Bossing the basics:
The GTIN management handbook
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What’s in a GTIN?

- **GS1 Prefix**: The first three digits code for the product’s country of origin. In this example, 500–509 means the product has been licensed by GS1’s UK arm.

- **GS1 Company Prefix (GCP)**: Beginning with the GS1 Prefix, this number is the unique identifier for your company.

- **Item reference**: This number is added to your GCP to identify different product types. Usually this is three digits in length.

- **Check digit**: The last digit of a GTIN is a check digit which makes sure the number is correctly composed. It is calculated by a simple mathematical principle – the Modulo 10 algorithm.
Introduction

Consumers are making purchase decisions across multiple channels with increasing frequency, so unique identification of products is more important now than ever before.

Product discontinuations, reintroductions, listing fees and lost sales are often cited as reasons behind not changing a GTIN, but in today’s omnichannel world things have evolved.

The GS1 GTIN management standard is designed to help industry make consistent decisions about the identification of trade items in open supply chains and enables trading partners to exchange information about products in consistent ways.

The standard provides guidance on when GTIN changes are necessary, specifically when predefined information changes on an existing product or when a new product is introduced for the first time.

Ultimately, that increases consumer confidence in the products we buy, wherever we buy them. And that leads to successful business practice.

The standard is built on three guiding principles that should be reviewed by any brand owner when considering if a change to a product GTIN is required:

- Is a consumer and/or trading partner expected to distinguish the changed or new product from previous/current products?
- Is there a regulatory/liability disclosure requirement to the consumer and/or trading partner?
- Is there a substantial impact to the supply chain (e.g. how the product is shipped, stored, received)?

At least one of the guiding principles must apply for a GTIN change to be required. Once the guiding principles have been considered, there are ten further rules that offer further guidance on when GTIN should be changed.
New product introduction

A new product is defined as a product that does not currently exist or has not been available for sale and is an addition to the brand owner’s portfolio.

*e.g.* When a new television model with new functionalities (e.g., Wi-Fi and streaming capabilities) is introduced.

In this instance, a new GTIN would be required at all levels of the product hierarchy (unit, case, pallet etc).

Declared formulation or functionality

Functionality is defined as the particular use or set of uses for which something is designed. Formulation is defined as a list of the ingredients or components used to create a trade item.

A change to the formulation or functionality that affects the legally-required declared information on the packaging of a product and where the brand owner expects the consumer or supply chain partner to distinguish the difference requires a new GTIN. Both conditions must be met, requiring the assignment of a new GTIN.

*e.g.* When a product includes nuts, which introduces a new allergen that is a legally-governed declaration and must be distinguishable by the consumer.

In this instance, a new GTIN would be required at all levels of the product hierarchy (unit, case, pallet etc).

**Top tip:** minor changes to ingredients (e.g. slight change in salt content) that will not impact the consumer’s purchasing or impact any legally-governed declaration do not require a new GTIN to be applied.
Declared net content

Net content is defined as the amount of the consumable product of the trade item contained in a package, as declared on the label, which may include: net weight, volume, count, units, etc. Any change – increase or decrease – to the legally-required declared net content that is printed on the pack, requires assignment of a new GTIN.

**e.g.** When the number of nappies in a pack changes from 12 to 10.

In this instance, a new GTIN would be required at all levels of the product hierarchy (unit, case, pallet etc).

Remember – as well as the product itself, any change in net content will impact pricing related declarations on shelf edge labels in store, “price per” messages on retailer websites. It’s crucial that any changes to the net content of a product result, however small, result in the in a new GTIN being assigned.

Dimensional or gross weight change

A change of over 20 per cent to a physical dimension, on any axis, or gross weight, requires assignment of a new GTIN.

**e.g.** When the height of a laundry detergent box changes from 14cm to 9cm.

In this instance, a new GTIN would be required at all levels of the product hierarchy (unit, case, pallet etc).

**NB** Don’t confuse this rule with #3. If the net content is changing by any amount, a new GTIN must be applied. This rule only applies to dimensional or gross weight (i.e. complete weight of the product, including packaging) changes of more than 20 per cent.
Add or remove a certification mark

A change to packaging to add a new or remove an existing certification mark that has significance to regulatory bodies, trading partners or to the end consumer, requires assignment of a new GTIN.

*e.g.* When a halal or kosher certification mark is added or removed from a product's packaging.

In this instance, a new GTIN would be required at all levels of the product hierarchy (unit, case, pallet etc).

**Interesting point:** we often get queries about new marketing declarations (rather than a certification marks) on packaging and whether a GTIN change is required or not. We would always refer to the GTIN management standard guiding principles and ask:

Is a consumer and/or trading partner expected to distinguish the changed or new product from previous/current products?

If the answer is “yes” then our recommendation would be to apply a new GTIN.

Primary brand

The primary brand is the brand most recognisable by the consumer, as determined by the brand owner, and can be expressed as a logo and/or words. A change to the primary brand that appears on the trade item, requires assignment of a new GTIN.

*e.g.* When a company’s primary brand name changes from “Old Edge Computers” to “Leading Edge Systems”.

In this instance, a new GTIN would be required at all levels of the product hierarchy (unit, case, pallet etc).
Time critical or promotional product

A change to a product that is being promoted (including packaging changes) for a specific event or date, impacting the required handling in the supply chain to ensure the trade item is available for sale during a specified time period, requires assignment of a new GTIN.

*e.g.* When World Cup logos are added to product packaging for a limited time only.

In this instance, a new GTIN would only be required levels of the product hierarchy above the retail consumer trade item/base unit level (case, pallet etc).

Pack/case quantity

A change to the number of trade items in a case or a change to the quantity of cases in a pre-defined pallet configuration, requires assignment of a new GTIN.

*e.g.* When a case size changes from eight trade units to six trade units.

In this instance, a new GTIN would only be required levels of the product hierarchy above the retail consumer trade item/base unit level (case, pallet etc).
**Pre-defined assortment**

A pre-defined assortment is defined as a pack of two or more trade items that are combined and sold together as a single trade item (may also be referred to as a bundle).

*e.g.* When a combination pack of shampoo and conditioner changes to shampoo and face mask.

In this instance, a new GTIN would be required at all levels of the product hierarchy (unit, case, pallet etc).

**NB** This rule only applies when there is a predefined assortment of items within a pack/bundle changes. For random assortment packs/bundles (e.g. different colour toothbrushes in a pack) GTIN changes are not required when the contents change.

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**Price on pack**

Price on pack is defined as any instance when the brand owner includes pre-pricing as part of the package graphics. This is not considered a price marked on a price ticket, sticker, hangtag or anything that could be removed from the package or product.

*e.g.* When the pre-printed price on a product is changing from £2 to £2.50.

In this instance, a new GTIN would be required at all levels of the product hierarchy (unit, case, pallet etc).
Additional support

Further information can be found at www.gs1uk.org/standards