I CODE?

From your company prefix, GS1 recommends identifying your units **sequentially, as if using a counter** (see example below). For each code, the check digit must be calculated.

> **Example:** a producer makes two different wines which constitute its range. Wine A is packed in two differently sized containers and wine B in a bottle only (75 cl).

To guarantee the uniqueness of each type of consumer trade item, the company assigns it a distinct GTIN-13.



→ *Note: GS1 recommends that you do not try to give your identification a meaning. Such a method presupposes full knowledge of how the units in your range will develop. If this is not the case, management of your identification can become complicated and limit your identification capacity.*

3.3.3. CRITERIA FOR ASSIGNING THE GTIN-13

Any consumer trade item offered for sale must be identified by a GTIN-13 according to the following criteria:

1 • The wine category. Is it:

- a still wine
 - > dry
 - > medium dry
 - > etc.
- a sparkling wine
 - > semi-sparkling wine
 - > aerated semi-sparkling
 - > sparkling
 - > etc.
- an aperitif / dessert wine
 - > vin doux naturel (VDN - natural sweet wine)
 - > vin naturellement doux (VND - naturally sweet wine)
- a wine-based flavoured drink

2 • Its colour: white, red or rosé

3 • The type of packaging: glass bottle, cubitainer, BIB®, etc.

4 • Its full trade name:

- Protected Designation of Origin (PDO) followed by the name of the geographical area with or without mention of the grape variety
- Protected Geographical Indication (PGI) followed by the name of the geographical area with or without mention of the grape variety
- Wine without geographical indication with or without mention of the grape variety

5 • Its brand

6 • A traditional mention of production conditions:

- "on lees",
- "late harvested",
- etc.

→ *Note: once assigned, the GTIN of a consumer trade item must not be changed if the above characteristics have not changed. However, any modification of one or more of these criteria will automatically give rise to assignment of a new GTIN-13 to the consumer trade item concerned.*

In addition to the code assignment criteria, there are several specific cases to be taken into account before any identification. They may or may not entail changing the GTIN code.

The following business cases assume that the different units concerned coexist in the wine supplier's catalogue.

3.3.4. SPECIAL CASES OF IDENTIFICATION

3.3.4.1. Vintage

> **Definition of vintage:** year of grape harvest.

Identification from one vintage to another	Reason for the rule	Notes
GTIN-13 maintained	The owners of the wine brand, in agreement with their trade partners, consider that the vintage of a consumer trade item is not a differentiating factor and has no impact on the ordering and invoicing processes.	Often the case with national brand and own brand wines
Allocation of a new GTIN-13	The vintage has an impact on prices, orders or invoicing. The consumer trade item logistics chain requires particular management due to price changes, the vintage effect and simultaneous supplies of different vintages. In this case, the GTIN code of the consumer trade item must be changed.	Requirement for more detailed management of vintages

→ *Note: in the final analysis, the brand owner has ultimate responsibility for a change to the GTIN-13 of the CU.*

3.3.4.2. Differentiating factors

	Medal	Stamp	Neck label
Definitions	Award given by a tasting panel to a specified batch of wine.	Specific module included in or added to the labelling of a consumer trade item.	Part of the packaging above the label, on or around the neck of the bottle)
Examples	A silver medal awarded by the Concours Général Agricole de Paris	Printing of a drawing representing a wax stamp on the labelling	Four-sided card promotional material suggesting food-wine pairings with a recipe




Two possible identification cases:

> **Case 1:** The differentiating factor has no impact on the ordering and invoicing processes. It is therefore unnecessary to change the GTIN code.

> **Case 2:** where the differentiating factor has an impact on the order or on invoicing, a new GTIN code should be assigned to the consumer trade item.

> **Example:** award-winning wine highlighted in promotional material.

3.3.4.3. Packaging languages

	Consumer trade item language different from one country to another (single-language labelling)		Multilingual labelling replaceable locally		Addition of a language to the labelling of a consumer trade item sold in several countries/markets (multilingual labelling)	
	Different GTIN		Different GTIN		Same GTIN	
ILLUSTRATIONS						
	GTIN 1 Product of France	GTIN 2 Made in France	GTIN 1 Contains sulphites	GTIN 2 Contains sulphites	GTIN 1 Contains sulphites	
			Contains sulphites	Contains sulphites	Contains sulphites	Contains sulphites
			Contains sulphites	Contains sulphites		
EXPLANATIONS	Products in stock are distinguished from one another by means of product codes. As a result, it is necessary to assign a different consumer trade item code from one consumer trade item to another.		A consumer trade item has different multilingual labels in view of sales on different international markets. A distinction must therefore be made in the stocks by assignment of different GTIN codes to each type of multilingual labelling.		Adding a new language on the consumer trade item has no impact on existing markets. For example, if Portuguese is added on a label in French and Italian, this addition has no impact on current customers. The use of a different consumer trade item GTIN from the box “package” code is sufficient.	

3.3.4.4. Promotional offers

The unit may be the subject of a specific promotion at the level of the bottle, BIB®, cubitainer, box, wooden case, etc., within the framework of batch creation by the supplier.

Several consumer trade items are marketed together in the form of a batch: the **GTIN-13 of the batch constituted must be different from the GTIN-13 of the units it contains.**

> **Example:** a pack of three bottles (identical or not).



3.4. Best practices for managing the GTIN-13

This section details best practices guaranteeing the integrity and effectiveness of your unit identification system.

- **Save the codes in your database** to link your consumer trade item and its characteristics (brand, colour, volume, etc.)
- **Send the GTIN codes to your trading partners** upstream of any transaction so that they can be entered in their information systems.
- **Re-using a GTIN-13:** it is recommended to wait **at least 4 years** after the end of product marketing by the brand owner.

3.5. Printing a barcode on the consumer trade item

3.5.1. FROM THE GTIN-13 TO THE EAN-13 BARCODE

The EAN-13 barcode, representing the GTIN-13, is the most commonly used barcode worldwide for checkout of consumer trade items. Your units must be printed with this barcode so that it can be scanned in store.

GTIN-13	EAN-13 barcode	Example of EAN-13 labelling
345312000011		 Here, printed on the back label

→ *Note: french companies generally use the term gencod to designate the EAN-13 barcode of the consumer trade item.*

3.5.2. PARTICULAR CASE OF PRINTING FOR CONSUMER TRADE ITEMS OF OVER 8 KG

In accordance with the recommendations of the CNAMTS (French Occupational Health body) published on 30 June 2008, **products weighing over 8 kg on sale in a store must no longer be handled by checkout personnel.**

This recommendation applies to the **gross weight** of a consumer trade item of over 8 kg.

> **Examples:** a BIB[®], a box or wooden crate, cubitainer, etc.

As a result, GS1 France offers recommendations based on barcode printing systems for automatic identification of heavy and voluminous products.

Companies have several options:

- Increasing the barcode size,
- Stretching the barcode (height),
- Barcodes "stretched" over several faces,
- Multiple barcodes (several identical EAN-13s on the same CU)
- Detachable labels

→ A guide to best practices for heavy and voluminous goods is available on the GS1 France website.

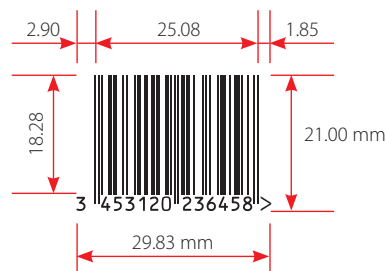
3.5.3. DIMENSIONAL REQUIREMENTS FOR FOR EAN-13 BARCODE PRINTING

Since the **reference size** corresponds to the dimensions

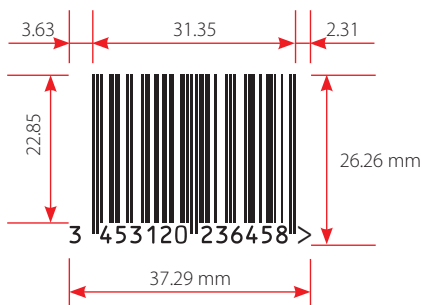
37.29 mm x 26.26 mm (100%), it is recommended to apply a magnification factor of between:

- **minimum 80%** of nominal size (or 29.83 mm x 21 mm)
- **maximum 200%** of nominal size (or 74.58 mm x 52.52 mm)

80 % Magnification factor 0.8 - dimensions in mm



100 % Magnification factor 1 - dimensions in mm



200 % Magnification factor 2 - dimensions in mm



NB: on this image, the barcodes are not represented in the dimensions indicated.

3.5.4. CONTRAST BETWEEN BARS: WHAT COLOURS SHOULD BE USED?

For optical scanning of the barcode of a trade unit, the contrast between the bars and the spaces must be sufficient. Optical scanners do not necessarily perceive the contrast in the same way as the human eye.

Compliance with GS1 specifications is an essential condition for correct scanning of the barcode, regardless of type.

The contrast is determined by the following colour sets:

bars = dark colour	black	blue	brown	etc.
space = light colour	white	yellow	orange	red

WHAT CAN BE DONE	
black on a white background	☺
black on a yellow background	☺
black on an orange background	☺
black on a red background	☺
blue on a white background	☺
blue on a yellow background	☺
blue on an orange background	☺
green on a white background	☺
green on a yellow background	☺
green on a red background	☺
dark brown on a white background	☺

WHAT MUST NOT BE DONE	
yellow on a white background	☹
orange on a white background	☹
red on a white background	☹
black on a green background	☹
black on a blue background	☹
light brown on a white background	☹
black on a dark brown background	☹
black on a purple background	☹
purple on a black background	☹
red on a light brown background	☹
black on a dark grey background	☹

→ Note: for any questions about colour sets or barcode sizes,
 GS1 France Technical Support staff are at your disposal on 01 40 95 54 10
 or by e-mail at assistance@gs1fr.org



3.5.5. EAN-13 BARCODE PLACEMENT

Positioning of the EAN-13 barcode is at the brand owner's discretion, including on the body label (generally for units of 50 cl and less).

> **Example:** EAN-13 positioned on the back label of a Bordeaux type 75 cl. bottle



Before any printing, check:

- **the placement and orientation of the barcode** to be printed. These two parameters must be integrated into the packaging design of your consumer trade item.

- **the base diameter of the bottle container:**

- over 5 cm, positioning may be in barrier or ladder orientation.
- **less than 5 cm**, it is recommended to position the barcode in ladder orientation (vertically).

This recommendation particularly concerns consumer trade items with a capacity of less than 37.5 cl, designed mainly for sale on snacking shelves (or for airline catering).

- **the barcode placement:**

- do not position the symbol in a corner for rectangular packaging such as a BIB® or a box of six bottles.
- check that the barcode does not have a fold that could hinder optical scanning if it is printed on an added label or flexible pouch packaging.

→ *Note: in all cases, priority must be given to easy barcode reading in the store.*

4

PRACTICAL GUIDELINES for the outer case barcode

4.1. Definition

A outer case unit (box or wooden case) is a unit containing consumer trade items, generally wine bottles.

> Examples:



4.2. Outer case identification: the GTIN-13

An outer case is a logistics unit likely to be scanned in store. If applicable, the package will then be considered as a consumer trade item. The profession has reached agreement on the systematic use of GTIN-13 for outer case identification.

> Example of GTIN-13 assignment to the outer case

Your logistics unit outer case containing six bottles of the same wine. The two trade units must be identified by a **different GTIN-13**.



CHECKED OUT
IN STORE OR NOT



345312	000003	5
Company prefix	Item number	Check digit
Bottle GTIN		

345312	000004	2
Company prefix	Item number	Check digit
New GTIN-13 for the outer case		

4.3. Special cases of GTIN-13 assignment

The package is a unit containing consumer trade items and must therefore follow the same rules for GTIN change as consumer trade items (cf. section 3.3.4. p.16-17).

Special cases	Outer case identification
Vintage wine → cf. page 16	
If the GTIN-13 consumer trade item stays identical	The GTIN code of the consumer trade item does not change. As a result, the GTIN of the logistics unit does not change.
If the GTIN-13 consumer trade item changes	The package code corresponding to the consumer trade item grouping also changes GTIN.
Differentiating factors → cf. page 16	
Medal	Case 1: the consumer trade item code does not change. Therefore the outer case code does not change. Case 2: the GTIN code of the consumer trade item changes, so the GTIN code of the logistics unit must be changed.
Stamp	
Neck label	
Packaging languages → cf. p. 17	
Single-language labelling	The GTIN code of the trade unit does not change. As a result, the GTIN code of the logistics unit does not change.
Multilingual labelling	The consumer trade item code changes. A new GTIN code must therefore be assigned to the package.
Addition of a language	The GTIN code of the trade unit does not change. As a result, the GTIN code of the logistics unit does not change.

4.4. Best practices for managing the GTIN-13

The outer case GTIN is unique, i.e.:

- **it is always different from the GTIN-13 of the bottles inside.** The GTIN code of the logistics unit, whatever its type, must always be different from the code of the units it contains. This allows clear identification of the different types of trade units in your processes (ordering, invoicing, stocktaking) and prevents the package being counted as only one bottle at the checkout.
- **reassignment of the GTIN-13 of an outer case: a code may be reassigned to a new PACKAGE outer case at least 4 years after the end of its marketing.**
- **that any different package must be identified by a new GTIN-13.**
- Generally speaking, partners' information systems are configured for 14-digit codes. Therefore, when you transmit your GTIN codes of the pallet, the package and the unit it contains (bottle), you simply need to add a zero before the GTIN to form the 14-digit code, as follows:

	GTIN	GTIN format in partners' database
Bottle GTIN-13	3453120000035	03453120000035
Package GTIN-13	3453120000042	03453120000042
	To be used for identification and representing in barcode form	Transmit the GTIN-13 to your partners preceded by a 0 to form a standard 14-digit code

4.5 Printing a barcode on the package logistics unit

The GTIN is the minimum information to be printed with EAN-13 barcode on the package logistics unit. Effectively, the package logistics unit may also be a consumer trade item at the store checkout (example: checkout of a box of 6 bottles at a wine fair).

In addition, depending on customer demand or if other processes are required, such as batch number and vintage tracking, a GS1-128 barcode can be used in addition to the EAN-13 by the wine supplier. Unlike the EAN-13 barcode which only translates the GTIN code of the trade unit, the GS1-128 may include logistics and tracking data such as the batch number in the barcode.

→ *Note that:*

- *whatever the printing used, the package GTIN must not change unless the bottle GTIN changes.*
- *In all cases, EAN-13 printing of the package logistics unit is mandatory.*

4.5.1. RECOMMENDATIONS FOR EAN-13 BARCODE PRINTING OF THE PACKAGE LOGISTICS UNIT

The GTIN is the only information to be printed with an EAN-13 barcode on the package logistics unit. Moreover, for EAN-13 printing of the package logistics unit, the following technical specifications ⁽²⁾ must be complied with:

GS1 settings	Technical specifications for EAN-13
X-dimension (magnification factor)	The dimensions of the EAN-13 must be between 29.83 mm x 21 mm and 74.58 mm x 52.52 mm → Cf. illustration in section 3.5.3 , page 19. However, for optimal scanning, the recommended magnification factor is between 55.93 mm x 39.39 mm and 74.58 mm x 52.52 mm
Number of EAN-13 barcodes	A minimum of 1 EAN-13 barcode, which must be on one of the vertical sides of the package, excluding the top and bottom of the package.
Print contrast	Recommended: <ul style="list-style-type: none"> • maintain the contrast between the bars and the spaces → cf. illustration in section 3.5.4, page 20 • mark the barcode on a non-reflective (matte) base to avoid problems with reflection.
EAN-13 barcode placement	The EAN-13 barcode must be printed in barrier form on the package (parallel to the bottom of the box). Recommended placement of the EAN-13: <ul style="list-style-type: none"> • at lowest, 32 mm from the unit's base • at least 19 mm from the vertical edge of the unit, margins included.

Box printings or labels should be visible from the outside when they are being transported on another base (a logistic unit such as a pallet, for example).

> Example of EAN-13 printing of a box of 6 bottles standing:



(2) The standard reference is still the latest version of the GS1 General Specifications on the GS1 France website - <http://www.publications.gs1.fr/Publications/GS1-General-Specifications>

4.5.2. RECOMMENDATIONS FOR EAN-13 AND GS1-128 BARCODE PRINTING ON THE PACKAGE LOGISTICS UNIT

In addition to an EAN-13 barcode, the GS1-128 can be used for logistics processing such as batch number capture by optical scanning in the warehouse. The GS1-128 barcode can be used for data other than the package GTIN. It consists of two elements:



<p>1. application identifiers or AI, standardized between brackets, specifying the format and nature of the following data. Examples: (01) = GTIN code of package (20) = vintage variant (10) = batch number</p>	<p>2. the actual data, alphabetic, numeric or alphanumeric and fixed or variable length . Examples: 3453120000059 = package GTIN 01 = vintage variant L107AFT = batch number</p>
---	---

At present, three data elements selected by the French wine industry can be printed in the GS1-128 barcode on the package logistics unit:

- the GTIN code of the package
- the batch number
- the vintage variant can be used to identify the change of product vintage when there is no change of GTIN code for the consumer trade item.

N.B. the variant does not necessarily indicate the vintage year. If the vintage variant does not indicate the year, this can be transmitted in the electronic delivery note (DESADV message) or by any other means.

The table below shows the characteristics of this data:

Application identifiers	Data	Data format	Key word	
			English	French
(01)	GTIN	n14	GTIN	GTIN
(10)	Batch number	an..20	BATCH	LOT
(20)	Vintage variant	n2	VARIANT	VARIANTE

Abbreviations:

- n** Numeric character
- an** Alphanumeric character
- n2** Data field of 2 numeric characters
- an..20** Data field of up to 20 alphanumeric characters

→ Note: the order of the data to be printed in GS1-128 is irrelevant. However, the batch number placed at the end of the GS1-128 barcode optimises its length.

For EAN-13 and GS1-128 printing, the following technical specifications⁽³⁾ must be complied with:

GS1 settings	EAN-13		GS1-128	
	Min.	Max.	Min.	Max.
X-dimension (magnification factor)	0.264 mm	0.660 mm	0.495 mm ⁽⁴⁾	0.84 mm
Barcode height	Related to magnification factor → cf. page 19		32 mm	N/A
Left margin	Related to magnification factor → cf. page 19		5 mm	8.4 mm
Right margin	Related to magnification factor → cf. page 19		5 mm	8.4 mm
Length of symbols	Related to magnification factor → cf. page 19		→ cf. note (5)	
Plain text data under the barcode	Display the GTIN-13		Display the data elements, each preceded by their application identifier in brackets	
Number of EAN-13 and GS1-128 barcodes	Minimum 1 <i>Note: if an EAN-13 is already printed on the package, it is not essential to print another.</i>		Minimum 1	
Print contrast	<p>Recommended:</p> <ul style="list-style-type: none"> • maintain the contrast between the bars and the spaces → cf. illustration in section 3.5.4. page 20 • mark the barcodes on a non-reflective (matte) base to avoid problems with reflection. • to mark, if possible, the EAN-13 and GS1-128 on the same smaller side of the package. <p>Depending on the width of the package, two positions are possible (→ cf. examples on next page).</p> <ul style="list-style-type: none"> • Superimpose the GS1-128 and the EAN-13: In this solution, higher magnification factors are possible. The order of barcodes is irrelevant • Align the EAN-13 and the GS1-128: In this solution, it is recommended to mark the EAN-13 on the left and the GS1-128 on the right; leaving a blank space between the two. This entails optimising the magnification factors. <p>Whatever the positioning chosen (solution 1 or 2): The EAN-13 and GS1-128 barcodes must be printed in barrier form on the package (parallel to the bottom of the box).</p> <ul style="list-style-type: none"> • Barcodes should be positioned at the lowest 32 mm from the base of the unit and at least 19 mm from the vertical edge of the package logistics unit, including margins. 			
Printing technology	The choice of technology is the responsibility of the wine supplier (labelling or inkjet).			
Scanning grade	The minimum requirement is grade C (→ cf. ISO parameters page 45).			

Box printing or labels should be visible from the outside when they are being transported on another base (a logistic unit such as a pallet, for example).

(3) The standard reference is still the latest version of the GS1 General Specifications on the GS1 France website - <http://www.publications.gs1.fr/Publications/GS1-General-Specifications>

(4) The recommended X-dimension is between 0.495 and 0.84 mm. Reading efficiency will be improved by selecting the biggest possible X-dimension in the specified range. However, if there is not sufficient space for the information, a lower X can be used. In this case, it must not however be lower than 0.25 mm. The use of an X lower than the recommended minimum reduces the reading distance and makes symbol quality harder to maintain.

(5) The physical length depends on the number of characters coded and the dimension X. The maximum length is 16.5 cm including margins.

> Example of EAN-13 and GS1-128 printing on the same smaller side of a box of 6 bottles standing



(01)0345312000059(20)01(10)L107AFT



**SUPERIMPOSING GS1-128
AND EAN-13 BARCODES**



(01)0345312000059(20)01(10)L107AFT

**ALIGNMENT OF EAN-13
AND GS1-128 BARCODES**



5

PRACTICAL GUIDELINES for the pallet barcode

5.1. Definitions

• Logistic unit:

a combined unit of any composition (generally outer cases), created initially for storage at the supplier's premises and then used for transport and shipping to the end customer.

> **Examples (non-exhaustive list):**

- a box of 6 bottles
- an EUR pallet 100 boxes of 6 bottles
- a pallet box island

→ *Note: since the pallet is the logistic unit most often used by trade partners, the following recommendations concern this support but apply to any other logistic unit.*

There are 4 types of pallet logistic units:

- **Standard homogeneous pallet or complete pallet:** single product pallet with a fixed quantity of packages per pallet, i.e. identical to that indicated on the supplier datasheet.
- **Non-standard homogeneous pallet or incomplete pallet:** single product pallet with a variable quantity of packages per pallet, i.e. different from that indicated on the supplier datasheet.
- **Standard mixed pallet:** multi-product pallet with a fixed quantity of packages per pallet, i.e. identical to that indicated on the supplier datasheet.
- **Non-standard mixed pallet:** multi-product pallet with a variable quantity of packages per pallet, i.e. different from that indicated on the supplier datasheet.

5.2. Identification of logistic units

▶ 5.2.1. THE SSCC

• Definition of SSCC:

Serial Shipping Container Code. This is the international 18-digit code created to identify a logistic unit uniquely and unambiguously. **Each pallet constituted (complete / incomplete, standard mixed / non-standard mixed) must therefore be identified by an SSCC before being shipped.**

• SSCC composition

The SSCC is made up of **18 characters**, distributed as shown below:

E	PREFIX	N	C
Extension digit It is used for: > identify the production or shipping sites (one digit per site, between 0 and 9) > avoid shortages of SSCC > avoid duplicate SSCC > increase the identification capacity of the SSCCs	Assigned by GS1. Its length varies.	N, sequential shipment number used to identify each manipulable unit, assigned by the creator of the SSCC. • It is unique for each sender for a minimum period of one year • It is up to the company to decide on the method to be used to assign the sequential numbers. However, managing this part as if using a counter is highly recommended.	The last digit of the code is a check digit based on the 17 preceding characters, calculated using an algorithm.

SSCC management

• **The SSCC is assigned by the creator of the pallet logistic unit, in order to ensure tracking links for the products shipped.**

• Each logistic unit must be identified by a different SSCC.

> **Example:** for shipment of two identical complete pallets (same batch number and GTIN), the sender will assign a specific SSCC per pallet.

• Re-assignment of an SSCC: any code can be reassigned to a new logistic unit **after a period of a year following the date of shipment.**

► 5.2.2. IDENTIFICATION OF A STANDARD HOMOGENEOUS PALLET AND A STANDARD MIXED PALLET

Both these types of pallet are included in the supplier's catalogue. As a result, a standard homogeneous pallet and a standard mixed pallet are identified by a GTIN code.

	GTIN codes	GTIN format in partners' database
Bottle GTIN-13	3453120000035	03453120000035
Package GTIN-13	3453120000042	03453120000042
Pallet GTIN-13	3453120000059	03453120000059
	To be used for identification and representing in barcode form	Save in your database with the 0 before the GTIN-13 and transmit the 14-digit code to your partners

→ *Note: the 14-digit GTIN code identifying your pallet and the SSCC created will be represented in the GS1-128 barcode printed on your logistic unit.*

► 5.2.3. IDENTIFICATION OF A NON STANDARD HOMOGENEOUS (INCOMPLETE) PALLET

This type of pallet, composed of mixed packages, is not included in the supplier's catalogue. The pallet is not therefore identified with a GTIN code. However, the packages composing the pallet are included in the supplier's catalogue and therefore are identified by a GTIN. For easier logistics and commercial management of a non standard homogeneous pallet, it is recommended to use the GTIN code of the packages composing it and to indicate their quantity.

	GTIN codes	GTIN format in partners' database
Bottle GTIN-13	3453120000035	03453120000035
Package GTIN-13	3453120000042	03453120000042
	To be used for identification and representing in barcode form	Save in your database with the 0 before the GTIN-13 and transmit the 14-digit code to your partners

→ *Note: the 14-digit GTIN code identifying your package, the quantity transported and the SSCC created will be represented in the GS1-128 barcode printed on your logistic unit.*

► 5.2.4. IDENTIFICATION OF A NON STANDARD MIXED PALLET

This type of pallet, composed of mixed packages, is not included in the supplier's catalogue. The pallet is not therefore identified with a GTIN code. The packages are included in the supplier's catalogue and are therefore identified by a GTIN. However, it is impossible to represent all the package GTIN codes. **The only identifier for this type of pallet is therefore the SSCC.**

→ *Note: the SSCC created will be represented in the GS1-128 barcode printed on your logistic unit.*

► 5.2.5. PARTICULAR CASES OF TRANSPORTED PALLETS

5.2.5.1. Pallets consisting of 1/2 or 1/4 pallets

For this type of pallet, generally used for commercial display purposes, there are two possible cases:

- if the complete pallet is film-wrapped, only the complete pallet will be identified by an SSCC, the components (1/2 or 1/4 of pallet) then being considered as boxes that must include the GTIN as a minimum barcode printing.
- if the complete pallet is not film-wrapped, each component (1/2 or 1/4 pallet) will be identified and printed with a specific SSCC, whether or not its components are individually film-wrapped.

5.2.5.2. Non standard sandwiched pallets

This is a logistic unit made up of several pallet layers, one on top of the other. A "pallet layer" is understood to be made up firstly of a support that can be handled, generally a wooden pallet, and secondly one or more layers of product packages. Each layer is made up of a single product (all packages in the layer are identified by the same GTIN code). A sandwiched logistic unit corresponds to a single order only.

Each pallet layer is considered a non-standard homogeneous logistic unit that can be handled separately and, as such, must be identified by a specific SSCC in GS1-128 form on a logistics label.

We also recommend using the GTIN code of the packages inside, the batch number and the quantity of packages per layer.

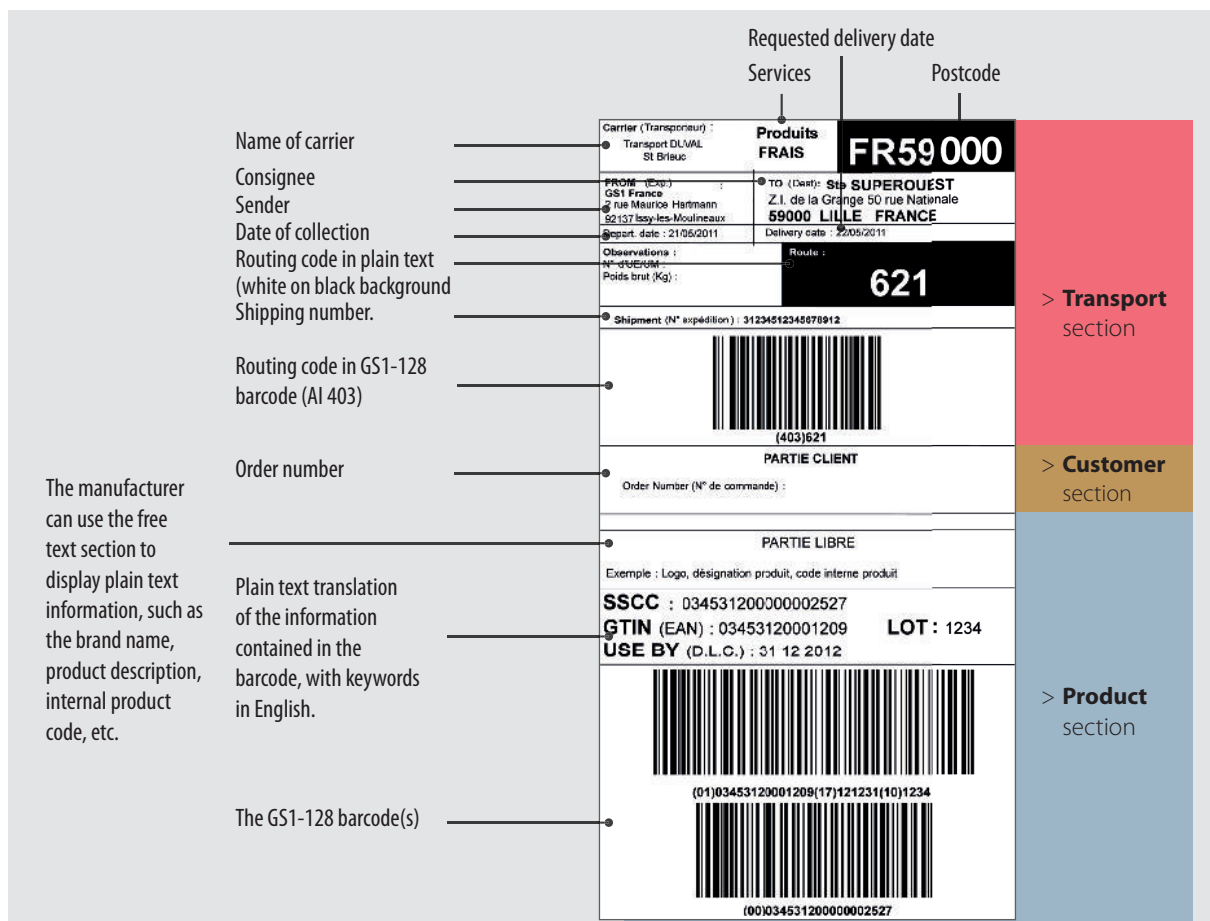
The aim is to be able to validate each logistic unit with its SSCC for each layer, thus simplifying reception.

5.3. Printing: the logistics label with a GS1-128 barcode

The label affixed to the logistic units, called a logistics label, is divided into three sections:

- the transport section
- the customer section
- the product section

These three sections can be printed onto one or two labels. The "product" section of the label is the same for all customers, and can thus be affixed on the logistics unit as soon as it comes off the manufacturing line. The "customer" and "transport" sections, on the other hand, are not usually known until the unit is about to be shipped.



The product section is divided into three sub-sections:

Any GS1-128 barcode printing of the logistic unit must use the logistics label format.

The logistics label is in the standardised label format (paper or direct printing) defined by GS1. It consists of the following three sections:



At the top, a free text section: the sender has a free area to add its chosen information in plain text. This may be, for example, the product description, its internal code, the brand or the producer’s logo.

In the middle a “plain text translation” section: this is a plain text transcription of the data represented in barcode form. They are composed of keywords and data content. This information should be clearly legible, with characters at least 3 mm high. Such information is required in order for merchandise to be safely transported to the end store.

Below, a section for the GS1-128 barcode(s): this is the translation in GS1-128 barcode form of the data described in section 2 “Plain text translation”.

All data translated into GS1-128 will be preceded by an application identifier or “AI”, **always represented in brackets.** The application identifier is a 2, 3, or 4 digit numeric code defined by GS1 in order to determine the nature and structure of the data element composing the GS1-128 standard. It acts as a tag used to isolate each data element for transmission to the appropriate field of the information systems.

> **Example:** main AIs used by the wine industry

Applicant identifiers	Keyword definition	Data format	Keyword	
			English	French
00	Serial Shipping Container Code (SSCC)	n18	SSCC	SSCC
01	GTIN	n14	GTIN	GTIN
02	GTIN of the consumer trade item inside	n14	CONTENT	CONTENU
10	Batch number	an..20	BATCH	LOT
20	Product variant	n2	VARIANT	VARIANTE
21	Serial number (not structured)	an...20	SERIAL	NUMÉRO DE SÉRIE
37	Quantity	n..8	COUNT	QTE
90	Bilateral agreement between trade partners	an...30	INTERNAL	
91-99	Internal company information	an...30	INTERNAL	

Abbreviations:

n Numeric character

n2 Data field of 2 numeric characters

an Alphanumeric character

an..20 Data field of up to 20 alphanumeric characters

> Use of GS1-128:

through the AI, on reading the GS1-128 barcode, the information scanned is automatically integrated into the data field in the information system.

Domaine des Dames
 GTIN: 034232900151233
 BATCH: 04356342061001
 SSCC: 332503913424554414

18/02/2005 11:34 Réception Radio (Etiq radio) Fonction : R 4
 Numéro commande..... 01000585 000 Ligne 2 / 2
 Référence commande..... 38054103/00 029 952 19092001
 Fournisseur..... 52752 001 S.E.A.B S.E.A.B
 Propriétaire du stock..... PCB : 672 SPCB : J
 Produit..... 52929041 AIX LES BAINS BLLE 1,5L,1/2PAL

QUANTITES Commande Réceptionne Refuse Reliquat Reste à stocker
 3 3 COL

PALETTE Hauteur Poids Volume Classe Collis Unités
 01 108 Cms 555,0 Kgs 848 Dm3 C 1 672

Méthode de stockage..... ABC Stockage Masse
 Code emballage..... 252 LOC B 80x100
 Adresse préférentielle..... H 900 Nombre d'étiquettes..... J
 Quantité réceptionnée..... 324 COL Soit..... LVA
 C. palette: 332503913424554414
 Picking princ.:
 Libre: 521
 Code du lot..... 04356342061001
 Motif d'immobilisation.....

F02=Détail F04=Invite F06=Confirmation F24=Autres touches
 GER017 - Réception suivant la méthode "STD".

BATCH-AI NUMBER (10) SSCC-AI CODE (00)

Note: in your barcode generation application, it is important to select the GS1-128 barcode (or "EAN-128", another term used to describe it) and not the 128 code which is not a GS1 standard. The GS1-128 standard is differentiated from the 128 code by the Function Character 1 (FNC1), a non-significant character in terms of data, directly following the first character. Placed at this position in the symbol, the FNC1 character, reserved exclusively for GS1, is used to distinguish between standard GS1 applications and any particular uses of the 128 code.

5.3.1. THE LOGISTICS LABEL OF THE STANDARD HOMOGENEOUS LOGISTIC UNIT

As mentioned in section 5.2.2., since the complete pallet is in the supplier's catalogue, it is identified with a GTIN and an SSCC to ensure unit tracking during transport. As this pallet is made up of products with the same batch number, it is recommended to include the batch number in GS1-128. To sum up, the GS1-128 label of the complete pallet will represent in barcode form:

- **The 14-digit GTIN identifying the pallet** in the supplier's catalogue preceded by the data identifier (AI) "01"
- **The batch number of the products** (trade unit constituting the pallet) preceded by the data identifier (AI) "10"
- **The SSCC** preceded by the data identifier (AI) "00"

FREE TEXT SECTION

Examples: supplier logo, product description, internal product code, supplier name, etc.

SSCC: 034531200000101237
GTIN: 03453120000004
BATCH: L01093

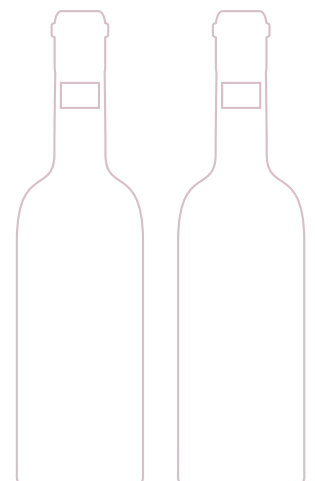


(01)03453120000004(10)L01093



(00)034531200000101237

Product data	Barcode	Plain text	AI	Length
Product description		●		
Pallet GTIN	●	●	01	n14
Batch number of boxes	●	●	10	an..20
Sequential package number (SSCC)	●	●	00	n 18



5.3.2. THE LOGISTICS LABEL OF THE NON STANDARD HOMOGENEOUS LOGISTIC UNIT

As mentioned in section 5.2.3., the incomplete pallet is not in the supplier's catalogue. It is therefore not identified with a GTIN. The packages transported have a supplier's datasheet and are therefore identified by a GTIN. To facilitate transport of these pallets, it is recommended to use the GTIN code of the packages constituting the pallet, and to indicate the quantity of packages transported and an SSCC for tracking.

As this pallet is made up of products with the same batch number, it is recommended to include the batch number in GS1-128. To sum up, the GS1-128 label of the incomplete pallet will represent in barcode form:

- **The 14-digit GTIN identifying the pallet** in the supplier's catalogue preceded by the data identifier (AI) "02"
- **The number of packages** preceded by the data identifier (AI) "37"
- **The batch number of the products** (trade unit constituting the pallet) preceded by the data identifier (AI) "10"
- **The SSCC** preceded by the data identifier (AI) "00"



FREE TEXT SECTION

Examples: supplier logo, product description, internal product code, supplier name, etc.

SSCC: 034531200000101268
CONTENT: 03423290151233
BATCH: L11255
COUNT: 100



(02)03423290151233(10)L11255(37)100



(00)034531200000101268

Product data	Barcode	Plain text	AI	Length
Product description		●		
GTIN (of box)	●	●	02	n14
Batch number (of the box)	●	●	10	an..20
Number of boxes	●	●	37	n8
Sequential package number (SSCC)	●	●	00	n 18



5.3.3. THE LOGISTICS LABEL OF THE STANDARD MIXED LOGISTIC UNIT

As mentioned in section 5.2.2., the standard mixed pallet is in the supplier's catalogue, it is identified with a GTIN and an SSCC to ensure unit tracking during transport. As this pallet is made up of mixed products, it also has mixed batch numbers. To sum up, the GS1-128 label of the complete pallet will represent in barcode form:

- **The 14-digit GTIN identifying the pallet** in the supplier's catalogue preceded by the data identifier (AI) "01"
- **The SSCC** preceded by the data identifier (AI) "00"

FREE TEXT SECTION

Examples: supplier logo, product description, internal product code, supplier name, etc.

GTIN: 03453120001209
SSCC: 03453120000002527

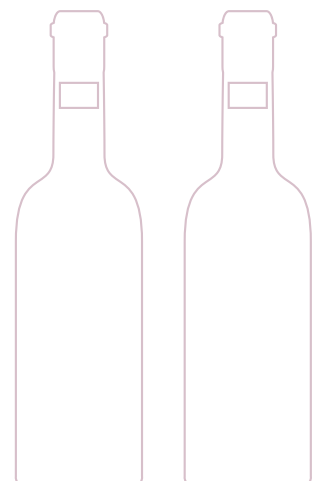


(01)03453120001209



(00)03453120000002527

Product data	Barcode	Plain text	AI	Length
Product description		●		
Logistic unit GTIN	●	●	01	n14
Sequential pallet number (SSCC)	●	●	10	n18



5.3.4. THE LOGISTICS LABEL OF THE NON STANDARD MIXED LOGISTIC UNIT

As mentioned in section 5.2.4., the non standard mixed pallet is not in the supplier's catalogue. The pallet is not therefore identified with a GTIN code. It is therefore recommended to use only the **SSCC** to identify this type of pallet. To sum up, the GS1-128 label of the non standard mixed pallet will represent in barcode form the SSCC preceded by the data identifier (AI) "00"

FREE TEXT SECTION

Examples: supplier logo, product description, internal product code, supplier name, etc.

SSCC: 034531200000107642



(00)034531200000107642

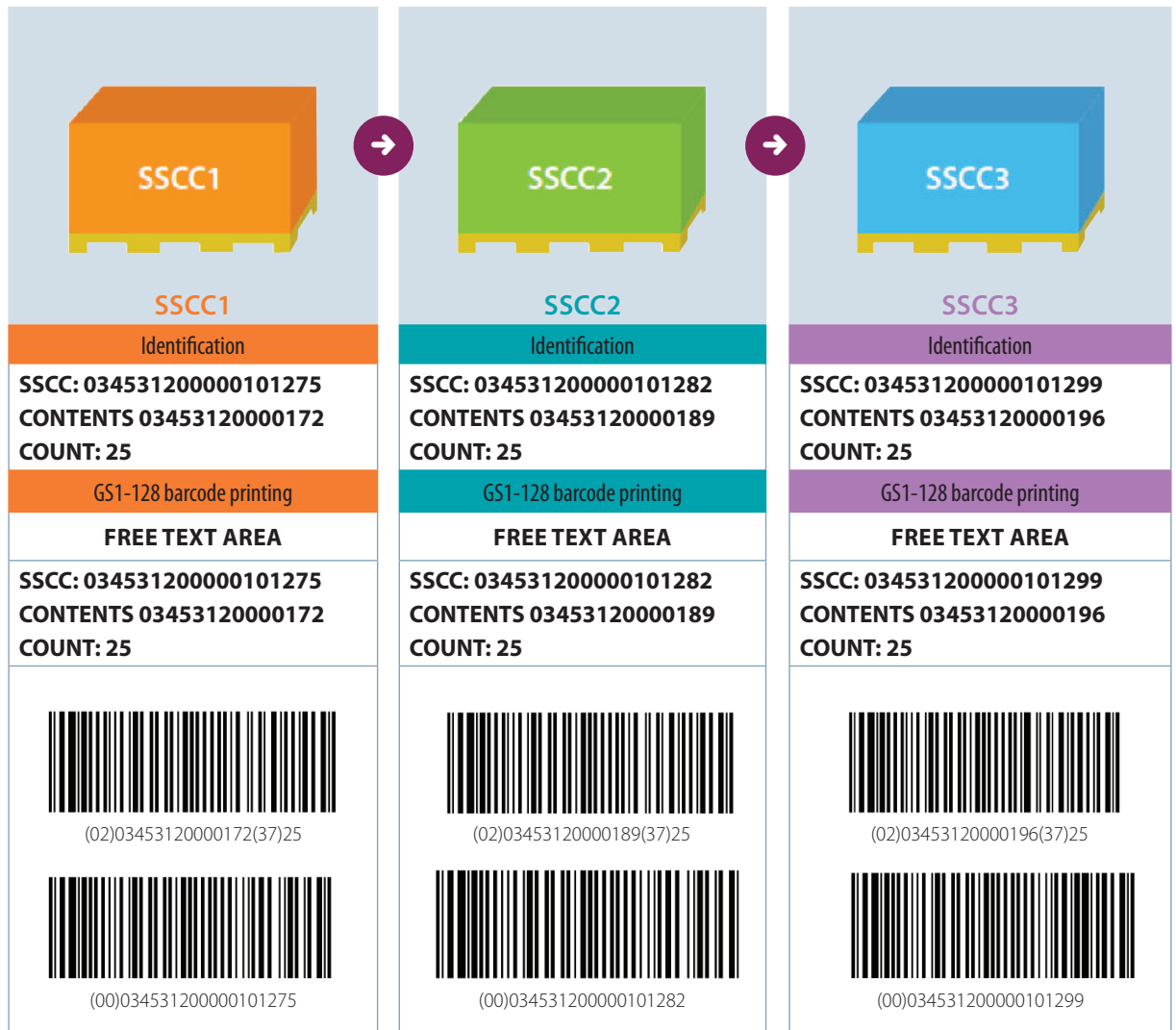
Product data	Barcode	Plain text	AI	Length
Sequential pallet number (SSCC)	●	●	00	n18

5.3.5. LOGISTICS LABELS OF A COMPOSITE OR MULTI-LAYER PALLET

Each pallet layer is considered a non-standard homogeneous logistic unit that **can be handled separately** and, as such, must be identified by a specific SSCC in GS1-128 form on a logistics label.



> Examples of logistics labels for each layer:



• **If the layers are film-wrapped:**

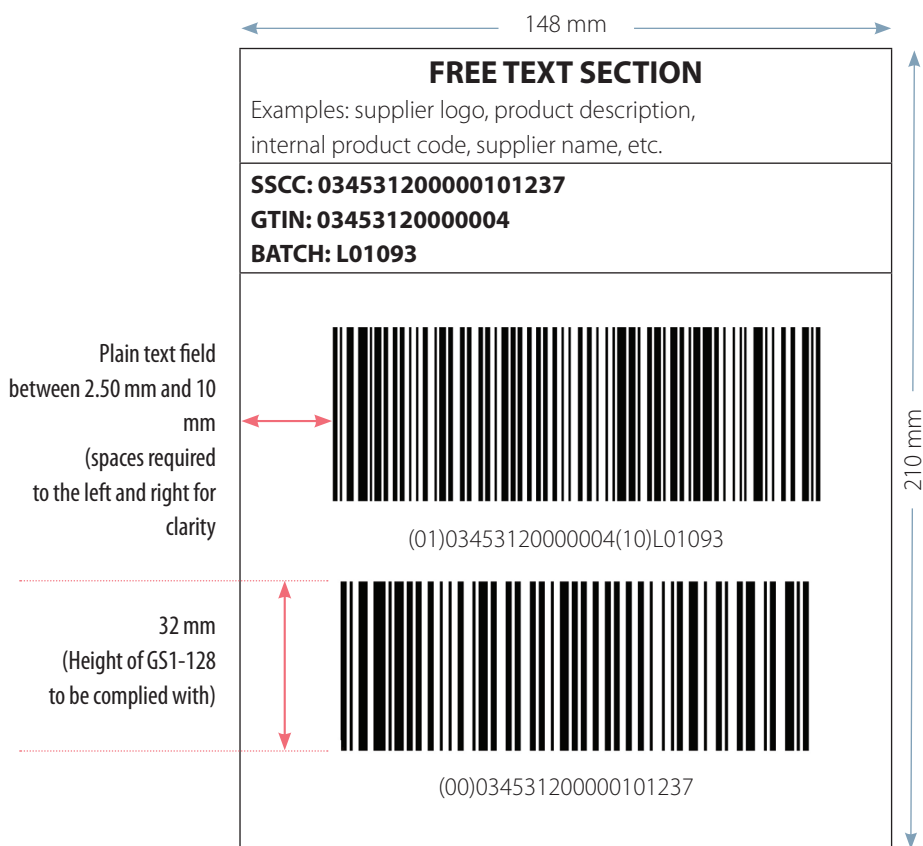
- **independently:** the label of each layer can be under or on the film.
- **together:** the label of each layer must be under the film. Moreover, in this case, we recommend assigning an SSCC to the entire pallet logistic unit and affixing the logistic label to the film.

• **If the layer is:**

- **multi-batch:** no batch number will be printed.
- **multi-date,** it is recommended to use only the earliest USE BY date.

5.4. Technical specifications for the logistics label

5.4.1. LOGISTICS LABEL DIMENSIONS



A5 and A6 label formats can be used. GS1 specifications state that the format:

- **A6** (105 mm x 148 mm) should be sufficient for most requirements.
- **A5** (148 x 210 mm) is often needed to mark a longer barcode.

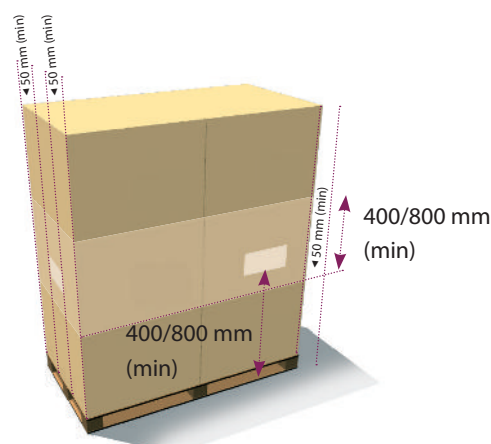


5.4.2. LOGISTICS LABEL PRINTING AND POSITIONING

- **The only obligation is to represent the SSCC in the barcode in the bottom section of the shipment label**
- For logistic units (pallets), the GS1 international specifications recommend that labels be affixed to two adjacent faces: one short side and one long side.
- The GS1-128 barcodes printed on the logistic unit label should be in barrier form and perpendicular to the base of the logistic unit.
- The label should be positioned as high as possible - between 400 and 800 mm from the base - for optical scanning of the barcode.
 - for an logistic unit less than a metre high, it should be positioned as high as possible.
 - for logistic units that are over one metre high, labels should be positioned so that all the barcodes are at a height of between 400 mm and 800 mm from the base of the logistic unit, and at least 50 mm from its vertical edge.

> **Example:** printing a code on a logistic unit over one metre high

PALLET LOGISTIC UNIT CODE PRINTING



5.4.3. GS1 RECOMMENDATIONS FOR CARRIERS AND LOGISTICS SERVICE PROVIDERS

- To make the work of warehouse operators easier, GS1 recommends that you do not put several barcodes on the same pallet. Carriers and logistics service providers are therefore recommended to:
 - use the labelling of the customer and product sections affixed by the shipper/contractor (producer or logistics service provider).
 - to add only the transport section, if this has not been done by the shipper/contractor (producer or logistics service provider).
- When handling SUs, GS1 recommends ensuring the links between the SSCCs saved on receipt, known as “parent SSCCs”, and those created on shipment, known as “child SSCCs”. This operation must be performed using your logistics management system.
- **In the case of bulking /break of load,** GS1 recommends that the carrier affixes a label containing an SSCC for tracking the logistic unit.
- **If the logistic unit is transported from point A to point B without any new event,** GS1 recommends not relabeling the unit but using the logistics label printed with the SSCC affixed by the shipper.

6

INFORMATION *exchanges*

6.1. Related to product information

GS1 recommends that companies implementing a tracking system take the following three steps:

- **identify your products** in a unique and unambiguous manner with a GTIN code.
- **save the identifiers** of the different units and the information related to each of them (description, product characteristics, GTIN code) in your database.
- **communicate** this information to your partner in advance of the commercial transaction. This can be done by sending a dematerialised product datasheet in the GDSN (**G**lobal **D**ata **S**ynchronization **N**etwork).

Sharing your information allows your partners to record the characteristics of the wines marketed. Then, simply by optical scanning of the barcodes on the packaging of your trade units, your partner will automatically recognise your products.

Within the community of GS1 Partners, GS1 France has technical service providers able to assist you with database creation. For more information, please visit the GS1 France website.

6.2. Related to tracking information

GS1 recommends that companies:

- **identify each logistic unit** with an SSCC tracking code.
- **record the batch number(s)** affiliated to the SSCC in their logistics management systems.
- **send** this information to their partners ahead of shipment. For this operation, we recommend using an electronic shipping advice called a **DESADV** (*Despatch Advice*), i.e. the wine supplier sends its retailer customer a dematerialised message.

This information communicated to your partners enables them to automatically integrate product tracking data into their systems, avoiding any data entry error.

Within the community of GS1 Partners, GS1 France has technical service providers able to assist you with creation of your logistics management system. To find out more, see the GS1 France website.

6.3. What's the best way to share my PRODUCT and TRACKING data with my partners?

Several traditional methods are used to transmit this data, such as email, fax or post. However, these methods may reduce the efficiency of data exchanges between trade partners (keying error, manual re-entry of data, costs related to paper use, etc.).

In order to ensure reliable exchanges of product and tracking data with your trade partners, GS1 can assist you with implementation of standards dedicated to electronic exchanges between companies: EDI and GDSN.

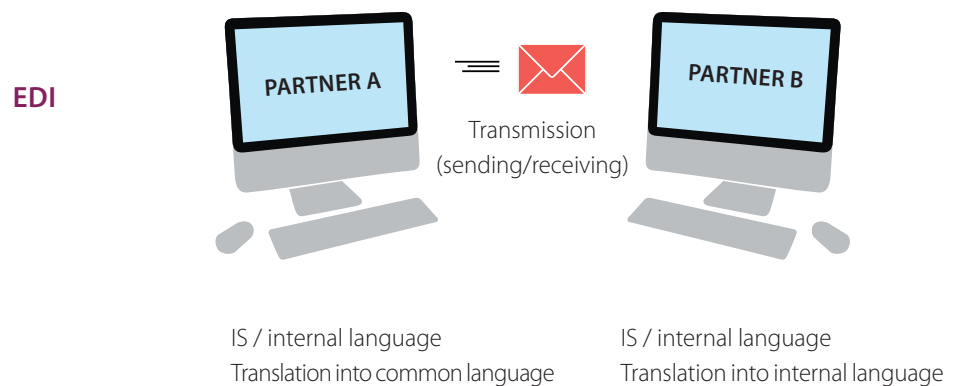
→ Note: for any questions about EDI or exchanging dematerialised product datasheets (GDS - Global Data Synchronisation), GS1 France's Technical Support staff is at your disposal.

6.4. What is EDI?

EDI stands for Electronic Data Interchange. EDI:

- consists of exchanging data electronically, from one computer to another.
- takes place in a structured way, following a standard recognised and agreed between the parties.
- replaces traditional processes such as exchanges in paper form, automating them.
- can be applied to exchanges inside the company (for example between subsidiaries) but is designed primarily for use between independent partners.

6.5. How does EDI work?



Generally speaking, data messages (electronic form of paper document) sent or received are interpreted by partner A's computer and automatically integrated into the internal systems of partner B (sales management, warehouse management, etc.).

The things to take into consideration for a successful project are summarised in two guides available to you on the GS1 France site:

- The first, *"EDI - Mes Premiers Pas"* (EDI: First Steps), presents the details of this standardised technology.
- The second, *"Principes et mise en oeuvre de l'EDI"* (EDI Principles and Implementation), is not a technical guide. Its purpose is to provide you with the information you need to implement your EDI project. It is important to read the previous guide first.

→ *These documents can be downloaded from the GS1 France website: www.publications.gs1.fr.*

6.6. Data lifetime stages

1	→ Creating the GTIN of trade items.
2	→ Entering the product characteristics associated with the GTIN in your database
3	→ EAN-13 barcode printing for consumer trade items and package logistics units.
4	→ Transmission of product data to your partner. This stage can be performed via EDI (cf. point 6.3 page 40) or via the GDSN network.
5	→ Identification of each logistic unit by a unique SSCC. Printing of GS1-128 barcode for the logistic units.
6	→ Transmission of tracking data to your partners. This stage can be performed in EDI by sending a DESADV (electronic despatch advice).

7 QUALITY of barcodes

7.1. Barcode verification settings

GS1 settings

Nine parameters are used by GS1 to check the compliance of barcodes:

GS1 settings	EAN-13		GS1-128	
	Min.	Max.	Min.	Max.
X-dimension (magnification factor)	0.264 mm (*)	0.66 mm	0.495 mm (**)	0.84 mm (**)
GS1 company prefix validity	Verification from the GS1 database if the company is a member			
Structure of the symbol	Cf. table below			
Barcode height	Cf. 3.6.2. The required dimensions are given on page 19		32 mm (***)	N/A
Left margin			5 mm	8.4 mm
Right margin			5 mm	8.4 mm
Length of the symbol			(****)	
Positioning the symbol	Cf. 3.5.5. Positioning the EAN-13 barcode p. 21		Centred (printed directly or added label)	
Plain text data	N/A		Printing of the data translated in the barcode, preceded by its description in English.	

Notes:

(*): on an added label, the minimum is 0.247 mm for the EAN-13 symbol.

(**): The recommended X-dimension is between 0.495 and 0.84 mm. Scanning efficiency will be improved by selecting the highest possible X-dimension in the specified range. However, if there is not sufficient space for the information, a lower X-dimension can be used. In this case, it must not however be lower than 0.25 mm. The use of an X lower than the recommended minimum reduces the reading distance and makes symbol quality harder to maintain.

(***): Regardless of the factor, the **recommended height is 32 mm**. If, for reasons of space, this recommendation cannot be observed, it should **in no case be less than 13 mm**.

(****): The physical length depends on the number of characters coded and the dimension X. The maximum length is 16.5 cm including margins.

The **symbol structure** covers the following six criteria:

	EAN-13	GS1-128
The correspondence between the figures and bars	Yes	Yes
The presence of the Function 1 character		Yes
The presence of the field separator after variable-length data		Yes
The presence of information identifiers		Yes
The presence of the frame surrounding the barcodes		
Verification of the check digit of each barcode	Yes	Yes

ISO parameters

Following are a few ISO parameters. Each parameter is evaluated by a score ranging from 0 (insufficient) to 4 (excellent). The standard reference is the standard ISO/IEC 15416.

ISO settings	Analysis field	Minimum score
Decoding	Structure of the symbol, margins and check digit	Min. 1.5 (C)
Decodability	Thickness of the bars and spaces according to the tolerances described in GS1 specifications	
Contrast	Relationship between the colours used for the background and for the bars. The analysis consists of determining whether the colours used yield sufficient contrast between the bar colour and the background colour.	
Overall ISO score	Corresponds to the lowest score of the parameters analysed.	

7.2. How do I ensure good barcode quality?

GS1 recommends the following steps to ensure good barcode quality:

- checking the condition of the equipment, in particular the print heads of the printers.
- checking your own labels using a checker allows you to analyse all the parameters in accordance with GS1 specifications and ISO parameters.

→ *Note: reading barcodes with a hand-held scanner is not sufficient to check on their legibility for all partners in the wine supply chain. The Technical Support staff are at your disposal to check your barcodes. For more reliable results, it is best to send your barcodes on their original base (back label, packaging, logistic label, etc.) Contact: assistance@gs1fr.org - Tel.: +33 (0)1 40 95 54 10*

8

GLOSSARY

Names	Definitions
Brand	“A sign capable of being represented graphically and which serves to distinguish the products or services of a natural or legal person” - translation of L 711-1 of the French Code of Intellectual Property. The brand designates only those company products or services to which it is affixed.
Consumer trade item	Item intended for sale to the consumer in a point of sale. The consumer trade item is defined as the most elementary unit that is or can be offered to the consumer for purchase in a given form.
Dire private brand	Brand created and held by a retailer and used for products produced on demand by manufacturers for the same retailer. Retailers’ own brands have been defined since 2001 by the French Consumer Code (article L 112-6 of the law no. 2001-420: “product whose characteristics have been defined by the company or the group of companies which is responsible for its retail sale and which is the owner of the brand under which it is sold” - translation).
EAN-13	A bar code of the EAN/UPC Symbology that encodes GTIN-13, Coupon-13, RCN-13, and VMN-13.
EDI	Electronic Data Interchange: transmission of structured data from one computer to another in standardized formats.
GENDI	Groupement d’Etude, de Normalisation des Distributeurs (Distributors’ Study and Standardisation Group). French organisation whose members include mass retail companies, catering companies, transport and logistics service providers using GS1 standards.
GENFA	Groupement d’Etude, de Normalisation des Fabricants (Manufacturers’ Study and Standardisation Group). French organisation whose members include suppliers and manufacturers using GS1 standards.
GS1 company prefix	Part of GS1 international coding structures consisting of a GS1 prefix and a company code assigned by a GS1 identification organisation.
GS1-128	Structured sequence of alphanumeric characters constituting one or more items of information of fixed or variable length, with each item being preceded by its identifier. The data identifiers along with the structure and length of the data they introduce are defined by GS1. The term GS1-128 also refers to the barcode into which this data is translated. Thus, any of the following can be translated into GS1-128 format: a sequential package number or SSCC, GTIN, batch number, date, weight, etc. In brief, it is a catalogue of data.
GTIN	A Global Trade Item Number (GTIN) is used to identify any item (trade item or service) upon which there is a need to retrieve pre-defined information and that may be priced or ordered or invoiced at any point in any supply chain. A separate, unique GTIN is required whenever any of the pre-defined characteristics of an item are different in any way that is relevant to the trading process.
Homogeneous pallet	Pallet containing packages identified by the same GTIN code. A homogeneous pallet logistics unit may be standard or non standard as defined by GS1.
Logistic unit	A combined unit of any composition (generally packages), created initially for storage at the supplier’s premises and then used for transport and shipping to the end customer.
Medal	Award given by a tasting panel to a specified batch of wine. Usually the medal is represented by a specific logo included in the label or printed on a sticker.
Mixed pallet	Logistics unit containing packages identified by different GTIN codes . A mixed pallet logistics unit may be standard or non standard as defined by GS1.
Neck label	Part of the packaging above the label, on or around the neck of the bottle.

Names	Definitions
Outer case	A outer case (box or wooden case) is a unit containing consumer trade items, generally wine bottles.
Private brand	Supplier's brand made available exclusively to retailers for a given period.
SSCC	Serial Shipping Container Code. An international 18-digit code with a structure defined by GS1. It is used to give each logistic unit a unique identifier. It is represented in GS1-128 format on the logistic unit, indicated in the despatch advice and used for tracking boxes and pallets. The industry also uses the term "Gencod" to designate it.
Trade unit	Consumer or logistics unit, identified by a GTIN code and appearing in the supplier's catalogue, that can be ordered or invoiced for trade purposes at any point in the supply chain.
Vintage	Year of grape harvest
X-dimension	X-dimension corresponds to the thickness of a basic module (the thinnest bar or space in the barcode concerned). The notion of "magnification factor" used up until now to indicate the size of a symbol by reference to a nominal size (100%) has now been replaced by the more direct X-dimension.

The full glossary is accessible on the GS1 France website <http://www.adherents.gs1.fr/Glossaire2>



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