



Manual on the delivery of Eco score-related product information

Release 1, 26/09/2022

Document Summary

Document Item	Current Value
Document Name	Manual on the delivery of Eco score-related product information
Document Date	26/09/2022
Document Version	1.0
Document Issue	
Document Status	approved
Document Description	

Contributors

Name	Organisation
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Log of Changes

Release	Date of Change	Changed By	Summary of Change
1	26/09/2022	Bo Pincket	Creation
2			
3			
4			
5			

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1 Purpose of this document

The document is intended for GS1 data providers and GS1 data recipients who wish to share product information relevant in the context of a product's 'Eco-score' for target markets Belgium, the Netherlands or Luxembourg via My Product Manager (MPM) and or the GS1 Global Data Synchronization Network (GDSN).

This document explains **how** and **which** attributes can be used to:

- share the product information required to calculate the Eco-score
- share the calculated Eco-score

Some of the listed attributes are also used to share product information that is not just required in the context of the Eco-score. The arrangements set out in this document relate solely to product information that is needed as part of the Eco-score and do not apply to other business or legal requirements. Existing business and legal requirements which apply for the attributes listed continue to apply.

2 What is the Eco-score?

The Eco-score is an indicator that reflects the environmental impact of food products. The Eco-score is developed by the French 'Eco-score Collective' consortium.

It assigns products to 5 categories (A, B, C, D, E), ranging from the lowest impact on the environment (A) to the highest impact on the environment (E).

The Eco-score is calculated based on two separate elements:

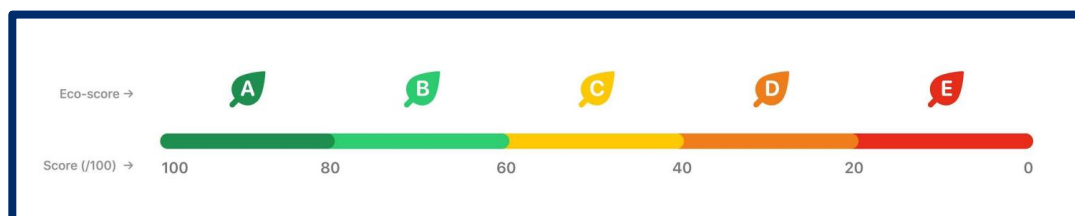
- the life cycle analysis (LCA) of the **product category** to which the product has been assigned
- additional **product-specific indicators**

The LCA is a standardised environmental impact assessment method, which consists of multiple criteria and steps. The method is widely used in the world of science to assess the effects on the environment. The LCAs for 2500 product categories were determined by the French Agency for Ecological Transition (ADEME). The LCA is integrated into the Eco-score in the shape of a score on a 100-point scale.

The additional indicators allow the consideration of other environmental aspects not covered by LCA, such as biodiversity, the protection of endangered species or even local sourcing. Based on the product-specific performance on these indicators, a product receives bonus malus points (-15 to +20).

The Eco-score thus consists of a score out of 100, calculated on the basis of the category of the product, supplemented by additional indicators relating to the specific characteristics of the product in question. The final Eco-score is calculated by adding up all the components.

$$\text{Eco-score} = \text{LCA score} + \text{bonus} - \text{malus}$$



3 How to share Eco score-relevant product information via GS1 attributes?

As stated above, the Eco-score is based on 2 elements:

- A score out of 100, based on the LCA score of the product class to which the product belongs.
- Bonus malus points (-15 to +20) based on **product-specific performance** on the following criteria:
 - production systems used
 - circularity of the packaging materials used
 - locally sourced supply of ingredients
 - environmental policy in the ingredients' country of origin
 - impact on biodiversity

To determine the **product-specific performance**, product-specific information needs to be supplied for each criteria. Which information is required for each criteria and how and which of the attributes can be used to this end, is explained in greater detail in this chapter.

BMSid	BMSname	Local attribute name
665	certificationAgency	Certification agency
667	certificationStandard	Certification standard
685	certificationValue	Certification value
1284	ingredientContentPercentage	Ingredient content percentage
1285	ingredientName	Ingredient name
1286	ingredientName/@languageCode	Ingredient name language code
1288	ingredientSequence	Ingredient Sequence
1327	provenanceStatement	Ingredient origin declaration
1328	provenanceStatement/@languageCode	Ingredient origin declaration language code
1338	CountryCode	ingredient country of origin code
2166	PackagingFeatureCode	Packaging feature code
2186	packagingTypeCode	Packaging type code
2187	packagingTypeDescription	Packaging type description
2188	packagingTypeDescription/@languageCode	Packaging type description language code
2206	packagingMaterialTypeCode	Packaging material type code
2218	packagingMaterialThickness	Packaging material thickness
2219	packagingMaterialThickness/@measurementUnitCode	Packaging material thickness UOM
2228	packagingMaterialColourCodeReference	Packaging material colour code reference
2237	packagingMaterialTypeCode	Composite material detail packaging material type code
2238	packagingMaterialCompositionQuantity	Composite material detail packaging material composition
2239	packagingMaterialCompositionQuantity/	Packaging material quantity UOM
2240	packagingMaterialThickness	Composite material detail packaging material thickness
2241	packagingMaterialThickness/@measurementUnitCode	Composite material detail packaging material thickness UOM
2312	packagingMarkedLabelAccreditationCode	Third party accreditation symbol on product package code
6306	packagingRawMaterialCode	Packaging raw material code
6307	packagingRawMaterialContentPercentage	Packaging raw material content percentage
6311	packagingRawMaterialCode	Packaging raw composite material code
6312	packagingRawMaterialContentPercentage	Packaging raw composite material content percentage

List of GDSN attributes that are used for passing on product-specific information required to calculate the Eco-score.

3.1 Production systems used

The awarded bonus malus for the production systems applied and their positive impact on the environment is determined on the basis of specific ecological recognitions, approvals or accreditations that a product has received under the form of a certification mark (label) as a result of following guidelines issued by the body issuing the label and also recognised by the 'Eco-score Collective'.

Code value	description
AGRICULTURE_BIOLOGIQUE	Agriculture Biologique - France's national logo for organic products
AQUACULTURE_STEWARDSHIP_COUNCIL	ASC label for farmed seafood (Aquaculture Stewardship Council)
BIO_PARTENAIRE	Bio Partenaire
BIOGARANTIE	Biogarantie
BIOLAND	BIOLAND - Organic food label
BLEU_BLANC_COEUR	Bleu Blanc Cœur
DEMETER_LABEL	DEMETER label (biodynamic agriculture)
EKO	EKO - organic production (certified by Skal, Netherlands)
EU_ORGANIC_FARMING	EU ORGANIC FARMING (EU logo)
FAIR_TRADE_MARK	FAIR TRADE MARK (international Fair trade Standards)
HAUTE_VALEUR_ENVIRONNEMENTALE	Haute Valeur Environnementale
LABEL_ROUGE	LABEL ROUGE (high quality poultry and eggs from traditional, free-range farming)
MARINE_STEWARDSHIP_COUNCIL_LABEL	MSC label for certified sustainable seafood (Marine Stewardship Council)
NATURE_ET_PROGRES	Nature Et Progres
RAINFOREST_ALLIANCE	RAINFOREST Alliance certified (for rainforest protection)
UTZ_CERTIFIED	UTZ Certified

List of the production system labels that are recognised by the 'Eco-score Collective'

3.1.1.1 Third party accreditation symbol on product package code

For certification marks (labels) recognised by the 'Eco-score Collective' that are present on the packaging, use attribute 'Third party accreditation symbol on product package code', in line with the standard guidelines. Select the code that matches the label that is on the packaging from the 'PackagingMarkedLabelAccreditationCode' code list. Repeat this for all labels recognised by the 'Eco-score Collective' that are on the packaging.

3.1.1.2 Certification value

For certification marks (labels) recognised by the 'Eco-score Collective' that are **NOT** on the packaging, use attribute 'Certification value'. Find the code that matches the label in 'PackagingMarkedLabelAccreditationCode' code list and enter the code in the 'Certification value' attribute. Repeat this for all labels recognised by the 'Eco-score Collective' that are NOT on the packaging.

3.2 Circularity of the packaging materials used

The bonus malus for used packaging materials is aimed at promoting the circularity of packaging and the use of renewable and biodegradable raw materials. The aim is to promote packaging that gets a second life and can be reused for the same purposes (in 'closed loop'). This limits the extraction of new raw materials for the manufacture of new disposable packaging.

The bonus malus points for the packaging materials used are established based on the origin of the raw materials used and on the end of service life scenarios.

3.2.1 Labels in respect of the circularity of the packaging materials used

The following labels that a product has received for recognition, approval or accreditation regarding the use of renewable materials or that guarantee more respectful management of raw materials are considered by the 'Eco-score Collective'.

Code value	description
BONSUCRO	BonSucro
FOREST_STEWARDSHIP_COUNCIL_100_PERCE	FSC 100 Percent (100 % material from sustainable forestry)
FOREST_STEWARDSHIP_COUNCIL_LABEL	FSC label for sustainable forestry (Forest Stewardship)
FOREST_STEWARDSHIP_COUNCIL_MIX	FSC MIX (material mix from controlled forestry sources)
FOREST_STEWARDSHIP_COUNCIL_RECYCLED	FSC RECYCLED (recycling material only)

List of the labels of renewable materials that are recognised by the 'Eco-score Collective'

3.2.1.1 Third party accreditation symbol on product package code

For certification marks (labels) recognised by the 'Eco-score Collective' that are present on the packaging, use attribute 'Third party accreditation symbol on product package code' in line with the standard guidelines. Select the code corresponding to the label present on the packaging from code list 'PackagingMarkedLabelAccreditationCode'. Repeat this for all labels recognised by the 'Eco-score Collective' that are on the packaging.

3.2.1.2 Certification value

For certification marks (labels) recognised by the 'Eco-score Collective' that are **NOT** on the packaging, use attribute 'Certification value'. Find the code that matches the label in the 'PackagingMarkedLabelAccreditationCode' code list and enter the code in the 'Certification value' attribute. Repeat this for all labels recognised by the 'Eco-score Collective' that are NOT on the packaging.

3.2.2 Packaging materials used

Furthermore, standard packaging information from the consumer unit as it is offered to consumers in the trade and entered in GS1 product sheets in line with existing guidelines, supplemented by specific Eco-score related requirements, is used to determine the bonus malus score of the packaging. The following packaging-specific attributes are to be used to supply Eco score-relevant packaging information.

3.2.2.1 Packaging type code

In line with existing guidelines and instructions, enter the packaging type of **all the different packaging elements** that make up the package in which the product is presented to the consumer. Select the correct value from code list 'PackagingTypeCode'.

E.g.: a jar of mayonnaise

- Glass jar (main packaging element): Packaging type code = jar (PT)
- Metal lid (which may be detached from the jar): Packaging type Code = PUG
- Paper label (which may be detached from the jar): Packaging type Code = PUG

Please note: When packaging consists of several packaging elements, it is desirable to provide a detailed description of the packaging of the entire product and all packaging elements via attribute 'Packaging type description'.

E.g.: a jar of mayonnaise

- glass jar: Packaging type description = glass jar with metal lid and paper wrapper
- metal lid: Packaging type description = metal lid
- paper label: Packaging type description = paper wrapper

3.2.2.2 Packaging feature code

For packaging elements for which attribute 'Packaging Type Code' equals '**PUG**' (Packaged, no specification), you need to select the correct packaging feature from the 'packagingFeatureCode' code list in function of the Eco-score calculation.

- E.g.: Mayonnaise jar: glass jar with metal lid and paper wrapper
- metal lid
 - Packaging Type Code: PUG
 - Packaging Feature Code: LABEL
 - paper label
 - Packaging Type Code: PUG
 - Packaging Feature Code: SCREW_CAP_METAL

3.2.2.3 Packaging material type code / Composite material detail packaging material type code

In line with existing instructions, the Eco-score calculation also requires that attribute 'Packaging material type code' be used for all packaging types to indicate which material the packaging type consists of. Select the appropriate value from code list 'PackagingMaterialTypeCode'.

When a packaging type is composed of multiple materials, select code 'COMPOSITE' in attribute 'Packaging Material Code' and use attribute 'Composite material detail packaging material type code' to indicate which different materials the packaging type consists of.

3.2.2.4 Packaging material colour code reference

In line with the existing instructions, when the packaging material is equal to **POLYMER_PET**, it is also necessary to indicate the colour of the packaging material via attribute 'Packaging material colour code reference' to calculate the Eco-score. Select the appropriate value from code list 'PackagingMaterialColourCodeReference'.

3.2.2.5 Composite material detail packaging material composition quantity

In line with the existing instructions, it is also necessary for calculating the Eco-score for composite packaging materials to enter the amount of packaging material of each component of the composition in attribute 'Composite material detail packaging material composition quantity'. Also use attribute 'Packaging material quantity UOM' to indicate the unit in which you have declared the amount of packaging material.

3.2.2.6 Packaging material thickness / Composite material detail packaging material thickness

In line with existing instructions, when attribute 'Packaging material type code' or attribute 'Composite material detail packaging material type code' is equal to **METAL_ALUMINUM**, it is also necessary to indicate the thickness of the material via related attributes 'Packaging material thickness' or 'Composite material detail packaging material thickness' for the Eco-score calculation. Also use related attributes 'Packaging material thickness UOM' and 'Composite material detail packaging material thickness UOM' to indicate the unit in which you specified the thickness of packaging material.

3.2.2.7 Packaging raw material code/ Packaging raw material content percentage & Packaging composite raw material code/ Packaging raw composite material content percentage

For the calculation of the Eco-score it is **additionally required** to indicate for certain packaging materials that they are produced from recycled material. When this is the case, the % of recycled material used must also be indicated.

Select value 'RECYCLED' in attribute 'Packaging raw material code' or 'Packaging composite raw material code' when recycled material has been used to produce the packaging material in question.

Use associated attributes 'Packaging raw material content percentage' or 'Packaging raw composite material content percentage' to specify the % of recycled material used.

These extra Eco-score specific **only apply for** the following packaging materials:

CORRUGATED_BOARD_DOUBLE_WALL, CORRUGATED_BOARD_OTHER,
CORRUGATED_BOARD_SINGLE_WALL, CORRUGATED_BOARD_TRIPLE_WALL, PAPER_MOLDED_PULP,
PAPER_OTHER, PAPER_PAPER, PAPER_PAPERBOARD.

3.3 locally sourced supply of ingredients & environmental policy in the ingredients' country of origin

Both the bonus malus for local sourcing and that for the environmental policy applicable in the country of origin are determined on the basis of the origin of the ingredients that make up the product.

To determine this bonus malus, it is therefore necessary that, in addition to the ingredient and origin information already provided under EU Regulation 1169/2011 via GDSN attributes at product level (Ingredients list, Country of origin code, Information on origin, ed...) additional origin info per ingredient is shared.

This extra origin info is to be supplied for those primary ingredients from the ingredient statement with the highest % content, which jointly represent at least 85% of the product as a whole. Where more than 6 ingredients are required to reach the 85% threshold, in order to calculate the Eco-score, only information is to be supplied of the 6 ingredients with the 6 highest % content.

To this end, the following ingredient-specific attributes are to be used: Ingredient Sequence, Ingredient name, Ingredient content percentage, Ingredient country of origin code and Ingredient origin declaration.

3.3.1.1 Ingredient name / Ingredient name language code

Use the 'Ingredient name' attribute to indicate the name of the ingredients considered for calculating the product's Eco score.

Use the name as specified in the ingredient list (1268 BMS ingredientStatement). The Ingredient name needs to be provided in one language only. Use attribute 'Ingredient name language code' to indicate the language used.

For fish ingredients, you are also required to specify the scientific name of the fish in brackets. Even if the scientific name is not mentioned on the packaging or in the ingredient statement (1268 BMS ingredientStatement).

e.g.: Mackerel (Scomber Scombrus)

3.3.1.2 Ingredient Sequence

For all ingredients that are taken into consideration for the calculation of the Eco-score and whose name is thus specified in attribute 'Ingredient name', one has to indicate via attribute 'Ingredient Sequence' the order of the ingredients according to the percentage they make up in the product. The ingredient with the highest % is given sequence number 01. The ingredient with the 2nd highest % is given sequence number 02 and so on.

3.3.1.3 Ingredient content percentage

For all ingredients that are taken into consideration for the calculation of the Eco-score and whose name is thus specified in attribute 'Ingredient name', one has to state via attribute 'Ingredient content percentage' the % that the ingredient represents in the total product. If the % for an ingredient has already been entered in the ingredient list (1268 BMS ingredientStatement) then one has to state it again in attribute 'Ingredient content percentage'.

This % content is important to determine to what extent the origin of a specific ingredient needs to weigh by comparison with the other ingredients that are taken into account to calculate the Eco-score. The higher the % content of an ingredient the greater the weight of the origin of this ingredient in order to determine the bonus malus points.

3.3.1.4 Ingredient country of origin code

Use the attribute 'Ingredient country of origin code' to indicate the origin of all ingredients (except fish ingredients caught at sea) taken into account for the calculation of the product's Eco-score.

If the origin of the ingredient is variable (e.g.: for seasonal reasons), list in the attribute 'Ingredient country of origin code' all the countries from which the ingredient may originate.

E.g.: Product with 80% tomatoes coming from Belgium in spring and summer and from Morocco in autumn and winter

- Ingredient name: Tomatoes
- Ingredient Sequence: 01
- Ingredient content percentage: 80%
- Ingredient country of origin code: [504] Morocco, [056] Belgium

If a fixed % of a certain ingredient always comes from different countries, create different ingredient information tables and fill in the correct values for all attributes.

E.g.: Product with 80% tomatoes of which 60% is from Morocco and 20% from Belgium

- ingredient information table 1
 - Ingredient name: Tomatoes
 - Ingredient Sequence: 01
 - Ingredient content percentage: 60%
 - Ingredient country of origin code: [504] Morocco
- ingredient information table 2
 - Ingredient name: Tomatoes
 - Ingredient Sequence: 01
 - Ingredient content percentage: 20%
 - Ingredient country of origin code: [056] Belgium

Do NOT use the 'Ingredient country of origin code' attribute to specify the origin of fish ingredients that were caught at sea (Marine Fish ingredients). Use the 'Ingredient origin declaration' attribute to do so.

3.3.1.5 Ingredient origin declaration / Ingredient origin declaration language code

Use the 'Ingredient origin declaration' attribute to enter the origin of all fish ingredients caught at sea that are taken into account to calculate the Eco-score.

Use the 'Ingredient origin declaration' attribute to specify where the fish was caught. To do so, select the appropriate FAO catch zone from the 'CatchZones' code list. Make sure the words 'Caught in' precede the selected code.

e.g.: **Caught in** the Arctic Sea (18).

The catch zone needs to be entered in just one language. To do so, use one of the languages used to fill in the ingredient statement. Use the 'Ingredient origin declaration language code' attribute to specify the language.

3.4 Impact on biodiversity

When determining a product's biodiversity malus points, one considers the potential impact a product has on:

- animal species threatened by the clearing of palm forests for palm oil production
- the population of certain fish species caught at sea

3.4.1 Impact on animal species threatened by the clearing of palm forests for palm oil production

All products containing palm oil receive a malus of -10 points unless it is demonstrated through labels that the palm oil used was indeed produced by certified plantations. The 'Eco-score Collective' considers 2 labels for this purpose: RSPO Segregated (SG) & RSPO Identity Preserved (IP).

3.4.1.1 Third party accreditation symbol on product package code

For the RSPO Segregated (SG) & RSPO Identity Preserved (IP) labels present on the packaging, use the 'Third party accreditation symbol on product package code' attribute in line with the standard guidelines. Select the "SUSTAINABLE_PALM_OIL_RSPO" code (sustainable Palm Oil RSPO Certified) from the 'PackagingMarkedLabelAccreditationCode' code list.

3.4.1.2 Certification value

For the RSPO Segregated (SG) & RSPO Identity Preserved (IP) labels that are **NOT** on the packaging, use the 'Certification value' attribute and enter "SUSTAINABLE_PALM_OIL_RSPO".

3.4.2 Impact on the population of certain fish species caught at sea

3.4.2.1 Ingredient origin declaration & Ingredient origin declaration language code

For the purposes of calculating the Eco-score, the impact on the biodiversity of the fish population is only determined for wild fish caught at sea. For these fish ingredients derived from sea fishing, we need information on where and how the fish was caught. For this we use attributes 'Ingredient origin declaration' / 'Ingredient origin declaration language code attributes'.

For calculating the bonus malus of 'local sourcing of ingredients & environmental policies in the country of origin of the ingredients', you have already indicated where the fish was caught via attribute 'Ingredient origin declaration'. For this, you selected the correct FAO catch area from code list 'CatchZones'.

Use the 'Ingredient origin declaration' attribute again to report how the fish was caught. To do so, select the appropriate catch method from the 'CatchMethodCodes' code list. Make sure the words 'Caught with' precede the selected code.

e.g.: **Caught with** Troll lines – With Boat dredges (DBR)

The catch method too needs to be entered in just one language. Use the same language as the one you used to enter the catch zone. Use the 'Ingredient origin declaration language code' attribute to specify the language.

4 How to share the calculated Eco-score via GS1 attributes?

All parties that carry out Eco-score calculations and in order to do so use tools other than those provided by the 'Eco-score Collective', must be certified by the 'Eco-score Collective'. After the calculation method has been certified, each year the 'Eco-score Collective' will audit a number of calculations to ensure the calculation method is being applied in the appropriate manner. For further details on this topic, please go to the '[Eco-score Collective site](#)' - topic 'Registration'.

In order to share the Eco-score of food products calculated in compliance with the 'Eco-score' methodology of the 'Eco-score Collective', use the following attributes:

- 'Certification agency': Enter '**Eco-score Collective**' as the name of the organisation that sets the norm.
- 'Certification standard': Enter '**Eco-score**' as the name of the certification standard.
- 'Certification value': enter the value of the calculated Eco-score '**A**', '**B**', '**C**', '**D**' or '**E**'

If the data supplier shares information on a calculated Eco-score via MPM and/or GDSN, he is responsible for keeping the value entered up to date. Which is why we advise only sharing the value of the calculated Eco-score via MPM and/or GDSN if the calculation was carried out by the data supplier himself or by a solution provider operating at the instruction of the data supplier.

When the Eco-score is calculated by the data supplier, we advise the data supplier to share not only the calculated Eco-score with the data receiver but also the Eco-score specific related product information that was used for the calculation. This allows the data receiver to inform their customers not only about the calculated Eco-score of the product itself but also to share more detailed information about the product. This meets the needs of consumers and the advice of the Eco-score Collective to ensure maximum transparency regarding a product's Eco-score.

All parties that wish to use the Eco-score label to share the calculated Eco-score with consumers via the printed packaging or by other analogue or digital channels, first need to register with the Eco-score collective. For further details on this topic, please go to '[Eco-score Collective site](#)' topic 'Registration'.