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## COMMISSION DECISION

of 28 April 2011

on establishing the ecological criteria for the award of the EU Ecolabel for laundry detergents

(notified under document C(2011) 2815)

(Text with EEA relevance)

(2011/264/EU)

(OJ L 111, 30.4.2011, p. 34)

# Amended by:

<u>₿</u>

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#### COMMISSION DECISION

#### of 28 April 2011

## on establishing the ecological criteria for the award of the EU Ecolabel for laundry detergents

(notified under document C(2011) 2815)

(Text with EEA relevance)

(2011/264/EU)

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 Ecolabel (1), 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 according to product groups.
- (3) Commission Decision 1999/476/EC (²) has established the ecological criteria and the related assessment and verification requirements for laundry detergents. Following the review of the criteria set out in that Decision, Commission Decision 2003/200/EC (³) has established revised criteria which are valid until 30 April 2011.
- (4) Those criteria have been further reviewed in the light of technological developments. It results from the review that it is necessary to modify the definition of the product group so as to include a new sub-product group and to establish new criteria. Those new criteria, as well as the related assessment and verification requirements, should be valid for 4 years from the date of adoption of this Decision.
- (5) Decision 2003/200/EC should be replaced for reasons of clarity.

 $<sup>\</sup>begin{picture}(1)\ OJ\ L\ 27,\ 30.1.2010,\ p.\ 1. \end{picture}$ 

<sup>(2)</sup> OJ L 187, 20.7.1999, p. 52.

<sup>(3)</sup> OJ L 76, 22.3.2003, p. 25.

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- (6) A transitional period should be allowed for producers whose products have been awarded the Ecolabel for laundry detergents on the basis of the criteria set out in Decision 2003/200/EC, so that they have sufficient time to adapt their products to comply with the revised criteria and requirements. Producers should also be allowed to submit applications based on the criteria set out in Decision 2003/200/EC or on the criteria set out in this Decision until the lapse of validity of that Decision.
- (7) 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,

HAS ADOPTED THIS DECISION:

## Article 1

The product group 'Laundry Detergents' shall comprise: laundry detergents and pre-treatment stain removers whether in powder, liquid or any other form which are marketed and used for the washing of textiles principally in household machines but not excluding their use in launderettes and common laundries.

Pre-treatment stain removers include stain removers used for direct spot treatment of textiles (before washing in the machine) but do not include stain removers dosed in the washing machine and stain removers dedicated to other uses besides pre-treatment.

This product group shall not comprise products that are dosed by carriers such as sheets, cloths or other materials nor washing auxiliaries used without subsequent washing, such as stain removers for carpets and furniture upholstery.

## Article 2

- 1. For the purpose of this Decision, the following definitions shall apply:
- (1) 'heavy-duty detergents' means detergents used for ordinary washing of white textiles at any temperature;
- (2) 'colour-safe detergents' means detergents used for ordinary washing of coloured textiles at any temperature;
- (3) 'low-duty detergents' means detergents intended for delicate fabrics;
- (4) 'substance' means a chemical element and their compounds in the natural state or obtained by any production process, including any additive necessary to preserve the stability of the products and any impurity deriving from the process used, but excluding any solvent which may be separated without affecting the stability of the substance or changing its composition.
- 2. For the purposes of paragraph 1(1) and (2), a detergent shall be considered either a heavy-duty detergent or a colour-safe detergent except where the detergent is predominantly intended and marketed for delicate fabrics.

For the purposes of paragraph 1(3), liquid detergents for ordinary washing of white and coloured textiles shall not be considered low-duty detergents.

#### Article 3

In order to be awarded the EU Ecolabel under Regulation (EC) No 66/2010, an item of laundry detergent or pre-treatment stain remover shall fall within the product group 'Laundry 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 to this Decision.

#### Article 4

The criteria for the product group 'Laundry Detergents', as well as the related assessment and verification requirements, shall be valid for 4 years from the date of adoption of this Decision.

#### Article 5

For administrative purposes the code number assigned to the product group 'Laundry Detergents' shall be '6'.

#### Article 6

Decision 2003/200/EC is repealed.

## Article 7

- 1. By derogation from Article 6, applications for the EU Ecolabel for products falling within the product group 'Laundry Detergents' submitted before the date of adoption of this Decision shall be evaluated in accordance with the conditions laid down in Decision 2003/200/EC.
- 2. Applications for the EU Ecolabel for products falling within the product group 'Laundry Detergents' submitted from the date of adoption of this Decision but by 30 April 2011 at the latest may be based either on the criteria set out in Decision 2003/200/EC 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. Where the Ecolabel is awarded on the basis of an application evaluated according to the criteria set out in Decision 2003/200/EC, that Ecolabel may be used for 12 months from the date of adoption of this Decision.

## Article 8

This Decision is addressed to the Member States.

#### ANNEX

#### **FRAMEWORK**

#### The aims of the criteria

The criteria aim, in particular, at promoting products that have a reduced impact on aquatic ecosystems, contain a limited amount of hazardous substances and whose performance has been tested. The criteria furthermore aim at reducing the energy consumption from laundering by promoting products that are efficient at low temperatures.

#### **CRITERIA**

Criteria are set for each of the following aspects:

- 1. Dosage requirements
- 2. Toxicity to aquatic organisms: Critical Dilution Volume (CDV)
- 3. Biodegradability of organics
- 4. Excluded or limited substances and mixtures
- 5. Packaging requirements
- 6. Washing performance (fitness for use)
- 7. Points
- 8. Consumer information
- 9. Information appearing on the EU Ecolabel.

#### 1. Assessment and verification

#### (a) Requirements

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

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

Where possible, the testing should be performed by laboratories that meet the general requirements of EN ISO 17025 or equivalent.

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

Appendix I makes reference to the detergent ingredient database (DID list) which contains the most widely used ingredients used in detergent 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 ingredients. For substances not present on the DID list, guidance is given on how to calculate or extrapolate the relevant data. The latest version of the DID list is available from the EU Ecolabel website or via the websites of the individual competent bodies.

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

## (b) Measurement thresholds

Constituent substances the concentration of which exceeds 0,010 % by weight of the preparation shall comply with the ecological criteria.

For preservatives, colouring agents and fragrance compliance with the criteria is required regardless of their concentration except for criterion 4(b) on excluded or limited substances and mixtures.

Ingoing substances are defined as all substances in the product including additives (e.g. preservatives or stabilisers) in the ingredients. Impurities resulting from the raw material production, which are present in concentrations > 0.010 % by weight of the final formulation shall also comply with the criteria.

Where the dosage instruction on the package has specifications for both prewash and subsequent wash (in addition to a normal, single wash), the total dosage (prewash + wash) shall also comply with the ecological criteria.

If the product has a water-soluble foil intended not to be removed before washing, the foil must be considered to be part of the product formulation in all requirements.

#### 2. Functional unit

The functional unit for this product group shall be expressed in g/kg wash (grams per kilo wash).

#### 3. Reference dosage

For 'heavy-duty detergents' and 'colour-safe detergents' the dosage recommended by the manufacturer to consumers for the water hardness of 2,5 mmol CaCO<sub>3</sub>/l and 'normally soiled' textiles is taken as the reference dosage for the calculation of the ecological criteria, and for the testing of washing performance. For heavy-duty detergents and colour-safe detergents this is related to the dosage per 4,5 kg load (dry textiles) in the washing machine.

For 'low-duty detergents' the dosage recommended by the manufacturer to consumers for the water hardness of 2,5 mmol CaCO<sub>3</sub>/l and 'lightly soiled' textiles is taken as the reference dosage for the calculation of the ecological criteria, and for the testing of washing performance. For low-duty detergents this is related to the dosage per 2,5 kg load (dry textiles) in the washing machine.

If the recommended dosage is stated for other wash load sizes than the above, the reference dosage used for calculation of the ecological criteria must, however, correspond to the average load size. If the water hardness of 2,5 mmol CaCO<sub>3</sub>/l is not relevant in the Member States in which the detergent is marketed, the applicant shall specify the dosage used as the reference.

Requirements relating to assessment and verification of (2) Functional unit and (3) Reference dosage: The full formulation indicating trade name, chemical name, CAS No, DID No (\*), the ingoing quantity including and excluding water and the function of all the ingoing ingredients (regardless of concentration) in the product must be submitted to the competent body. A sample of the artwork including dosage recommendations must be submitted to the competent body.

Safety data sheets for each ingredient shall be submitted to the competent body in accordance with Regulation (EC) No 1907/2006 of the European Parliament and of the Council (1).

The DID list can be found on the EU Ecolabel website: http://ec.europa.eu/environment/ecolabel/ecolabelled\_products/categories/did\_list\_en.htm

<sup>(\*)</sup> DID No is the number of the ingredient on the DID list ('Detergent Ingredient Database' list), and is used in determining compliance with Criteria 2 and 3. See Appendix I. (1) OJ L 396, 30.12.2006, p. 1.

#### EU ECOLABEL CRITERIA

## Criterion 1 — Dosage requirements

The dosage corresponds to the recommended dosage in g/kg wash (powders/tablets) or ml/kg wash (liquids). The recommended dosage for a water hardness of 2,5 mmol CaCO<sub>3</sub>/l for normally soiled textiles (heavy-duty detergents, colour-safe detergents) and lightly soiled textiles (low-duty detergents), respectively, shall be used.

The dosage shall not exceed the following amounts:

Product type	Dosage, powder/tablet	Dosage, liquid/gel
Heavy-duty laundry detergent, Colour-safe detergent	17,0 g/kg wash	17,0 ml/kg wash
Low-duty laundry detergent	17,0 g/kg wash	17,0 ml/kg wash
Stain remover (pre-treatment only)	2,7 g/kg wash	2,7 ml/kg wash (*)

<sup>(\*)</sup> Estimated average dose to be used in CDV calculations. Actual dosing will depend on number of stains in any given wash-load. The estimated dose is based on a dosage of 2 ml per application and 6 applications per wash-load of 4,5 kg (liquid stain remover).

If recommendations for both prewash and subsequent wash apply, the total recommended dosage (prewash + subsequent wash) shall comply with the maximum dosage level.

Assessment and verification: Full formulation of the product, label or artwork including dosage instructions. The density (g/ml) shall be stated for all products (either on the packaging or in a Safety Data Sheet).

# Criterion 2 — Toxicity to aquatic organisms: Critical Dilution Volume (CDV)

The critical dilution volume of the product shall not exceed the following limits  $(CDV_{chronic})$ :

Product type	$\mathrm{CDV}_{\mathrm{chronic}}$
Heavy-duty laundry detergent, Colour-safe detergent (all forms)	35 000 1/kg wash
Low-duty laundry detergent (all forms)	20 000 1/kg wash
Stain remover (pre-treatment only)	3 500 l/kg wash (*)

<sup>(\*)</sup> CDV limit based on an estimated dosage of 2 ml per application and 6 applications per wash-load of 4,5 kg for a liquid stain remover. Products dosed as, e.g. powder or paste shall comply with the same CDV limit.

The critical dilution volume toxicity (CDV<sub>chronic</sub>) is calculated for all ingredients (i) in the product using the following equation:

$$CDV_{chronic} = \sum CDV_{(i)} = \sum \frac{weight_{(i)} \times DF_{(i)}}{TF_{chronice(i)}} \times 1 \ 000$$

where

weight (i) = the weight of the ingredient per recommended dose

DF = the degradation factor

TF = the chronic toxicity factor of the substance as stated in the DID list.

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Preservatives, colouring agents and fragrances present in the product shall also be included in the CDV calculation even if the concentration is lower than 0,010 % (100 ppm).

Assessment and verification: Calculation of the  $\mathrm{CDV}_{\mathrm{chronic}}$  of the product. A spreadsheet for calculation of the  $\mathrm{CDV}$  value is available on the  $\mathrm{EU}$  Ecolabel website.

The values of the DF and TF parameters shall be as given in the Detergent Ingredient Database list (DID list). If the substance is not found on the DID list, the parameters shall be calculated using the guidelines in part B of the DID list and attaching the associated documentation.

## Criterion 3 — Biodegradability of organics

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

#### aNBO

Product type	aNBO, powder	aNBO, liquid/gel
Heavy-duty laundry detergent, Colour-safe detergent	1,0 g/kg wash	0,55 g/kg wash
Low-duty laundry detergent	0,55 g/kg wash	0,30 g/kg wash
Stain remover (pre-treatment only) (*)	0,10 g/kg wash	0,10 g/kg wash

<sup>(\*)</sup> aNBO limit based on an estimated dosage of 2 ml per application and 6 applications per wash-load of 4,5 kg for a liquid stain remover.

## anNBO

Product type	anNBO, powder	anNBO, liquid/gel
Heavy-duty laundry detergent, Colour-safe detergent	1,3 g/kg wash	0,70 g/kg wash
Low-duty laundry detergent	0,55 g/kg wash	0,30 g/kg wash
Stain remover (pre-treatment only) (*)	0,10 g/kg wash	0,10 g/kg wash

<sup>(\*)</sup> anNBO limit based on an estimated dosage of 2 ml per application and 6 applications per wash-load of 4,5 kg for a liquid stain remover.

Assessment and verification: Calculation of aNBO and anNBO for the product. A spreadsheet for use in calculating aNBO and anNBO values is available on the EU Ecolabel website.

Refer to the DID list. For ingredients which are not included in 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. See Appendix I.

## Criterion 4 — Excluded or limited substances and mixtures

## (a) Specified excluded ingredients

The following ingredients must not be included in the product, neither as part of the formulation nor as part of any preparation included in the formulation:

- Phosphates
- EDTA (ethylenediamine tetraacetate)
- Nitromusks and polycyclic musks.

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

#### (b) Hazardous substances and mixtures

According to the Article 6(6) of Regulation (EC) No 66/2010 on EU Ecolabel, the product or any part of it thereof shall not contain substances or mixtures meeting the criteria for classification with the hazard classes or categories in accordance with Regulation (EC) No 1272/2008 specified below nor shall it contain substances referred to in Article 57 of Regulation (EC) No 1907/2006.

## List of hazard statements:

GHS Hazard Statement (1)	EU Risk Phrase (2)
H300 Fatal if swallowed	R28
H301 Toxic if swallowed	R25
H304 May be fatal if swallowed and enters airways	R65
H310 Fatal in contact with skin	R27
H311 Toxic in contact with skin	R24
H330 Fatal if inhaled	R23/26
H331 Toxic if inhaled	R23
H340 May cause genetic defects	R46
H341 Suspected of causing genetic defects	R68
H350 May cause cancer	R45
H350i May cause cancer by inhalation	R49
H351 Suspected of causing cancer	R40
H360F May damage fertility	R60
H360D May damage the unborn child	R61
H360FD May damage fertility. May damage the unborn child	R60/61/60-61
H360Fd May damage fertility. Suspected of damaging the unborn child	R60/63
H360Df May damage the unborn child. Suspected of damaging fertility	R61/62

GHS Hazard Statement (1)	EU Risk Phrase (2)
H361f Suspected of damaging fertility	R62
H361d Suspected of damaging the unborn child	R63
H361fd Suspected of damaging fertility. Suspected of damaging the unborn child.	R62-63
H362 May cause harm to breast fed children	R64
H370 Causes damage to organs	R39/23/24/25/26/27/28
H371 May cause damage to organs	R68/20/21/22
H372 Causes damage to organs through prolonged or repeated exposure	R48/25/24/23
H373 May cause damage to organs through prolonged or repeated exposure	R48/20/21/22
H400 Very toxic to aquatic life	R50
H410 Very toxic to aquatic life with long-lasting effects	R50-53
H411 Toxic to aquatic life with long-lasting effects	R51-53
H412 Harmful to aquatic life with long-lasting effects	R52-53
H413 May cause long-lasting harmful effects to aquatic life	R53
EUH059 Hazardous to the ozone layer	R59
EUH029 Contact with water liberates toxic gas	R29
EUH031 Contact with acids liberates toxic gas	R31
EUH032 Contact with acids liberates very toxic gas	R32
EUH070 Toxic by eye contact	R39-41
Sensitising substances	
H334: May cause allergy or asthma symptoms or breathing difficulties if inhaled	R42
H317: May cause allergic skin reaction	R43

<sup>(1)</sup> 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).
(2) Council Directive 67/548/EEC with adjustment to REACH according to Directive 2006/121/EC of the European Parliamyte and of the Council and Principle 1000/45/EC.

<sup>2006/121/</sup>EC of the European Parliament and of the Council and Directive 1999/45/ EC of the European Parliament and of the Council as amended.

This criterion applies to all ingredients present in concentrations  $\geq 0.010$  %, including preservatives, colouring agents and fragrances.

The use of substances or mixtures which upon processing change their properties (e.g. become no longer bioavailable, undergo chemical modification) in a way that the identified hazard no longer applies are exempted from the above requirement.

Derogations: the following substances or mixtures are specifically exempted from this requirement:

Surfactants In concentrations < 25 % in the product	H400 Very toxic to aquatic life	R 50
Biocides used for preservation purposes (*)	H410 Very toxic to aquatic life with long-lasting effects H411 Toxic to aquatic life with long-lasting effects	R50-53 R51-53
Fragrances  Biocides used for preservation purposes (*)	H412 Harmful to aquatic life with long-lasting effects	R52-53
Enzymes (**)  Bleach catalysts (**)	H334: May cause allergy or asthma symptoms or breathing difficulties if inhaled	R42
Enzymes (**)  Bleach catalysts (**)	H317: May cause allergic skin reaction	R43
NTA as an impurity in MGDA and GLDA (***)	H351: Suspected of causing cancer	R40
Optical brighteners (only for heavy duty laundry detergent)	H413 May cause long lasting effects to aquatic life	R53
Subtilisin	H400 Very toxic to aquatic life	R 50

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- (\*) Referred to in Criterion 4e. This exemption is applicable provided that biocides' bioaccumulation potentials are characterised by log Pow (log octanol/water partition coefficient) < 3,0 or an experimentally determined bioconcentration factor (BCF)  $\leq 100$ .
- (\*\*) Including stabilisers and other auxiliary substances in the preparations.
- (\*\*\*) In concentrations lower than 1,0 % 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 provide the exact formulation of the product to the competent body. The applicant shall also provide a declaration of compliance with this criterion, together with related documentation, such as declarations of compliance signed by the material suppliers and copies of relevant Safety Data Sheets for substances or mixtures.

(c) Substances listed in accordance with article 59(1) of Regulation (EC) No 1907/2006

No derogation from the exclusion in Article 6(6) of the Regulation (EC) No 66/2010 shall be given concerning substances identified as substances of very high concern and included in the list foreseen in Article 59 of Regulation (EC) No 1907/2006 present in mixtures in concentrations higher than 0,010 %.

Assessment and verification: The list of substances identified as substances of very high concern and included in the candidate list in accordance with Article 59 of Regulation (EC) No 1907/2006 can be found here: http://echa.europa.eu/chem\_data/authorisation\_process/candidate\_list\_table\_en.asp

Reference to the list shall be made on the date of application. The applicant shall provide the exact formulation of the product to the competent body. The applicant shall also provide a declaration of compliance with this criterion, together with related documentation, such as declarations of compliance signed by the material suppliers and copies of relevant Safety Data Sheets for substances or mixtures.

(d) Specified limited ingredients — fragrances

Any ingredients added to the product as a fragrance shall be manufactured and handled following the code of practice of the International Fragrance Association (IFRA). The code can be found on IFRA website: http://www.ifraorg.org

The recommendations of the IFRA Standards concerning prohibition, restricted use and specified purity criteria for materials shall be followed by the manufacturer.

Fragrance substances subject to the declaration requirement provided for in Regulation (EC) No 648/2004 of the European Parliament and of the Council on detergents (Annex VII) and which are not already excluded by criterion 4b and (other) fragrance substances classified H317/R43 (May cause allergic skin reaction) and/or H334/R42 (May cause allergy or asthma symptoms or breathing difficulties if inhaled) shall not be present in quantities  $\geq 0,010~\%~(\geq 100~ppm)$  per substance.

Assessment and verification: The applicant shall provide a signed declaration of compliance indicating the amount of fragrances in the product. The applicant shall also provide a declaration from the fragrance manufacturer specifying the content of each of the substances in the fragrances which are listed in Annex III, Part I to Council Directive 76/768/EEC as well as the content of (other) substances which have been assigned the risk phrases H317/R43 and/or H334/R42.

- (e) Biocides
- (i) The product may only include biocides 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.

Assessment and verification: The applicant shall provide copies of the material safety data sheets of any preservatives added, together with information on their exact concentration in the product. The manufacturer or supplier of the preservatives shall provide information on the dosage necessary to preserve the product (e.g. results of a challenge test or equivalent).

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

Assessment and verification: The applicant shall provide texts and layouts used on each type of packaging and/or an example of each different type of packaging to the competent body.

#### Criterion 5 — Packaging requirements

## (a) Weight/utility ratio (WUR)

The weight/utility ratio (WUR) of the product shall not exceed the following values:

Product type	WUR
Powders	1,2 g/kg wash
Others (e.g. liquids, gels, tablets, capsules)	1,5 g/kg wash

WUR shall be calculated only for primary packaging (including caps, stoppers and hand pumps/spraying devices) using the formula below:

$$WUR = \Sigma[(W_i + U_i)/(D_i * r_i)]$$

Where:

 $W_i$  = the weight (g) of the packaging component (i) including the label if applicable.

 $U_i$  = the weight (g) of non-recycled (virgin) material in the packaging component (i). If the proportion of recycled material in the packaging component is 0 % then  $U_i$  =  $W_i$ .

D<sub>i</sub> = the number of functional units contained in the packaging component (i). The functional unit = dosage in g/kg wash.

r<sub>i</sub> = recycling figure, i.e. the number of times the packaging component (i) is used for the same purpose through a return or refill system. The default value for r is set to 1 (= no re-use). Only if the applicant can document that the packaging component is re-used for the same purpose, a higher value for r can be used in the calculation.

#### Exceptions:

Plastic/paper/cardboard packaging containing more than 80 % recycled material is exempted from this requirement.

Packaging is regarded as 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. Where the raw material is industrial waste from the material manufacturer's own production process, then the material will not be regarded as recycled.

Assessment and verification: Calculation of the WUR of the product. A spreadsheet for this calculation is available on the EU Ecolabel website. Account on the content for recycled material in the packaging. For approval of refill packaging, the applicant and/or retailer shall document that the refills will be/are available for purchase on the market.

# (b) Plastic packaging

Only phthalates that at the time of application have been risk assessed and have not been classified according to criterion 4(b) (and combinations hereof) may be used in the plastic packaging.

# (c) Labelling of plastic packaging

To allow for identification of different parts of the packaging for recycling, plastic parts in the primary packaging must be marked in accordance with DIN 6120, Part 2 or the equivalent. Caps and pumps are exempted from this requirement.

Assessment and verification: The applicant shall provide completed and signed declaration of compliance.

## Criterion 6 — Washing performance (fitness for use)

The product shall comply with the performance requirements as specified for the relevant product type according to the EU Ecolabel laundry detergents performance test's latest version that can be found here: http://ec.europa.eu/environment/ecolabel/ecolabelled\_products/categories/ laundry detergents en.htm

Assessment and verification: The applicant shall provide a test report indicating that the product fulfils the minimum requirements defined in this test.

#### Criterion 7 — Points

## (a) Heavy-duty laundry detergents, Colour-safe laundry detergents

A minimum of 3 points shall be achieved from the matrix below. The maximum achievable points are 8 points for coldwater products, 7 points for low-temperature products and 6 points for other products.

Climate profile	Coldwater product (washing performance documented at $\leq 20$ °C)	2P		
	Low-temperature product (washing performance documented at $> 20$ °C to $< 30$ °C)	1P		
Maximum dosage	Maximum dosage Max dosage $\leq$ 14 g/kg wash (powder, tablet) $or \leq$ 14 ml/kg wash (liquid, gel)			
	Max dosage $\leq$ 16 g/kg wash (powder, tablet) $or \leq$ 16 ml/kg wash (liquid, gel)	1P		
CDV CDV <sub>chronic</sub> < 25 000 l/kg wash				
	CDV <sub>chronic</sub> between 25 000 to 30 000 l/kg wash	1P		
aNBO aNBO ≤ 75 % of limit value				
anNBO	anNBO ≤ 75 % of limit value	1P		
Minimum points to be achieved in order to be awarded EU Ecolabel				

# (b) Low-duty laundry detergents

A minimum of 3 points shall be achieved from the matrix below. The maximum achievable points are 8 points for coldwater products, 7 points for low-temperature products and 6 points for other products.

Climate profile	Coldwater product (washing performance documented at $\leq 20$ °C)		
	Low-temperature product (washing performance documented at > 20 °C to < 30 °C)	1P	
Maximum dosage	Max dosage $\leq$ 14 g/kg wash (powder, tablet) $or \leq$ 14 ml/kg wash (liquid, gel)	2P	
	Max dosage $\leq$ 16 g/kg wash (powder, tablet) $or \leq$ 16 ml/kg wash (liquid, gel)	1P	
CDV	CDV <sub>chronic</sub> < 15 000 l/kg wash	2P	
	CDV <sub>chronic</sub> between 15 000 to 18 000 l/kg wash	1P	
aNBO	aNBO ≤ 75 % of limit value	1P	
anNBO	anNBO $\leq 75$ % of limit value	1P	
Minimum points to be achieved in order to be awarded EU Ecolabel			

Assessment and verification: Calculation of the sum of points achieved for the product. A spreadsheet for this calculation is available on the EU Ecolabel website.

#### Criterion 8 — Consumer information

#### (a) Dosage instructions

The recommended dosages shall be specified for 'normally' and 'heavily' soiled textiles and various water hardness' ranges relevant to the countries concerned and referred as appropriate to the weight of textile. (Not applicable for stain removers).

The difference between the dosage recommendations for the lowest water hardness range (soft) for normally soiled textiles and the highest water hardness range (hard) for heavily soiled textiles may not differ by more than a factor of 2. (Not applicable for stain removers).

The reference dosage used for the washing performance test and for assessment of compliance with the ecological criteria on ingredients shall be the same as the recommended dosage on the package for 'normally soiled' textiles and a water hardness corresponding to 2,5 mmol CaCO<sub>3</sub>/l.

Where only water hardness lower than 2,5 mmol CaCO<sub>3</sub>/l are included in the recommendations, the maximum dosage recommended for 'normally soiled' shall be lower than the reference dosage used in the washing performance test (water hardness 2,5 mmol CaCO<sub>3</sub>/l).

#### (b) Information on the packaging

The following washing recommendations (or equivalent) shall appear on the packaging of EU Ecolabelled products within the product group except pre-treatment stain removers. The washing recommendations may be present either as text or symbols:

- '- Wash at the lowest possible temperature
- Always wash with full load
- Dose according to soil and water hardness, follow the dosing instructions
- If you are allergic to house dust, always wash bedding at 60 °C. Increase wash temperature to 60 °C in case of infectious diseases.

Using this EU Ecolabelled product according to the dosage instructions will contribute to the reduction of water pollution, waste production and energy consumption.'

## (c) Claims on the packaging

In general, claims on the packaging shall be documented either through performance testing or other relevant documentation (e.g. claims of efficiency at low temperatures, claims of removal of certain stain types, claims of benefits for certain types or colours of textile or other claims of specific properties/benefits of the product).

- E.g. if a product claims efficiency at 20 °C, the efficiency test must be performed at ≤ 20 °C (and correspondingly for other temperature claims below 30 °C).
- E.g. if a product claims to be efficient on certain stain types, this must be documented with efficiency test.
- (d) Information on the packaging additional requirements for stain removers

The removal of stains, for which no performance test has been conducted, shall not be claimed on the product.

Assessment and verification (a-d): The applicant shall provide a sample of the product label, together with a declaration of compliance with this criterion. Product claims shall be documented through appropriate test reports or other relevant documentation.

## Criterion 9 — Information appearing on the EU Ecolabel

Optional label with text box shall contain the following text:

- '- Reduced impact on aquatic ecosystems
- Limited hazardous substances
- Performance tested.'

The guidelines for the use of the optional label with text box can be found in the 'Guidelines for use of the Ecolabel logo' on the website: http://ec.europa.eu/environment/ecolabel/promo/logos\_en.htm

Assessment and verification: The applicant shall provide a sample of the label.

#### Appendix I

## Detergents Ingredients Database (DID) list

The DID list (part A) is a list containing information of the aquatic toxicity and biodegradability of ingredients typically used in detergent formulations. The list includes information on the toxicity and biodegradability of a range of substances used in washing and cleaning products. The list is not comprehensive, but guidance is given in part B of the DID list concerning the determination of the relevant calculation parameters for substances not present on the DID list (e.g. the Toxicity Factor (TF) and degradation factor (DF), which are used for calculation of the critical dilution volume). The list is a generic source of information and substances present on the DID list are not automatically approved for use in EU Ecolabelled products. The DID list (parts A and B) can be found on the EU Ecolabel website.

For substances with no data regarding aquatic toxicity and degradability, structure analogies with similar substances may be used to assess the TF and DF. Such structure analogies shall be approved by the competent body granting the EU Ecolabel license. Alternatively, a worst case approach shall be applied, using the parameters below:

Worst case approach:

	Acute toxicity			Acute toxicity Chronic toxicity			Degradation		
Ingredient	LC50/ EC50	SF <sub>(acute)</sub>	TF <sub>(acute)</sub>	NOEC (*)	SF <sub>(chronic)</sub> (*)	TF <sub>(chronic)</sub>	DF	Aerobic	Anaerobic
'Name'	1 mg/l	10 000	0,0001			0,0001	1	P	N

<sup>(\*)</sup> If no acceptable chronic toxicity data are found, these columns are empty. In that case TF(chronic) is defined as equal to TF(acute).

#### Documentation of ready biodegradability

The following test methods for ready biodegradability shall be used:

(1) Until 1 December 2010 and during transition period from 1 December 2010 to 1 December 2015:

The test methods for ready biodegradability provided for in Directive 67/548/EEC, in particular the methods detailed in Annex V.C4 to that Directive, or their equivalent OECD 301 A-F test methods, or their equivalent ISO tests.

The 10 days window principle shall not apply for surfactants. The pass levels shall be 70 % for the tests referred to in Annex V.C4-A and C4-B to Directive 67/548/EEC (and their equivalent OECD 301 A and E tests and ISO equivalents), and shall be 60 % for tests C4-C, D, E and F (and their equivalent OECD 301 B, C, D and F tests and ISO equivalents).

(2) After 1 December 2015 and during transition period from 1 December 2010 to 1 December 2015:

#### Documentation of anaerobic biodegradability

The reference test for anaerobic degradability shall be EN ISO 11734, ECETOC No 28 (June 1988), OECD 311 or an equivalent test method, with the requirement of 60 % ultimate degradability under anaerobic conditions. Test methods simulating the conditions in a relevant anaerobic environment may also be used to document that 60 % ultimate degradability has been attained under anaerobic conditions.

Extrapolation for substances not listed in the DID-list

Where the ingredients that are not listed in the DID-list the following approach may be used to provide the necessary documentation of anaerobic biodegradability:

- (1) Apply reasonable extrapolation. Use test results obtained with one raw material to extrapolate the ultimate anaerobic degradability of structurally related surfactants. Where anaerobic biodegradability has been confirmed for a surfactant (or a group of homologues) according to the DID-list, it can be assumed that a similar type of surfactant is also anaerobically biodegradable (e.g. C12-15 A 1-3 EO sulphate [DID No 8] is anaerobically biodegradable, and a similar anaerobic biodegradability may also be assumed for C12-15 A 6 EO sulphate). Where anaerobic biodegradability has been confirmed for a surfactant by use of an appropriate test method, it can be assumed that a similar type of surfactant is also anaerobically biodegradable (e.g. literature data confirming the anaerobic biodegradability of surfactants belonging to the group alkyl ester ammonium salts may be used as documentation for a similar anaerobic biodegradability of other quaternary ammonium salts containing ester-linkages in the alkyl chain(s)).
- (2) Perform screening test for anaerobic degradability. If new testing is necessary, perform a screening test by use of EN ISO 11734, ECETOC No 28 (June 1988), OECD 311 or an equivalent method.
- (3) Perform low-dosage degradability test. If new testing is necessary, and in the case of experimental problems in the screening test (e.g. inhibition due to toxicity of test substance), repeat testing by using a low dosage of surfactant and monitor degradation by <sup>14</sup>C measurements or chemical analyses. Testing at low dosages may be performed by use of OECD 308 (August 2000) or an equivalent method.