



Council of the
European Union

130400/EU XXV. GP
Eingelangt am 27/01/17

Brussels, 26 January 2017
(OR. en)

5679/17
ADD 1

ENV 70

COVER NOTE

From:	European Commission
date of receipt:	26 January 2017
To:	General Secretariat of the Council
Subject:	Annex to the Commission Decision of XXX establishing the EU Ecolabel criteria for industrial and institutional laundry detergents

Delegations will find attached document D048143/03 - Annex.

Encl.: D048143/03 - Annex

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ANNEX

EU ECOLABEL CRITERIA

FRAMEWORK

Criteria for awarding the EU Ecolabel to industrial and institutional laundry 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 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 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.

As a prerequisite, the product shall meet all applicable 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, fragrances 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

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).

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).

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 laundry detergents (% weight by weight)

Criterion name		Surfactants	Preservatives	Colouring agents	Fragrances	Other (e.g. enzymes)
Toxicity to aquatic organisms		≥ 0,010	no limit*	no limit*	no limit*	≥ 0,010
Biodegradability	Surfactants	≥ 0,010	N/A	N/A	N/A	N/A
	Organics	≥ 0,010	no limit*	no limit*	no limit*	≥ 0,010
Sustainable sourcing of palm oil		≥ 0,010	N/A	N/A	N/A	≥ 0,010
Excluded or limited substances	Specified excluded and limited subst.	no limit*	no limit*	no limit*	no limit*	no limit*
	Hazardous subst.	≥0,010	≥0,010	≥0,010	≥0,010	≥0,010
	SVHCs	no limit*	no limit*	no limit*	no limit*	no limit*
	Fragrances	N/A	N/A	N/A	no limit*	N/A
	Preservatives	N/A	no limit*	N/A	N/A	N/A
	Colouring agents	N/A	N/A	no limit*	N/A	N/A
	Enzymes	N/A	N/A	N/A	N/A	no limit*
<p>* "no limit" means: regardless of the concentration, all substances intentionally added, by-products and impurities from raw materials (analytical limit of detection)</p> <p>N/A not applicable</p>						

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 washing ability:

The highest dosage recommended by the manufacturer to wash one kilogram of dry laundry (indicated in g/kg of laundry or ml/kg of laundry) for three degrees of soiling (light, medium and heavy) and water hardness (soft, medium, hard).

All products in a multi-component system shall be included with the worst case dosage when assessments of the criteria are made.

Examples of degree of soiling

Soiling	Degree of soiling
Light	Hotels: bed linen, bedclothes and towels, etc. (towels may be considered heavily soiled) Cloth hand towel rolls
Medium	Work clothes: institutions/retail/service, etc. Restaurants: tablecloths, napkins, etc. Mops and mats
Heavy	Work clothes: industry/kitchen/butchering, etc. Kitchen textiles: clothes, dish towels, etc. Institutions such as hospitals: bed linen, bedclothes, contour sheets, patient clothing, doctor's coat or scrubs/overall, etc.

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.

Soft water (<1,5 mmol CaCO ₃ /l) (l/kg of laundry)			
Degree of soiling Product type	Light	Medium	Heavy
Powder	30 000	40 000	50 000
Liquid	50 000	60 000	70 000
Multi-component-system	50 000	70 000	90 000

Medium water (1,5 – 2,5 mmolCaCO ₃ /l) (l/kg of laundry)			
Degree of soiling Product type	Light	Medium	Heavy

Powder	40 000	60 000	80 000
Liquid	60 000	75 000	90 000
Multi-component-system	60 000	80 000	100 000

Hard water (> 2,5 mmol CaCO₃/l) (l/kg of laundry)			
Degree of soiling Product type	Light	Medium	Heavy
Powder	50 000	75 000	90 000
Liquid	75 000	90 000	120 000
Multi-component-system	75 000	100 000	120 000

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 Part A, the applicant shall estimate the values following the approach described in the Part B of that list and attaching the associated documentation.

Because of the degradation of certain substances in the wash process, separate rules apply to the following:

- hydrogen peroxide (H₂O₂) – not to be included in calculation of CDV ;
- peracetic acid – to be included in the calculation as "acetic acid".

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

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/kg of laundry)

Soft water (<1,5 mmol CaCO ₃ /l)			
Degree of soiling Product type	Light	Medium	Heavy
Powder	0,70	1,10	1,40
Liquid	0,50	0,60	0,70
Multi-component-system	1,25	1,75	2,50

Medium water (1,5 – 2,5 mmolCaCO ₃ /l)			
Degree of soiling Product type	Light	Medium	Heavy
Powder	1,10	1,40	1,75
Liquid	0,60	0,70	0,90
Multi-component-system	1,75	2,50	3,75

Hard water (> 2,5 mmol CaCO ₃ /l)			
Degree of soiling Product type	Light	Medium	Heavy
Powder	1,40	1,75	2,20
Liquid	0,70	0,90	1,20
Multi-component-system	2,50	3,75	4,80

anNBO (g/kg of laundry)

Soft water (<1,5 mmol CaCO ₃ /l)			
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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).

Degree of soiling Product type	Light	Medium	Heavy
Powder	0,70	1,10	1,40
Liquid	0,50	0,60	0,70
Multi-component-system	1,25	1,75	2,50

Medium water (1,5 – 2,5 mmol CaCO ₃ /l)			
Degree of soiling Product type	Light	Medium	Heavy
Powder	1,10	1,40	1,75
Liquid	0,60	0,70	0,90
Multi-component-system	1,75	2,50	3,75

Hard water (> 2,5 mmol CaCO ₃ /l)			
Degree of soiling Product type	Light	Medium	Heavy
Powder	1,40	1,75	2,20
Liquid	0,70	0,90	1,20
Multi-component-system	2,50	3,75	4,80

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, 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.

⁴ A substance 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.

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

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;
- Rhodamine B;
- Quaternary ammonium salts not readily biodegradable;
- Reactive chlorine compounds;
- 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 regardless of concentration.

(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:

- 0,50 g/kg of laundry for light soil;
- 1,00 g/kg of laundry for medium soil;
- 1,50 g/kg of laundry for heavy soil.

Fragrance substances subject to the declaration requirement provided in Regulation (EC) No 648/2004 shall not be present in quantities $\geq 0,010$ % weight by weight per substance.

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;
- (c) A signed declaration of compliance supported by declarations or documentation from suppliers, if appropriate, confirming that the fragrance substances subject to the declaration requirement provided for in Regulation (EC) No 648/2004 are not present above the limits set.

(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, with the exception listed below:

- products containing peracetic acid and hydrogen peroxide used as bleaching agent may be classified and labelled as hazardous to the aquatic environment [Chronic Category 1 (H410), Chronic Category 2 (H411) or Chronic Category 3 (H412)], if the classification and labelling are triggered by the presence of these substances.

(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 sensitization	
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 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
ε-phthalimido-peroxy-hexanoic acid (PAP) used as bleaching agent at max concentration of 0,6 g/kg of laundry	H400 Very toxic to aquatic life
	H412 Harmful to aquatic life with long-lasting effects
Peracetic acid/hydrogen peroxide used as bleaching agent	H400 Very toxic to aquatic life
	H410 Very toxic to aquatic life with long-lasting effects
	H412 Harmful to aquatic life with long-lasting effects
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

Any ingoing substance added to the product as a fragrance shall be manufactured and handled following the code of practice of the International Fragrance Association (IFRA) available at <http://www.ifraorg.org>⁵. The recommendations of the IFRA Standards concerning prohibition, restricted use and specified purity criteria for substances shall be followed by the manufacturer.

Assessment and verification: the supplier or fragrance manufacturer, as appropriate, 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.

⁵ Available at the IFRA website: <http://www.ifraorg.org>.

(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, 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/kg of laundry)	Medium 1,5 – 2,5 mmol CaCO ₃ /l (g/kg of laundry)	Hard > 2,5 mmol CaCO ₃ /l (g/kg of laundry)
Powders	1,5	2,0	2,5
Liquids	2,0	2,5	3,0

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 document 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, 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 wash performance at the lowest temperature and dosage recommended by the manufacturer for the water hardness in accordance with the 'Framework for performance testing for industrial and institutional laundry detergents' available on the EU Ecolabel website⁶.

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 wash performance required. The

⁶ 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]

applicant shall also provide documentation demonstrating compliance with the laboratory requirements included in the relevant harmonised 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

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 the 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 multi-component products to be dosed with an automatic dosing 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.

If the final product contains peracetic acid and hydrogen peroxide as a bleaching agent and is classified and labelled, a text shall appear on the primary packaging or technical product sheet stating that the classification and labelling is due to peracetic acid and hydrogen peroxide which degrade into non-classified substances during the washing process.

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 should 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 (not to be included if the product contains peracetic acid and hydrogen peroxide which triggers final product classification and labelling);
- Restricted amount of hazardous substances;
- Tested for wash 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.