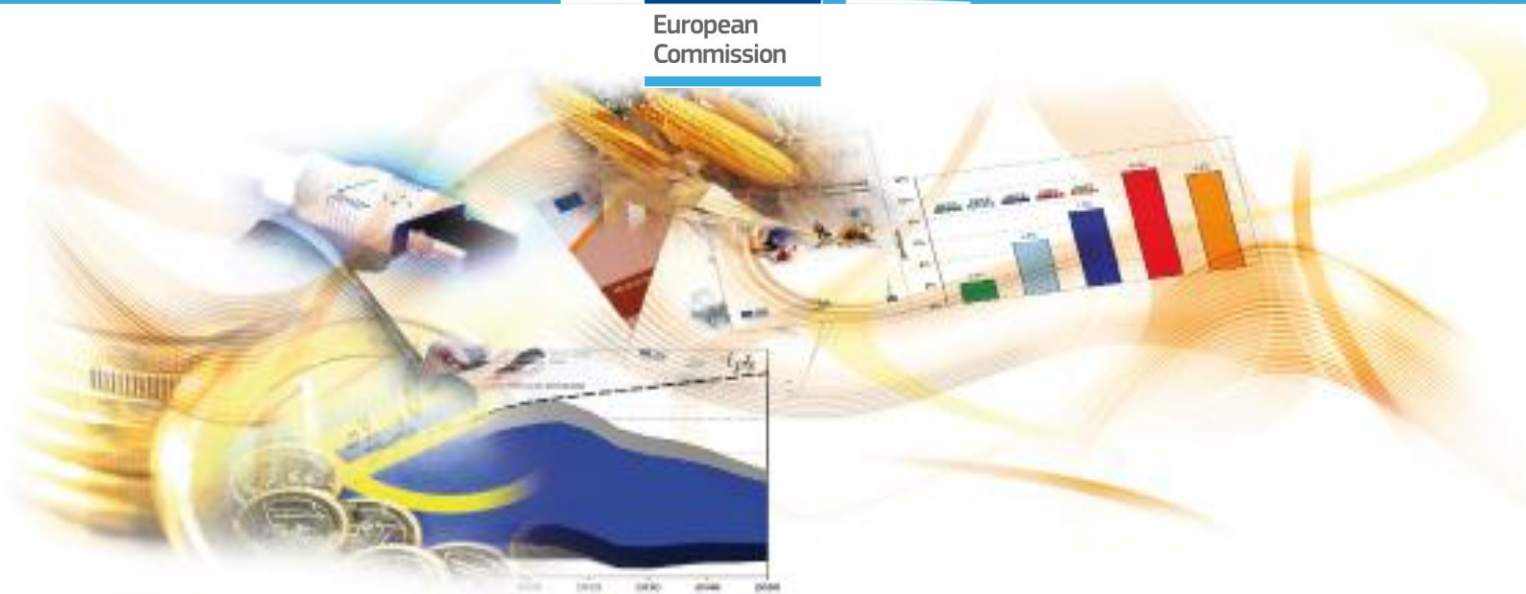




European  
Commission



J R C T E C H N I C A L R E P O R T S

# Revision of European Ecolabel Criteria for industrial and institutional automatic dishwasher detergents

Technical report and draft criteria proposal (TASK 5)  
**For the 1<sup>st</sup> AHWG meeting**  
(Draft)

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December 2014

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## 1 INTRODUCTION

The following Technical Report presents a proposal of revised EU Ecolabel criteria for the product group of "industrial and institutional automatic dishwasher detergents" (IIDD). The study has been carried out by the Joint Research Centre's Institute for Prospective Technological Studies (JRC-IPTS) with technical support from Oakdene Hollins and PRé Consultants. The work is being developed for the European Commission's Directorate General for the Environment.

The recommendations for the revision of the current criteria are based on technical analysis, including a Life Cycle Assessment (LCA) assessing the environmental impacts of products covered by the scope of the product group and other evidences, and input received from stakeholders.

This document is complemented by the Preliminary Report on the revision of the European Ecolabel criteria for Industrial and Institutional Automatic Dishwasher Detergents<sup>1</sup> and a Technical Annexe. The Preliminary Report covers in detail areas such as: scope and legislative analysis (Task 1), market analysis (Task 2), technical analysis (Task 3) and improvement potential (Task 4). The Technical Annexe is common to all detergent product groups as they share common issues and the revisions of their EU Ecolabel criteria are being done at the same time in order to facilitate harmonisation between criteria, where appropriate.

In all, there are six sets of EU Ecolabel criteria in the detergent product groups. These are:

- laundry detergents (LD),
- industrial and institutional laundry detergents (IILD),
- detergents for dishwashers (DD),
- industrial and institutional automatic dishwasher detergents (IIDD),
- hand dishwashing detergents (HDD),
- all-purpose cleaners and sanitary cleaners (APC).

The present document is specific to the set of criteria related to the EU Ecolabel for Industrial and Institutional automatic Dishwasher Detergents. Its main purpose is to summarise the proposed criteria changes as well as provide a brief overview of background information related to each criterion and the rationale behind the proposal. Where these are common for different EU Ecolabel product groups and/or are due to harmonisation efforts, reference is made to a section of the Technical Annexe. Both documents, as well as the Preliminary Report, should be consulted to gain a full understanding of this revision process.

It should be noted that the EU Ecolabel criteria for detergents for dishwashers (DD) are being revised in parallel. Due to the similarities in criteria, chemical constituents of the products involved and the overlap of stakeholders, a common Preliminary Report has been written. However, a separate Technical Report has been produced for each EU Ecolabel under revision. Nevertheless, as harmonisation of criteria across product groups is within the scope of this work, the rationale and commentary of the Technical Reports frequently compares and contrasts current criteria corresponding to the other detergent products being revised.

A revision of EU Ecolabel criteria must ensure that, based on impacts of the products covered by the EU Ecolabel for "Industrial and Institutional automatic Dishwasher Detergents" at all life-cycle stages:

- The existing criteria are still relevant and that appropriately challenging targets, thresholds or usage information are established based on the latest knowledge of market norms, user behaviours, life-cycle impacts and hazards.
- Any new candidates for criteria suggested by either the LCA or the stakeholder survey are adequately considered and evaluation criteria justified.

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<sup>1</sup> Preliminary report for the revision of European Ecological Criteria: consumer and industrial and institutional automatic dishwasher detergents, available at: <http://susproc.jrc.ec.europa.eu/detergents/stakeholders.html>

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- Opportunities to rationalise criteria, i.e. remove, simplify and combine (within the group) or harmonise (between product groups), are examined and justified.

The main criteria changes proposed in this report are updates of several criteria values and new values for categories of products that are not covered in the current criteria.

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## 2 PRELIMINARY REPORT – SUMMARY AND LINKS TO THE REVISION AND/OR DEVELOPMENT OF THE EU ECOLABEL CRITERIA

The Preliminary Report presents the research carried out, through stakeholder surveys, market analysis, legal review and an environmental performance investigation, on areas related to the product group covered by the EU Ecolabel on Industrial and Institutional automatic Dishwasher Detergents. The preliminary report is a document that provides the background information and underpins the new criteria proposal for two product groups: Detergents for Dishwashers and Industrial and Institutional automatic Dishwasher Detergents, due to their multiple overlaps.

The main findings of the Preliminary Report are:

- The *legal review* revealed that the EU Detergents Regulation (EU) No 259/2012<sup>2</sup> will only impact on the consumer automatic dishwasher detergents on the market and not professional products.
- The *market analysis* revealed that the market for dishwasher detergents is primarily intra-EU trade, with five large manufacturers accounting for 65% of the European market. The market for industrial and institutional kitchen and catering detergents (which includes dishwasher detergents) accounted for around €1,500 million in Europe in 2012.
- The *technical analysis* revealed that the key environmental impacts associated with the product group can be summarised as follows:
  - The life cycle stage with the largest contribution to the environmental impact profile of industrial and institutional automatic dishwasher detergents is the use phase, particularly the energy needed to heat the water for the wash cycle. For some impact categories, the sourcing of raw materials is also important.
  - Based on the normalisation assessment the most significant impact categories for dishwasher detergents in Europe are fossil depletion, climate change, human toxicity, particulate matter formation, and natural land transformation.

The results of the LCA for a consumer dishwasher detergent conducted as part of the technical analysis showed that the environmental impacts are strongly correlated to each other via the energy use in the use phase (with the exception of natural land transformation). The use phase dominates the impact categories freshwater eutrophication, human toxicity, and marine ecotoxicity, whereas freshwater ecotoxicity and natural land transformation are dominated by ingredients sourcing. Due to the similarities between the two product groups, the environmental impact profile of the industrial and institutional dishwasher detergents are expected to be very close to that of consumer products.

The key environmental performance indicators (KPIs), i.e. those variables that mainly drive the results for dishwasher detergents in Europe, based on the results of this study are (not ranked):

- Amount of product used per application,
- Choice of and amount of surfactant (although there are trade-offs between impact categories),
- Wash temperature,
- Energy source used to heat the water,
- Emissions to water.

Apart from the LCA analysis, a revision of other scientific evidences, current national schemes and legislation have been performed. These sources of information pointed out the potential

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<sup>2</sup> Regulation (EU) No 259/2012 of the European Parliament and of the Council of 14 March 2012 amending Regulation (EC) No 648/2004 as regards the use of phosphates and other phosphorus compounds in consumer laundry detergents and consumer automatic dishwasher detergents, OJEU L 94/16

presence of hazardous substances in the product that can have environmental and health impacts, and these are addressed according to Articles 6.6 and 6.7 of the Regulation EC/66/2010 on the Ecolabel Regulation<sup>3</sup>.

This document shows the process and the evidences to draft the EU Ecolabel criteria that tackle the mentioned main environmental impacts identified through the LCA analysis and the non-LCA impacts identified by revising other sources. The EU Ecolabel criteria are developed to directly or indirectly address the identified LCA and non-LCA impacts (eg the choice and amount of surfactants is an environmental impact directly addressed through one or several EU Ecolabel criteria while the amount of detergent is indirectly addressed). The "energy source used to heat the water" is the only environmental impact that cannot be addressed through the EU Ecolabel as it is not directly linked to the products; even when consumers can choose the source of energy to heat the water or an electricity provider with a share of renewable energies, this is something out of the scope of what can be promoted through a product environmental label.

Moreover, even though waste generation was not among the top 5 KPIs named previously, it can still have an impact of up to 11% for some environmental aspects. This environmental impact score can even being higher in the case of window cleaners. Given large amount of products used and the fact that they all come with packaging, a relatively small impact can quickly add up; thus, this aspect is also considered in the EU Ecolabel. Table 1 shows the link between the hotspots identified as LCA and non-LCA impacts in the Preliminary Report and the revised or newly developed EU Ecolabel criteria.

**Table 1: Link between the hotspots identified (LCA and non-LCA impacts) and the revised EU Ecolabel criteria**

<b>Hotspots</b>	<b>% of total impact<sup>4</sup></b>	<b>Revised or new EU Ecolabel criteria</b>	<b>Comments in the related criteria</b>
Energy sources to heat up the water	64-95 %	--	Out of the scope of this policy tool
Amount of product used per application	2-32 %	User information	It informs users about the amount of product to be used depending on the washing conditions
		Automatic dosing systems	The criterion ensures that users do not use an incorrect dose when using multi-component systems.
Formulation Choice of and amount of surfactant	2-32 %	Biodegradability	It ensures that surfactants are degradable and will not persist in the environment
		Restricted substances	It ensures that hazardous surfactants are not included in the bill of materials
		Phosphorus content	It ensures that limited and restricted types of phosphorus compounds are included as ingredients
		Sustainable Palm oil	It ensures that renewable palm oil surfactants do not cause unnecessary strain on the ecosystem.
Formulation Choice of and	2-32 %	Colorants	It ensures that colorants do not accumulate in the water

<sup>3</sup> Regulation (EC) No 66/2010 of the European Parliament and of the Council of November 25 2009 on the EU Ecolabel

<sup>4</sup> Information provided in chapter 5 of the Preliminary Report, although aggregated in a different way, available at: <http://susproc.jrc.ec.europa.eu/detergents/stakeholders.html>

Hotspots	% of total impact <sup>4</sup>	Revised or new EU Ecolabel criteria	Comments in the related criteria
amount of other ingredients		Fragrances	It ensures that only a limited amount of ingredients with sensitizing properties is used
		Enzymes	It ensures that enzymes cannot be inhaled limiting health risks for users
		Preservatives	It ensures that no persistent or biocide preservatives are included as an ingredient
Emissions to water	2-32 %	Toxicity to aquatic organisms	It ensures that the sum of the ingredients is not toxic to the aquatic organisms
		Biodegradability	It ensures that ingredients are not persistent in the water
		Restricted substances	It ensures that hazardous substances do not reach the water (rivers, sea, oceans, etc)
		Colorants	It ensures that colorants do not accumulate, a limited use of ingredients with sensitizing properties or are not inhaled
		Fragrances	
		Enzymes	It informs consumers that the product has a limited amount of hazardous substances while they are making purchase decisions
Information appearing on the EU Ecolabel			
Energy consumed to heat up the water	64-95 %	User Information	It provides information to the users on how to wash to get the most of the product damaging the least the environment
		Fitness for use	It ensures consumers that the product is fit to wash at lower temperature depending of the intended use
		Information appearing on the EU Ecolabel	It informs consumers that the product is fit for washing while they are making purchase decisions
Waste generation	0-11 %	Packaging	It ensures that limited amount of waste will be generated and that this waste can be recycled
		User Information	It reminds consumers to dispose of the packaging in a responsible manner
Water consumption	Not rated	User Information	The criterion encourages users to opt for wash loads. It provides information to the users on how to get the most out of the product while lowering the damage to the environment.
Hazardous substances	Not rated	Hazardous substances and mixtures	It limits the hazardous substances and mixtures that can be included in the product limiting environmental and risks for consumers.
		Ingoing substances listed in accordance with Article 59(1) of Regulation (EC) No 1907/2006	
		Information appearing on the EU Ecolabel	It informs consumers that the product has a limited amount of hazardous substances at purchasing



### 3 SUMMARY OF THE FEEDBACK REQUESTED FROM STAKEHOLDERS

<b>INDUSTRIAL AND INSTITUTIONAL AUTOMATIC DISHWASHER DETERGENTS</b>		
<b>CRITERION SECTION</b>	<b>QUESTIONS</b>	
Toxicity to aquatic organisms	1	Should the CDV limits for multi-component products be stricter? If so please propose a suitable limit?
Biodegradability	1	Do you agree with keeping the current criterion?
	2	What would be the appropriate limits for aNBO and anNBO? Could stakeholders please share with the project team data on the amount of aNBO and anNBO organic substances and mixtures in the product groups covered?
Excluded or limited substances and mixtures	1	Has DTPA used in Industrial and institutional automatic dishwasher detergents any feasible alternative on the market?
	2	Should perborates be explicitly excluded from the IIDDD (and DD) product group?
	3	Are additional exclusions required for other substances?
	1	Do you have information which could substantiate keeping/removing the current derogations.
Excluded or limited substances and mixtures Phosphorus content	1	Should phosphorus compounds be excluded from this product group?
	2	Can phosphates be substituted from IDD without increasing the chemical loading of sacrificing cleaning performance?
	3	Do you agree with the proposed limits for phosphorous compounds?
	4	Could the limits be stricter?
Packaging	1	Packaging is not one of the top 5 KPIs for I&l dishwasher detergents, should a criterion related to it be kept?
	2	Are the WUR limits appropriate?
	3	Is the design for recycling requirement suitable for this product group?
Automatic dosage	1	Is the criterion on multi-component products relevant to the product group?
User information	1	Is the change to the dosage instruction wording acceptable?
	2	Is a statement on overdosing required as part of the consumer information criterion?
	3	Should information on use of renewable energy be included?
	4	Should recycling labels be included on dishwasher detergent packaging?
	5	Is it appropriate to have the information appearing on the EU Ecolabel as a separate criterion? (N.B. this is a horizontal issue relevant to other product groups)

## 4 CRITERIA STRUCTURE COMPARISON TABLE

STRUCTURE OF THE CRITERIA	
Current organisation of the EU Ecolabel criteria	Potential changes, modifications or amendments
<p>Criterion 1: Toxicity to aquatic organisms: Critical Dilution Volume (CDV)</p> <p>Criterion 2: Biodegradability</p> <p>Criterion 3: Excluded or limited substances and mixtures</p> <p>Criterion 4: Packaging requirements</p> <p>Criterion 5: Washing performance (fitness for use)</p> <p>Criterion 6: Automatic dosing systems</p> <p>Criterion 7: User information — Information appearing on the EU Ecolabel</p>	<p>Criterion 1: Toxicity to aquatic organisms</p> <p>Criterion 2: Biodegradability</p> <p>Criterion 3: Sustainable sourcing of palm oil, etc.</p> <p>Criterion 4: Restricted substances</p> <p>Criterion 5: Packaging</p> <p>Criterion 6: Fitness for use</p> <p>Criterion 7: Automatic dosing systems</p> <p>Criterion 8: User information</p> <p>Criterion 9: Information appearing on the EU Ecolabel</p>
	<p>The proposed changes to the structure reflect the harmonisation across all detergents and cleaning products criteria documents. An additional criterion is proposed to cover sustainable sourcing of certain ingredients.</p>

## 5 NAME AND DEFINITION COMPARISON TABLE

NAME OF THE EU ECOLABEL	
Current name of the EU Ecolabel	Potential changes, modifications or amendments
Industrial and institutional automatic dishwasher detergents	No changes
DEFINITION OF THE PRODUCT GROUP	
<p>The product group 'Industrial and Institutional Automatic Dishwasher Detergents' shall comprise single and multi-component dishwasher detergents, rinse and pre-soaks, designed for use in professional dishwashers.</p> <p>The following products are excluded from the scope of this product group: consumer automatic dishwasher detergents, detergents intended to be used in washers of medical devices or in special machines for the food industry.</p> <p>Sprays not dosed via automatic pumps are excluded from this product group.</p>	<p>The product group 'Industrial and Institutional Automatic Dishwasher Detergents' shall comprise single and multi-component dishwasher detergents, rinse and pre-soaks, designed for use in professional dishwashers. <a href="#">Multi-component systems may incorporate a number of products including pre-soaks and rinsing agents.</a></p> <p>The following products are excluded from the scope of this product group: consumer automatic dishwasher detergents, detergents intended to be used in washers of medical devices or in special machines for the food industry.</p> <p>Sprays not dosed via automatic pumps are excluded from this product group.</p>
	<a href="#">The proposed changes concern the clarification of what constitutes a multi-component system as concerns were raised on the issue.</a>

## 6 COMPARISON OF EXISTING AND PROPOSED CRITERIA

CRITERIA																																																
Existing EU Ecolabel criteria			Potential changes, modifications or amendments																																													
<b>Criterion 1: Toxicity to aquatic organisms</b>																																																
<p>The Critical Dilution Volume (CDV chronic ) of a single or multi-component system must not exceed the following limits (at the highest recommended dose):</p> <table border="1"> <thead> <tr> <th>CDV at the highest recommended dosage</th> <th>Soft</th> <th>Medium</th> <th>Hard</th> </tr> <tr> <th>Product type</th> <th>0-6 °dH</th> <th>7-13 °dH</th> <th>&gt; 14 °dH</th> </tr> </thead> <tbody> <tr> <td>Pre-soaks</td> <td>2000</td> <td>2000</td> <td>2000</td> </tr> <tr> <td>Dishwasher detergents</td> <td>3000</td> <td>5000</td> <td>10,000</td> </tr> <tr> <td>Multi-component system</td> <td>3000</td> <td>4000</td> <td>7000</td> </tr> <tr> <td>Rinse aids</td> <td>3000</td> <td>3000</td> <td>3000</td> </tr> </tbody> </table> <p>The Critical Dilution Volume (CDV chronic ) is calculated for all ingoing substances (i) in the product using the following equation:</p> $CDV = \sum CDV(i) = 1000 \cdot \sum dosage(i) \cdot \frac{DF(i)}{TF(i)}$ <p>Where:  weight = the weight of the ingoing substance per recommended dose  DF = the degradation factor  TF = the chronic toxicity factor of the substance as stated in the DID list.  Biocides and colouring agents present in the product shall also be included in the CDV calculation even if the concentration is lower than 0,010 % (100 ppm).  Because of the degradation of the substances in the wash process, separate rules apply to the following substances:</p>			CDV at the highest recommended dosage	Soft	Medium	Hard	Product type	0-6 °dH	7-13 °dH	> 14 °dH	Pre-soaks	2000	2000	2000	Dishwasher detergents	3000	5000	10,000	Multi-component system	3000	4000	7000	Rinse aids	3000	3000	3000	<p>The critical dilution volume (CDV) of the product must not exceed the following limits for the reference dosage:</p> <table border="1"> <thead> <tr> <th>Water hardness Product type</th> <th>Soft (&lt;1,5 mmol CaCO3/l)</th> <th>Medium (1,5 – 2,5 mmol CaCO3/l)</th> <th>Hard (&gt;2,5 mmol CaCO3/l)</th> </tr> </thead> <tbody> <tr> <td>Pre-soaks</td> <td>2 000</td> <td>2 000</td> <td>2 000</td> </tr> <tr> <td>Dishwasher detergents</td> <td>3 000</td> <td>5 000</td> <td>10 000</td> </tr> <tr> <td>Multi-component systems</td> <td>3 000</td> <td>4 000</td> <td>7 000</td> </tr> <tr> <td>Rinse aids</td> <td>3 000</td> <td>3 000</td> <td>3 000</td> </tr> </tbody> </table> <p><b>Assessment and verification:</b> Calculation of the CDV of the product. A spreadsheet for calculation of the CDV value is available on the EU Ecolabel website. The Critical Dilution Volume (CDV) is calculated for all ingoing substances and mixtures (i) in the product using the following equation:</p> $CDV = \sum CDV(i) = 1000 \cdot \sum dosage(i) \cdot \frac{DF(i)}{TF(i)}$ <p>Where:  <i>dosage(i)</i>: weight (g) of the substance or mixture <i>i</i> in the reference dose,  <i>DF(i)</i>: degradation factor for the substance or mixture <i>i</i>  <i>TF(i)</i>: toxicity factor for the substance or mixture <i>i</i>  The values of <i>DF(i)</i> and <i>TF(i)</i> shall be as given in the DID list Part A (Appendix I<sup>5</sup>). If a substance or mixture is not included in the DID list Part A, the applicant shall estimate the values follow the approach described in the DID list Part B (Appendix</p>		Water hardness Product type	Soft (<1,5 mmol CaCO3/l)	Medium (1,5 – 2,5 mmol CaCO3/l)	Hard (>2,5 mmol CaCO3/l)	Pre-soaks	2 000	2 000	2 000	Dishwasher detergents	3 000	5 000	10 000	Multi-component systems	3 000	4 000	7 000	Rinse aids	3 000	3 000	3 000
CDV at the highest recommended dosage	Soft	Medium	Hard																																													
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Pre-soaks	2000	2000	2000																																													
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Multi-component system	3000	4000	7000																																													
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Rinse aids	3 000	3 000	3 000																																													

<sup>5</sup> The "Appendix" referred to in the criteria text is the Appendix found at the end of EU Ecolabel criteria and has not been formulated as of the writing of this report. It does not refer to the Appendixes found at the end of this Technical Report.

<p>— Hydrogen Peroxide (H<sub>2</sub>O<sub>2</sub>) — not to be included in calculation of CDV,  — Peracetic acid — to be included in the calculation as acetic acid.</p> <p><b>Assessment and verification</b> the applicant shall provide the calculation of the CDV chronic of the product. A spreadsheet for calculation of the CDV value is available on the EU Ecolabel website.</p> <p>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</p>	<p>l).</p> <p>Because of the degradation of the substances in the wash process, separate rules apply to the following substances:</p> <ul style="list-style-type: none"> <li>hydrogen peroxide (H<sub>2</sub>O<sub>2</sub>) – not to be included in calculation of CDV</li> <li>peracetic acid – to be included in the calculation as acetic acid.</li> </ul>
	<p>The proposed changes refer to the name of the criterion that is brought in line with other EU Ecolabel criteria for detergents as well as the units expressing the hardness of water.</p>

**Criterion 2: Biodegradability of organics**

<p><b>(a) Biodegradability of surfactants</b>  All surfactants must be biodegradable under aerobic and anaerobic conditions.</p> <p><b>(b) Biodegradability of organic substances</b>  The content of all organic substances in the product that are aerobically non-biodegradable (not readily biodegradable) (aNBO) and anaerobically non-biodegradable (anNBO) shall not exceed the following limits:</p> <p><b>aNBO (aerobically non-biodegradable)</b></p> <table border="1" data-bbox="235 957 1064 1165"> <thead> <tr> <th rowspan="2">Product type (g/l washing solution)</th> <th>Soft</th> <th>Medium</th> <th>Hard</th> </tr> <tr> <th>0-6 °dH</th> <th>7-13 °dH</th> <th>&gt; 14 °dH</th> </tr> </thead> <tbody> <tr> <td>Pre-soaks</td> <td>0.4</td> <td>0.4</td> <td>0.4</td> </tr> <tr> <td>Dishwasher detergents/ Multi-component system</td> <td>0.4</td> <td>0.4</td> <td>0.4</td> </tr> <tr> <td>Rinse aids</td> <td>0.04</td> <td>0.04</td> <td>0.04</td> </tr> </tbody> </table> <p><b>anNBO (anaerobically non-biodegradable)</b></p> <table border="1" data-bbox="201 1220 1097 1388"> <thead> <tr> <th rowspan="2">Product type (g/l washing solution)</th> <th>Soft</th> <th>Medium</th> <th>Hard</th> </tr> <tr> <th>0-6 °dH</th> <th>7-13 °dH</th> <th>&gt; 14 °dH</th> </tr> </thead> <tbody> <tr> <td>Pre-soaks</td> <td>0.4</td> <td>0.4</td> <td>0.4</td> </tr> <tr> <td>Dishwasher detergents/ Multi-component system</td> <td>0.6</td> <td>1.0</td> <td>1.5</td> </tr> </tbody> </table>	Product type (g/l washing solution)	Soft	Medium	Hard	0-6 °dH	7-13 °dH	> 14 °dH	Pre-soaks	0.4	0.4	0.4	Dishwasher detergents/ Multi-component system	0.4	0.4	0.4	Rinse aids	0.04	0.04	0.04	Product type (g/l washing solution)	Soft	Medium	Hard	0-6 °dH	7-13 °dH	> 14 °dH	Pre-soaks	0.4	0.4	0.4	Dishwasher detergents/ Multi-component system	0.6	1.0	1.5	<p><b>a) Biodegradability of surfactants</b>  — All surfactants shall be biodegradable under aerobic conditions.  — All surfactants shall be biodegradable under anaerobic conditions</p> <p><b>b) Biodegradability of organic substances and mixtures</b>  The content of organic substances and mixtures 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:</p> <p><b>aNBO (g/l washing solution)</b></p> <table border="1" data-bbox="1131 1029 2027 1300"> <thead> <tr> <th rowspan="2">Product type</th> <th colspan="3">Water hardness</th> </tr> <tr> <th>Soft &lt;1,5 mmol CaCO<sub>3</sub>/l</th> <th>Medium 1,5 – 2,5 mmol CaCO<sub>3</sub>/l</th> <th>Hard &gt; 2,5 mmol CaCO<sub>3</sub>/l</th> </tr> </thead> <tbody> <tr> <td>Pre-soaks</td> <td>0,4</td> <td>0,4</td> <td>0,4</td> </tr> <tr> <td>Dishwasher detergents/ Multi-component system</td> <td>0,4</td> <td>0,4</td> <td>0,4</td> </tr> <tr> <td>Rinse aids</td> <td>0,04</td> <td>0,04</td> <td>0,04</td> </tr> </tbody> </table> <p><b>anNBO (g/l washing solution)</b></p>	Product type	Water hardness			Soft <1,5 mmol CaCO <sub>3</sub> /l	Medium 1,5 – 2,5 mmol CaCO <sub>3</sub> /l	Hard > 2,5 mmol CaCO <sub>3</sub> /l	Pre-soaks	0,4	0,4	0,4	Dishwasher detergents/ Multi-component system	0,4	0,4	0,4	Rinse aids	0,04	0,04	0,04
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<p><b>Assessment and verification:</b> 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 use in calculating aNBO and anNBO values is available on the EU Ecolabel website.</p> <p>For both surfactants and aNBO and anNBO values reference should be done to the DID List. For ingoing substances 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 as described in Appendix I.</p> <p>Note that TAED should be considered anaerobically biodegradable.</p> <p>In the absence of documentation in accordance with the above requirements, a substance other than a surfactant may be exempted from the requirement for anaerobic degradability if one of the following three alternatives is fulfilled:</p> <ol style="list-style-type: none"> <li>1. Readily degradable and has low adsorption (<math>A &lt; 25\%</math>); or</li> <li>2. Readily degradable and has high desorption (<math>D &gt; 75\%</math>); or</li> <li>3. Readily degradable and non-bioaccumulating.</li> </ol> <p>Testing for adsorption/desorption may be conducted in accordance with OECD guidelines 106.</p>	<p><b>Water hardness</b></p> <table border="1"> <thead> <tr> <th></th> <th>Soft</th> <th>Medium</th> <th>Hard</th> </tr> <tr> <th>Product type</th> <th>&lt;1,5 mmol CaCO<sub>3</sub>/l</th> <th>1,5 – 2,5 mmol CaCO<sub>3</sub>/l</th> <th>&gt; 2,5 mmol CaCO<sub>3</sub>/l</th> </tr> </thead> <tbody> <tr> <td>Pre-soaks</td> <td>0,4</td> <td>0,4</td> <td>0,4</td> </tr> <tr> <td>Dishwasher detergents/ Multi-component system</td> <td>0,6</td> <td>1,0</td> <td>1,5</td> </tr> <tr> <td>Rinse aids</td> <td>0,04</td> <td>0,04</td> <td>0,04</td> </tr> </tbody> </table>		Soft	Medium	Hard	Product type	<1,5 mmol CaCO <sub>3</sub> /l	1,5 – 2,5 mmol CaCO <sub>3</sub> /l	> 2,5 mmol CaCO <sub>3</sub> /l	Pre-soaks	0,4	0,4	0,4	Dishwasher detergents/ Multi-component system	0,6	1,0	1,5	Rinse aids	0,04	0,04	0,04
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<p><b>Assessment and verification:</b> The applicant shall provide documentation for the degradability of surfactants, as well as the calculations of aNBO and anNBO for the product. A spreadsheet for use in calculating aNBO and anNBO values is available on the EU Ecolabel website.</p> <p>For both surfactants and aNBO and anNBO values, reference shall be made 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 as described in Appendix I.</p> <p>In the absence of documentation in accordance with the above requirements, an ingoing substances and mixtures other than a surfactant may be exempted from the requirement for anaerobic degradability if one of the following three alternatives is fulfilled:</p> <ol style="list-style-type: none"> <li>1. Readily degradable and has low adsorption (<math>A &lt; 25\%</math>);</li> <li>2. Readily degradable and has high desorption (<math>D &gt; 75\%</math>);</li> <li>3. Readily degradable and non-bioaccumulating.</li> </ol> <p>Testing for adsorption/desorption may be conducted in accordance with OECD guidelines 106.</p>																					
<p>As six EU Ecolabels related to detergents are being revised at the same time and as these products often have similar formulations, it is judicious to consider the harmonisation of their criteria. The current six EU Ecolabel criteria approach the subject using three different manners and stakeholder consultation has yielded a multitude of opinions. It has thus been decided that a discussion during the 1<sup>st</sup> AHWG meeting will be held. As a starting point for the harmonised approach, the criterion included in the most recently voted criteria for industrial and institutional products (laundry and dishwasher detergents) is proposed. The criterion will be revised following discussions with stakeholders. Collection of data on aNBO and</p>																					



accordance with Regulation (EC) No 1272/2008 of the European Parliament and of the Council ( 1 ) or Council Directive 67/548/EEC nor shall it contain substances referred to in Article 57 of Regulation (EC) No 1907/2006. The risk phrases below generally refer to substances. However, if information on substances cannot be obtained, the classification rules for mixtures apply.

List of hazard statements:

<b>GHS Hazard Statement</b>	<b>EU Phrase</b>	<b>Risk</b>
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	
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	

The hazard statements in Table 2 generally refer to substances. However, if information on substances cannot be obtained, the classification rules for mixtures apply.

Substances or mixtures which change their properties through processing and thus become no longer bioavailable, or undergo chemical modification in a way that removes the previously identified hazard are exempted from criterion X(b).

Table 2: Hazard statements

<b>GHS Hazard Statement</b>
H300 Fatal if swallowed
H301 Toxic if swallowed
H304 May be fatal if swallowed and enters airways
H310 Fatal in contact with skin
H311 Toxic in contact with skin
H330 Fatal if inhaled
H331 Toxic if inhaled
H340 May cause genetic defects
H341 Suspected of causing genetic defects
H350 May cause cancer
H350i May cause cancer by inhalation
H351 Suspected of causing cancer
H360F May damage fertility
H360D May damage the unborn child
H360FD May damage fertility. May damage the unborn child
H360Fd May damage fertility. Suspected of damaging the unborn child
H360Df May damage the unborn child. Suspected of damaging fertility
H361f Suspected of damaging fertility
H361d Suspected of damaging the unborn child
H361fd Suspected of damaging fertility. Suspected of damaging the unborn child.
H362 May cause harm to breast fed children
H370 Causes damage to organs
H371 May cause damage to organs



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	R5R593
EUH059 Hazardous to the ozone layer	R29
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
<b>Sensitising substances</b>	
H334: May cause allergy or asthma symptoms or breathing difficulties if inhaled	R42
H317: May cause allergic skin reaction	R43

Note that this criterion also applies to known degradation products such as formaldehyde from formaldehyde releasers.

Substances or mixtures which change their properties through processing (e.g. become no longer bioavailable, or undergo chemical modification in a way that removes the previously identified hazard) are exempted from the above requirement.

The final product must not be labelled according to the hazard statements above.

Derogations

The following substances are specifically exempted from this requirement

H372 Causes damage to organs through prolonged or repeated exposure
H373 May cause damage to organs through prolonged or repeated exposure
H400 Very toxic to aquatic life
H410 Very toxic to aquatic life with long-lasting effects
H411 Toxic to aquatic life with long-lasting effects
H412 Harmful to aquatic life with long-lasting effects
H413 May cause long-lasting harmful effects to aquatic life
EUH059 Hazardous to the ozone layer
EUH029 Contact with water liberates toxic gas
EUH031 Contact with acids liberates toxic gas
EUH032 Contact with acids liberates very toxic gas
EUH070 Toxic by eye contact
<b>Sensitising substances</b>
H334: May cause allergy or asthma symptoms or breathing difficulties if inhaled
H317: May cause allergic skin reaction

This criterion applies to all ingredients present in concentrations  $\geq 0,01$  %, including preservatives, colouring agents and fragrances.

For industrial and institutional automatic dishwasher products, the substances in Table 3 are exempted from the obligation in Article 6(6) of Regulation (EC) No 66/2010 following application of Article 6(7) of the same Regulation.

Table 3: Derogated substances - To be discussed in the 1st AHWG meeting

Derogated substance	H phrases

**Assessment and verification:** the applicant shall demonstrate compliance with criterion X(b) for any ingoing substance or mixture present at concentrations greater than 0,010% in the product.

A declaration of compliance shall be provided by the applicant supported, where appropriate, by the declarations from producer(s) of the raw materials that none of these ingoing substances and/or mixtures meet the criteria for classification

Surfactants In concentrations <15 % in the final product	H400 Very toxic to aquatic life	R50
Surfactants In concentrations <25 % in the final product	H412 Harmful to aquatic life with long-lasting effects	R52-53
Biocides used for preservation purposes (*) (only for liquids with pH between 2 and 12 and maximum 0.10 % w/w of active material)	H331: Toxic if inhaled H334: May cause allergy or asthma symptoms or breathing difficulties if inhaled H317: May cause allergic skin reaction H400: Very toxic to aquatic life	R50-53 R51-53 R52-53
Enzymes (**)	H334: May cause allergy or asthma symptoms or breathing difficulties if inhaled H317: May cause allergic skin reaction H400: Very toxic to aquatic life	R43 R42
NTA as an impurity in MGDA and GLDA (***)	H351 suspected of causing cancer	R40

**Assessment and verification** the applicant shall demonstrate compliance with this criterion by providing a declaration on the non-classification of each ingoing substance into any of the hazard classes associated to the hazard statements referred to in the above list in accordance with Regulation (EC) No 1272/2008, as far as this can be determined, as a minimum, from the information meeting the requirements listed in Annex VII to Regulation (EC) No 1907/2006. This declaration shall be supported by summarised information on the relevant characteristics associated to the hazard statements referred to in the above list, to the level of detail specified in Sections 10, 11 and 12 of Annex II to Regulation (EC) No 1907/2006 (Requirements for the Compilation of Safety Data Sheets).

Information on intrinsic properties of substances may be generated by means other than tests, for instance through the use of alternative methods such as in vitro methods, by quantitative structure activity models or by the use of grouping or read-across in accordance with Annex XI to Regulation (EC) No 1907/2006. The

with one or more of hazard statements listed in the form(s) and physical state(s) they are present in the product.

The following technical information related to the form(s) and physical state(s) of the ingoing substances and/or mixtures as present in the product shall be provided to support the declaration of non-classification:

(i) For substances that have not been registered under Regulation (EC) No 1907/2006 and/or which do not yet have a harmonised CLP classification: Information meeting the requirements listed in Annex VII to that Regulation;

(ii) For substances that have been registered under Regulation (EC) No 1907/2006 and which do not meet the requirements for CLP classification: Information based on the REACH registration dossier confirming the non-classified status of the substance;

(iii) For substances that have a harmonised classification or are self-classified: safety data sheets where available. If these are not available or the substance is self-classified then information shall be provided relevant to the substances hazard classification according to Annex II to Regulation (EC) No 1907/2006;

(iv) In the case of mixtures: safety data sheets where available. If these are not available then calculation of the mixture classification shall be provided according to the rules under Regulation (EC) No 1272/2008 together with information relevant to the mixtures hazard classification according to Annex II to Regulation (EC) No 1907/2006.

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

A declaration on the presence of ingoing substances that fulfil the derogation conditions shall be provided by the applicant, supported, where appropriate, by declarations from the producer(s) of the raw materials. Where required for the derogation, the applicant shall confirm the concentrations of these ingoing substances in the final product.

sharing of relevant data is strongly encouraged.

The information provided shall relate to the forms or physical states of the substance or mixtures as used in the final product.

For substances listed in Annexes IV and V to REACH, exempted from registration obligations under Article 2(7)(a) and (b) of Regulation (EC) No 1907/2006 REACH, a declaration to this effect will suffice to comply with the requirements set out above.

**(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 > 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](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 ingoing substances — 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 biocides added, together with information on their exact concentration in the product. The manufacturer or supplier of the biocides shall

**(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 Regulation (EC) No 66/2010 shall be given concerning ingoing substances identified as substances of very high concern and included in the list provided for in Article 59(1) of Regulation (EC) No 1907/2006<sup>6</sup>, present in the product in concentrations higher than 0.010% (weight by weight).

**Assessment and verification:** *reference to the list of substances identified as substances of very high concern shall be made on the date of application. The applicant shall provide the full formulation of the product to the competent body. The applicant shall also provide a declaration of compliance with criterion X(c), 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 ingoing substances — Preservatives**

- (i) considered bioaccumulating if  $BCF < 100$  or  $\log Pow < 3,0$ . If both BCF and  $\log K_{ow}$  values are available, the highest measured BCF value shall be used.
- (ii) *Preservatives in the product shall not release or degrade to substances that are classified in accordance with the requirements of criterion x(b) Hazardous substances and mixtures.*

<sup>6</sup> [http://echa.europa.eu/chem\\_data/authorisation\\_process/candidate\\_list\\_table\\_en.asp](http://echa.europa.eu/chem_data/authorisation_process/candidate_list_table_en.asp)

provide information on the dosage necessary to preserve the product.

(ii) 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 the texts and layouts used on each type of packaging and/or an example of each different type of packaging to the competent body.

(iii) The product may contain biocides provided that they are not bioaccumulating. A biocide is not considered bioaccumulating if  $BCF < 100$  or  $\log K_{ow} < 3,0$ . If both BCF and  $\log K_{ow}$  values are available, the highest measured BCF value shall be used.

**Assessment and verification** the applicant shall provide copies of the material safety data sheets of any biocide added, together with information on their BCF and/or  $\log K_{ow}$  values.

#### **(e) Colouring agents**

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

**Assessment and verification** the applicant shall provide copies of the material safety data sheets of any colouring agents added, or documentation to ensure that the colouring agent is approved for use in foodstuff.

#### **(f) Enzymes**

Enzymes must be in liquid form or dust-free granulate. Enzymes must be free from micro-organism remnants from manufacture.

**Assessment and verification** the applicant shall provide copies of the material safety data sheets of any enzyme added, together with documentation to ensure that the enzyme is free from micro-organism remnants.

(iii) 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 a signed declaration of compliance, together with copies of the safety data sheets of any preservative added, and information on its BCF and/or  $\log K_{ow}$  values. The applicant shall provide also artwork of the packaging.

#### **(e) Colorants**

Colorants in the product must not be bioaccumulating. A colorant is considered not bioaccumulating if  $BCF < 100$  or  $\log P_{ow} < 3,0$ . If both 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 bioaccumulation potential.

**Assessment and verification:** the applicant shall provide copies of the safety data sheets of any colorant added together with information on its BCF and/or  $\log K_{ow}$  value, or documentation to ensure that the colouring agent is approved for use in food.

#### **(f) Enzymes**

Enzymes must be in liquid form or dust-free granulate. Enzymes must be free from micro-organism remnants from manufacture.

**Assessment and verification:** the applicant shall provide copies of the material safety data sheets of any enzyme added, together with documentation to ensure that the enzyme is free from micro-organism remnants.

**(g) Phosphorous content**

The total quantity of phosphates and other phosphorous compounds must not exceed the limit values specified in table, calculated in grams of phosphorous per litre water.

The highest recommended dosage shall be used for the phosphorous calculations.

Product type Phosphorous(g P/l water)	Soft	Medium	Hard
	0-6 °dH	7-13 °dH	> 14 °dH
Pre-soaks	0.08	0.08	0.08
Dishwasher detergents	0.15	0.30	0.50
Rinse aids	0.02	0.02	0.02
Multi-component system	0.17	0.32	0.52

**Assessment and verification:** the applicant shall provide documentation to ensure that the limit in the above table is fulfilled.

**(g) Phosphorous content**

The total quantity of phosphorus compounds must not exceed the limit values specified in the table below:

Product type Phosphorous(g P/l water)	Water hardness (mmolCaCO <sub>3</sub> /l)		
	Soft	Medium	Hard
	(<1.5)	(1.5-2.5)	(>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
Multi-component system	0.17	0.32	0.52

**Assessment and verification** The applicant shall provide written statements on compliance, including:

- information on the complexing agents in the product (detail information of the type of phosphorus-content substances added as ingredients);
- information on the recommended dose for different levels of soiling or water hardness (when applicable);
- calculation of the product's total P-content

The proposed changes are focused on the following issues:

- the proposal for including perborates, DTPA, APD and their derivatives. Further input for this section is expected during the 1<sup>st</sup> AHWG meeting.
- "Preservatives" substitute the current restrictions on biocides. This changes is motivated by the difficulties in verification of the current criterion, the need of addressing safe preservatives that do not release or degrade into other hazardous substances and ensuring the not bioaccumulation of the preservatives.
- "Colorants" includes a change in the name from "colouring agents" to "colorants" and the inclusion that no information is needed to be submitted when colorants used in foodstuff are added.
- Phosphonates that are not readily biodegradable are proposed to be excluded. The verification procedure has been changed in accordance.

**Criterion 4 – Packaging**

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

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

Product type	Soft	Medium	Hard
	0-6 °dH	7-13 °dH	> 14 °dH
Powders (g/l washing solution)	0.8	1.4	2.0
Liquids (g/l washing solution)	1.0	1.8	2.5

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

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  $U_i = W_i$ .

$D_i$  = the number of functional units contained in the packaging component (i). The functional unit = dosage in g/l washing solution.

$r_i$  = recycling figure, i.e. the number of times the packaging component (i) is used for the same purpose through a return or refill system.  $r = 1$ , if the packaging is not reused for the same purpose. If the packaging is reused  $r$  is set to 1 unless the applicant can document a higher number.

*Exceptions*

Plastic/paper/cardboard packaging containing more than 80 % recycled material or more than 80 % plastic from renewable origin 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** the applicant shall provide the calculation of the

**a) 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:](#)

Product type \ Water hardness	Soft	Medium	Hard
	<1,5 mmol CaCO <sub>3</sub> /l	1.5 – 2,5 mmol CaCO <sub>3</sub> /l	> 2,5 mmol CaCO <sub>3</sub> /l
Powders	0,8 g	1,4 g	2,0 g
Liquids	1,0 g	1,8 g	2,5 g

Are exempted from this requirement:

- Plastic/paper/cardboard packaging containing more than 80 % recycled materials,
- [Paper/cardboard packaging that comes 80% from certified sustainable sources,](#)
- [Plastic packaging containing more than 80 % plastic from sustainable sources.](#)

**Assessment and verification:** the applicant shall provide the calculation of the WUR of the product. A spreadsheet for this calculation is available on the EU Ecolabel website. 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 applicant shall provide a completed and signed declaration for the content of recycled material in the packaging.

- For paper and cardboard, 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.

- For plastic, packaging is regarded as recycled if the raw material used to make the packaging comes from industrial waste or has been collected from packaging manufacturer at the distribution or at the consumer stage.

The applicant shall provide a completed and signed declaration for the content of

WUR of the product. A spreadsheet for this calculation is available on the EU Ecolabel website. The applicant shall provide a completed and signed declaration for the content of recycled or material from renewable origin 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 3(b) (and combinations hereof) may be used in the plastic packaging.

In order 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

sustainably sourced material in the packaging. For paper and cardboard, the applicant shall provide TBD<sup>7</sup>. For plastic, the applicant shall provide TBD.

The WUR is calculated as follows:

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

Where:

*W<sub>i</sub>*: weight (g) of the primary packaging (i),

*U<sub>i</sub>*: weight (g) of non-recycled and non-sustainably sourced packaging in the primary packaging (i). *U<sub>i</sub>* = *W<sub>i</sub>* unless the applicant can document otherwise,

*D<sub>i</sub>*: number of reference doses contained in the primary packaging (i),

*R<sub>i</sub>*: number of times that the primary packaging (i) can be refilled and used for the same purpose. *R<sub>i</sub>* = 1 (packaging is not reused for the same purpose) unless the applicant can document a higher number.

**b) 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. Pumps are exempted from this requirement.

Table 4: Materials and components excluded from packaging elements

Packaging element	Excluded materials and components <sup>8</sup>
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<sup>7</sup> TBD: to be determined. The acceptable certification schemes for the assessment and verification of this criterion have not been determined yet.

<sup>8</sup> EVA – Ethylene Vinyl Acetate, EVOH – Ethylene vinyl alcohol, HDPE – High-density polyethylene, PET – Polyethylene terephthalate, PETG – Polyethylene terephthalate glycol-modified, PP – Polypropylene, PS – Polystyrene, PVC – Polyvinylchloride

	<p>Label or sleeve</p>	<ul style="list-style-type: none"> <li>- PS label or sleeve in combination material used with a PET, PP or HDPE bottle</li> <li>- PVC label or sleeve in combination with a PET, PP or HDPE bottle</li> <li>- PETG label or sleeve in combination with a PET bottle</li> <li>- Sleeves made of different polymer than the bottle</li> <li>- Labels or sleeves that are metallised or are welded to a packaging body (in mould labelling)</li> </ul>
	<p>Closure</p>	<ul style="list-style-type: none"> <li>- PS closure in combination a with a PET, HDPE or PP bottle</li> <li>- PVC closure in combination with a PET, PP or HDPE bottle</li> <li>- PETG closures and/or closure material with density of above 1 g/cm<sup>3</sup> in combination with a PET bottle</li> <li>- Closures made of metal, glass, EVA</li> <li>- Closures made of silicone. Exempted are silicone closures with a density &lt; 1 g/cm<sup>3</sup> in combination with a PET bottle and silicone closures with a density &gt; 1g/cm<sup>3</sup> in combination with PEHD or PP bottle</li> <li>- Metallic foils or seals which remain fixed to the bottle or its closure after the product has been opened</li> </ul>
	<p>Barrier coatings</p>	<p>Polyamide, EVOH, functional polyolefins, metallised and light blocking barriers</p>
<p><b>Assessment and verification:</b> The applicant shall submit a signed declaration of compliance specifying the material composition of the packaging including the container, label or sleeve, adhesives, closure and barrier coating, and a sample of primary packaging.</p>		
<p>The minor proposed change in WUR aims to promote sustainably sourced raw materials. The currently present specific criteria on plastic packaging are proposed to be removed, while the recyclability of plastic packaging is proposed to be promoted by limiting combinations of materials that can hinder the recycling process.</p>		
<p><b>Criterion 5- Fitness for use</b></p>		
<p>The performance and efficiency of the product must be satisfactory. The product must satisfy the requirements for the user test or internal testing in accordance with Appendix II.</p> <p><b>Assessment and verification:</b> the applicant shall submit a detailed test report to the Competent Body, including information/ documentation. See Appendix II.</p>	<p>Tests shall be carried out to ensure that the product has a satisfactory wash performance at the lowest recommended dosage for the water hardness according to laboratory or user tests. The tests shall be carried out at the water temperature stated in Appendix (to be added) or at the lowest temperature the product claims to be effective at. The test shall be performed by a laboratory</p>	



	<p>complying with Appendix (to be added)</p> <p>The reference product is tested at the lowest recommended dosage that is stated on the packaging. If no dosage instructions are provided, the same dosage is used as for the test product.</p> <p>When applying for rinse aids in combination with dishwasher detergents, the rinse aid shall be used in the test instead of the reference rinse aid. For multifunctional products the applicant must submit documentation providing the effect of the claimed functions.</p> <p><b>Assessment and verification</b> The applicant shall provide documentation confirming that the product has been tested under the standard/protocol conditions. Information should be provided on:</p> <ul style="list-style-type: none"> <li>(a) Type of spots that are representative for the kind of soiled expected in the areas where the products will be marketed.</li> <li>(b) Information on the recommended dosage at the corresponding water hardness and the lowest recommended wash temperature at which the product claims to be effective</li> <li>(c) The product's ability to remove soiling from the surfaces or materials and the effectiveness of other products the detergent shall be used with (eg. rinse aids).</li> <li>(d) Information about the reference product against which the test product has been tested: market leadership, lowest commended dosage or dosage used (if no information is provided) and temperature, date of purchase and date of testing.</li> <li>(e) Documentation confirming the compliance within the laboratory requirements included in Appendix (to be added)</li> </ul> <p>If a user test is performed, the applicant should provide information on:</p> <ul style="list-style-type: none"> <li>(a) the way the test users were selected, all raw data from the tests and the test procedure</li> <li>(b) all reply forms received from the test users and the overall result on the wash performance of the user test specified in a table/a form. The response must be rated in accordance with Appendix (to be added)</li> <li>(c) information on how satisfied the test centre is with visit reporting arrangements and the categories rated.</li> </ul>
	<p>The proposed changes are focused on:</p> <ul style="list-style-type: none"> <li>- information about how to select the reference product against the EU Ecolabel</li> </ul>

	<p>candidate will be tested</p> <ul style="list-style-type: none"> <li>- minimum requirements the certification institution shall fulfilled</li> <li>- a detailed list on the information of the testing product the producer claims and on the reference product selected</li> </ul>
<b>Criterion 6 – Automatic dosage system</b>	
<p>Multi-component systems shall be offered together with an automatic and controlled dosing system.</p> <p>In order to ensure correct dosage in the automatic dosing systems, customer visits must be incorporated as a normal routine for manufacturers/suppliers. These customer visits are performed at all premises at least once a year during the license period; they must include calibration of the dosage equipment. Also, a third party can perform customer visits.</p> <p>In exceptional cases, customer visits may be dispensed with if the distance and method of delivery makes the visit impracticable.</p> <p><b>Assessment and verification:</b> the applicant shall provide a written description of responsibility for, frequency and content of customer visits.</p>	<p>Multi-component systems shall be offered together with an automatic and controlled dosing system.</p> <p>In order to ensure correct dosage in the automatic dosing systems, customer visits must be incorporated as a normal routine for manufacturers/suppliers. These customer visits are performed at all premises at least once a year during the license period; they must include calibration of the dosage equipment. Also, a third party can perform customer visits.</p> <p>In exceptional cases, customer visits may be dispensed with if the distance and method of delivery makes the visit impracticable.</p> <p><b>Assessment and verification:</b> the applicant shall provide a written description of responsibility for, frequency and content of customer visits.</p>
	No content-wise changes are proposed.
<b>Criterion 7 – User instructions</b>	
<p><b>(a) Information on the packaging/product information sheet</b></p> <p>The following recommendations must appear on the packaging, and/or on product information sheet or equivalent:</p> <ul style="list-style-type: none"> <li>– Dose according to the degree of soil, and the water hardness. Follow the dosing instructions.</li> <li>– Using this EU Ecolabelled product according to the dosage instructions will contribute to the reduction of water pollution and waste production.</li> </ul>	<p>The detergent shall be accompanied by instructions for proper use so as to maximise product performance and minimise waste. <b>These instructions shall be legible or include graphical representation or icons and include information on:</b></p> <p><b>a) dosing instructions</b></p> <p>The primary packaging or product information sheet shall include information on the recommended dosage in g or ml for various levels of water hardness and various levels of soiling.</p> <p>The packaging or product information sheet shall indicate the most prevalent water hardness in the area where the product is intended to be marketed or where this information can be found.</p> <p>The applicant shall take suitable steps to help consumers respect the recommended dosage, making available a dosage device and/or indicating the recommended dosage in a well-known metric.</p> <p><b>b) resource saving measures</b></p> <p>The applicant shall recommend washing at the lowest temperature the product claims effectiveness and washing with full loads.</p>

	<p><b>c) packaging disposal information</b> The primary packaging or product information sheet shall include information on the reuse, recycling and/or correct disposal of packaging.</p> <p><b>d) environmental information (voluntary)</b> The following text is recommended to appear on the primary packaging or product information sheet but its use is voluntary: "All detergents have an effect on the environment. Always use the correct dose for maximum effectiveness, the lowest recommended temperature. This will minimize both energy and water consumption and reduce water pollution".</p> <p><b>Assessment and verification:</b> The applicant shall provide a sample of the product label or product information sheet</p>
<p style="text-align: center;"><b><u>(b) Information appearing on the EU Ecolabel</u></b></p> <p>The logo should be visible and legible. The use of the EU Ecolabel logo is protected in primary EU law. The EU Ecolabel registration/licence number must appear on the product, it must be legible and clearly visible.</p> <p>The optional label with text box shall contain the following text:</p> <ul style="list-style-type: none"> <li>— reduced impact on aquatic ecosystems,</li> <li>— limited hazardous substances,</li> <li>— performance tested.</li> </ul> <p>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: <a href="http://ec.europa.eu/environment/ecolabel/documents/logo_guidelines.pdf">http://ec.europa.eu/environment/ecolabel/documents/logo_guidelines.pdf</a></p> <p><b>Assessment and verification (a-b):</b> the applicant shall provide a sample of the product label and/or product sheet, together with a declaration of compliance with this criterion. Product claims shall be documented through appropriate test reports</p>	<p><b>Criterion 8 – Information appearing on the EU Ecolabel</b></p> <p>The logo should be visible and legible. The use of the EU Ecolabel logo is protected in primary EU law. The EU Ecolabel registration/licence number must appear on the product, it must be legible and clearly visible.</p> <p>The optional label with text box shall contain the following text:</p> <ul style="list-style-type: none"> <li>— reduced impact on aquatic ecosystems,</li> <li>— limited hazardous substances,</li> <li>— performance tested.</li> </ul> <p><b>Assessment and verification:</b> the applicant shall provide a sample of the product packaging, including the label</p>
	<p>Separate criteria are proposed for the user information and the information appearing in the EU Ecolabel.</p> <p>The <b>user information</b> criterion accounts for the following changes:</p> <ul style="list-style-type: none"> <li>- information of the dosage regarding the hardness of the water and level of</li> </ul>

	<p>soiling</p> <ul style="list-style-type: none"> <li>- information on the end-of-life of the packaging</li> <li>- recommendations for wash full load and at minimum claimed temperature</li> <li>- environmental information to prevent users from considering the product environmentally innocuous</li> </ul> <p>The <b>information appearing in the EU Ecolabel</b> has been brought in line with the text included in other EU Ecolabel detergents products. It highlights the main environmental improvements of the product.</p>
<b>Criterion NEW - Sustainable sourcing of palm oil, palm kernel oil and their derivatives</b>	
	<p>Ingredients used in the product which are derived from palm oil or palm kernel oil must be sourced from plantations that meet the criteria for sustainable management that have been developed by multi-stakeholder organisations who have a broad based membership including NGOs, industry and government.</p> <p><b>Assessment and verification:</b> the applicant shall provide third-party certifications that the palm oil used in the manufacturing of the product originates from sustainable managed plantations. Certifications accepted shall include RSPO (by identified preserved, segregates or mass balance) or any equivalent scheme based on multi-stakeholder sustainable management criteria. For chemical derivatives of palm oil it is acceptable to demonstrate sustainability for these through book and claim systems such as GreenPalm or equivalent.</p>

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## 7 REVISION OF MAIN DECISION TEXT

### 7.1 Name, definition and scope for EU Ecolabel

#### Current definition:

The product group 'Industrial and Institutional Automatic Dishwasher Detergents' shall comprise single and multi-component dishwasher detergents, rinse and pre-soaks, designed for use in professional dishwashers.

The following products are excluded from the scope of this product group: consumer automatic dishwasher detergents, 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.

#### Proposal for new definition and scope

The product group 'Industrial and Institutional Automatic Dishwasher Detergents' shall comprise single and multi-component dishwasher detergents, rinse and pre-soaks, designed for use in professional dishwashers. [Multi-component systems may incorporate a number of products including pre-soaks and rinsing agents.](#)

The following products are excluded from the scope of this product group: consumer automatic dishwasher detergents, 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.

#### Rationale and discussion

The market analysis, the stakeholder survey and review of other ecolabels and voluntary agreements for industrial and institutional automatic dishwasher detergents have shown that the current scope are in line with the current state of the professional dishwasher detergent market and no further issues were raised during consultation. *Further information on these can be found in Sections 3.2, 2.3 and 2.5 respectively of the Preliminary Report.*

The definition is proposed to be expanded with examples to clarify what makes up a multi-component system in the case of industrial and institutional dishwasher detergents.

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## 7.2 Definitions

Current definition text
(inexistent)

Proposal for definitions text
(1) "ingoin substances and mixtures" means <ul style="list-style-type: none"><li>- biocides, fragrances, colouring agents, and mixtures thereof, regardless of concentration in the final formulation,</li><li>- substances and mixtures intentionally added, by-products and impurities from raw materials, the concentration of which equals or exceeds 0,010% by weight of final formulation,</li></ul> (2) "primary packaging" means packaging conceived so as to constitute the smallest sales unit of distribution to the final user or consumer at the point of purchase in direct contact with the content, including label where applicable.



### Rationale and discussion

*For further information on the update of definitions listed, refer to Section 4.3 of the Technical Annexe.*

Several definitions are proposed to be added in the main decision text in order to clarify and simply the subsequent wording of criteria, including a definition for "ingoin substances and mixtures" to provide information on the measurement thresholds for the different types of substances and mixtures covered.

The definition for "primary packaging" is proposed to be moved from the packaging criterion to the definition section. The definitions of primary packaging for industrial and institutional products are different as single dose products represent a less significant share of the market for these dishwasher detergents than for those aimed at domestic use.

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## 8 TECHNICAL REPORT / CRITERIA PROPOSALS

### 8.1 Assessment and verification requirements and measurement thresholds

#### Current assessment and verification requirements and measurement thresholds

##### 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) etc., as appropriate.

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

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

Appendix (to be added) makes reference to the detergent ingredient database (DID list) which contains the most widely used ingoing substances 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 ingoing substances. 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

Compliance with the ecological criteria is required for substances intentionally added, as well as for by-products and impurities from raw materials, the concentration of which equals or exceeds 0,010 % by weight of final formulation.

For biocides and colouring agents compliance with the criteria is required regardless of their concentration.

Substances meeting the threshold limit as listed above are hereby referred to as 'Ingoing substances'.

#### Proposal for assessment and verification requirements and measurement thresholds

##### a) Requirements

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

Where the applicant is required to provide declarations, documentation, analyses, test reports, or other evidence to show compliance with the criteria, [these may originate from the applicant or his supplier\(s\) or both](#).

Where possible, the testing shall be performed by laboratories that meet the general requirements of European Standard 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.

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

The Appendix (to be added) makes reference to the "Detergent Ingredient Database" list (DID list) which contains the most widely used ingredients 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

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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.

The following information shall be provided to the competent body:

(i) The full formulation of the product indicating trade name, chemical name, CAS no. and INCI designations, DID no.2, the ingoing quantity including and excluding water, the function and the form of all ingredients regardless of concentration;

(ii) safety data sheets for each ingoing substance or mixture in accordance with Regulation (EC) No 1907/2006 of the European Parliament and of the Council.

**b) Measurement thresholds**

Compliance with the ecological criteria is required for all ingoing substances, with the exception of compliance with criterion X(b) and X(c) for preservatives, colorants and fragrances which is requested when their concentration equals or exceeds 0,010% by weight in the final formulation.

**Rationale and discussion**

**a) Requirements**

The text regarding the assessment and verification requirements is proposed to be aligned with the text from the EU Ecolabel on Rinse-off Cosmetics. One of the most significant changes proposed is the addition of the text that clarifies what is to be provided to the competent bodies, it was previously found in the section on the assessment and verification of the functional unit. This change simplifies the reading of the criteria and harmonises the text with the ones for the other product groups being revised.

**b) Measurement thresholds**

The measurement threshold is the concentration of ingredients in the product for which there is a requirement for documentation of compliance with the ecological criteria. It is proposed to harmonise the measurement thresholds for all the EU Ecolabels in the detergents group and the EU Ecolabel for rinse-off cosmetics. The new text and thresholds are discussed in the Technical Annex Section 5.1.

In the specific case of the EU Ecolabel for industrial and institutional automatic dishwasher detergents, the new text proposes the same thresholds as in the current one except in the case of sections (b) and (c) of the criterion on restricted substances. In the current text, fragrances, preservatives and colouring agents are to be taken into account regardless of concentration for all requirements and in the proposed text, the measurement thresholds for these substances and mixtures is set to 0,01% as it is difficult to guarantee accuracy at lower limits.



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## 8.2 Functional unit (reference dosage)

### Current requirements for functional unit

The functional unit for this product group shall be expressed in g/l washing solution (grams per litre washing solution)

*Requirements relating to assessment and verification of the functional unit:*

The full formulation indicating trade name, chemical name, CAS No, DID No (\*), the ingoing quantity including and excluding water, the function and the form of all the ingoing substances (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 ingoing substance shall be submitted to the competent body in accordance with Regulation (EC) No 1907/2006 of the European Parliament and of the Council.

*Parts A and B of the DID list can be found on the EU Ecolabel website:  
[http://ec.europa.eu/environment/ecolabel/documents/did\\_list/didlist\\_part\\_a\\_en.pdf](http://ec.europa.eu/environment/ecolabel/documents/did_list/didlist_part_a_en.pdf)  
[http://ec.europa.eu/environment/ecolabel/documents/did\\_list/didlist\\_part\\_b\\_en.pdf](http://ec.europa.eu/environment/ecolabel/documents/did_list/didlist_part_b_en.pdf)*

### Proposal for reference dosage

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

Highest dosage recommended by the manufacturer to produce one litre of washing solution based on water hardness (indicated in g/l washing solution or ml/l washing solution).

### Rationale and discussion

A functional unit in the case of detergents for dishwashers is the amount of dishes that should be washed using a reference dosage. A reference dosage is the quantity of product used when calculating compliance with ecological requirements such as biodegradability and CDV. Further information on functional units and reference dosage in EU Ecolabels related to detergents can be found in the Technical Annexe Section 6.

In the case of industrial and institutional automatic dishwasher detergents, it is proposed to remove the paragraph on the functional unit and to introduce the notion of "reference dosage" as it is this quantity that should be used when calculating compliance with the different requirements in the EU Ecolabel.

## 8.3 Criterion 1: Toxicity to aquatic organisms: Critical Dilution Volume (CDV)

### Current criterion 1

The critical dilution volume ( $CDV_{\text{chronic}}$ ) of a single or multi-component system must not exceed the following limits (at the highest recommended dose):

CDV at the highest recommended dosage	Soft	Medium	Hard
Product type	0-6 °dH	7-13 °dH	> 14 °dH
Pre-soaks	2000	2000	2000
Dishwasher detergents	3000	5000	10,000
Multi-component system	3000	4000	7000
Rinse aids	3000	3000	3000

The method for calculation of CDV value is described in the technical annexe.

Biocides and colouring agents present in the product shall also be included in the CDV calculation even if the concentration is lower than 0.010 % (100 ppm)

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

- hydrogen peroxide ( $H_2O_2$ ) – not to be included in calculation of CDV
- peracetic acid – to be included in the calculation as acetic acid.

**Assessment and verification:** the applicant shall provide the calculation of the  $CDV_{\text{chronic}}$  of the product. A spreadsheet for calculation of the CDV value is available on the 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.

### Proposal for criterion 1 – "Toxicity to aquatic organisms"

The critical dilution volume (CDV) of the product must not exceed the following limits for the reference dosage:

Water hardness Product type	Soft (<1,5 mmol CaCO <sub>3</sub> /l)	Medium (1,5 – 2,5 mmol CaCO <sub>3</sub> /l)	Hard (>2,5 mmol CaCO <sub>3</sub> /l)
Pre-soaks	2 000	2 000	2 000
Dishwasher detergents	3 000	5 000	10 000
Multi-component systems	3 000	4 000	7 000
Rinse aids	3 000	3 000	3 000

**Assessment and verification:** Calculation of the CDV of the product. A spreadsheet for calculation of the CDV value is available on the EU Ecolabel website. The Critical Dilution Volume (CDV) is calculated for all ingoing substances and mixtures (i) in the product using the following equation:

$$CDV = \sum CDV(i) = 1000 \cdot \sum dosage(i) \cdot \frac{DF(i)}{TF(i)}$$

Where:

$dosage(i)$ : weight (g) of the substance or mixture  $i$  in the reference dose,

$DF(i)$ : degradation factor for the substance or mixture  $i$

$TF(i)$ : toxicity factor for the substance or mixture  $i$

The values of  $DF(i)$  and  $TF(i)$  shall be as given in the DID list Part A (Appendix I). If a substance or mixture is not included in the DID list Part A, the applicant shall estimate the values follow the approach described in the DID list Part B (Appendix I).

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

following substances:

- hydrogen peroxide (H<sub>2</sub>O<sub>2</sub>) – not to be included in calculation of CDV
- peracetic acid – to be included in the calculation as acetic acid.

## Rationale and discussion

Detergents have great potential to cause disturbances in aquatic ecosystems as they cause chemical emissions to water during their entire life cycle. For this reason, EU Ecolabels limit the amount of emissions due to EU Ecolabel products. Critical Dilution Volume (CDV) is used in the current EU Ecolabels related to detergents to assess toxicity to aquatic organisms. It is proposed to keep this assessment method in this revision. Further description of CDV and discussion of other assessment methods can be found in the Technical Annex Section 8.1.

To align with the other EU Ecolabels related to detergents, it is proposed to shorten the criterion's name to "toxicity to aquatic organisms".

For this product group the CDV limit is set for different levels of water hardness and for different product types. This is because the required dosage is affected by the level of water hardness and can be adjusted for in automatically dosed dishwashing machines, a parameter that is not generally available in domestic units.

Stakeholders recommended that CDV limits should be stricter for multi-component systems. However, only two CDV values have been acquired for this revision (Table 5), which is not sufficient to substantiate any value change proposals, especially considering that the values are not for multi-component systems.

Table 5: CDV data gathered for IIDDs

	CDV		
	Soft	Medium	Hard
IIDD 1	770	2 100	3 300
IIDD 2	2 300	2 300	2 900

A review of other ecolabels has shown that only Nordic Swan also proposes a criterion on toxicity to aquatic organisms that is assessed using the CDV method. The current Nordic Swan criteria propose limit values for acute and chronic CDV, depending whether chronic information is available for all the substances or not (Table 6). No differentiation is made in terms of water hardness, but generally water in Nordic countries is considered to be soft.

Table 6: CDV levels for Nordic Swan

	CDV	
	CDV <sub>acute</sub>	CDV <sub>chronic</sub>
<b>DD and presoaks</b>	5 000	1 900
<b>Rinse aids</b>	8 000	3 000

As such, no comparison can be made between the values found in the Nordic Swan criteria and the one in the EU Ecolabel, although it should be noted that no differentiation exists between detergents and multi-component systems.

Thus, no changes are proposed to be made to the maximum CDV limits indicated in the criterion. The wording of the text is proposed to be harmonised with the one found in other EU Ecolabels. Water hardness is proposed to be referenced in mmol CaCO<sub>3</sub>/l, as indicated in Technical Annex Section 7 the ranges commonly used with mmol CaCO<sub>3</sub>/l are different than those that are indicated in the current text with °dH.

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**Consultation questions**

1	Should the CDV limits for multi-component products be stricter? If so please propose a suitable limit?
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## 8.4 Criterion 2: Biodegradability

### Current criterion 2

#### a) Biodegradability of surfactants:

All surfactants must be biodegradable under aerobic and anaerobic conditions

#### b) Biodegradability of organic substances:

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:

#### aNBO

Product type (g/l washing solution)	Soft	Medium	Hard
	0-6 °dH	7-13 °dH	> 14 °dH
Pre-soaks	0.4	0.4	0.4
Dishwasher detergents/ Multi-component system	0.4	0.4	0.4
Rinse aids	0.04	0.04	0.04

#### anNBO

Product type (g/l washing solution)	Soft	Medium	Hard
	0-6 °dH	7-13 °dH	> 14 °dH
Pre-soaks	0.4	0.4	0.4
Dishwasher detergents/ Multi-component system	0.6	1.0	1.5
Rinse aids	0.04	0.04	0.04

Note that TAED should be considered anaerobically biodegradable.

**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 use in calculating aNBO and anNBO values is available on the EU Ecolabel website.

For both surfactants and aNBO and anNBO values reference should be done to the DID List. For ingoing substances 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 as described in Appendix I.

Note that TAED should be considered anaerobically biodegradable.

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

1. Readily degradable and has low adsorption ( $A < 25\%$ ); or
2. Readily degradable and has high desorption ( $D > 75\%$ ); or
3. Readily degradable and non-bioaccumulating.

Testing for adsorption/desorption may be conducted in accordance with OECD guidelines 106.

### Proposed criterion 4 – "Biodegradability"

#### a) Biodegradability of surfactants

All surfactants shall be biodegradable under aerobic conditions.

All non-ionic and cationic surfactants shall be biodegradable under anaerobic conditions.

#### b) Biodegradability of organic substances and mixtures

The content of organic substances and mixtures 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 washing solution)**

Product type	Water hardness	Soft	Medium	Hard
		<1,5 mmol CaCO <sub>3</sub> /l	1,5 – 2,5 mmol CaCO <sub>3</sub> /l	> 2,5 mmol CaCO <sub>3</sub> /l
Pre-soaks		0,4	0,4	0,4
Dishwasher detergents/ Multi-component system		0,4	0,4	0,4
Rinse aids		0,04	0,04	0,04

**anNBO (g/l washing solution)**

Product type	Water hardness	Soft	Medium	Hard
		<1,5 mmol CaCO <sub>3</sub> /l	1,5 – 2,5 mmol CaCO <sub>3</sub> /l	> 2,5 mmol CaCO <sub>3</sub> /l
Pre-soaks		0,4	0,4	0,4
Dishwasher detergents/ Multi-component system		0,6	1,0	1,5
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 calculations of aNBO and anNBO for the product. A spreadsheet for use in calculating aNBO and anNBO values is available on the EU Ecolabel website.

For both surfactants and aNBO and anNBO values, reference shall be made 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 as described in Appendix I.

In the absence of documentation in accordance with the above requirements, an ingoing substances and mixtures other than a surfactant may be exempted from the requirement for anaerobic degradability if one of the following three alternatives is fulfilled:

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

Testing for adsorption/desorption may be conducted in accordance with OECD guidelines 106.

## Rationale and discussion

In the current EU Ecolabel industrial and institutional automatic dishwasher detergents the biodegradability of surfactants and organic substances is considered. As explained in the Technical Annex Section 9.1, the use of non-biodegradable (aNBO, anNBO) ingredients should be limited as substances which do not degrade rapidly in the environment have the potential to exert toxicity. A limitation (i.e. having maximum concentrations) allows for flexibility with formulations whilst reducing the risk to the environment.

As six EU Ecolabels related to detergents are being revised at the same time and as these products often have similar formulations, it is judicious to consider the harmonisation of their criteria. In the case of biodegradability, the current six EU Ecolabel criteria approach the subject using three different approaches and stakeholder consultation has yielded a multitude of opinions. It has thus been decided that a discussion during the 1<sup>st</sup> AHWG meeting will be conducted. As a starting point for the harmonised approach the criterion included in the most recently voted criteria for industrial and institutional products (laundry and dishwasher detergents) is proposed. In this sense the current criterion for IIDD is proposed to be kept. It requires aerobic and anaerobic degradability of surfactants and limits the amount of non-aerobically and non-anaerobically degradable organics. At present the values for aNBO and anNBO of the products are collected. This exercise will help evaluating validity of

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the current thresholds. The criterion on biodegradability will be revised following discussions with stakeholders.

Water hardness is proposed to be referenced in mmol CaCO<sub>3</sub>/l, as indicated in Technical Annexe Section 7.1 the ranges commonly used with mmol CaCO<sub>3</sub>/l are different than those that are indicated in the current text with °dH.

<b>Consultation questions</b>	
1	Do you agree with keeping the current criterion?
2	What would be the appropriate limits for aNBO and anNBO? Could stakeholders please share with the project team data on the amount of aNBO and anNBO organic substances and mixtures in the product groups covered?

## 8.5 Criterion 3: Excluded or limited substances and mixtures

### Current criterion 3a Specified excluded ingoing substances

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

- EDTA (ethylenediaminetetraacetate)
- fragrances
- reactive chlorine compounds
- APEO (alkylphenolethoxylates) and APD (alkylphenols and derivatives thereof).

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

### Proposal for criterion X(a) – "Specified excluded ingoing substances and mixtures"

The product shall not be formulated or manufactured using any of the following compounds:

- (ix) Phosphates
- (x) Phosphonates that not are readily biodegradable
- (xi) Ethylenediaminetetraacetate (EDTA) [and its salts](#)
- (xii) Fragrances
- (xiii) Reactive chlorine compounds
- (xiv) Alkylphenol ethoxylates (APEO) and alkylphenol derivatives (APD)
- (xv) [Perborates](#)
- (xvi) [Diethylenetriaminepentaacetic acid \(DTPA\)](#)

**Assessment and verification:** the applicant shall provide

a) a signed declaration of compliance supported by declarations from manufacturers of mixtures, as appropriate, confirming that the listed substances and/or mixtures have not been included in the product.

b) written statements on compliance, including:

- information on the complexing agents in the product (detail information of the type of phosphonates added as ingredients);
- information for the biodegradability of the phosphonates. A spreadsheet for use in calculating aNBO values is available on the EU Ecolabel website.

For aNBO values reference should be done to the DID List. For phosphonates which are not included in the most updated DID list, the relevant information from literature or other sources, or appropriate test results, showing that they are aerobically biodegradable shall be provided as described in Appendix I.

### Rationale and discussion

The requirement (a) *Specified excluded ingoing substances and mixtures* lists substances of concern, which (due to their properties and related impacts) are undesired in Ecolabel products. Among them there are certainly also substances which are classified or excluded above the concentration of 0,01% by sub-section (b) *Hazardous substances and mixtures* of this criterion. Nevertheless, due e.g. lack of harmonised classification and their potential hazard, it seems reasonable to cover them under this section ensuring that they are completely excluded from the EU Ecolabel products. We are conscious that at this stage overlaps in criteria regarding substances are possible. This will be tackled at a later stage of the process.

The information and grounds that lead to the exclusion of the following substances and substance groups are summarized in Technical Annexe Section 10.1.



### Harmonisation with DD product group

Where possible, the list of specified excluded ingoing substances should be harmonised between the IIDD and DD product groups. The Commission Statement following the previous revision on of the requirements expressed that the possibility of a closer alignment between the Industrial and Institutional and Consumer criteria should be investigated. As a consequence the substances to be excluded in various product groups will be discussed in a horizontal session in the 1<sup>st</sup> AHWG meeting.

At present the following substances are proposed to be added to the excluded substances list based on initial feedback and information collected (Further consideration of the scope if this criterion is needed):

- Phosphates
- Phosphonates that are not readily biodegradability
- Perborates
- Diethylenetriaminepentaacetic acid (DTPA) and their derivatives

Consultation questions	
1	Is DTPA used in I&I dishwasher detergents without any alternative?
2	Should perborates be explicitly excluded from the IIDD (and DD) product group?
3	Are additional exclusions required for other substances?

Current criterion 3b	
<p>According to Article 6(6) of the Regulation (EC) No 66/2010 on the 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. The risk phrases below generally refer to substances. However, if information on substances cannot be obtained, the classification rules for mixtures apply.</p> <p>List of hazard statements:</p>	
GHS Hazard Statement	EU Risk Phrase
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
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	R5R593
EUH059 Hazardous to the ozone layer	R29
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
<b>Sensitising substances</b>	
H334: May cause allergy or asthma symptoms or breathing difficulties if inhaled	R42
H317: May cause allergic skin reaction	R43

Note that this criterion also applies to known degradation products such as formaldehyde from formaldehyde releasers.

Substances or mixtures which change their properties through processing (e.g. become no longer bioavailable, or undergo chemical modification in a way that removes the previously identified hazard) are exempted from the above requirement.

The final product must not be labelled according to the hazard statements above.

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

Surfactants In concentrations <15 % in the final product	H400 Very toxic to aquatic life	R50
Surfactants In concentrations <25 % in the final product	H412 Harmful to aquatic life with long-lasting effects	R52-53
Biocides used for preservation purposes (*) (only for liquids with pH between 2 and 12 and maximum 0.10 % w/w of active material)	H331: Toxic if inhaled H334: May cause allergy or asthma symptoms or breathing difficulties if inhaled H317: May cause allergic skin reaction H400: Very toxic to aquatic life	R50-53 R51-53 R52-53
Enzymes (**)	H334: May cause allergy or asthma symptoms or breathing difficulties if inhaled H317: May cause allergic skin reaction H400: Very toxic to aquatic life	R43 R42
NTA as an impurity in MGDA and GLDA (***)	H351 suspected of causing cancer	R40

(\*) Derogation is only for Criterion 3(b). Biocides shall comply with Criterion 3(d).

(\*\*) 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 demonstrate compliance with this criterion by providing a declaration on the non-classification of each ingoing substance into any of the hazard classes associated to the hazard statements referred to in the above list in accordance with Regulation

(EC) No 1272/2008, as far as this can be determined, as a minimum, from the information meeting the requirements listed in Annex VII to Regulation (EC) No 1907/2006. This declaration shall be supported by summarised information on the relevant characteristics associated to the hazard statements referred to in the above list, to the level of detail specified in Sections 10, 11 and 12 of Annex II to Regulation (EC) No 1907/2006 (Requirements for the Compilation of Safety Data Sheets).

Information on intrinsic properties of substances may be generated by means other than tests, for instance through the use of alternative methods such as *in vitro* methods, by quantitative structure activity models or by the use of grouping or read-across in accordance with Annex XI to Regulation (EC) No 1907/2006. The sharing of relevant data is strongly encouraged.

The information provided shall relate to the forms or physical states of the substance or mixtures as used in the final product.

For substances listed in Annexes IV and V to REACH, exempted from registration obligations under Article 2(7)(a) and (b) of Regulation (EC) No 1907/2006 REACH, a declaration to this effect will suffice to comply with the requirements set out above.

### Proposal for criterion X(b) – "Hazardous substances and mixtures"

According to Article 6(6) of Regulation (EC) No 66/2010, the EU Ecolabel may not be awarded to any product that contains substances meeting criteria for classification with the hazard statements specified in the list below in accordance with Regulation (EC) No 1272/2008 of the European Parliament and of the Council or substances referred to in Article 57 of Regulation (EC) No 1907/2006. The hazard statements in Table 2 generally refer to substances. However, if information on substances cannot be obtained, the classification rules for mixtures apply.

Substances or mixtures which change their properties through processing and thus become no longer bioavailable, or undergo chemical modification in a way that removes the previously identified hazard are exempted from criterion X(b).

Table 2: Hazard statements

GHS Hazard Statement
H300 Fatal if swallowed
H301 Toxic if swallowed
H304 May be fatal if swallowed and enters airways
H310 Fatal in contact with skin
H311 Toxic in contact with skin
H330 Fatal if inhaled
H331 Toxic if inhaled
H340 May cause genetic defects
H341 Suspected of causing genetic defects
H350 May cause cancer
H350i May cause cancer by inhalation
H351 Suspected of causing cancer
H360F May damage fertility
H360D May damage the unborn child
H360FD May damage fertility. May damage the unborn child
H360Fd May damage fertility. Suspected of damaging the unborn child
H360Df May damage the unborn child. Suspected of damaging fertility
H361f Suspected of damaging fertility
H361d Suspected of damaging the unborn child
H361fd Suspected of damaging fertility. Suspected of damaging the unborn child.
H362 May cause harm to breast fed children
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

H400 Very toxic to aquatic life
H410 Very toxic to aquatic life with long-lasting effects
H411 Toxic to aquatic life with long-lasting effects
H412 Harmful to aquatic life with long-lasting effects
H413 May cause long-lasting harmful effects to aquatic life
EUH059 Hazardous to the ozone layer
EUH029 Contact with water liberates toxic gas
EUH031 Contact with acids liberates toxic gas
EUH032 Contact with acids liberates very toxic gas
EUH070 Toxic by eye contact
<b>Sensitising substances</b>
H334: May cause allergy or asthma symptoms or breathing difficulties if inhaled
H317: May cause allergic skin reaction

This criterion applies to all ingredients present in concentrations  $\geq 0.01\%$ , including preservatives, colouring agents and fragrances.

For industrial and institutional automatic dishwasher products, the substances in Table 3 are exempted from the obligation in Article 6(6) of Regulation (EC) No 66/2010 following application of Article 6(7) of the same Regulation.

Table 3: Derogated substances - To be discussed in the 1st AHWG meeting

Derogated substance	H phrases
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**Assessment and verification:** the applicant shall demonstrate compliance with criterion X(b) for any ingoing substance or mixture present at concentrations greater than 0,010% in the product.

A declaration of compliance shall be provided by the applicant supported, where appropriate, by the declarations from producer(s) of the raw materials that none of these ingoing substances and/or mixtures meet the criteria for classification with one or more of hazard statements in Table x in the form(s) and physical state(s) they are present in the product.

The following technical information related to the form(s) and physical state(s) of the ingoing substances and/or mixtures as present in the product shall be provided to support the declaration of non-classification:

- (i) For substances that have not been registered under Regulation (EC) No 1907/2006 and/or which do not yet have a harmonised CLP classification: Information meeting the requirements listed in Annex VII to that Regulation;
- (ii) For substances that have been registered under Regulation (EC) No 1907/2006 and which do not meet the requirements for CLP classification: Information based on the REACH registration dossier confirming the non-classified status of the substance;
- (iii) For substances that have a harmonised classification or are self-classified: safety data sheets where available. If these are not available or the substance is self-classified then information shall be provided relevant to the substances hazard classification according to Annex II to Regulation (EC) No 1907/2006;
- (iv) In the case of mixtures: safety data sheets where available. If these are not available then calculation of the mixture classification shall be provided according to the rules under Regulation (EC) No 1272/2008 together with information relevant to the mixtures hazard classification according to Annex II to Regulation (EC) No 1907/2006.

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

A declaration on the presence of ingoing substances that fulfil the derogation conditions shall be provided by the applicant, supported, where appropriate, by declarations from the producer(s) of the

raw materials. Where required for the derogation, the applicant shall confirm the concentrations of these ingoing substances in the final product.

#### Consultation questions

1 Do you have information which could substantiate keeping/removing the current derogations.

#### Current criterion 3c

##### **(c) Substances listed in accordance with Article 59(1) of Regulation (EC) No 1907/2006:**

No derogation from the exclusion in Article 6(6) 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](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.

##### **Proposal for criterion 3c – "(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 Regulation (EC) No 66/2010 shall be given concerning ingoing substances identified as substances of very high concern and included in the list provided for in Article 59(1) of Regulation (EC) No 1907/2006<sup>9</sup>, present in the product in concentrations higher than 0.010% (weight by weight).

**Assessment and verification:** *reference to the list of substances identified as substances of very high concern shall be made on the date of application. The applicant shall provide the full formulation of the product to the competent body. The applicant shall also provide a declaration of compliance with criterion X(c), 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.*

#### Rationale and discussion

No content-wise changes are proposed. The text is proposed to be aligned with that of the corresponding criterion in the ROC criteria.

#### Current criterion 3d

##### **(d) Specified limited ingoing substances - 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

<sup>9</sup> [http://echa.europa.eu/chem\\_data/authorisation\\_process/candidate\\_list\\_table\\_en.asp](http://echa.europa.eu/chem_data/authorisation_process/candidate_list_table_en.asp)

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of any biocides added, together with information on their exact concentration in the product. The manufacturer or supplier of the biocides shall provide information on the dosage necessary to preserve the product.

(ii) 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 the texts and layouts used on each type of packaging and/or an example of each different type of packaging to the competent body.

(iii) The product may contain biocides provided that they are not bioaccumulating. A biocide is not considered bioaccumulating if  $BCF < 100$  or  $\log K_{ow} < 3.0$ . If both BCF and  $\log K_{ow}$  values are available, the highest measured BCF value shall be used.

**Assessment and verification:** the applicant shall provide copies of the material safety data sheets of any biocide added, together with information on their BCF and/or  $\log K_{ow}$  values.

### Proposal for criterion 3d – "Preservatives"

(iv) The product may contain preservatives provided that they are not bioaccumulating. A preservative is not considered bioaccumulating if  $BCF < 100$  or  $\log Pow < 3.0$ . If both BCF and  $\log K_{ow}$  values are available, the highest measured BCF value shall be used.

(v) Preservatives in the product shall not release or degrade to substances that are classified in accordance with the requirements of criterion x(b) Hazardous substances and mixtures.

(vi) 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 a signed declaration of compliance, together with copies of the safety data sheets of any preservative added, and information on its BCF and/or  $\log K_{ow}$  values. The applicant shall provide also artwork of the packaging.

### Proposed changes

Biocides are used in detergent products for preservation purposes. They prevent the product from spoiling during storage by preventing the growth of microorganisms. However, the use of biocides in detergent products is a cause for concern; they are highly toxic to aquatic organisms and can also produce hypersensitivity and allergies (for background information see Section 10.4 of the Technical Annexe).

In the current criteria the following changes are proposed:

- The name of sub-criterion is proposed to be changed to 'Preservatives'.
- The statement "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" is proposed to be removed as CBs mentioned in the ROC criteria development process that they cannot verify the compliance with this requirement and it should be removed.
- Finally, in the recent criteria development it was pointed out that sometimes preservatives may release or degrade to substances that are even more hazardous than the preservatives themselves. Therefore an additional requirement is proposed for consideration: *Preservatives in the product shall not release or degrade to substances that classified in accordance with the requirements of criterion x(b) Hazardous substances and mixtures.*

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### Current criterion 3e

#### (e) Colouring agents

Colouring agents allowed in the product must not be bioaccumulating. In the case of colouring agents approved for use in foodstuffs it is not necessary to submit documentation of bioaccumulation potential. A colouring agent is considered not bioaccumulating if  $BCF < 100$  or  $\log K_{ow} < 3.0$ . If both BCF and  $\log K_{ow}$  values are available, the highest measured BCF value shall be used.

**Assessment and verification:** the applicant shall provide copies of the material safety data sheets of any colouring agents added, or documentation to ensure that the colouring agent is approved for use in foodstuff.

### Proposal for criterion 3e – "Colorants"

Colorants in the product must not be bioaccumulating. A colorant is considered not bioaccumulating if  $BCF < 100$  or  $\log P_{ow} < 3.0$ . If both 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 bioaccumulation potential.

**Assessment and verification:** the applicant shall provide copies of the safety data sheets of any colorant added together with information on its BCF and/or  $\log K_{ow}$  value, or documentation to ensure that the colouring agent is approved for use in food.

### Rationale and discussion

No content-wise changes are proposed. For more information on colorants see Section 10.6 of the Technical Annexe.

### Current criterion 3f

#### (f) Enzymes

Enzymes must be in liquid form or dust-free granulate. Enzymes must be free from micro-organism remnants from manufacture.

**Assessment and verification:** the applicant shall provide copies of the material safety data sheets of any enzyme added, together with documentation to ensure that the enzyme is free from micro-organism remnants.

### Proposal for criterion 3f – "Enzymes"

No change is proposed.

### Current criterion 3g

### **(g) Phosphorous**

The total quantity of phosphates and other phosphorous compounds must not exceed the limit values specified in table, calculated in grams of phosphorous per litre water

The highest recommended dosage shall be used for the phosphorous calculations.

Product type Phosphorous(g P/l water)	Soft	Medium	Hard
	0-6 °dH	7-13 °dH	> 14 °dH
Pre-soaks	0.08	0.08	0.08
Dishwasher detergents	0.15	0.30	0.50
Rinse aids	0.02	0.02	0.02
Multi-component system	0.17	0.32	0.52

**Assessment and verification:** the applicant shall provide documentation to ensure that the limit in the above table is fulfilled.

### **Proposal for criterion – Phosphorus content**

The total quantity of phosphorus compounds must not exceed the limit values specified in the table below:

Product type (g P/l water)	Water hardness (mmolCaCO <sub>3</sub> /l)		
	Soft (<1.5)	Med (1.5-2.5)	Hard (>2.5)
Pre-soaks	0.08	0.08	0.08
Detergents	0.15	0.30	0.50
Rinse aids	0.02	0.02	0.02
Multicomp system	0.17	0.32	0.52

**Assessment and verification:** The applicant shall provide written statements on compliance, including:

- information on the complexing agents in the product (detail information of the type of phosphorus-content substances added as ingredients);
- information on the recommended dose for different levels of soiling or water hardness (when applicable);
- calculation of the product's total P-content

### **Rationale and discussion**

The current evidences confirm that eutrophication caused by the use of phosphorus content compounds and in particular phosphates is still a subject of high relevance. Further information can be found in the Technical Annex Section 10.1.1

Phosphates and phosphonates are widely used as complexing agents in dishwasher detergents for private and professional uses, but at the time being there are alternative on the market that are reported to work well such as MGDA and GLDA. The presence of alternative compounds and the environmental impacts associated with the use of phosphates triggers the revision and new proposal of the EU Ecolabel criterion. The limit for phosphorus compounds remains with a total ban for phosphates and phosphonates that are not aerobically biodegradable.

Table 7 compares selected schemes. The EU Ecolabel is the only one that makes more than two distinctions in the total phosphorus content depending on the type of product and the hardness of the water, although other schemes also include conversion factors for water hardness. Comparing first the level of strictness set for the dishwasher detergents, it can be seen that the Nordic labelling has the strictest limits, reported as soft-water. Even if the conversion factors reported for laundry detergents in the Nordic Labelling scheme are used, the thresholds for phosphorus content in the medium and hard water hardness remain the lowest ones. On the other hand, the Environmental choice label from New Zealand sets up thresholds for dishwasher detergents much higher than the current EU Ecolabel. This scheme provides the values for soft water hardness and the conversion factors for other hardness.



The current EU Ecolabel sets the values in between both schemes, but these thresholds refer to total phosphates and phosphorus compounds. In order to be in line with other EU Ecolabels schemes for detergents and the horizontal approach to revise these phosphorus related criteria, the new proposal EU Ecolabel criteria proposes to keep the limit for total phosphorus-content, but to set a ban for phosphates and phosphonates that are not aerobically biodegradable.

During the stakeholder consultation<sup>10</sup> one stakeholder claimed the feasibility of producing phosphate-free detergents, as it is for consumer dishwasher detergents. Considering the other agents present in the IIDD criteria set, it can be seen that the current EU Ecolabel criteria already stands for the strictest limits. Therefore no changes are proposed for these agents.

Table 7: Summary of the phosphorus ecolabel criteria in selected schemes

Label	Criterion																								
Nordic labelling	The total content of <b>phosphorus</b> in the product is limited to:																								
	<table border="1"> <thead> <tr> <th>Product type (g/l water)</th> <th>P (soft water)</th> <th>P (medium water)<sup>11</sup></th> <th>P (hard water)</th> </tr> </thead> <tbody> <tr> <td>Dishwasher detergents and pre-soaks</td> <td>0.08</td> <td>0.104</td> <td>0.128</td> </tr> <tr> <td>Rinse aids</td> <td>0.04</td> <td>0.04</td> <td>0.04</td> </tr> </tbody> </table>	Product type (g/l water)	P (soft water)	P (medium water) <sup>11</sup>	P (hard water)	Dishwasher detergents and pre-soaks	0.08	0.104	0.128	Rinse aids	0.04	0.04	0.04												
	Product type (g/l water)	P (soft water)	P (medium water) <sup>11</sup>	P (hard water)																					
Dishwasher detergents and pre-soaks	0.08	0.104	0.128																						
Rinse aids	0.04	0.04	0.04																						
The total content of <b>phosphonates/phosphonic</b> acids must not exceed the limits specified below: Dishwasher detergents and pre-soaks: 0.01 g/l water Rinse aids: 0.006g/l water																									
Env. Choice NZ	Total <b>phosphorus, NTA or alternatively EDTA may be included in the dishwasher detergents, pre-soaking liquid and drying agents</b> must not exceed the following quantities:																								
	<table border="1"> <thead> <tr> <th>Product type (gP/L solution)</th> <th>P (in soft water)</th> <th>P (medium water)<sup>12</sup></th> <th>P (hard water)</th> </tr> </thead> <tbody> <tr> <td>Dishwasher detergents and pre-soaking liquid</td> <td>0.4</td> <td>0.601</td> <td>0.802</td> </tr> <tr> <td>Drying agent</td> <td>0.04</td> <td>0.04</td> <td>0.04</td> </tr> </tbody> </table>	Product type (gP/L solution)	P (in soft water)	P (medium water) <sup>12</sup>	P (hard water)	Dishwasher detergents and pre-soaking liquid	0.4	0.601	0.802	Drying agent	0.04	0.04	0.04												
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Dishwasher detergents and pre-soaking liquid	0.4	0.601	0.802																						
Drying agent	0.04	0.04	0.04																						
The product must not contain more than <b>0.2 g of phosphonates</b> that are not readily biodegradable (aerobically) per wash.																									
EU Ecolabel	The total quantity of <b>phosphates and other phosphorus compounds</b> must not exceed the limit values specified in the table below:																								
	<table border="1"> <thead> <tr> <th>(g P/l water)</th> <th colspan="3">Water hardness (°dH)</th> </tr> <tr> <th>Product type</th> <th>Soft (0-6)</th> <th>Med (7-13)</th> <th>Hard (&gt;14)</th> </tr> </thead> <tbody> <tr> <td>Pre-soaks</td> <td>0.08</td> <td>0.08</td> <td>0.08</td> </tr> <tr> <td>Detergents</td> <td>0.15</td> <td>0.30</td> <td>0.50</td> </tr> <tr> <td>Rinse aids</td> <td>0.02</td> <td>0.02</td> <td>0.02</td> </tr> <tr> <td>Multicomp system</td> <td>0.17</td> <td>0.32</td> <td>0.52</td> </tr> </tbody> </table>	(g P/l water)	Water hardness (°dH)			Product type	Soft (0-6)	Med (7-13)	Hard (>14)	Pre-soaks	0.08	0.08	0.08	Detergents	0.15	0.30	0.50	Rinse aids	0.02	0.02	0.02	Multicomp system	0.17	0.32	0.52
	(g P/l water)	Water hardness (°dH)																							
	Product type	Soft (0-6)	Med (7-13)	Hard (>14)																					
	Pre-soaks	0.08	0.08	0.08																					
Detergents	0.15	0.30	0.50																						
Rinse aids	0.02	0.02	0.02																						
Multicomp system	0.17	0.32	0.52																						

<sup>10</sup> Preliminary report for the revision of European ecological criteria: domestic and industrial and institutional dishwasher detergents, section 2.8.4

<sup>11</sup> Conversion factors applied are those reported in the Ecolabel criteria for Laundry detergents for professional use, Nordic ecolabelling version

<sup>12</sup> The following conversion factor: 0.067 total P for every extra 10mg CaO/l shall be used for calculating the quantity of complexing agents for water harder than 60mg CaO/l. The quantity of elementary phosphorus P, regardless of whether it occurs as phosphate-phosphorus, phosphonate compounds or other compounds where phosphorus may occur should be reported.

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**Consultation questions**

1	Can phosphates be substituted from IIDDs without increasing the chemical loading or sacrificing cleaning performance?
2	Do you agree with the proposed limits for phosphorous compounds?
3	Could the limits be stricter?

## 8.6 Criterion 4: Packaging requirements

### Current criterion 4

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

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

Product type	Soft	Medium	Hard
	0-6 °dH	7-13 °dH	> 14 °dH
Powders (g/l washing solution)	0.8	1.4	2.0
Liquids (g/l washing solution)	1.0	1.8	2.5

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

Exceptions:

- Plastic/paper/cardboard packaging containing more than 80% recycled materials or more than 80 % plastic from renewable origin is exempted from this requirement.

Packaging is regarded as recycled if the raw material used to make the packaging has been collected from packaging manufactures 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 materials will not be regarded as recycled.

**Assessment and verification:** the applicant shall provide the calculation of the WUR of the product. A spreadsheet for this calculation is available on the EU Ecolabel website. The applicant shall provide a completed and signed declaration for the content of recycled or material from renewable origin 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 2(b) may be used in the 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

### Proposed criterion 4

#### c) 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:](#)

Product type	Water hardness	Soft	Medium	Hard
		<1,5 mmol CaCO <sub>3</sub> /l	1.5 – 2,5 mmol CaCO <sub>3</sub> /l	> 2,5 mmol CaCO <sub>3</sub> /l
Powders		0,8 g	1,4 g	2,0 g
Liquids		1,0 g	1,8 g	2,5 g

Are exempted from this requirement:

- Plastic/paper/cardboard packaging containing more than 80 % recycled materials,
- [Paper/cardboard packaging that comes 80% from certified sustainable sources,](#)
- [Plastic packaging containing more than 80 % plastic from sustainable sources.](#)

**Assessment and verification:** the applicant shall provide the calculation of the WUR of the product. A spreadsheet for this calculation is available on the EU Ecolabel website. 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 applicant shall provide a completed and signed declaration for the content of recycled material in

the packaging.

- For paper and cardboard, 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.

- For plastic, packaging is regarded as recycled if the raw material used to make the packaging comes from industrial waste or has been collected from packaging manufacturer at the distribution or at the consumer stage.

The applicant shall provide a completed and signed declaration for the content of sustainably sourced material in the packaging. For paper and cardboard, the applicant shall provide TBD. For plastic, the applicant shall provide TBD.

The WUR is calculated as follows:

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

Where:

*W<sub>i</sub>*: weight (g) of the primary packaging (i),

*U<sub>i</sub>*: weight (g) of non-recycled and non-sustainably sourced packaging in the primary packaging (i). *U<sub>i</sub>* = *W<sub>i</sub>* unless the applicant can document otherwise,

*D<sub>i</sub>*: number of reference doses contained in the primary packaging (i),

*R<sub>i</sub>*: number of times that the primary packaging (i) can be refilled and used for the same purpose. *R<sub>i</sub>* = 1 (packaging is not reused for the same purpose) unless the applicant can document a higher number.

#### **d) 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 recycle. 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. Pumps are exempted from this requirement.

Table 4: Materials and components excluded from packaging elements

Packaging element	Excluded materials and components <sup>13</sup>
Label or sleeve	<ul style="list-style-type: none"> <li>- PS label or sleeve in combination material used with a PET, PP or HDPE bottle</li> <li>- PVC label or sleeve in combination with a PET, PP or HDPE bottle</li> <li>- PETG label or sleeve in combination with a PET bottle</li> <li>- Sleeves made of different polymer than the bottle</li> <li>- Labels or sleeves that are metallised or are welded to a packaging body (in mould labelling)</li> </ul>
Closure	<ul style="list-style-type: none"> <li>- PS closure in combination a with a PET, HDPE or PP bottle</li> <li>- PVC closure in combination with a PET, PP or HDPE bottle</li> <li>- PETG closures and/or closure material with density of above 1 g/cm<sup>3</sup> in combination with a PET bottle</li> <li>- Closures made of metal, glass, EVA</li> <li>- Closures made of silicone. Exempted are silicone closures with a density &lt; 1 g/cm<sup>3</sup> in combination with a PET bottle and silicone closures with a density &gt; 1g/cm<sup>3</sup> in combination with PEHD or PP bottle</li> <li>- Metallic foils or seals which remain fixed to the bottle or its closure after the product has been opened</li> </ul>
Barrier coatings	Polyamide, EVOH, functional polyolefins, metallised and light blocking barriers

<sup>13</sup> EVA – Ethylene Vinyl Acetate, EVOH – Ethylene vinyl alcohol, HDPE – High-density polyethylene, PET – Polyethylene terephthalate, PETG – Polyethylene terephthalate glycol-modified, PP – Polypropylene, PS – Polystyrene, PVC – Polyvinylchloride

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**Assessment and verification:** The applicant shall submit a signed declaration of compliance specifying the material composition of the packaging including the container, label or sleeve, adhesives, closure and barrier coating, and a sample of primary packaging.

### **Rationale and discussion**

From a life-cycle perspective, the packaging has a low impact on the overall environmental impact of an industrial and institutional dishwasher detergent product (Preliminary Report – Section 4.4). Across all life-cycle phases, packaging was only dominant for agricultural land occupation (ALO) and this is attributed to the use of 20% non-recycled cardboard in the reference product. However, it is still relevant for the EU Ecolabel to reduce the consumption of unnecessary packaging materials through the setting of requirements on packaging.

*Further information on the wording of the proposed criterion and background information on packaging can be found in the Section 11 of the Technical Annexe.*

#### **a) Weight utility ratio**

No changes are proposed to the WUR levels, but it is proposed to further promote the use of recycled and sustainably sourced materials through reductions of the WUR. When this percentage is over 80%, it is proposed that the applicant shall be exempted from compliance with the WUR requirement. In the current criteria, only recycled material and plastics from renewable sources were considered.

*Further information on this aspect can be found in Sections 11.3.1 and 11.3.2 of the Technical Annexe.*

#### **b) Design for recycling**

In line with the EU Ecolabel on Rinse-off cosmetics, it is proposed to remove the requirement on the labelling of plastics parts but instead to promote the recyclability of packaging by avoiding combinations of incompatible materials and potential contaminants.

*Further information on this aspect can be found in Section 11.3.4 of the Technical Annexe.*

### **Consultation questions**

1	Packaging is not one of the top 5 KPIs for I&I dishwasher detergents, should a criterion related to it be kept?
2	Are the WUR limits appropriate?
3	Is the design for recycling requirement suitable for this product group?

## 8.7 Criterion 5: Fitness for use

### Current criterion 5

The performance and efficiency of the product must be satisfactory. The product must satisfy the requirements for the user test or internal testing in accordance with Appendix II.

**Assessment and verification:** the applicant shall submit a detailed test report to the Competent Body, including information/documentation. See Appendix II.

(From Appendix II)

#### a) Internal testing

The manufacturer's test laboratory can be approved to conduct testing to document effectiveness if the following additional requirements are met:

- It must be possible for ecolabelling organisations to monitor the performance testing,
  - The ecolabelling organisation must have access to all data on the product,
  - Performance of the effectiveness test must be described in the quality control system.
- The applicant must submit documentation proving that the product has been tested under realistic conditions.

a) Dishes soiled with spots that are representative for the kind of soiled expected in the areas where the products will be marketed.

b) Recommended dosage and at the corresponding water hardness at the lowest recommended wash temperature

The applicant must submit documentation proving:

- the product's ability to remove soiling from the dishes,
- the product's ability to dry the dishes.

The test product must be tested against a reference product. The reference product may be a well-established product on the market and the tested product must be at least as effective as the reference.

#### b) User test

1. Responses must be obtained from at least five test centres representing a random selection of customers.

2. The procedure and dosage must conform to the manufacturer's recommendations.

3. The test period must continue for at least four weeks with at least 400 test cycles.

4. Every test centre must assess the effectiveness of the product or multi-component system by answering questions relating to the following aspects (or similar formulations):

- the product's ability to remove soiling from the dishes,
- the product's ability to dry the dishes,
- the respondent's satisfaction with the agreement on customer visits.

5. The response must be rated on a scale comprising at least three levels, for example, 'insufficiently effective', 'sufficiently effective' or 'very effective'. With regard to how satisfied the test centre is with visit reporting arrangements, the categories must be 'not satisfied', 'satisfied' and 'very satisfied'.

6. At least 80 % must rate the product as sufficiently effective or very effective on all points (see point 4) and be satisfied or very satisfied with customer visiting arrangements.

7. All raw data from the test must be specified.

8. The test procedure must be described in detail.

### Proposed criterion 5

Tests shall be carried out to ensure that the product has a satisfactory wash performance at the lowest recommended dosage for the water hardness according to laboratory or user tests. The tests shall be carried out at the water temperature stated in Appendix (to be added) or at the lowest temperature the product claims to be effective at. The test shall be performed by a laboratory complying with Appendix (to be added)

The reference product is tested at the lowest recommended dosage that is stated on the packaging. If no dosage instructions are provided, the same dosage is used as for the test product.

When applying for rinse aids in combination with dishwasher detergents, the rinse aid shall be used in

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the test instead of the reference rinse aid. For multifunctional products the applicant must submit documentation providing the effect of the claimed functions.

**Assessment and verification** The applicant shall provide documentation confirming that the product has been tested under the Appendix (to be added) conditions.

If a laboratory test is performed, information should be provided on:

- (a) Type of spots that are representative for the kind of soiled expected in the areas where the products will be marketed.
- (b) Information on the recommended dosage at the corresponding water hardness and the lowest recommended wash temperature at which the product claims to be effective
- (c) The product's ability to remove soiling from the surfaces or materials and the effectiveness of other products the detergent shall be used with (eg. rinse aids)
- (d) Information about the reference product against which the test product has been tested: market leadership, lowest commended dosage or dosage used (if no information is provided) and temperature, date of purchase and date of testing.
- (e) Documentation confirming the compliance within the laboratory requirements included in Appendix (to be added).

If a user test is performed, the applicant should provide information on:

- (a) the way the test users were selected, all raw data from the tests and the test procedure
- (b) all reply forms received from the test users and the overall result on the wash performance of the user test specified in a table/a form. The response must be rated in accordance with Appendix (to be added)
- (c) information on how satisfied the test centre is with visit reporting arrangements and the categories rated.

### **Rationale and discussion**

The text is proposed to be brought in line with the other EU Ecolabel criteria sets. The rationale behind the methods chosen is included in Section 12.1 of the Technical Annex. No content wise changes are proposed and clarifications are proposed covering the following aspects:

- information about how to select the reference product against the EU Ecolabel candidate will be tested,
- minimum requirements the certification institution shall fulfilled,
- a detail list on the information of the testing product the producer claims and on the reference product selected.

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## 8.8 Criterion 6: Automatic dosing systems

### Current criterion 6

Multi-component systems shall be offered together with an automatic and controlled dosing system.

In order to ensure correct dosage in the automatic dosing systems, customer visits must be incorporated as a normal routine for manufacturers/suppliers. These customer visits are performed at all premises at least once a year during the license period; they must include calibration of the dosage equipment. Also, a third party can perform customer visits.

In exceptional cases, customer visits may be dispensed with if the distance and method of delivery makes the visit impracticable.

**Assessment and verification:** the applicant shall provide a written description of responsibility for, frequency and content of customer visits.

### Proposed criterion 6

Multi-component systems shall be offered together with an automatic and controlled dosing system.

In order to ensure correct dosage in the automatic dosing systems, customer visits must be incorporated as a normal routine for manufacturers/suppliers. These customer visits are performed at all premises at least once a year during the license period; they must include calibration of the dosage equipment. A third party can perform customer visits.

In exceptional cases, customer visits may be dispensed with if the distance and method of delivery makes the visit impracticable.

**Assessment and verification:** the applicant shall provide a written description of responsibility for, frequency and content of customer visits.

### Rationale and discussion

No changes are proposed to this criterion.

Industrial and institutional multi-component systems are difficult to dose as there is more than one product in the system. The use of a well maintained automatically and on-site calibrated dosing system limits the risk of incorrect dosing and, thus, the risk of extra environmental impacts.

### Consultation questions

1	Is the criterion on multi-component products relevant to the product group?
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## 8.9 Criterion 7: User information – Information appearing on the EU Ecolabel

### Current criterion 7

#### **a) Information on the packaging/information sheet**

The following recommendations must appear on the packaging, and/or on product information sheet or equivalent:

- Dose according to the degree of soil, and the water hardness. Follow the dosing instructions
- Using this EU Ecolabelled product according to the dosage instructions will contribute to the reduction of water pollution and waste production.

#### **b) Information appearing on the EU Ecolabel**

The logo should be visible and legible. The use of the EU Ecolabel logo is protected in primary EU law. The EU Ecolabel registration/licence number must appear on the product, it must be legible and clearly visible.

The 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/documents/logo\\_guidelines.pdf](http://ec.europa.eu/environment/ecolabel/documents/logo_guidelines.pdf)

**Assessment and verification (a-b):** the applicant shall provide a sample of the product label and/or product sheet, together with a declaration of compliance with this criterion. Product claims shall be documented through appropriate test reports.

### Proposed criterion 7 – "User information"

The detergent shall be accompanied by instructions for proper use so as to maximise product performance and minimise waste. These instructions shall be legible or include graphical representation or icons and include information on:

#### **a) dosing instructions**

The primary packaging or product information sheet shall include information on the recommended dosage in g or ml for various levels of water hardness and various levels of soiling.

The packaging or product information sheet shall indicate the most prevalent water hardness in the area where the product is intended to be marketed or where this information can be found.

The applicant shall take suitable steps to help consumers respect the recommended dosage, making available a dosage device and/or indicating the recommended dosage in a well-known metric.

#### **b) resource saving measures**

The applicant shall recommend washing at the lowest temperature the product claims effectiveness and washing with full loads.

#### **c) packaging disposal information**

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

#### **d) environmental information (voluntary)**

The following text is recommended to appear on the primary packaging or product information sheet but its use is voluntary:

"All detergents have an effect on the environment. Always use the correct dose for maximum effectiveness, the lowest recommended temperature. This will minimize both energy and water consumption and reduce water pollution".

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**Assessment and verification:** The applicant shall provide a sample of the product label or product information sheet

### Rationale and discussion

Information appearing on the packaging provides useful information on how the user should use the product most effectively to achieve the best cleaning results whilst minimising environmental impacts. The points where information is needed are analysed in the Section 13.1 of the Technical Annexe. Only those points that are relevant for this product group are included in the wording of the criteria.

Consultation questions	
1	Is the change to the dosage instruction wording acceptable?
2	Is a statement on overdosing required as part of the consumer information criterion?
3	Should information on use of renewable energy be included?
4	Should recycling labels be included on dishwasher detergent packaging?
5	Is it appropriate to have the information appearing on the EU Ecolabel as a separate criterion? (N.B. this is a horizontal issue relevant to other product groups)

### Proposed criterion 8 – "Information appearing on the EU Ecolabel"

The logo should be visible and legible. The use of the EU Ecolabel logo is protected in primary EU law. The EU Ecolabel registration/licence number must appear on the product, it must be legible and clearly visible.

The optional label with text box shall contain the following text:

- reduced impact on aquatic ecosystems,
- limited hazardous substances,
- performance tested.

**Assessment and verification:** the applicant shall provide a sample of the product packaging, including the label.

### Rationale and discussion

It is proposed to set a separate criterion for the information on the EU Ecolabel to be included on the packaging. This change is in line with what appears on other EU Ecolabel criteria sets that are under revision. The wording is proposed to remain unchanged.

Information on the harmonised text for the Criterion on Information appearing on the EU Ecolabel can be found in Section 14 of the Technical Annexe.

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## 8.10 Criterion NEW - Sustainable sourcing of palm oil, palm kernel oil and their derivatives

### Proposed addition

Ingredients used in the product which are derived from palm oil or palm kernel oil must be sourced from plantations that meet the criteria for sustainable management that have been developed by multi-stakeholder organisations who have a broad based membership including NGOs, industry and government.

**Assessment and verification:** the applicant shall provide third-party certifications that the palm oil used in the manufacturing of the product originates from sustainable managed plantations. Certifications accepted shall include RSPO (by identified preserved, segregates or mass balance) or any equivalent scheme based on multi-stakeholder sustainable management criteria. For chemical derivatives of palm oil it is acceptable to demonstrate sustainability for these through book and claim systems such as GreenPalm or equivalent.

### Rationale and discussion

Further information on this criterion can be found in Section 15 of the Technical Annex.