GS1 Germany

Data Quality Excellence (GS1 DQX) – Release Notes

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Document Summary

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Content

Adjustments

In the following, functional adjustments to the GS1 DQX Service are announced.

For more information on adjustments in the next release, please refer to the general release notes in the download area at *www.gs1.de/dqx*.

1   Introduction of the visual validation extension

As first announced in November 2021, the gradual introduction of the visual validation extension began on June 27, 2022 with the introduction of attribute group 1 in phase 1.

The previous approach to visual validations, the importance of the visual validation extension for visual validations, as well as the introduction procedure are described in the following chapters 1.1, 1.2 and 1.3.

1.1   Approach to visual validation before the introduction of the visual validation extension

Before the introduction of the visual validation extension, information in the data set was checked within the scope of the GS1 DQX Visual Validation exclusively by comparing it with information on product images/artworks relevant to visual validations.

It is still the case that an attribute is not currently visually validated if there is no information in this attribute. Likewise, in many cases it does not currently represent an error if information does not fully correspond to the product image/artwork. Details can be found in the GS1 DQX Kompendium in the download area at *www.gs1.de/dqx.*

Figure 1: Validation of data set against product image/artwork

1.2   Significance of the visual validation extension

With the introduction of the visual validation extension since the end of June 2022, further steps are being taken to move decisively closer to the goal of the digital twin:

The previous validation direction from the data set to the product image/artwork is gradually being extended to include the validation direction from the product image/artwork to the data set. Hence, depending on the attribute all information from the product images/artworks is also expected in the data set. This enables a validation that ensures the completeness of data sets.

Figure 2: Validation in both directions

The following figure illustrates the effect of the visual validation extension on the GS1 DQX Service:
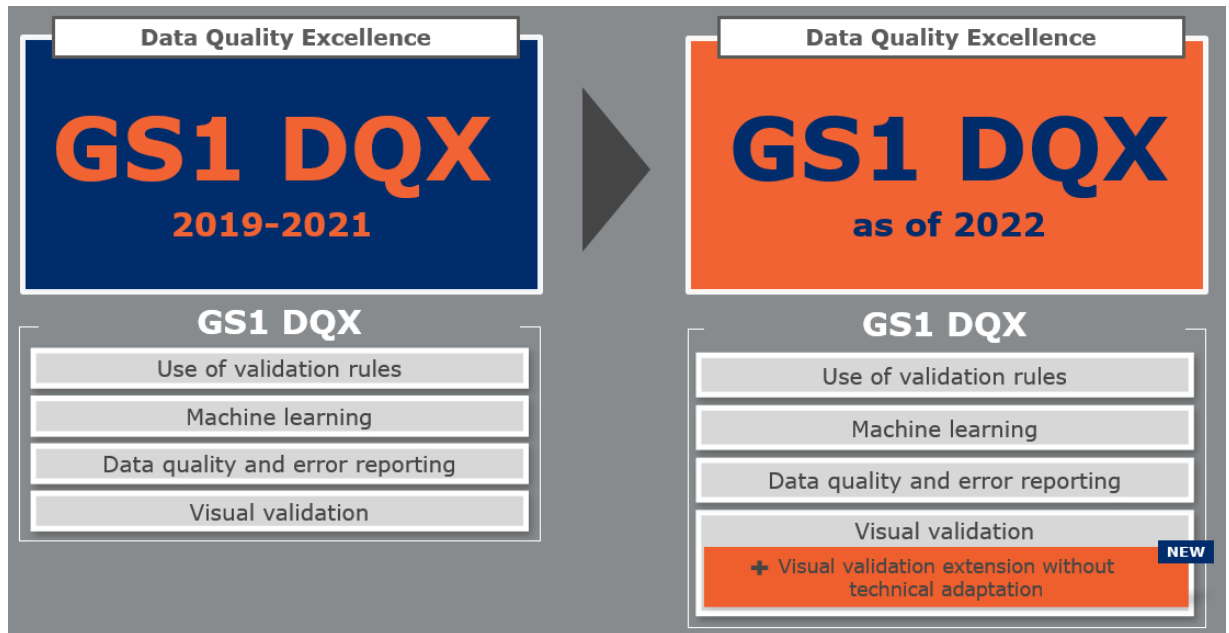
Figure 3: GS1 DQX before and after the introduction of the visual validation extension

1.3   Procedure of the introduction

The first phase comprises the **introduction of the visual validation extension <u>without technical adaptation of the visual validation software</u>**.

This process change of the visual validation enables an extension of the validation direction. In addition, the product image/artwork is compared with the data set. However, this only takes place if there is already information in the attribute to be visually validated. Attributes that are not filled are still not visually validated by GS1 DQX in this phase.

Note: The basic conditions for triggering visual validations do not change due to the introduction of the visual validation extension (see "Description of the functionality of Data Quality Excellence (GS1 DQX)" in the download area at *www.gs1.de/dqx*).

The inclusion of attributes in this phase is done in groups and happens gradually. For 2022, four attribute groups have been agreed upon with the GS1 DQX PCO Expertengruppe (see Figure 4, below). As these attribute groups are subject to continuous internal testing until go-live, it is possible that the current grouping of attributes and the plan to introduce the visual validation extension for the attributes mentioned may still change to a certain extent. Attributes for which this already applies are crossed out in Figure 4.
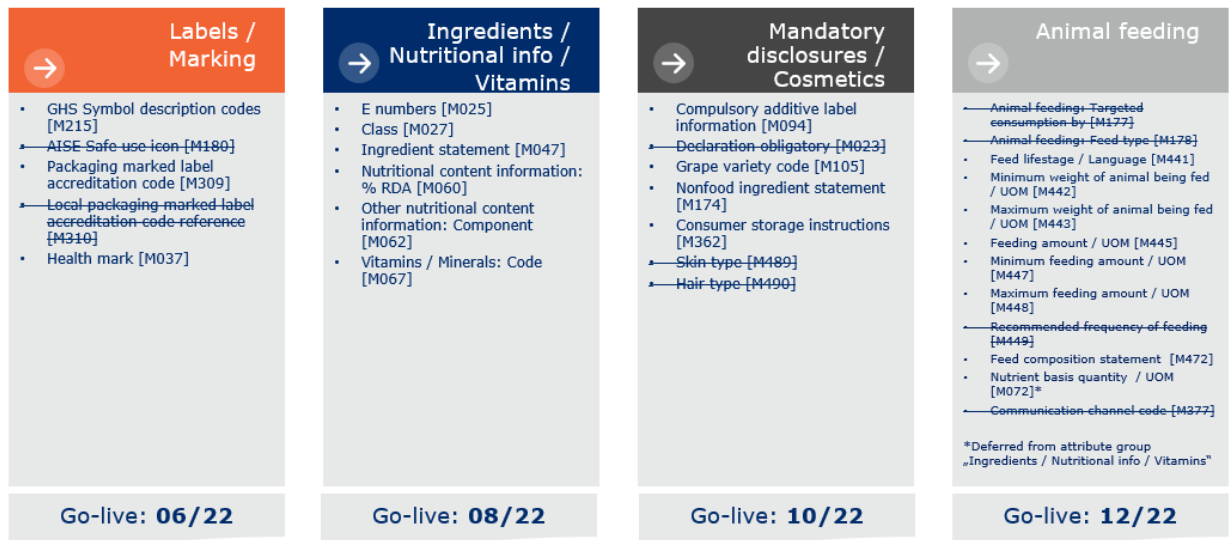
Labels / Marking	Ingredients / Nutritional info / Vitamins	Mandatory disclosures / Cosmetics	Animal feeding
→	→	→	→
• GHS Symbol description codes [M215] • ~~AISE Safe use icon [M180]~~ • Packaging marked label accreditation code [M309] • ~~Local packaging marked label accreditation code reference [M310]~~ • Health mark [M037]	• E numbers [M025] • Class [M027] • Ingredient statement [M047] • Nutritional content information: % RDA [M060] • Other nutritional content information: Component [M062] • Vitamins / Minerals: Code [M067]	• Compulsory additive label information [M094] • ~~Declaration obligatory [M023]~~ • Grape variety code [M105] • Nonfood ingredient statement [M174] • Consumer storage instructions [M362] • ~~Skin type [M489]~~ • ~~Hair type [M490]~~	• ~~Animal feeding: Targeted consumption by [M177]~~ • ~~Animal feeding: Feed type [M178]~~ • Feed lifestage / Language [M441] • Minimum weight of animal being fed / UOM [M442] • Maximum weight of animal being fed / UOM [M443] • Feeding amount / UOM [M445] • Minimum feeding amount / UOM [M447] • Maximum feeding amount / UOM [M448] • ~~Recommended frequency of feeding [M449]~~ • Feed composition statement [M472] • Nutrient basis quantity / UOM [M072]* • ~~Communication channel code [M377]~~ *Deferred from attribute group „Ingredients / Nutritional info / Vitamins"
Go-live: **06/22**	Go-live: **08/22**	Go-live: **10/22**	Go-live: **12/22**

Figure 4: Overview of the attribute groups in phase 1

2 Introduction of the the fourth attribute group in phase 1

The attribute group "Animal feeding" is the **fourth and last group of phase 1,** with whose **go-live on December 12, 2022** the gradual introduction of the visual validation extension will be continued. Its introduction has been announced since May 2022 by means of release notes for the functional release.

The fourth group includes the following attributes:

- Feed lifestage / Language [M441]
- Minimum weight of animal being fed / UOM [M442]
- Maximum weight of animal being fed / UOM [M443]
- Feeding amount / UOM [M445]
- Minimum feeding amount / UOM [M447]
- Maximum feeding amount / UOM [M448]
- Feed composition statement [M472]

The introduction of the visual validation extension for the attribute

- Nutrient basis quantity / UOM [M072]

was moved from the second attribute group "Ingredients / Nutritional information / Vitamins" to the fourth attribute group based on decisions by the GS1 DQX PCO Expertengruppe.

Attribute-specific visual validation extension information for the above attributes can be found in the updated version of the GS1 DQX Kompendium since November 3, 2022, which is available in the download area at *www.gs1.de/dqx*.

Important: Within the framework of the pending testing of the visual validation extension for this attribute group, there may still be changes to the validation extension scope, which will be announced separately before the implementation of the validation extension.

The exclusion from the visual validation of the attribute

- Recommended frequency of feeding [M449]

was decided upon by the GS1 DQX PCO Expertengruppe and is anticipated to be implemented with release 23.02. Thus, the visual validation extension will not be introduced for this attribute.

Background to the introduction of the attribute group: The animal feed attributes included in the attribute group are intended to represent information on animal feed that is usually legally binding making it essential to ensure complete information in the respective attributes.

The visual validation extension of the attribute "Nutrient basis quantity / UOM [M072]" ensures the complete indication of nutrition tables by identifying missing repetitions from the product image/artwork.

The functionality of the visual validation extension is outlined in the examples in chapter 3 Examples for the visual validation extension without technical adaptation.

3 Examples for the visual validation extension without technical adaptation

In the following, on the basis of the attributes "Packaging marked label accreditation code [M309]" (as part of the first attribute group), "Vitamins / Minerals: Code [M067]" (as part of the second attribute group), "Compulsory additive label information [M094]" (as part of the third attribute group) and "Nutrient basis quantity / UOM [M072]" (as part of the fourth attribute group) illustrate how the visual validation extension works in phase 1.

In the "Product image" column, all the information from the product image that is relevant for the attribute is named.

Examples for attribute group 1

Example 1: The attribute "Packaging marked label accreditation code [M309]" contains information so the requirements for the validation extension without technical adaptation are fulfilled.

Data set	Product image
  EU_ORGANIC_FARMING	

> ➢ Result of the extended visual validation: In the data set, the information "BIO_LABEL_GERMAN" is also expected.
>> ➢ Evaluation: Error (= red GS1 DQX Certificate)
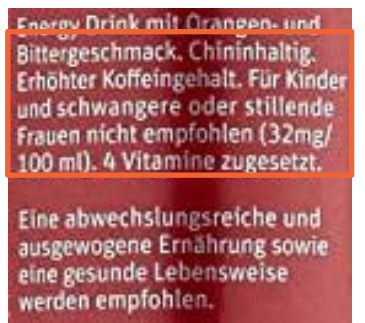
Example 2: The requirements for the validation extension without technical adaptation are not fulfilled because there is no information in the attribute "Packaging marked label accreditation code [M309]".
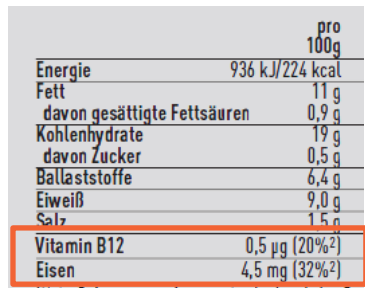
Data set	Product image

> ➢ The attribute is not yet checked.
>> ➢ Evaluation: not relevant (depending on the further test results of the data set, the GS1 DQX Certificate can be "passed" = green)

Examples for attribute group 2
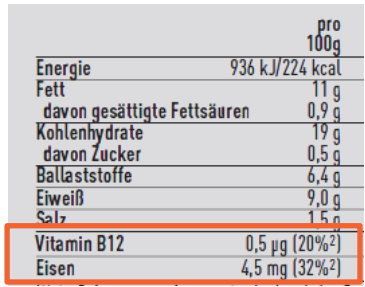
Example 1: The attribute "Vitamins / Minerals: Code [M067]" contains information so the requirements for the validation extension without technical adaptation are fulfilled.

Data set	Product image
FE - Eisen	pro 100g Energie 936 kJ/224 kcal Fett 11 g davon gesättigte Fettsäuren 0,9 g Kohlenhydrate 19 g davon Zucker 0,5 g Ballaststoffe 6,4 g Eiweiß 9,0 g Salz 1,5 g Vitamin B12 0,5 µg (20%²) Eisen 4,5 mg (32%²)

> ➤ Result of the extended visual validation: The data set is expected to contain the additional information "VITB12 - Vitamin B 12".
>> ➤ Evaluation: Error (= red GS1 DQX Certificate)

Example 2: The requirements for the visual validation extension without technical adaptation are not fulfilled because there is no information in the attribute "Vitamins / Minerals: Code [M067]".

Data set	Product image
	pro 100g Energie 936 kJ/224 kcal Fett 11 g davon gesättigte Fettsäuren 0,9 g Kohlenhydrate 19 g davon Zucker 0,5 g Ballaststoffe 6,4 g Eiweiß 9,0 g Salz 1,5 g Vitamin B12 0,5 µg (20%²) Eisen 4,5 mg (32%²)

> ➤ The attribute is not yet checked.
>> ➤ Evaluation: not relevant (depending on the further test results of the data set, the GS1 DQX Certificate can be "passed" = green)

Examples for attribute group 3

Example 1: The attribute "Compulsory additive label information [M094]" contains information so the requirements for the validation extension without technical adaptation are fulfilled.

Data set	Product image
Chininhaltig.	Energy Drink mit Orangen- und Bittergeschmack. Chininhaltig. Erhöhter Koffeingehalt. Für Kinder und schwangere oder stillende Frauen nicht empfohlen (32mg/ 100 ml). 4 Vitamine zugesetzt. Eine abwechslungsreiche und ausgewogene Ernährung sowie eine gesunde Lebensweise werden empfohlen.

> ➤ Result of the extended visual validation: In the data set, the additional information "Erhöhter Koffeingehalt. Für Kinder und schwangere oder stillende Frauen nicht empfohlen (32mg/100 ml)." is expected.

> ➢ Evaluation: Error (= red GS1 DQX Certificate)

Example 2: The requirements for the visual validation extension without technical adaptation are not fulfilled because there is no information in the attribute "Compulsory additive label information [M094]".

Data set	Product image

> ➢ The attribute is not yet checked.

>> ➢ Evaluation: not relevant (depending on the further test results of the data set, the GS1 DQX Certificate can be "passed" = green)

Examples for attribute group 4

Example 1: The attribute "Nutrient basis quantity / UOM [M072]" contains information so the requirements for the validation extension without technical adaptation are fulfilled.

Data set	Product image
100 GRM	

> ➢ Result of the extended visual validation: In the data set, the information "1 PTN" is also expected.

>> ➢ Evaluation: Error (= red GS1 DQX Certificate)

Example 2: The requirements for the visual validation extension without technical adaptation are not fulfilled because there is no information in the attribute "Nutrient basis quantity / UOM [M072]".

Data set	Product image

> ➢ The attribute is not yet checked.

>> ➢ Evaluation: not relevant (depending on the further validation results of the data set, the GS1 DQX Certificate can be "passed" = green)

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