



Brussels, 23.6.2017
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COMMISSION DECISION

of 23.6.2017

**establishing the EU Ecolabel criteria for industrial and institutional dishwasher
detergents**

(Text with EEA relevance)

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THE EUROPEAN COMMISSION,

Having regard to the Treaty on the Functioning of the European Union,

Having regard to Regulation (EC) No 66/2010 of the European Parliament and of the Council of 25 November 2009 on the EU Ecolabel¹, and in particular Article 8(2) thereof,

After consulting the European Union Eco-labelling Board,

Whereas:

- (1) Under Regulation (EC) No 66/2010, the EU Ecolabel may be awarded to those products with a reduced environmental impact during their entire life cycle.
- (2) Regulation (EC) No 66/2010 provides that specific EU Ecolabel criteria are to be established for each product group.
- (3) Commission Decision 2012/720/EU² has established the ecological criteria and the related assessment and verification requirements for industrial and institutional dishwasher detergents, which are valid until 14 November 2016.
- (4) In order to take into account the recent market developments and the innovation that has taken place during the intervening period, it is considered appropriate to establish a revised set of ecological criteria for that product group.
- (5) The revised criteria, as well as the related assessment and verification requirements, should be valid for six years from the date of notification of this Decision, taking into account the innovation cycle for that product group. Those criteria aim at promoting products that have a reduced impact on aquatic ecosystems, contain a limited amount of hazardous substances, are effective at the recommended temperatures, and minimise waste production by reducing packaging.
- (6) For reasons of legal certainty, Decision 2012/720/EU should be repealed.
- (7) A transitional period should be allowed for producers whose products have been awarded the EU Ecolabel for industrial and institutional dishwasher detergents on the basis of the criteria set out in Decision 2012/720/EU, so that they have sufficient time to adapt their products to comply with the revised criteria and requirements.
- (8) The measures provided for in this Decision are in accordance with the opinion of the Committee established by Article 16 of Regulation (EC) No 66/2010,

¹ Regulation (EC) No 66/2010 of the European Parliament and of the Council of 25 November 2009 on the EU Ecolabel (OJ L 27, 30.1.2010, p. 1).

² Commission Decision of 14 November 2012 establishing the ecological criteria for the award of the EU Ecolabel for Industrial and Institutional Dishwasher Detergents (OJ L 326, 24.11.2012, p. 25-37).

HAS ADOPTED THIS DECISION:

Article 1

The product group 'industrial and institutional dishwasher detergents' shall comprise any dishwasher detergent, rinse or pre-soak agent falling under the scope of Regulation (EC) No 648/2004 of the European Parliament and of the Council³ which is marketed and designed to be used by specialised personnel in professional dishwashers.

This product group includes multi-component systems comprised of more than one component used to build up a complete detergent. Multi-component systems may incorporate a number of products such as pre-soak and rinsing agents, and they shall be tested as a whole.

This product group shall not comprise dishwasher detergents designed for household dishwashers, detergents intended to be used in washers of medical devices or in special machines for the food industry.

Sprays not dosed via automatic pumps are excluded from this product group.

Article 2

For the purpose of this Decision, the following definitions shall apply:

- (1) 'ingoing substances' means substances intentionally added, by-products and impurities from raw materials in the final product formulation [including water-soluble foil, if used];
- (2) 'primary packaging' means:
 - (a) for single doses in a wrapper that is intended to be removed before use, the individual dose wrapping and the packaging conceived so as to constitute the smallest sales unit of distribution to the final user or consumer at the point of purchase, including label where applicable;
 - (b) for all other types of products, packaging conceived so as to constitute the smallest sales unit of distribution to the final user or consumer at the point of purchase, including label where applicable;
- (3) 'microplastic' means particles with a size of below 5 mm of insoluble macromolecular plastic, obtained through one of the following processes:
 - (a) a polymerisation process such as e.g. polyaddition or polycondensation or a similar process using monomers or other starting substances;
 - (b) chemical modification of natural or synthetic macromolecules;
 - (c) microbial fermentation;
- (4) 'nanomaterial' means a natural, incidental or manufactured material containing particles, in an unbound state or as an aggregate or as an agglomerate and where, for 50 % or more of the particles in the number size distribution, one or more external dimensions is in the size range 1-100 nm⁴.

Article 3

³ Regulation (EC) No 648/2004 of the European Parliament and of the Council of 31 March 2004 on detergents (OJ L 104, 8.4.2004, p. 1).

⁴ Commission Recommendation 2011/696/EU of 18 October 2011 on the definition of nanomaterial (OJ L 275, 20.10.2011, p. 38)

In order to be awarded the EU Ecolabel under Regulation (EC) No 66/2010, a dishwasher detergent shall fall within the product group ‘industrial and institutional dishwasher detergents’, as defined in Article 1 of this Decision and shall comply with the criteria as well as the related assessment and verification requirements set out in the Annex.

Article 4

The criteria for the product group ‘industrial and institutional dishwasher detergents’ and the related assessment and verification requirements shall be valid for six years from the date of notification of this Decision.

Article 5

For administrative purposes the code number assigned to the product group ‘industrial and institutional dishwasher detergents’ shall be ‘038’.

Article 6

Decision 2012/720/EU is repealed.

Article 7

1. By derogation from Article 6, applications for the EU Ecolabel for products falling within the product group ‘industrial and institutional dishwasher detergents’ submitted before the date of notification of this Decision shall be evaluated in accordance with the conditions laid down in Decision 2012/720/EU.

2. Applications for the EU Ecolabel for products falling within the product group ‘industrial and institutional automatic dishwasher detergents’ submitted within two months from the date of notification of this Decision may be based either on the criteria set out in Decision 2012/720/EU or on the criteria set out in this Decision. Those applications shall be evaluated in accordance with the criteria on which they are based.

3. EU Ecolabel licenses awarded in accordance with the criteria set out in Decision 2012/720/EU may be used for 12 months from the date of notification of this Decision.

Article 8

This Decision is addressed to the Member States.

Done at Brussels, 23.6.2017

For the Commission
Karmenu VELLA
Member of the Commission



EN
ANNEX
FRAMEWORK
EU ECOLABEL CRITERIA

Criteria for awarding the EU Ecolabel to industrial and institutional dishwasher detergents

CRITERIA

1. Toxicity to aquatic organisms
2. Biodegradability
3. Sustainable sourcing of palm oil, palm kernel oil and their derivatives
4. Excluded and restricted substances
5. Packaging
6. Fitness for use
7. Automatic dosing systems
8. User information
9. Information appearing on the EU Ecolabel

ASSESSMENT AND VERIFICATION

(a) Requirements

The specific assessment and verification requirements are indicated within each criterion.

Where the applicant is required to provide to the competent bodies with declarations, documentation, analyses, test reports, or other evidence to show compliance with the criteria, these may originate from the applicant and/or their supplier(s), as appropriate.

Competent bodies shall preferentially recognise attestations which are issued by bodies accredited in accordance with the relevant harmonised standard for testing and calibration laboratories and verifications by bodies that are accredited in accordance with the relevant harmonised standard for bodies certifying products, processes and services. Accreditation shall be carried out in accordance with Regulation (EC) No 765/2008 of the European Parliament and of the Council¹.

Where appropriate, test methods other than those indicated for each criterion may be used if the competent body assessing the application accepts their equivalence.

Where appropriate, competent bodies may require supporting documentation and may carry out independent verifications or site visits.

¹ Regulation (EC) No 765/2008 of the European Parliament and of the Council of 9 July 2008 setting out the requirements for accreditation and market surveillance relating to the marketing of products and repealing Regulation (EEC) No 339/93 (OJ L 218, 13.8.2008, p.30).

As a pre-requisite, the product shall meet all respective legal requirements of the country or countries in which the product is intended to be placed on the market. The applicant shall declare the product's compliance with this requirement.

The 'Detergent Ingredient Database' list (DID list), available on the EU Ecolabel website, contains the most widely used ingoing substances in detergents and cosmetics formulations. It shall be used for deriving the data for the calculations of the Critical Dilution Volume (CDV) and for the assessment of the biodegradability of the ingoing substances. For substances not present on the DID list, guidance is given on how to calculate or extrapolate the relevant data.

The list of all ingoing substances shall be provided to the competent body, indicating the trade name (if existing), the chemical name, the CAS no., the DID no., the ingoing quantity, the function and the form present in the final product formulation (including water-soluble foil, if used).

Preservatives and colouring agents shall be indicated regardless of concentration. Other ingoing substances shall be indicated at or above the concentration of 0,010% weight by weight.

All ingoing substances present in the form of nanomaterials shall be clearly indicated in the list with the word 'nano' written in brackets.

For each ingoing substance listed, the Safety Data Sheets (SDS) in accordance with Regulation (EC) No 1907/2006 of the European Parliament and of the Council² shall be provided. Where an SDS is not available for a single substance because it is part of a mixture, the applicant shall provide the SDS of the mixture.

(b) Measurement thresholds

Compliance with the ecological criteria is required for all ingoing substances as specified in Table 1.

Table 1 Threshold levels applicable to ingoing substances by criterion for industrial and institutional dishwasher detergents (% weight by weight)

| Criterion name | | Surfactants | Preservatives | Colouring agents | Other (e.g. enzymes) |
|----------------------------------|---------------------------------------|-------------|---------------|------------------|----------------------|
| Toxicity to aquatic organisms | | ≥ 0,010 | no limit* | no limit* | ≥ 0,010 |
| Biodegradability | Surfactants | ≥ 0,010 | N/A | N/A | N/A |
| | Organics | ≥ 0,010 | no limit* | no limit* | ≥ 0,010 |
| Sustainable sourcing of palm oil | | ≥ 0,010 | N/A | N/A | ≥ 0,010 |
| Excluded or limited substances | Specified excluded and limited subst. | no limit* | no limit* | no limit* | no limit* |
| | Hazardous | ≥0,010 | ≥0,010 | ≥0,010 | ≥0,010 |

² Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) (OJ L 396, 30.12.2006, p. 1).

| | | | | | |
|--|---------------------|-----------|-----------|-----------|-----------|
| | subst. | | | | |
| | SVHCs | no limit* | no limit* | no limit* | no limit* |
| | Preserva- tives | N/A | no limit* | N/A | N/A |
| | Colouring agents | N/A | N/A | no limit* | N/A |
| | Enzymes | N/A | N/A | N/A | no limit* |

* "no limit" means: regardless of the concentration, all substances intentionally added, by-products and impurities from raw materials (analytical limit of detection)

REFERENCE DOSAGE

The following dosage shall be taken as the reference dosage for the calculations aiming at documenting compliance with the EU Ecolabel criteria and for testing of cleaning ability:

The highest dosage recommended by the manufacturer to produce 1 litre of washing solution (indicated in g/l of washing solution or ml/l of washing solution) for three degrees of water hardness (soft, medium, hard).

Assessment and verification: the applicant shall provide the product label or user instruction sheet that includes the dosing instructions.

Criterion 1 – Toxicity to aquatic organisms

The critical dilution volume (CDV_{chronic}) of the product shall not exceed the following limits for the reference dosage.

| Water hardness Product type | Soft ($<1,5 \text{ mmol CaCO}_3/\text{l}$) (l/l of washing solution) | Medium ($1,5 - 2,5 \text{ mmol CaCO}_3/\text{l}$) (l/l of washing solution) | Hard ($>2,5 \text{ mmol CaCO}_3/\text{l}$) (l/l of washing solution) |
|--|---|--|---|
| Pre-soaks | 2 000 | 2 000 | 2 000 |
| Dishwasher detergents | 3 000 | 5 000 | 7 000 |
| Multi-component systems | 3 000 | 4 000 | 5 000 |
| Rinse aids | 3 000 | 3 000 | 3 000 |

Assessment and verification: the applicant shall provide the calculation of the CDV_{chronic} of the product. A spreadsheet for calculating the CDV_{chronic} value is available on the EU Ecolabel website.

The CDV_{chronic} is calculated for all ingoing substances (i) in the product using the following equation:

$$CDV_{\text{chronic}} = \sum CDV(i) = 1000 \cdot \sum \text{dosage}(i) \cdot \frac{DF(i)}{TF_{\text{chronic}}(i)}$$

Where:

$\text{dosage}(i)$: weight (g) of the substance (i) in the reference dose;

$DF(i)$: degradation factor for the substance (i);

$TF_{\text{chronic}}(i)$: chronic toxicity factor for the substance (i).

The values of $DF(i)$ and $TF_{\text{chronic}}(i)$ shall be as given in the most updated Part A of the DID list. If an ingoing substance is not included in the Part A, the applicant shall estimate the values following the approach described in the Part B of that list and attaching the associated documentation.

Criterion 2 – Biodegradability

(a) Biodegradability of surfactants

All surfactants shall be readily degradable (aerobically).

All surfactants classified as hazardous to the aquatic environment: Acute Category 1 (H400) or Chronic Category 3 (H412), in accordance with Regulation (EC) No 1272/2008 of the European Parliament and of the Council³ shall be in addition anaerobically biodegradable.

(b) Biodegradability of organic compounds

³ Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006 (OJ L 353, 31.12.2008, p. 1).

The content of organic substances in the product that are aerobically non-biodegradable (not readily biodegradable, aNBO) or anaerobically non-biodegradable (anNBO) shall not exceed the following limits for the reference dosage:

aNBO (g/l of washing solution)

| Product type | Water hardness | | |
|---|---|---|--|
| | Soft <1,5 mmol CaCO ₃ /l | Medium 1,5 – 2,5 mmol CaCO ₃ /l | Hard > 2,5 mmol CaCO ₃ /l |
| Pre-soaks | 0,40 | 0,40 | 0,40 |
| Dishwasher detergents/ Multi-component system | 0,40 | 0,40 | 0,40 |
| Rinse aids | 0,04 | 0,04 | 0,04 |

anNBO (g/l of washing solution)

| Product type | Water hardness | | |
|---|---|---|--|
| | Soft <1,5 mmol CaCO ₃ /l | Medium 1,5 – 2,5 mmol CaCO ₃ /l | Hard > 2,5 mmol CaCO ₃ /l |
| Pre-soaks | 0,40 | 0,40 | 0,40 |
| Dishwasher detergents/ Multi-component system | 0,60 | 1,00 | 1,00 |
| Rinse aids | 0,04 | 0,04 | 0,04 |

Assessment and verification: the applicant shall provide documentation for the degradability of surfactants, as well as the calculation of aNBO and anNBO for the product. A spreadsheet for calculating aNBO and anNBO values is available on the EU Ecolabel website.

For both the degradability of surfactants and the aNBO and anNBO values for organic compounds, reference shall be made to the most updated DID list.

For ingoing substances that are not included in Part A of the DID list, the relevant information from literature or other sources, or appropriate test results, showing that they are aerobically and anaerobically biodegradable shall be provided, as described in Part B of that list.

In the absence of documentation for degradability described above, an ingoing substance other than a surfactant may be exempted from the requirement for anaerobic degradability if one of the following three alternatives is fulfilled:

- (1) it is readily degradable and has low adsorption ($A < 25\%$);
- (2) it is readily degradable and has high desorption ($D > 75\%$);
- (3) it is readily degradable and non-bioaccumulating⁴.

Testing for adsorption/desorption shall be conducted in accordance with OECD Guideline 106.

⁴ A substance is considered to be not bio-accumulating if the BCF is < 100 or $\log K_{ow}$ is $< 3,0$. If the both BCF and $\log K_{ow}$ values are available, the highest measured BCF value shall be used.

Criterion 3 – Sustainable sourcing of palm oil, palm kernel oil and their derivatives

Ingoing substances used in the products which are derived from palm oil or palm kernel oil shall be sourced from plantations that meet the requirements of a certification scheme for sustainable production that is based on multi-stakeholder organizations that has a broad membership, including NGOs, industry and government and that addresses environmental impacts including on soil, biodiversity, organic carbon stocks and conservation of natural resources.

Assessment and verification: The applicant shall provide evidence through third-party certificates and chain of custody that palm oil and palm kernel oil used in the manufacturing of the ingoing substances originates from sustainably managed plantations.

Certificates accepted shall include Roundtable for Sustainable Palm Oil (RSPO) (by identity preserved, segregated or mass balance) or any equivalent or stricter sustainable production scheme.

For chemical derivatives of palm oil and for palm kernel oil, it shall be acceptable to demonstrate sustainability through book and claim systems such as GreenPalm certificates or equivalent by providing the Annual Communications of Progress (ACOP) declared amounts of procured and redeemed GreenPalm certificates during the most recent annual trading period.

Criterion 4 – Excluded and restricted substances

(a) Specified excluded and restricted substances

(i) Excluded substances

The substances indicated below shall not be included in the product formulation regardless of concentration:

- Alkyl phenol ethoxylates (APEOs) and other alkyl phenol derivatives;
- Atranol;
- Chloroatranol;
- Diethylenetriaminepentaacetic acid (DTPA);
- Ethylenediaminetetraacetic acid (EDTA) and its salts;
- Formaldehyde and its releasers (e.g. 2-bromo-2-nitropropane-1,3-diol, 5-bromo-5-nitro-1,3-dioxane, sodium hydroxyl methyl glycinate, diazolidinylurea) with the exception of impurities of formaldehyde in surfactants based on polyalkoxy chemistry up to a concentration of 0,010% weight by weight in the ingoing substance;
- Glutaraldehyde;

- Hydroxyisohexyl 3-cyclohexene carboxaldehyde (HICC);
- Microplastics;
- Nanosilver;
- Nitromusks and polycyclic musks;
- Per-fluorinated alkylates;
- Quaternary ammonium salts not readily biodegradable;
- Reactive chlorine compounds;
- Rhodamine B;
- Triclosan;
- 3-iodo-2-propynyl butylcarbamate.

Assessment and verification: the applicant shall provide a signed declaration of compliance supported by declarations from suppliers, if appropriate, confirming that the listed substances have not been included in the product formulation.

(ii) Restricted substances

The substances listed below shall not be included in the product formulation above the concentrations indicated:

- 2-methyl-2H-isothiazol-3-one: 0,0050 % weight by weight;
- 1,2-Benzisothiazol-3(2H)-one: 0,0050 % weight by weight;
- 5-chloro-2-methyl-4-isothiazolin-3-one/2-methyl-4-isothiazolin-3-one:
0,0015 % weight by weight.

The total phosphorus (P) content calculated as elemental P shall be limited to:

| Product type (in g/l of washing solution) | Water hardness (mmol/CaCO ₃ /l) | | |
|--|--|------------------|-------------|
| | Soft (<1,5) | Medium (1,5-2,5) | Hard (>2,5) |
| Pre-soaks | 0,08 | 0,08 | 0,08 |
| Dishwasher detergents | 0,15 | 0,30 | 0,50 |
| Rinse aids | 0,02 | 0,02 | 0,02 |
| Multicomponent system | 0,17 | 0,32 | 0,52 |

Assessment and verification: the applicant shall provide the following documents:

(a) If isothiazolinones are used, a signed declaration of compliance supported by declarations from suppliers, if appropriate, confirming that the content of isothiazolinones used is equal to or lower than the limits set;

(b) A signed declaration of compliance supported by declarations from suppliers, if appropriate, confirming that the total amount of elemental P is equal to or lower than the limits set. The declaration shall be supported by the calculations of the product's total P-content.

(b) Hazardous substances

(i) Final product

The final product shall not be classified and labelled as being acutely toxic, a specific target organ toxicant, a respiratory or skin sensitiser, carcinogenic, mutagenic or toxic for reproduction, or hazardous to the aquatic environment, as defined in Annex I to Regulation (EC) No 1272/2008 and in accordance with the list in Table 2.

(ii) Ingoing substances

The product shall not contain ingoing substances at a concentration limit at or above 0,010 % weight by weight in the final product that meet the criteria for classification as toxic, hazardous to the aquatic environment, respiratory or skin sensitisers, carcinogenic, mutagenic or toxic for reproduction in accordance with Annex I to Regulation (EC) No 1272/2008 and in accordance with the list in Table 2.

Where stricter, the generic or specific concentration limits determined in accordance with Article 10 of Regulation (EC) No 1272/2008 shall take precedence.

Table 2 Restricted hazard classifications and their categorisation

| Acute toxicity | |
|---|---------------------------------|
| Categories 1 and 2 | Category 3 |
| H300 Fatal if swallowed | H301 Toxic if swallowed |
| H310 Fatal in contact with skin | H311 Toxic in contact with skin |
| H330 Fatal if inhaled | H331 Toxic if inhaled |
| H304 May be fatal if swallowed and enters airways | EUH070 Toxic by eye contact |
| Specific target organ toxicity | |
| Category 1 | Category 2 |
| H370 Causes damage to organs | H371 May cause damage to organs |

| | |
|--|--|
| H372 Causes damage to organs through prolonged or repeated exposure | H373 May cause damage to organs through prolonged or repeated exposure |
| Respiratory and skin sensitisation | |
| Category 1A/1 | Category 1B |
| H317 May cause allergic skin reaction | H317 May cause allergic skin reaction |
| H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled | H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled |
| Carcinogenic, mutagenic or toxic for reproduction | |
| Categories 1A and 1B | Category 2 |
| H340 May cause genetic defects | H341 Suspected of causing genetic defects |
| H350 May cause cancer | H351 Suspected of causing cancer |
| H350i May cause cancer by inhalation | |
| H360F May damage fertility | H361f Suspected of damaging fertility |
| H360D May damage the unborn child | H361d Suspected of damaging the unborn child |
| H360FD May damage fertility. May damage the unborn child | H361fd Suspected of damaging fertility. Suspected of damaging the unborn child |
| H360Fd May damage fertility. Suspected of damaging the unborn child | H362 May cause harm to breast fed children |
| H360Df May damage the unborn child. Suspected of damaging fertility | |
| Hazardous to the aquatic environment | |
| Categories 1 and 2 | Categories 3 and 4 |
| H400 Very toxic to aquatic life | H412 Harmful to aquatic life with long-lasting effects |
| H410 Very toxic to aquatic life with long-lasting effects | H413 May cause long-lasting effects to aquatic life |
| H411 Toxic to aquatic life with long-lasting effects | |

| Hazardous to the ozone layer | |
|-------------------------------------|--|
| H420 Hazardous to the ozone layer | |

This criterion does not apply to ingoing substances covered by Article 2(7)(a) and (b) of the Regulation (EC) No 1907/2006 which set out criteria for exempting substances within Annexes IV and V to that Regulation from the registration, downstream user and evaluation requirements. In order to determine whether that exclusion applies, the applicant shall screen any ingoing substance present at a concentration above 0,010% weight by weight.

Substances and mixtures included in Table 3 are exempted from point (b)(ii) of Criterion 4

Table 3 Derogated substances

| Substance | Hazard statement |
|---|--|
| Surfactants | H400 Very toxic to aquatic life |
| | H412 Harmful to aquatic life with long-lasting effects |
| Subtilisin | H400 Very toxic to aquatic life |
| | H411 Toxic to aquatic life with long-lasting effects |
| Enzymes(*) | H317 May cause allergic skin reaction |
| | H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled |
| NTA as an impurity in MGDA and GLDA (**) | H351 Suspected of causing cancer |
| (*) Including stabilisers and other auxiliary substances in the preparations (**) In concentrations lower than 0,2 % in the raw material as long as the total concentration in the final product is lower than 0,10 %. | |

Assessment and verification: the applicant shall demonstrate compliance with this criterion for the final product and for any ingoing substance present at a concentration greater than 0,010% weight by weight in the final product. The applicant shall provide a signed declaration of compliance supported by declarations from suppliers, if appropriate, or SDS confirming that none of these substances meets the criteria for classification with one or more of the hazard statements listed in **Table 2** in the form(s) and physical state(s) in which they are present in the product.

For substances listed in Annexes IV and V to Regulation (EC) No 1907/2006, which are exempted from registration obligations under points (a) and (b) of Article 2(7) of that Regulation, a declaration to this effect by the applicant shall suffice to comply.

The applicant shall provide a signed declaration of compliance supported by declarations from suppliers, if appropriate, or SDS confirming the presence of ingoing substances that fulfil the derogation conditions.

(c) Substances of very high concern (SVHCs)

The final product shall not contain any ingoing substances that have been identified in accordance with the procedure described in Article 59(1) of Regulation (EU) No 1907/2006, which establishes the candidate list for substances of very high concern.

Assessment and verification: the applicant shall provide a signed declaration of compliance supported by declarations from their suppliers, if appropriate, or SDS confirming the non-presence of all the candidate list substances.

Reference to the latest list of substances of very high concern shall be made on the date of application.

(d) Fragrances

Industrial and institutional dishwasher products shall not contain any fragrances.

Assessment and verification: the applicant shall provide a signed declaration of compliance.

(e) Preservatives

(i) The product may only include preservatives in order to preserve the product, and in the appropriate dosage for this purpose alone. This does not refer to surfactants, which may also have biocidal properties.

(ii) The product may contain preservatives provided that they are not bio-accumulating. A preservative is considered to be not bio-accumulating if the BCF is < 100 or $\log K_{ow}$ is $< 3,0$. If both the BCF and $\log K_{ow}$ values are available, the highest measured BCF value shall be used.

(iii) It is prohibited to claim or suggest on the packaging or by any other communication that the product has an antimicrobial or disinfecting effect.

Assessment and verification: the applicant shall provide a signed declaration of compliance supported by declarations from suppliers, if appropriate, along with the SDS of any preservative added and information on its BCF or $\log K_{ow}$ values. The applicant shall also provide artwork of the packaging.

(f) Colouring agents

Colouring agents in the product shall not be bio-accumulating.

A colouring agent is considered not bio-accumulating if the BCF is < 100 or $\log K_{ow}$ is $< 3,0$. If both the BCF and $\log K_{ow}$ values are available, the highest measured BCF value shall be used. In the case of colouring agents approved for use in food, it is not necessary to submit documentation of bio-accumulation potential.

Assessment and verification: the applicant shall provide a signed declaration of compliance supported by declarations from suppliers, if appropriate, along with the SDS of any colouring agent added and information on its BCF or log K_{ow} value, or documentation to ensure that the colouring agent is approved for use in food.

(g) Enzymes

Only enzyme encapsulated (in solid form) and enzyme liquids/slurries shall be used.

Assessment and verification: the applicant shall provide a signed declaration of compliance supported by declarations from suppliers, if appropriate, along with the SDS of any enzyme added.

Criterion 5 – Packaging

(a) Packaging take-back systems

If the product is delivered in packaging that is part of a take-back system for a product, that product is exempted from the requirements set out in points (b) and (c) of Criterion 5.

Assessment and verification: the applicant shall provide a signed declaration of compliance along with relevant documentation describing or demonstrating that a take-back system has been put in place for the packaging.

(b) Weight/utility ratio (WUR)

The weight/utility ratio (WUR) of the product shall be calculated for the primary packaging only and shall not exceed the following values for the reference dosage.

| Water hardness Product type | Soft <1,5 mmol CaCO ₃ /l (g/l of washing solution) | Medium 1,5 – 2,5 mmol CaCO ₃ /l (g/l of washing solution) | Hard > 2,5 mmol CaCO ₃ /l (g/l of washing solution) |
|--------------------------------|---|--|--|
| Powders | 0,8 | 1,4 | 2,0 |
| Liquids | 1,0 | 1,8 | 2,5 |

Primary packaging made of more than 80 % of recycled materials is exempted from this requirement.

Assessment and verification: the applicant shall provide the calculation of the WUR of the product. If the product is sold in different packaging (i.e. with different volumes), the calculation shall be submitted for each packaging size for which the EU Ecolabel shall be awarded.

The WUR is calculated as follows:

$$WUR = \sum ((W_i + U_i) / (D_i * R_i))$$

Where:

W_i : weight (g) of the primary packaging (i)

U_i : weight (g) of non-post-consumer recycled packaging in the primary packaging (i). $U_i = W_i$ unless the applicant can prove otherwise

D_i : number of reference doses contained in the primary packaging (i)

R_i : refill index. $R_i = 1$ (packaging is not reused for the same purpose) or $R_i = 2$ (if the applicant can document that the packaging component can be reused for the same purpose and they sell refills).

The applicant shall provide a signed declaration of compliance confirming the content of post-consumer recycled material, along with relevant documentation. Packaging is regarded as post-consumer recycled if the raw material used to make the packaging has been collected from packaging manufacturers at the distribution stage or at the consumer stage.

(c) Design for recycling

Plastic packaging shall be designed to facilitate effective recycling by avoiding potential contaminants and incompatible materials that are known to impede separation or reprocessing or to reduce the quality of recyclate. The label or sleeve, closure and, where applicable, barrier coatings shall not comprise, either singularly or in combination the materials and components listed in Table 4. Pump mechanisms (including in sprays) are exempted from this requirement.

Table 4 Materials and components excluded from packaging elements

| Packaging element | Excluded materials and components* |
|-------------------|--|
| Label or sleeve | <ul style="list-style-type: none">- PS label or sleeve in combination with a PET, PP or HDPE bottle- PVC label or sleeve in combination with a PET, PP or HDPE bottle- PETG label or sleeve in combination with a PET bottle- Any other plastic materials for sleeves/labels with a density $> 1 \text{ g/cm}^3$ used with a PET bottle- Any other plastic materials for sleeves/labels with a density $< 1 \text{ g/cm}^3$ used with a PP or HDPE bottle- Labels or sleeves that are metallised or are welded to a packaging body (in mould labelling) |

| | |
|---|--|
| Closure | <ul style="list-style-type: none"> - PS closure in combination with a PET, HDPE or PP bottle - PVC closure in combination with a PET, PP or HDPE bottle - PETG closures or closure material with a density $> 1 \text{ g/cm}^3$ in combination with a PET bottle - Closures made of metal, glass or EVA which are not easily separable from the bottle - Closures made of silicone. Silicone closures with a density $< 1 \text{ g/cm}^3$ in combination with a PET bottle and silicone closures with a density $> 1 \text{ g/cm}^3$ in combination with PEHD or PP bottle are exempted. - Metallic foils or seals which remain fixed to the bottle or its closure after the product has been opened |
| Barrier coatings | Polyamide, functional polyolefins, metallised and light blocking barriers |
| <p>* EVA – Ethylene Vinyl Acetate, HDPE – High-density polyethylene, PET – Polyethylene terephthalate, PETG – Polyethylene terephthalate glycol-modified, PP – Polypropylene, PS – Polystyrene, PVC – Polyvinylchloride</p> | |

Assessment and verification: the applicant shall provide a signed declaration of compliance specifying the material composition of the packaging including the container, label or sleeve, adhesives, closure and barrier coating, as appropriate, along with photos or technical drawings of the primary packaging.

Criterion 6 – Fitness for use

The product shall have a satisfactory cleaning performance at the lowest temperature and dosage recommended by the manufacturer for the water hardness in accordance with the 'Framework performance test for industrial and institutional dishwasher detergents' available on the EU Ecolabel website⁵

Assessment and verification: the applicant shall provide documentation demonstrating that the product has been tested under the conditions specified in the framework and that the results showed that the product achieved at least the minimum cleaning performance required. The applicant shall also provide documentation demonstrating compliance with the laboratory requirements included in the relevant harmonized standards for testing and calibration laboratories, if appropriate.

An equivalent test performance may be used if equivalence has been assessed and accepted by the competent body.

Criterion 7 – Automatic dosing systems

⁵ Available at: [URL for protocol on EU Ecolabel website will be inserted later – currently all proposed protocol documents can be found in the Technical Report].

For multi-component systems, the applicant shall ensure that the product is used with an automatic and controlled dosing system.

In order to ensure correct dosage in the automatic dosing systems, customer visits shall be performed at all premises using the product, at least once a year during the license period, and they shall include calibration of the dosing equipment. A third party can perform these customer visits.

Assessment and verification: the applicant shall provide a signed declaration of compliance along with a description of the content of customer visits, who is responsible for them and their frequency.

Criterion 8 – User information

The product shall be accompanied by instructions for proper use so as to maximise product performance and minimise waste, and reduce water pollution and use of resources. These instructions shall be legible or include graphical representation or icons and include information on following:

(a) Dosing instructions

Dosage instructions shall include the dose in g or ml and/or a second or alternative metric (e.g. caps, spray actuations) and the impact of the water hardness on the dose.

This requirement does not apply for multicomponent products to be dosed with an automatic system

Indications of the most prevalent water hardness in the area where the product is intended to be marketed or where this information can be found shall be provided.

(b) Packaging disposal information

The primary packaging shall include information on the reuse, recycling and correct disposal of packaging.

(c) Environmental information

A text shall appear on the primary packaging indicating the importance of using the correct dosage and the lowest recommended temperature in order to minimise energy and water consumption and reduce water pollution.

Assessment and verification: the applicant shall provide a signed declaration of compliance along with a sample of the product label.

Criterion 9 – Information appearing on the EU Ecolabel

The logo shall be visible and legible. The EU Ecolabel registration/licence number shall appear on the product and it shall be legible and clearly visible.

The applicant may choose to include an optional text box on the label that contains the following text:

- Limited impact on the aquatic environment;

- Restricted amount of hazardous substances;
- Tested for cleaning performance.

Assessment and verification: the applicant shall provide a signed declaration of compliance along with a sample of the product label or artwork of the packaging where the EU Ecolabel is placed.