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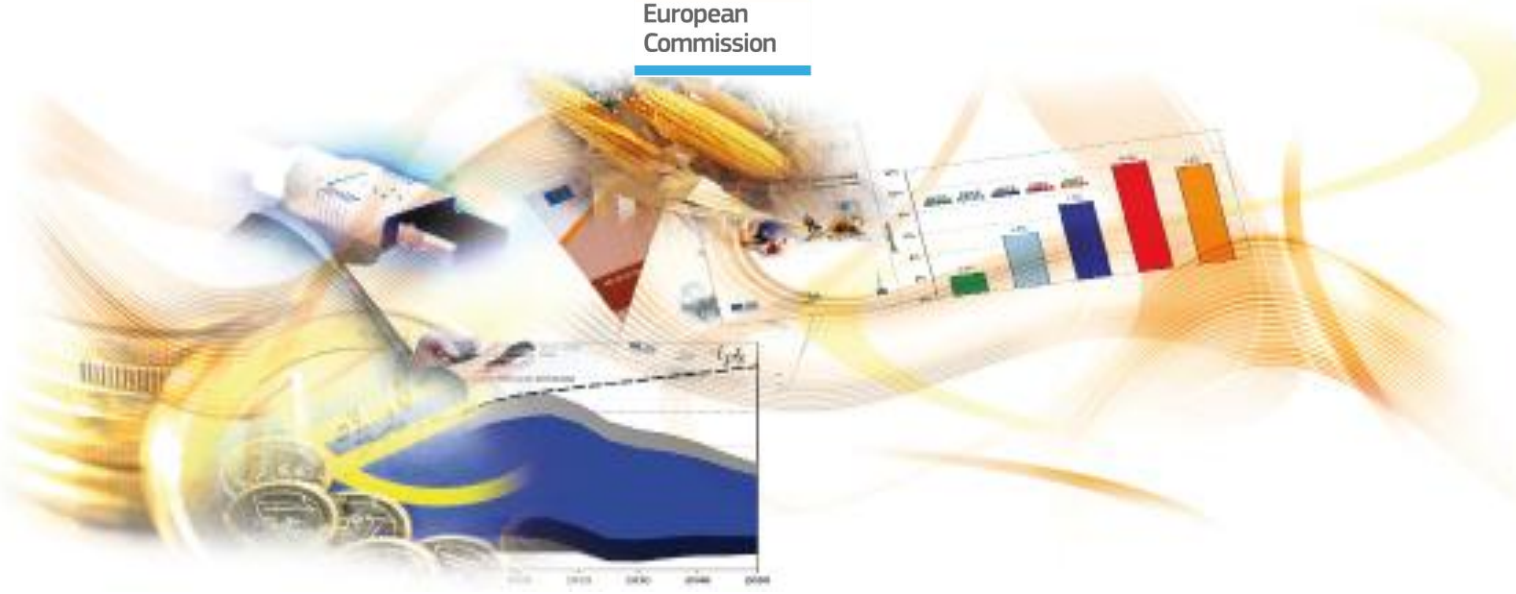

J R C T E C H N I C A L R E P O R T S

Revision of European Ecolabel Criteria for hand dishwashing detergents

Technical report and draft criteria proposal (TASK 5)
For the 1st AHWG meeting
(Draft)

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Joint Research Centre

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1 INTRODUCTION

The following Technical Report presents a proposal of revised EU Ecolabel criteria for the product group of "hand dishwashing detergents" (HDD). 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 scientific sources, and input received from stakeholders.

This document is complemented by the Preliminary Report[1] on the revision of the European Ecolabel criteria for Hand Dishwashing Detergents 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 hand dishwashing 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.

A revision of EU Ecolabel criteria must ensure that, based on impacts of the products covered by the EU Ecolabel for "hand dishwashing 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.
- 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 as follows:

- An update of several criteria with updates values and new values for categories of products that are not covered in the current criteria.

[1] http://susproc.jrc.ec.europa.eu/detergents/stakeholders.html

2 PRELIMINARY REPORT – SUMMARY AND LINKS TO THE REVISION AND/OR DEVELOPMENT OF 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 hand dishwashing detergents. The report provides background information that underpins to the new criteria proposals.
The main findings of the Preliminary Report are:
- The *market analysis* reported that the total retail value of the EU market for hand dishwashing detergents is €1.8 bn. Innovation in the hand dishwashing detergents market is relatively limited, and is primarily driven by adding functionality to the product. The range of hand dishwashing detergent products available includes budget variety, premium products and environmentally friendly versions.
- The *technical analysis* found that the key environmental impacts of hand dishwashing detergents can be summarised as follows:

- The life cycle stage with the largest contribution to the environmental impact profile of hand dishwashing detergents is - by far - the use phase, particularly the energy needed to heat the water. For some impact categories, the sourcing of raw materials and the end of life are also important.

- Based on the normalisation assessment, by far the most important impact categories for hand dishwashing detergents in Europe are natural land transformation and fossil depletion.

The results of the LCA for a hand dishwashing detergent conducted as part of the technical analysis (see chapter 4 of the Preliminary Report) are shown in Figure 1. The ingredients represent an important contribution to characterised midpoint results, in particular for terrestrial ecotoxicity, agricultural land occupation and natural land transformation. Of all the ingredients, the surfactant ethoxylated alcohol accounts for the largest contribution to these impact categories. However, the use phase is by far the most dominant for the impact categories. The manufacturing and disposal phases are also important contributors to the freshwater, terrestrial and marine ecotoxicity impact categories.
The key environmental performance indicators (KPIs), i.e. those variables that mainly drive the results for hand dishwashing detergents in Europe, based on the results of this study, are (not ranked):

- Amount of product used,
- Formulation; specifically the choice and amount of surfactants,
- Energy consumed to heat the water (if warm water is used),
- Energy source used to heat the water (if warm water is used).

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 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 Ecolabel Regulation.

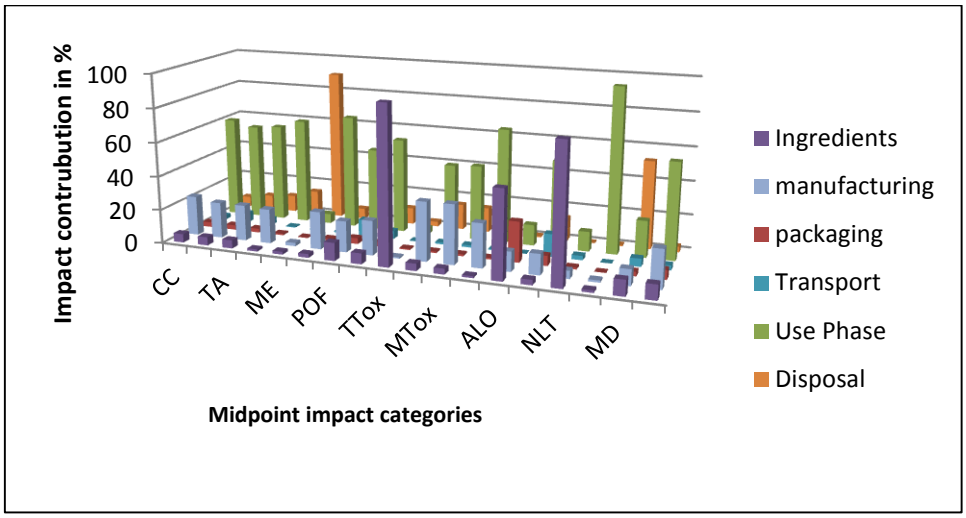

Figure 1: **Impact contribution of different life cycle stages of a hand dishwashing detergent**

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 4 KPIs named previously, it can still have an impact of up to 24% for some environmental aspects. This environmental impact score can even being higher in the case of window cleaners. Given the prevalence of hand dishwashing detergents in everyday life 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**

Identified hotspots (LCA and non-LCA impacts)	**% of total impact[2]**	**Revised or new EU Ecolabel criteria**	**Comments on the related criteria**
Energy sources to heat up the water	1-97 %	--	Out of the scope of this policy tool
Amount of product used per application	1-92 %	User information	It informs users about the amount of product to be used depending on the washing conditions
Formulation	1-92 %	Biodegradability	It ensures that surfactants are biodegradable and will not persist in the water

[2] 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

Identified hotspots (LCA and non-LCA impacts)	% of total impact[2]	Revised or new EU Ecolabel criteria	Comments on the related criteria
		Restricted substances	It ensures that hazardous surfactants are not included in the bill of materials
		Sustainable Palm oil	It ensures that renewable palm oil surfactants do not cause unnecessary strain on the ecosystem.
		Colorants	It ensures that colorants do not accumulate in the water
		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 biocidal preservatives are included as an ingredient
Emissions to water	1-92 %	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 ways
		Colorants	It ensures that colorants do not accumulate, a limited use of ingredients with sensitizing properties and are not inhaled
		Fragrances	
		Enzymes	
		Information appearing on the EU Ecolabel	It informs consumers that the product has a limited amount of hazardous substances while they are making purchase decisions
Energy consumed to heat up the water	1-97 %	User information	The criterion encourages users to opt for lower amounts of water and encourages to use the lower suitable water temperature 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 realistic conditions
		Information appearing on the EU Ecolabel	It informs consumers that the product is fit for washing while they are making purchase decisions
Waste generation	0-24 %	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 the packaging in a responsible manner
Water consumption	Not rated	User information	The criterion encourages users not to let the water running during the washing It provides information to the users on how to wash to get the most of the product damaging the least the environment
Hazardous substances	No rated	Hazardous substances and mixtures	This criterion limits the hazardous substances and mixtures that can be included in the product limiting environmental and health risks for consumers
		Ingoing substances listed in accordance with Article 59(1) of Regulation (EC) No 1907/2006	
		Corrosive properties	It ensures that human and health risks are minimized.
		Information appearing on the EU Ecolabel	It informs consumers that the product has a limited amount of hazardous substances while they are making purchase decisions

3 SUMMARY OF THE FEEDBACK REQUESTED FROM STAKEHOLDERS

HAND DISHWASHING DETERGENTS		
CRITERION / SECTION	**QUESTIONS FOR CONSULTATION**	
Name, definition and scope	1	Should the product scope exclude products with disinfecting properties?
	2	Do you agree with the proposed change of the wording?
	3	Should micro-organisms be considered for inclusion in the EU Ecolabel? Background information on the subject is sought from stakeholders.
Measurement thresholds	1	Are any other changes needed to the assessment and verification requirements and measurement thresholds?
Toxicity to aquatic life	1	Is the stricter CDV limit appropriate?
Biodegradability	1	Is the proposed approach to biodegradability suitable for HDD?
	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	1	Are exclusions required for other substances?
Packaging	1	Packaging is not one of the top 4 KPIs for hand dishwashing 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?
Fitness for use	1	Should the number of repetitions required under the 'Framework for testing the performance of hand dishwashing detergents' be increased to at least 20 (this was also proposed for APCs)?
	2	Does the criterion need to provide further information regarding the specification and supply of test soil?
User Instructions	1	Are separate dosage instructions required for professional and non-professional users?
	2	Are the proposed dosage instructions clear and easy to understand?
	3	Is the use of icons or graphical information an added-value to the product?
Information appearing on the EU Ecolabel	1	Are the proposed statements suitable, illustrative of claims and an improvement?

4 CRITERIA STRUTURE COMPARISON TABLE

STRUCTURE OF THE CRITERIA	
Current organisation of the EU Ecolabel criteria	**Potential changes, modifications or amendments**
Criterion 1: Toxicity to aquatic organisms Criterion 2: Biodegradability of surfactants Criterion 3: Excluded or limited substances and mixtures Criterion 4: Fragrances Criterion 5: Corrosive properties Criterion 6: Packaging requirements Criterion 7: Fitness for use Criterion 8: User instructions Criterion 9: Information appearing in the EU Ecolabel	Criterion 1: Toxicity to aquatic organisms Criterion 2: Biodegradability Criterion 3: Sustainable sourcing of palm oil, etc. Criterion 4: Restricted substances Criterion 5: Corrosive properties Criterion 6: Packaging Criterion 7: Fitness for use Criterion 8: User information Criterion 9: Information appearing on the EU Ecolabel
	The proposed changes to the structure reflect the fact that certain criteria are proposed to be merged. This is applied to the current EU Ecolabel criterion on fragrances that will be integrated into the proposed EU Ecolabel criterion on Excluded or limited substances and mixtures. An additional criterion is proposed to cover sustainable sourcing of some ingredients.

5 NAME AND DEFINITION COMPARISON TABLE

NAME OF THE EU ECOLABEL	
Current name of the EU Ecolabel	**Potential changes, modifications or amendments**
Hand dishwashing detergents	(no changes)
DEFINITION OF THE PRODUCT GROUP	
The product group shall comprise all detergents intended to be used to wash by hand dishes, crockery, cutlery, pots, pans, kitchen utensils and so on. The product group shall cover products for both private and professional use. The products shall be a mixture of chemical substances and must not contain microorganisms that have been deliberately added by the manufacturer.	(Option 1) The product group 'Hand dishwashing detergents' shall comprise all detergents intended to be used to wash by hand glassware, crockery and kitchen utensils including cutlery, pots, pans and ovenware. The product group shall cover products for both private and professional use. The products shall be a mixture of chemical substances and must not contain micro-organisms that have been deliberately added by the manufacturer. (Option 2) The product group 'Hand dishwashing detergents' shall comprise all detergents intended to be used to wash by hand glassware, crockery and kitchen utensils including cutlery, pots, pans and ovenware. The product group shall cover products for both private and professional use. The products shall be a mixture of chemical substances ~~and must not contain micro-organisms that have been deliberately added by the manufacturer~~.
	The proposed changes include a slight change in the examples given as to the application of the hand dishwashing products. This change aims to simplify the understanding of what is covered by the EU Ecolabel. A second option is also proposed for the scope in order to cover products containing micro-organisms. Further research is required to fully understand the implications of expanding the scope to these product groups.

6 COMPARISION OF EXISTING AND PROPOSED CRITERIA

<table>
<tr><th colspan="2">CRITERIA</th></tr>
<tr><th>Existing EU Ecolabel criteria</th><th>Potential changes, modifications or amendments</th></tr>
<tr><th colspan="2">Criterion 1: Toxicity to aquatic organisms</th></tr>
<tr><td>The critical dilution volume (CDV chronic) is calculated for each substance (i) using the following equation:
$$CDV = \sum CDV(i) = 1000 \cdot \sum dosage(i) \cdot \frac{DF(i)}{TF(i)}$$
where
weight (i) is the weight of the substance (in grams) contained in the dosage recommended by the manufacturer for 1 litre of dishwashing water.
DF (i) is the degradation factor and TF chronic(i) is the toxicity factor of the substance (in milligrams/litre).

The values of DF and TF chronic shall be as given in the detergent ingredient database list part A (DID list part A) (Appendix I). If the substance in question is not included in the DID list part A, the applicant shall estimate the values following the approach described in the DID list part B (Appendix I). The CDV chronic is summed for each substance, making the CDV chronic for the product.

The CDV chronic shall be calculated on the basis of the dosage in grams of the product recommended by the manufacturer for preparing 1 litre of dishwashing water for cleaning of normally soiled dishes. The CDV chronic of the recommended dose expressed for 1 litre of dishwashing water shall not exceed 3 800 litres.

Assessment and verification:
the exact formulation of the product shall be provided to the competent body, together with the details of the CDV chronic calculations showing compliance with this criterion.</td><td>The critical dilution volume (CDV) of the product must not exceed the following limits for the reference dosage:
<table><tr><th>Product type</th><th>Limit CDV</th></tr><tr><td>Hand dishwashing detergents</td><td>2 700</td></tr></table>
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).</td></tr>
</table>

<table>
<tr><td></td><td>The proposed change is a stricter limit of the CDV for RTU cleaning products. The increase in the ambition level is underpinned by the CDV data collected for current EU Ecolabel holders which demonstrate that the current limit is easily achieved and the comparison to other national schemes and data collected by stakeholders.</td></tr>
<tr><td colspan="2">Criterion 2: Biodegradability of organics</td></tr>
<tr><td><u>(a) Ready biodegradability (aerobic)</u>

Each surfactant used in the product shall be readily biodegradable.

Assessment and verification: the exact formulation of the product as well as a description of the function of each substance shall be provided to the competent body. The DID list part A (Appendix I) indicates whether a specific surfactant is aerobically biodegradable or not (the surfactants with an entry of ‘R’ in the column on aerobic biodegradability are readily biodegradable). For surfactants which are not included in the DID list part A, the relevant information from literature or other sources, or appropriate test results, showing that they are aerobically biodegradable shall be provided. The tests for ready biodegradability shall be as referred to in Regulation (EC) No 648/2004 of the European Parliament and of the Council of 31 March 2004 on detergents (1). Surfactants shall be considered as readily biodegradable if the level of biodegradability (mineralisation) measured in accordance with one of the five following tests is at least 60 % within 28 days: CO 2 headspace test (OECD 310), carbon dioxide (CO 2) Evolution Modified Sturm test (OECD 301B; Council Regulation (EC) No 440/2008 (2) method C.4-C), Closed Bottle test (OECD 301D; Regulation (EC) No 440/2008 method C.4-E), Manometric Respirometry (OECD 301F; Regulation (EC) No 440/2008 method C.4-D), or MITI (I) test (OECD 301C; Regulation (EC) No 440/2008 method C.4-F), or their equivalent ISO tests. Depending on the physical characteristics of the surfactant, one of the following tests might be used to confirm ready biodegradability, if the level of biodegradability is at least 70 % within 28 days: Dissolved Organic Carbon DOC Die-Away (OECD 301A; Regulation (EC) No 440/2008 method C.4-A) or Modified OECD Screening DOC Die-Away (OECD 301E; Regulation (EC) No 440/2008 method C.4-B), or their equivalent ISO tests. The applicability of test methods based on measurement of dissolved organic carbon needs to be appropriately justified as these methods could give results on the removal and not on the biodegradability. Pre-adaptation is not to be used in tests for aerobic ready biodegradability. The 10 days window principle shall not apply.</td><td>a) Biodegradability of surfactants
<u>To be discussed at the 1st AHWG meeting.</u>
All surfactants shall be biodegradable under aerobic conditions.

All surfactants shall be biodegradable under anaerobic conditions.

b) Biodegradability of organic substances and mixtures
<u>To be discussed at the 1st AHWG meeting.</u>
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:

<table><tr><th>Product type</th><th>aNBO</th><th>anNBO</th></tr><tr><td>Hand dishwashing detergents</td><td>x,xx g</td><td>x,xx g</td></tr></table>
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:</td></tr>
</table>

(b) Anaerobic biodegradability Surfactants that are not biodegradable under anaerobic conditions may be used in the product provided that the surfactants are not classified with H400/R50 (Very toxic to aquatic life) within the limit specified below. The total weight of such anaerobically non-biodegradable surfactants must not exceed 0,20 gram of the recommended dose expressed for 1 litre of dishwashing water. ***Assessment and verification***: the exact formulation of the product as well as a description of the function of each substance shall be provided to the competent body. The DID list part A (Appendix I) indicates whether a specific surfactant is anaerobically biodegradable or not (the surfactants with an entry of 'Y' in the column on anaerobic biodegradability are biodegradable under anaerobic conditions). For surfactants which are not included in the DID list (OJ L 115, 4.5.2005, p. 18 part A), the relevant information from literature or other sources, or appropriate test results, showing that they are anaerobically biodegradable shall be provided. The reference test for anaerobic degradability shall be OECD 311, ISO 11734, ECETOC No 28 (June 1988) or an equivalent test method, with the requirement of a minimum of 60 % ultimate degradability under anaerobic conditions. Test methods simulating the conditions in a relevant anaerobic environment may also be used to document that 60 % ultimate degradability has been attained under anaerobic conditions (see Appendix II).	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.
	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 approaches and stakeholder consultation has yielded a multitude opinions. It has thus been decided that a discussion during the 1st 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. The criterion will be revised following discussions with stakeholders.

Criterion 3 — Excluded or limited substances and mixtures	
The requirements stated in (a), (b) and (c) below shall apply to each substance or mixture, including biocides, colouring agents and fragrances, that exceeds 0,010 % by weight of the final product. This includes also each substance of any mixture used in the formulation that exceeds 0,010 % by weight of the final product. Nanoforms intentionally added to the product shall prove compliance with the criterion 3(c) for any concentration. **(a) Specified excluded substances** The following substances shall not be included in the product, either as part of the formulation or as part of any mixture included in the formulation: — Alkyl phenol ethoxylates (APEOs) and derivatives thereof — EDTA (ethylene-diamine-tetra-acetic acid) and its salts — 5-Bromo-5-nitro-1,3-dioxane — 2-Bromo-2-nitropropane-1,3-diol — Diazolinidylurea — Formaldehyde — Sodium hydroxy methyl glycinate — Nitro-musks and polycyclic musks including for example: Musk xylene: 5-Tert-butyl-2,4,6-trinitro-m-xylene Musk ambrette: 4-Tert-butyl-3-methoxy-2,6-dinitrotoluene Moskene: 1,1,3,3,5-Pentamethyl-4,6-dinitroindan Musk tibetine: 1-Tert-butyl-3,4,5-trimethyl-2,6-dinitrobenzene Musk ketone: 4'-Tert-butyl-2',6'-dimethyl-3',5'-dinitroacetaphenone HHCB (1,3,4,6,7,8-Hexahydro-4,6,6,7,8,8-hexamethylcyclopenta(g)-2-benzopyran) AHTN (6-Acetyl-1,1,2,4,4,7-hexamethyltetralin). ***Assessment and verification***: the applicant shall provide a declaration supported by declarations from manufacturers, as appropriate, confirming that the listed substances have not been included in the product.	a) The product shall not be formulated or manufactured using any of the following compounds: (i) APEO (alkylphenol ethoxylates) and APD (alkylphenol derivatives) (ii) EDTA (ethylenediaminetetraacetate) (iii) 5-bromo-5-nitro-1,3-dioxane (iv) 2-bromo-2-nitropropane-1,3-diol (v) Diazolinidylurea (vi) Formaldehyde (vii) Sodium hydroxymethylglycinate (viii) Nitro-musks and polycyclic musks (ix) Hydroxyisohexyl 3-cyclohexene carboxaldehyde (HICC), (x) Atranol and Chloroatranol (xi) Fragrance substances subject to the declaration requirement provided for in Regulation (EC) No 648/2004 of the European Parliament and of the Council on detergents (Annex VII) and which are not already excluded by criterion 2b and (other) fragrance substances classified H317/R43 (May cause allergic skin reaction) and/or H334/R42 (May cause allergy or asthma symptoms or breathing difficulties if inhaled) shall not be present in quantities ≥ 0,010 % (≥ 100 ppm) per substance. (xii) Quaternary ammonium salts that are not readily biodegradable ***Assessment and verification****:* the applicant shall provide 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. The applicant shall provide documentation showing the biodegradability of any quaternary ammonium salt used. The applicant shall also provide a declaration from the fragrance manufacturer specifying the content of each of the substances in the fragrances which are listed in Annex III of the Regulation (EC) No 1223/2009.
(b) Quaternary ammonium salts that are not readily biodegradable shall not be used, either as part of the formulation or as part of any mixture included in	*(moved to 3a)*

the formulation.

Assessment and verification: the applicant shall provide documentation showing the biodegradability of any quaternary ammonium salt used.

(c) Hazardous substances and mixtures

According to the Article 6(6) of Regulation (EC) No 66/2010 on the EU Ecolabel, the product or any part of it shall not contain substances (in any forms, including nanoforms) meeting the criteria for classification with the hazard statements or risk phrases specified below in accordance with Regulation (EC) No 1272/2008 of the European Parliament and of the Council (1) or Council Directive 67/548/EEC (2), nor shall it contain substances referred to in Article 57 of Regulation (EC) No 1907/2006 of the European Parliament and of the Council (3). The risk phrases below generally refer to substances. However, for mixtures of enzymes and fragrances, where information on substances cannot be obtained, the classification rules for mixtures shall be applied.

List of hazard statements and risk phrases:

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

b) 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 Table 2 in accordance with Regulation (EC) No 1272/2008 of the European Parliament and of the Council or Council Directive 67/548/E 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

H360FD May damage fertility. May damage the unborn child	R60-61
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; R39/24; R39/25; R39/26; R39/27; R39/28
H371 May cause damage to organs	R68/20; R68/21; R68/22
H372 Causes damage to organs through prolonged or repeated exposure	R48/25; R48/24; R48/23
H373 May cause damage to organs through prolonged or repeated exposure	R48/20; R48/21; R48/22
H400 Very toxic to aquatic life	R50
H410 Very toxic to aquatic life with long-lasting effects	R50-53
H411 Toxic to aquatic life with long-lasting effects	R51-53
H412 Harmful to aquatic life with long-lasting effects	R52-53
H413 May cause long-lasting harmful effects to aquatic life	R53
EUH059 Hazardous to the ozone layer	R59
EUH029 Contact with water liberates toxic gas	R29
EUH031 Contact with acids liberates toxic gas	R31
EUH032 Contact with acids liberates very toxic gas	R32
EUH070 Toxic by eye contact	R39-41

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
Sensitising substances
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 ≥ 0,01 %, including preservatives, colouring agents and fragrances.

For hand dishwashing 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

Sensitising substances	
H334: May cause allergy or asthma symptoms or breathing difficulties if inhaled	R42
H317: May cause allergic skin reaction	R43

Substances or mixtures which change their properties upon processing (e.g. become no longer bioavailable, undergo chemical modification) so that the identified hazard no longer applies are exempted from the above requirement

(*) The percentage must be divided by the M-factor established in accordance with the Regulation (EC) No 1272/2008. (**) Including stabilisers and other auxiliary substances in the preparations. (***) In concentrations lower than 1,0 % in the raw material as long as the total concentration in the final product is lower than 0,10 %.

Assessment and verification: the applicant shall provide the exact formulation of the product to the competent body. The applicant shall demonstrate compliance with this criterion for substances in the product on the basis of information consisting as a minimum of that specified in Annex VII to the Regulation (EC) No 1907/2006. Such information shall be specific to the particular form of the substance, including nanoforms, used in the product. For that purpose, the applicant shall provide a declaration of compliance with this criterion, together with a list of ingredients and related safety data sheets in accordance with Annex II to Regulation (EC) No 1907/2006 for the product as well as for all substances listed in the formulation(s). Concentration limits shall be specified in the safety data sheets in accordance with Article 31 of Regulation (EC) No 1907/2006.

with one or more of hazard statements listed in Table 2 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 3(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.

(d) 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 may 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 %.

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

Assessment and verification: the list of substances identified as substances of very high concern and included in the candidate list in accordance with Article 59 of Regulation (EC) No 1907/2006 can be found here: http://echa.europa.eu/chem_data/authorisation_process/candidate_list_table_en.asp Reference to the list shall be made on the date of application. Concentration limits shall be specified in the safety data sheets in accordance with Article 31 of Regulation (EC) No 1907/2006.	1907/2006[3], 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 3(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.
(e) Biocides (i) The product may only include biocides in order to preserve the product, and in the appropriate dosage for this purpose alone. This does not refer to surfactants, which may also have biocidal properties. ***Assessment and verification:*** the applicant shall provide copies of the material safety data sheets of any preservatives added, together with information on their exact concentration in the product. The manufacturer or supplier of the preservatives shall provide information on the dosage necessary to preserve the product. (ii) It is prohibited to claim or suggest on the packaging or by any other communication that the product has an antimicrobial action. ***Assessment and verification***: the applicant shall provide 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) Biocides, either as part of the formulation or as part of any mixture included in the formulation, that are used to preserve the product and that are classified H410/R50-53 or H411/R51-53 in accordance with Directive 67/548/EEC, Directive 1999/45/EC of the European Parliament and of the Council (1) or Regulation (EC) No 1272/2008, are permitted but only if their bioaccumulation potentials are characterised by log Pow (log octanol/water partition coefficient) < 3,0 or an experimentally determined bioconcentration factor (BCF) ≤ 100. ***Assessment and verification***: the applicant shall provide copies of the material	**d) Preservatives** (i) The product may contain preservatives provided that they are not bioaccumulating. A preservative is not considered bioaccumulating if BCF < 100 or logPow < 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 3(b) Hazardous substances and mixtures. (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.

[3] http://echa.europa.eu/chem_data/authorisation_process/candidate_list_table_en.asp

safety data sheets for all biocides, together with a documentation of the concentrations of the biocides in the final product.	
	The proposed changes mainly aim to consolidate the list of excluded substances as it can be found right now. As fragrances are proposed to no longer be treated in a separate criterion, the excluded fragrances are included in the list. Stakeholder feedback indicated that quaternary ammonium salts are still an issue in detergents, and thus all non-readily biodegradable quaternary ammonium salts are on the list of excluded substances. It is also proposed to remove the requirement for biocides to only be included for preservation purposes as it is impossible for competent bodies to verify the compliance with this type of requirement. It is also proposed to consider the substances that are released as biocides degrade.
Criterion 4 — Fragrances	
(a) The product shall not contain perfumes containing nitro-musks or polycyclic musks (as specified in criterion 3(a)). (b) Any substances added to the product as a fragrance must have been manufactured and/or handled in accordance with the code of practice of the International Fragrance Association. The code can be found on IFRA website: http://www. ifraorg.org (c) Fragrance substances subject to the declaration requirement provided for in Regulation (EC) No 648/2004 on detergents (Annex VII) and which are not already excluded by criterion 3(c) and (other) fragrance substances classified H317/R43 (May cause allergic skin reaction) and/or H334/R42 (May cause allergy or asthma symptoms or breathing difficulties if inhaled) shall not be present in quantities ≥ 0,010 % (≥ 100 ppm) per substance. (d) Fragrances shall not be used in hand dishwashing detergents for professional use. ***Assessment and verification***: a declaration of compliance with each part of criterion (a), (b) and (d). For criterion (c), the applicant shall provide a signed declaration of compliance indicating the amount of fragrances in the product. The applicant shall also provide a declaration from the fragrance manufacturer specifying the content of each of the substances in the fragrances which are listed in Annex III, Part I to Council Directive 76/768/EEC (1) as well as the content of (other) substances which have been assigned the risk phrases R43/H317 and/or R42/H334	**Criterion 3(e): Fragrances** (i) Any ingoing substance or mixture added to the product as a fragrance shall be manufactured and handled following the code of practice of the International Fragrance Association (IFRA). The code can be found on the IFRA website: http://www.ifraorg.org. The recommendations of the IFRA Standards concerning prohibition, restricted use and specified purity criteria for materials shall be followed by the manufacturer. (ii) Fragrances shall not be used in hand dishwashing detergents for professional use. ***Assessment and verification:*** the applicant shall provide a signed declaration of compliance, supported by a declaration of the fragrance manufacturer, as appropriate.

<table>
<tr><td></td><td>It is proposed to move the requirements related to fragrances from Criterion 4 to Criterion (e) and exclusions of the specific fragrances to sub-criterion (a). No content-wise modifications are proposed.</td></tr>
<tr><td colspan="2">Criterion 5 – Corrosive properties</td></tr>
<tr><td>The product shall not be classified as a ‘Corrosive’ (C) mixture with R34 or R35 in accordance with Directive 1999/45/EC, or as a ‘Skin Category 1’ mixture in accordance with Regulation (EC) No 1272/2008.
Assessment and verification: the applicant shall provide the exact concentrations of all substances used in the product, either as part of the formulation or as part of any mixture included in the formulation, that are classified as ‘Corrosive’ (C) with R34 or R35 in accordance with Directive 1999/45/EC, or as a ‘Skin Category 1’ mixture in accordance with Regulation (EC) No 1272/2008 to the competent body, together with copies of the material safety data sheets. .</td><td>The product shall not be classified as a ‘Corrosive’ (C) mixture with R34 or R35 in accordance with Directive 1999/45/EC, or as a ‘Skin Category 1’ mixture in accordance with Regulation (EC) No 1272/2008.
Assessment and verification: the applicant shall provide the exact concentrations of all substances used in the product, either as part of the formulation or as part of any mixture included in the formulation, that are classified as ‘Corrosive’ (C) with R34 or R35 in accordance with Directive 1999/45/EC, or as a ‘Skin Category 1’ mixture in accordance with Regulation (EC) No 1272/2008 to the competent body, together with copies of the material safety data sheets. .</td></tr>
<tr><td></td><td>The issue is still relevant and the assessment and verification method is applicable.</td></tr>
<tr><td colspan="2">Criterion 6 - Packaging</td></tr>
<tr><td>(a) Plastics that are used for the main container shall be marked in accordance with the European Parliament and Council Directive 94/62/EC of 20 December 1994 on packaging and packaging waste (2), or DIN 6120 part 1 and 2 in connection with DIN 7728 part 1.
(b) If the primary packaging is made of recycled material, any indication of this on the packaging shall be in conformity with the ISO 14021 standard ‘Environmental labels and declarations — Self declared claims (type II environmental labelling)’.
(c) Only phthalates that at the time of application have been risk assessed and have not been classified according to criterion 3(c) may be used in the plastic packaging.
(d) The weight utility ratio (WUR) of the primary packaging must not exceed the following values:
<table><tr><th>Product type</th><th>WUR</th></tr><tr><td>Hand dishwashing detergents that are diluted in water prior to use</td><td>1,20 gram packaging per litre use solution (dishwashing water)</td></tr></table></td><td>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:
<table><tr><th>Product type</th><th>WUR</th></tr><tr><td>Hand dishwashing detergents</td><td>1,20 g</td></tr></table>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</td></tr>
</table>

WUR is calculated only for the primary packaging (including caps, stoppers and hand pumps/spraying devices) by using the formula below: $$WUR = \sum((W_i + U_i)/(D_i * r_i)$$ where W_i = The weight (g) of the primary packaging (i) including label if applicable. U_i = The weight (g) of non-recycled (virgin) material in the primary packaging (i). If the proportion of recycled material in the primary packaging is 0 %, then $U_i = W_i$. D_i = The number of functional doses (= number of the dosage volume which is recommended by the manufacturer for 1 litre of washing water) contained in the primary packaging (i). r_i = Recycling figure, i.e. the number of times the primary packaging (i) is used for the same purpose through a return or refill system ($r_i = 1$, if the packaging is not re-used for the same purpose. If the packaging is re-used, r_i is set to 1 unless the applicant can document a higher number. ***Assessment and verification***: the applicant shall provide a calculation of the WUR of the product to the competent body, together with a declaration of compliance with each part of this criterion. For criterion (c) the applicant shall provide completed and signed declaration of compliance.	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_i: weight (g) of the primary packaging (i), Ui: weight (g) of non-recycled and non-sustainably sourced packaging in the primary packaging (i). Ui = Wi unless the applicant can document otherwise, D_i: number of reference doses contained in the primary packaging (i), R_i: number of times that the primary packaging (i) can be refilled and used for the same purpose. Ri = 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[4]
Label or sleeve	- PS label or sleeve in combination material used with a PET, PP or HDPE bottle - PVC label or sleeve in combination with a PET, PP or HDPE bottle - PETG label or sleeve in combination with a PET bottle - Sleeves made of different polymer than the bottle - Labels or sleeves that are metallised or are welded to a packaging body (in mould labelling)
Closure	- PS closure in combination a with a PET, HDPE or PP bottle - PVC closure in combination with a PET, PP or HDPE bottle - PETG closures and/or closure material with density of above 1 g/cm3 in combination with a PET bottle - Closures made of metal, glass, EVA - Closures made of silicone. Exempted are silicone closures with a density < 1 g/cm3 in combination with a PET bottle and silicone closures with a density > 1g/cm3 in combination with PEHD or PP bottle - Metallic foils or seals which remain fixed to the bottle or its closure after the product has been opened
Barrier coatings	Polyamide, EVOH, functional polyolefins, metallised and light blocking barriers

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.

No changes are proposed to the WUR limits but more materials are proposed to be taken into account when calculating WUR in order to promote the use of

[4] EVA – Ethylene Vinyl Acetate, EVOH – Ethylene vinyl alcohol, HDPE – High-density polyethylene, PET – Polyethylene terephtalate, PETG – Polyethylene terephthalate glycol-modified, PP – Polypropylene, PS – Polystyrene, PVC – Polyvinylchloride

	sustainably sourced raw materials and recycled materials. The recyclability of packaging is proposed to be promoted through the requirement on "design for recycling".
Criterion 7- Fitness for use	
The product shall be fit for use, meeting the needs of the consumers. The cleaning ability and cleaning capacity must be equivalent to or better than that of the generic reference detergent specified below. ***Assessment and verification***: the cleaning ability and cleaning capacity must be tested by means of an adequate and justifiable laboratory performance test carried out and reported within specified parameters as stated in the framework described in 'Framework for testing the performance of hand dishwashing detergents' that can be found here: http://ec.europa.eu/environment/ecolabel/ecolabelled_products/categories/hand_dishwashing_detergents_en.htm The generic reference detergent shall be the one prescribed in IKW performance test 'Recommendation for the quality assessment of the cleaning performance of hand dishwashing detergents' (SÖFW-Journal, 128, 5, pp. 11-15, 2002) with the adaptation that the dosage applied in the performance test is set at 2,5 millilitres of the reference detergent per 5 litres of water. The IKW performance test 'Recommendation for the quality assessment of the cleaning performance of hand dishwashing detergents' (SÖFW-Journal, 128, 5, pp. 11-15, 2002) method may be applied with the mentioned adaptation and can be downloaded from: http://www.ikw.org/pdf/broschueren/EQ_Handgeschirr_e.pdf	Tests shall be carried out to ensure that the product has a satisfactory wash performance at the lowest recommended dosage for the water hardness under 'Framework for testing the performance of hand dishwashing detergents' available at: http://ec.europa.eu/environment/ecolabel/documents/performance_test.pdf The test shall be performed by a laboratory complying with Appendix 2. 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. The product shall be tested against another consumer product. If the product is marketed for both professional and consumer use it shall be tested against a professional product Alternatively, the IKW performance test 'Recommendation for the quality assessment of the cleaning performance of hand dishwashing detergents' method may be applied with the adaptation that the dosage applied in the performance test is set at 2,5 millilitres of the reference detergent per 5 litres of water. It and can be downloaded from: http://ec.europa.eu/environment/ecolabel/documents/performance_test.pdf ***Assessment and verification:*** The applicant shall provide documentation confirming that the product has been tested under the standard/protocol 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 (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, information should be provided 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 center is with visit reporting arrangements and the categories rated.
	In the current revision, no significant changes are proposed to this criterion. The wording is proposed to be changed to be more aligned with the EU Ecolabels in the detergents group.
Criterion 8 – User information	
The product shall bear the following information on the packaging: (a) 'Do not use running water but immerse the dishes, and use the recommended dosage' (or equivalent text); (b) Information on the recommended dosage shall appear on the packaging in a reasonably sufficient size and against a visible background. The information shall be provided in millilitres (and tea spoons) of product for 5 litres of dishwashing water suitable for 'dirty' and 'less dirty' dishes; (c) an indication of the approximate number of washes that the consumer can perform with one bottle is recommended but voluntary. This is calculated by dividing the volume of the product by the dosage required for 5 litres of dishwashing water for dirty dishes. ***Assessment and verification***: the applicant shall provide a sample of the product packaging, including the label to the competent body, together with a declaration of compliance with each part of this criterion.	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 shall include information on the recommended dosage and dilution instructions: - for non-professional products: in ml per 5l dishwashing water - for professional products: in ml per liter of dishwashing water A second well-known metric, such as tea spoons, shall be given in brackets. If the packing has an efficient and convenient dosage system, this dosage (i.e. capfuls, squirts, or other) can be used as the alternative metric. If needed, information on water hardness or where this information can be found out shall be included. **b) resource saving measures** The text "do not use running water but immerse the dishes" and "wash at the lowest suitable temperature" or equivalent shall be included on the primary packaging. **c) dose number (voluntary)** An indication of the approximate number of washes that the consumer can perform with one bottle is recommended but voluntary. This is calculated by dividing the volume of the product by the dosage required for 5 litres of

	dishwashing water for normally soiled dishes. **d) packaging disposal information** The primary packaging shall include information on the reuse, recycling and/or correct disposal of packaging. **e) environmental information (voluntary)** The following text is recommended to appear on the primary packaging 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''. ***Assessment and verification:*** The applicant shall provide a sample of the product packaging, including the label.
	The proposed changes include clarified indications on the dosage, as well as proposals for indications related to packaging and other environmental information.
Criterion 9 – Information appearing on the EU Ecolabel	
Optional label with text box shall contain the following text: '— reduced impact on aquatic life, — reduced use of hazardous substances, — reduced packaging waste, — clear user instructions.' The guidelines for the use of the optional label with text box can be found in the 'Guidelines for the use of the EU Ecolabel logo' on the website: http://ec.europa.eu/environment/ecolabel/promo/logos_en.htm ***Assessment and verification***: the applicant shall provide a sample of the label, together with a declaration of compliance with this criterion.	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.
	The proposed change aims at bringing the wording in line with other EU Ecolabel detergents and the information that the EU logo claims.

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

7 REVISION OF MAIN DECISION TEXT

7.1 Name, definition and scope for EU Ecolabel

Current definition and scope
The product group 'Hand dishwashing detergents' shall comprise all detergents intended to be used to wash by hand dishes, crockery, cutlery, pots, pans, kitchen utensils and so on. The product group shall cover products for both private and professional use. The products shall be a mixture of chemical substances and must not contain microorganisms that have been deliberately added by the manufacturer.

Proposal for new definition and scope
The product group 'Hand dishwashing detergents' shall comprise all detergents intended to be used to wash by hand glassware, crockery and kitchen utensils including cutlery, pots, pans and ovenware. The product group shall cover products for both private and professional use. The products shall be a mixture of chemical substances and must not contain micro-organisms that have been deliberately added by the manufacturer.

Rationale and discussion

The **name** of the EU Ecolabel is proposed to remain unchanged.

The **scope** of the EU Ecolabel is proposed to remain unchanged as the market analysis[5] showed that all relevant products are covered and stakeholder consultation and review of other ecolabels and voluntary agreements did not raise any issues related to scope

The **definition** of the product group is proposed to be slightly altered in order to facilitate comprehension of what is in the scope. Glassware and ovenware are now explicitly mentioned and the phrase "and so on" has been removed added vagueness to the definition.

This revision work has not studied in detail the impact that micro-organisms have on the cleaning properties of products and as well as impacts on the environment. This work will be carried out following the 1st AHWG meeting.

Proposal for new definition and scope (option 2)
The product group 'Hand dishwashing detergents' shall comprise all detergents intended to be used to wash by hand glassware, crockery and kitchen utensils including cutlery, pots, pans and ovenware. The product group shall cover products for both private and professional use. The products shall be a mixture of chemical substances ~~and must not contain micro-organisms that have been deliberately added by the manufacturer~~.

A second version of the definition and scope text is proposed above and allows hand dishwashing detergents containing micro-organisms to seek an EU Ecolabel. This change has been asked by stakeholders but an evaluation of the role and the impact that micro-organisms can have on the performance, both in terms of washing and environmental

[5] Task 3 of the Preliminary report for the revision of European Ecological Criteria for Hand Dishwashing Detergents, available at: http://susproc.jrc.ec.europa.eu/detergents/index.html

impacts, has not yet been carried out as part of this revision. This work will be carried out following the 1st AHWG meeting.

Consultation questions	
1	Should the product scope exclude products with disinfecting properties?
2	Do you agree with the proposed change of the wording?
3	Should micro-organisms be considered for inclusion in the EU Ecolabel? Background information on the subject is sought from stakeholders.

7.2 Definitions

Current definition text
For the purpose of this Decision, the following definitions shall apply: 1. 'substance' means a chemical element and its compounds in the natural state or obtained by any production process, including any additive necessary to preserve the stability of the product and any impurity deriving from the process used but excluding any solvent, which may be separated without affecting the stability of the substance or changing its composition; 2. 'product' (or 'mixture') means a mixture or solution of two or more substances, which do not react.

Proposal for definitions text
(1) "ingoing substances and mixtures" means - biocides, fragrances, colouring agents, and mixtures thereof, regardless of concentration in the final formulation, - 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; (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.

Rationale and discussion

For further information on the update of definitions listed, refer to Section 4 of the Technical Annexe.

The definition for "substance" is proposed to be replaced with "ingoing substances and mixtures", which also provides information on the measurement thresholds for the different types of substances and mixtures covered. The definition of "product" is proposed to be removed as it overlaps with the definition of "detergent" as found in the Detergents Regulation[6].

[6] EC Regulation 648/2004 of The European Parliament and of The Council of 31 March 2004 on detergents. Available from: http://ec.europa.eu/enterprise/sectors/chemicals/documents/specific-chemicals/detergents/index_en.htm

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

Appendix I makes reference to the Detergents Ingredients Database (DID) list which contains the most widely used ingredients used in detergent formulations. It shall be used for deriving the data for the calculations of the Critical Dilution Volume (CDV) and for the assessment of the biodegradability of the ingredients. For substances not present on the DID list, guidance is given on how to calculate or extrapolate the relevant data. The latest version of the DID list is available from the EU Ecolabel website or via the websites of the individual competent bodies.

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

(b) Measurement thresholds

All substances in the product, including additives (e.g. preservatives or stabilisers) in the ingredients, of which the concentration exceeds 0,010 % by weight of the final formulation shall comply with the EU Ecolabel criteria except for criterion 1, where each intentionally added substance should be included, irrespective of its weight. Impurities resulting from the production of the ingredients which are present in concentrations > 0,010 % by weight of the final formulation shall also comply with the criteria.

Proposal for assessment and verification requirements and measurement thresholds

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 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 and mixtures. For substances or mixtures 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.

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 ingoing substances and mixtures 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.

Measurement thresholds

Compliance with the ecological criteria is required for all ingoing substances and mixtures, with the exception of compliance with criterion 3*(b) and 3*(c) for preservatives, colorants and fragrances which is requested when their concentration equals or exceeds 0,010% by weight in the final formulation.

*number of criterion to be changed based on the final structure of the criteria

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 CB – it is not present in the current criteria.

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 Section 5 of the Technical Annex.*

In the specific case of the EU Ecolabel for hand dishwashing detergents, the new text partially changes the thresholds for additives (e.g. biocides, fragrances and colouring agents). Namely in the current text, additives were only to be considered if their concentration in the final formulation was equal or above 0,01% except in the criterion on toxicity to aquatic organisms where all additives were to be considered, regardless of concentration. The new text states that additives are only to be considered if their concentration in the final formulation is equal or above 0,01% for criteria 3(b) and 3(c) related to hazardous substances, for all other criteria all additives should be considered, regardless of their concentration. When considering the different criteria in the EU Ecolabel, the only one that is affected by the change is that related to biodegradability.

8.2 Reference dosage

Current requirements for reference dosage
For hand dishwashing detergents, the dosage in grams of the product recommended by the manufacturer for preparing 1 litre of dishwashing water for cleaning of normally soiled dishes is taken as the reference dosage for the calculations aiming at documenting compliance with the EU Ecolabel criteria and for testing of cleaning ability.

Proposal for reference dosage
The following dosages are taken as the reference dosage for the calculations aiming at documenting compliance with the EU Ecolabel criteria and for testing of fitness for use: Dosage recommended by the manufacturer for one litre of washing water for cleaning normally soiled dishes (indicated in g/l washing water or ml/l washing water).

Rationale and discussion

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 Section 6 of the Technical Annexe.*

No changes are proposed to the reference dosage itself; it is only proposed to change the wording to be in line with the other EU Ecolabels related to detergents.

8.3 Criterion 1: Toxicity to aquatic organisms

Current criterion 1

The $CDV_{chronic}$ shall be calculated on the basis of the dosage in grams of the product recommended by the manufacturer for preparing 1 litre of dishwashing water for cleaning of normally soiled dishes. The $CDV_{chronic}$ of the recommended dose expressed for 1 litre of dishwashing water shall not exceed 3,800 litres.

***Assessment and verification**:* the exact formulation of the product shall be provided to the competent body, together with the details of the $CDV_{chronic}$ calculations showing compliance with this criterion.

Proposal for criterion 1

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

Product type	Limit CDV
Hand dishwashing detergents	2 700

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).

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.*

In order to revise the CDV limits for the different products covered by this EU Ecolabel for hand dishwashing detergents, stakeholders (including competent bodies) were contacted and asked to provide information on CDV values of products on the market. A total of 58 CDV values for products in this category have been received, all concerning products that have applied to be awarded the EU Ecolabel for hand dishwashing detergents or other similar ecolabels, Table 5 (data presented in Appendix 1 of this document). Two were labelled as "concentrated" so they were separated from the "traditional" hand dishwashing detergents to see if a trend could be observed but the data set is too small to have any significance.

Table 5: CDV ranges identified for traditional and concentrated hand dishwashing detergents (rounded to the closest 100)

	No.	CDV			Current Limit	Proposed Limit
		Min	Max	Average		
Traditional	56	500	3 900	2 400	3 800	2 700
Concentrated	2	2 100	2 100	2 100	3 800	2 700

The average CDV value for hand dishwashing detergents are much lower than the current limit of 3 800 but the distribution of values is also very large in the sample size with eight products being about 100-200 from the limit. Nevertheless, it is proposed to lower the CDV limit by 30% down to 2 700 as there are many products on the market that can comply with such a requirement. During the last revision in 2011[7], a CDV limit of 2 650 litres was already suggested by some stakeholders as it was stated that at this limit 47% of products on the European market would pass.

Consultation questions	
1	Is the stricter CDV limit appropriate?

[7] Ecolabel Board Meeting in February 2011 – EEB and BEUC position on all-purpose cleaners and hand dishwashing detergents, Brussels, 1 February 2011.

8.4 Criterion 2: Biodegradability of surfactants

Current criterion 2

(a) Ready biodegradability (aerobic)

Each surfactant used in the product shall be readily biodegradable.

Assessment and verification*:* the exact formulation of the product as well as a description of the function of each substance shall be provided to the competent body. The DID list part A (Appendix I) indicates whether a specific surfactant is aerobically biodegradable or not (the surfactants with an entry of 'R' in the column on aerobic biodegradability are readily biodegradable). For surfactants which are not included in the DID list part A, the relevant information from literature or other sources, or appropriate test results, showing that they are aerobically biodegradable shall be provided. The tests for ready biodegradability shall be as referred to in Regulation (EC) No 648/2004 of the European Parliament and of the Council of 31 March 2004 on detergents (1). Surfactants shall be considered as readily biodegradable if the level of biodegradability (mineralisation) measured in accordance with one of the five following tests is at least 60 % within 28 days: CO2 headspace test (OECD 310), carbon dioxide (CO2) Evolution Modified Sturm test (OECD 301B; Council Regulation (EC) No 440/2008 (2) method C.4-C), Closed Bottle test (OECD 301D; Regulation (EC) No 440/2008 method C.4-E), Manometric Respirometry (OECD 301F; Regulation (EC) No 440/2008 method C.4-D), or MITI (I) test (OECD 301C; Regulation (EC) No 440/2008 method C.4-F), or their equivalent ISO tests. Depending on the physical characteristics of the surfactant, one of the following tests might be used to confirm ready biodegradability, if the level of biodegradability is at least 70 % within 28 days: Dissolved Organic Carbon DOC Die-Away (OECD 301A; Regulation (EC) No 440/2008 method C.4-A) or Modified OECD Screening DOC Die-Away (OECD 301E; Regulation (EC) No 440/2008 method C.4-B), or their equivalent ISO tests. The applicability of test methods based on measurement of dissolved organic carbon needs to be appropriately justified as these methods could give results on the removal and not on the biodegradability. Pre-adaptation is not to be used in tests for aerobic ready biodegradability. The 10 days window principle shall not apply.

b) Anaerobic biodegradability

Surfactants that are not biodegradable under anaerobic conditions may be used in the product provided that the surfactants are not classified with H400/R50 (Very toxic to aquatic life) within the limit specified below.

The total weight of such anaerobically non-biodegradable surfactants must not exceed 0.10 gram of the recommended dose expressed for 1 litre of dishwashing water.

Assessment and verification: the exact formulation of the product as well as a description of the function of each substance shall be provided to the competent body. The DID list part A (Appendix I) indicates whether a specific surfactant is anaerobically biodegradable or not (the surfactants with an entry of 'Y' in the column on anaerobic biodegradability are biodegradable under anaerobic conditions). For surfactants which are not included in the DID list (OJ L 115, 4.5.2005, p. 18 part A), the relevant information from literature or other sources, or appropriate test results, showing that they are anaerobically biodegradable shall be provided. The reference test for anaerobic degradability shall be OECD 311, ISO 11734, ECETOC No 28 (June 1988) or an equivalent test method, with the requirement of a minimum of 60 % ultimate degradability under anaerobic conditions. Test methods simulating the conditions in a relevant anaerobic environment may also be used to document that 60 % ultimate degradability has been attained under anaerobic conditions (see Appendix II).

Proposal for criterion 2

a) Biodegradability of surfactants

To be discussed at the 1st AHWG meeting.

All surfactants shall be biodegradable under aerobic conditions.

All surfactants shall be biodegradable under anaerobic conditions.

b) Biodegradability of organic substances and mixtures

To be discussed at the 1st AHWG meeting.

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:

Product type	aNBO	anNBO
Hand dishwashing detergents	x,xx g	x,xx g

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 criteria for hand dishwashing detergents only the biodegradability of surfactants is considered. Nevertheless, cleaning products contain other substances that are not readily biodegradable (aerobically, aNBO), including phosphonates, EDTA, fragrances, polymers, colouring agents and thickening agents. They also contain substances that are not anaerobically degradable (anNBO), including sulphonated anionic surfactants, phosphonates, fragrances and colouring agents.

As explained in Section 9.1 of the Technical Annexe, 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 opinions. It has thus been decided that a discussion during the 1st 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. It requires aerobic and anaerobic degradability of surfactants and limits the amount of non-aerobically and non-anaerobically degradable

organics. Specific issues related to single product groups should be then taken into account (for instance in the case of IILD only non-ionic and cationic surfactants have to be anaerobically degradable, while anionic surfactants were exempted from this requirement). At present the values for aNBO and anNBO of the products are collected. This exercise will help evaluating validity of the current thresholds. The criterion on biodegradability will be revised following discussions with stakeholders.

Consultation questions	
1	Is the proposed approach suitable for HDD?
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

a) Specified excluded substances

The following substances shall not be included in the product, either as part of the formulation or as part of any mixture included in the formulation:

— alkylphenol ethoxylates (APEOs) and derivatives thereof
— EDTA (ethylene-diamine-tetra-acetic acid) and its salts
— 5-bromo-5-nitro-1,3-dioxane
— 2-bromo-2-nitropropane-1,3-diol
— diazolinidylurea
— formaldehyde
— sodium hydroxymethylglycinate
— nitro-musks and polycyclic musks, including for example:

- Musk xylene: 5-tert-butyl-2,4,6-trinitro-m-xylene
- Musk ambrette: 4-tert-butyl-3-methoxy-2,6-dinitrotoluene
- Moskene: 1,1,3,3,5-pentamethyl-4,6-dinitroindan
- Musk tibetine: 1-tert-butyl-3,4,5-trimethyl-2,6-dinitrobenzene
- Musk ketone: 4'-tert-butyl-2',6'-dimethyl-3',5'-dinitroacetaphenone
- HHCB (1,3,4,6,7,8-hexahydro-4,6,6,7,8,8-hexamethylcyclopenta(g)-2-benzopyran)
- AHTN (6-acetyl-1,1,2,4,4,7-hexamethyltetralin).

***Assessment and verification**:* the applicant shall provide a declaration supported by declarations from manufacturers, as appropriate, confirming that the listed substances have not been included in the product.

b) Quaternary ammonium salts that are not readily biodegradable shall not be used, either as part of the formulation or as part of any mixture included in the formulation.

***Assessment and verification**:* the applicant shall provide documentation showing the biodegradability of any quaternary ammonium salt used.

Proposal for sub-criterion 3a – "Specified excluded ingoing substances and mixtures"

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

(i) APEO (alkylphenol ethoxylates) and APD (alkylphenol derivatives)
(ii) EDTA (ethylenediaminetetraacetate)
(iii) 5-bromo-5-nitro-1,3-dioxane
(iv) 2-bromo-2-nitropropane-1,3-diol
(v) Diazolinidylurea
(vi) Formaldehyde
(vii) Sodium hydroxymethylglycinate
(viii) Nitro-musks and polycyclic musks
(ix) Hydroxyisohexyl 3-cyclohexene carboxaldehyde (HICC)
(x) Atranol and Chloroatranol
(xi) Fragrance substances subject to the declaration requirement provided for in Regulation (EC) No 648/2004 of the European Parliament and of the Council on detergents (Annex VII) and which are not already excluded by criterion 2b and (other) fragrance substances classified H317/R43 (May cause allergic skin reaction) and/or H334/R42 (May cause allergy or asthma symptoms or breathing difficulties if inhaled) shall not be present in quantities ≥ 0,010 % (≥

100 ppm) per substance.

(xii) Quaternary ammonium salts that are not readily biodegradable

Assessment and verification: the applicant shall provide 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.

The applicant shall provide documentation showing the biodegradability of any quaternary ammonium salt used.

The applicant shall also provide a declaration from the fragrance manufacturer specifying the content of each of the substances in the fragrances which are listed in Annex III of the Regulation (EC) No 1223/2009.

Rationale and discussion

Limiting environmentally harmful substances from products covered by the scope of the EU Ecolabel for hand dishwashing detergents is important, as most of the ingredients making up these products end up in the aquatic environment after use, ideally after going through wastewater treatment systems but sometimes also directly after use.

The requirement (a) *Specified excluded ingoing substances and mixtures* lists substances of concern, which have strong negative properties and cause significant impacts and are should not be present in EU Ecolabel products. Among them, they might also be substances that are classified or excluded above the concentration of 0,01% by sub-section (b) *Hazardous substances and mixtures* of this criterion. Nevertheless, due to a lack of harmonised classification and their potential hazard, it seems reasonable to cover the most impacting substances under this section and exclude them completely from the EU Ecolabel products. Overlaps in criteria regarding substances will be tackled in later stages of the EU Ecolabel revision process.

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

At present the following substances are proposed to be added to the excluded substances list based on initial feedback and information collected:

- The following fragrances and ingredients of the fragrance mixtures: Hydroxyisohexyl 3-cyclohexene carboxaldehyde (HICC), Atranol and Chloroatranol,

Additionally, in line with other detergent product criteria revisions, it is proposed to remove the exemplification of musks. A list can be included into use manual, if considered helpful by the CBs and applicants.

Consultation questions	
1	Are exclusions required for other substances?

Current criterion 3c

(c) Hazardous substances and mixtures

According to the Article 6(6) of Regulation (EC) No 66/2010, the product or any part of it shall not contain substances (in any forms, including nanoforms) meeting criteria for classification with the hazard statements or risk phrases specified below in accordance with Regulation (EC) No 1272/2008 of the European Parliament and of the Council (1) or Council Directive 67/548/EEC (2) nor shall it contain substances referred to in Article 57 of Regulation (EC) No 1907/2006 of the European Parliament and of the Council (3). The risk phrases below generally refer to substances. However, for

mixtures of enzymes and fragrances, where information on substances cannot be obtained, the classification rules for mixtures shall be applied.

List of hazard statements:

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
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; R39/24; R39/25; R39/26; R39/27; R39/28
H371 May cause damage to organs	R68/20; R68/21; R68/22
H372 Causes damage to organs through prolonged or repeated exposure	R48/25; R48/24; R48/23
H373 May cause damage to organs through prolonged or repeated exposure	R48/20; R48/21; R48/22
H400 Very toxic to aquatic life	R50
H410 Very toxic to aquatic life with long-lasting effects	R50-53
H411 Toxic to aquatic life with long-lasting effects	R51-53
H412 Harmful to aquatic life with long-lasting effects	R52-53
H413 May cause long-lasting harmful effects to aquatic life	R53
EUH059 Hazardous to the ozone layer	R59
EUH029 Contact with water liberates toxic gas	R29
EUH031 Contact with acids liberates toxic gas	R31
EUH032 Contact with acids liberates very toxic gas	R32
EUH070 Toxic by eye contact	R39-41
Sensitising substances	
H334: May cause allergy or asthma symptoms or breathing difficulties if inhaled	R42
H317: May cause allergic skin reaction	R43

Substances or mixtures which change their properties upon processing (e.g. become no longer bioavailable, undergo chemical modification) so that the identified hazard no longer applies are exempted from the above requirement.

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

Surfactants in concentrations <25 % in the product (*)	H400 Very toxic to aquatic life	R50
Surfactants in concentrations <25 % in the product(**)	H412 Harmful to aquatic life with long-lasting effects	R52-53

Surfactants in concentrations <25 % in the product(**)	H411 Toxic to aquatic life with long-lasting effects	R51-53
Fragrances	H412 Harmful to aquatic life with long-lasting effects	R52-53
Enzymes (***)	H317: May cause allergic skin reaction H334: May cause allergy or asthma symptoms or breathing difficulties if inhaled	R43 R42
NTA as an impurity in MGDA and GLDA (****)	H351 suspected of causing cancer	R40

(*) The percentage must be divided by the M-factor established in accordance with the Regulation (EC) No 1272/2008.

(**) This derogation is applicable provided that they are ready degradable and anaerobically degradable.

(***) Including stabilisers and other auxiliary substances in the preparations.

(****) In concentrations lower than 1.0 % in the raw material as long as the total concentration in the final product is lower than 0.10 %.

***Assessment and verification**:* the applicant shall provide the exact formulation of the product to the competent body. The applicant shall demonstrate compliance with this criterion for substances in the product on the basis of information consisting as a minimum of that specified in Annex VII to the Regulation (EC) No 1907/2006. Such information shall be specific to the particular form of the substance, including nanoforms, used in the product. For that purpose, the applicant shall provide a declaration of compliance with this criterion, together with a list of ingredients and related safety data sheets in accordance with Annex II to Regulation (EC) No 1907/2006 for the product as well as for all substances listed in the formulation(s). Concentration limits shall be specified in the safety data sheets in accordance with Article 31 of Regulation (EC) No 1907/2006.

Proposal for criterion 3b – "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 Table 2 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
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 ≥ 0,01 %, including preservatives, colouring agents and fragrances.

For hand dishwashing 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 with one or more of hazard statements listed in Table 2 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 3(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.

Rationale and discussion

Background information on the criterion for hazardous substance is given in Technical Annexe, Section 10.2.

The assessment and verification has been updated to harmonise with recently voted similar product group (ROC).

Current criterion 3d – 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 may be given concerning substances identified as substances of very high concern and included in the list foreseen in Article 59 of Regulation (EC) No 1907/2006 present in mixtures in concentrations higher than 0,010 %. ***Assessment and verification**:* the list of substances identified as substances of very high concern and included in the candidate list in accordance with Article 59 of Regulation (EC) No 1907/2006 can be found here: http://echa.europa.eu/chem_data/authorisation_process/candidate_list_table_en.asp Reference to the list shall be made on the date of application. Concentration limits shall be specified in the safety data sheets in accordance with Article 31 of Regulation (EC) No 1907/2006.

Proposal for criterion 3c – "Ingoing 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[8], 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 3(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.*

No content-wise change, just a harmonisation of text is made.

[8] http://echa.europa.eu/chem_data/authorisation_process/candidate_list_table_en.asp

Current criterion 3e - Biocides

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

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

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

Assessment and verification: the applicant shall provide 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) Biocides, either as part of the formulation or as part of any mixture included in the formulation, that are used to preserve the product and that are classified H410/R50-53 or H411/R51-53 in accordance with Directive 67/548/EEC, Directive 1999/45/EC of the European Parliament and of the Council (1) or Regulation (EC) No 1272/2008, are permitted but only if their bioaccumulation potentials are characterised by log Pow (log octanol/water partition coefficient) < 3.0 or an experimentally determined bioconcentration factor (BCF) ≤ 100.

Assessment and verification*:* the applicant shall provide copies of the material safety data sheets for all biocides, together with a documentation of the concentrations of the biocides in the final product.

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 logPow < 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 3(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.*

Rationale and discussion

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 as they are highly toxic to aquatic organisms and can also produce hypersensitivity and allergies (for more information see Technical Annexe, Section 10.2.2).

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" has been removed as CBs

mentioned in the ROC criteria development process that they cannot verify the compliance with this requirement and it should be removed.

- A requirement for biocides included in the product shall not be bioaccumulating has been added to further harmonise the criteria of the six different detergent and cleaning product groups. Some EU Ecolabel criteria (e.g. for the IILD, IIDD and ROS) as well as Nordic Swan criteria for DD have a requirement that preservatives may only be used if they are not bioaccumulative. The motivation behind this requirement is that substances which bioaccumulate collect in the fat tissues of living organisms and can cause long-lasting damage.
- Finally, in the recent criteria developments it was pointed out that sometimes preservatives may release or degrade to substances that are even more hazardous than the preservatives used. 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 3(b) Hazardous substances and mixtures*.

8.6 Criterion 4: Fragrances

Current criterion 4
(a) The product shall not contain perfumes containing nitro-musks or polycyclic musks (as specified in Criterion 3 (a)). (b) Any substance added to the product as a fragrance must have been manufactured and/or handled in accordance with the code of practice of the International Fragrance Association. The code can be found on IFRA website: http://www. ifraorg.org (c) Fragrance substances subject to the declaration requirement provided for in Regulation (EC) No 648/2004 (Annex VII) and which are not already excluded by Criterion 3(c) and (other) fragrance substances classified H317/R43 (May cause allergic skin reaction) and/or H334/R42 (May cause allergy or asthma symptoms or breathing difficulties if inhaled) shall not be present in quantities ≥ 0.010 % (≥ 100 ppm) per substance. (d) Fragrances shall not be used in hand dishwashing detergents for professional use. ***Assessment and verification**:* a declaration of compliance with each part of criterion (a), (b) and (d). For criterion (c), the applicant shall provide a signed declaration of compliance indicating the amount of fragrances in the product. The applicant shall also provide a declaration from the fragrance manufacturer specifying the content of each of the substances in the fragrances which are listed in Annex III, Part I to Council Directive 76/768/EEC (12) as well as the content of (other) substances which have been assigned the risk phrases R43/H317 and/or R42/H334.

Proposed criterion 3 (d) – "Fragrances"
(i) Any ingoing substance or mixture added to the product as a fragrance shall be manufactured and handled following the code of practice of the International Fragrance Association (IFRA). The code can be found on the IFRA website: http://www.ifraorg.org. The recommendations of the IFRA Standards concerning prohibition, restricted use and specified purity criteria for materials shall be followed by the manufacturer. (ii) Fragrance substances subject to the declaration requirement provided for in Regulation (EC) No 648/2004 of the European Parliament and of the Council on detergents (Annex VII) and which are not already excluded by criterion 2b shall not be present in quantities ≥ 0.010 % (≥ 100 ppm) per substance. (iii) Fragrances shall not be used in hand dishwashing detergents for professional use. ***Assessment and verification**: the applicant shall provide a signed declaration of compliance, supported by a declaration of the fragrance manufacturer, as appropriate. The applicant shall also provide a declaration from the fragrance manufacturer specifying the content of each of the substances in the fragrances which are listed in Annex III of the Regulation (EC) No 1223/2009.*

Rationale and discussion

No content-wise change is proposed for this criterion. Two exclusions of specific fragrances (atranol and chloroatranol) are proposed to be added and included in the sub-criterion (a) on specified excluded ingoing substances and mixtures, as well as the current requirement on exclusion of fragrance substances subject to the declaration requirement provided for in Regulation (EC) No 648/2004 of the European Parliament and of the Council on detergents (Annex VII) and which are not already excluded by criterion 2b and (other) fragrance substances classified H317/R43 (May cause allergic skin reaction) and/or H334/R42 (May cause allergy or asthma symptoms or breathing difficulties if inhaled) in quantities ≥ 0,010 % (≥ 100 ppm) per substance.

Background information on the criterion for fragrances is provided in Technical Annexe, Section 10.4.

Finally, update of the reference to Regulation (EC) No 1223/2009[9] (Cosmetic Regulation) instead of the Directive 76/768/EEC (Cosmetics Directive) was made.

[9] Regulation (EC) No 1223/2009 of the European Parliament and of the Council of 30 November 2009 on cosmetic products (recast) 9 22.12.200 Official Journal of the European Union L 342/59

8.7 Criterion 5: Corrosive properties

Current criterion 5
The product shall not be classified as a 'Corrosive' (C) mixture with R34 or R35 in accordance with Directive 1999/45/EC, or as a 'Skin Category 1' mixture in accordance with Regulation (EC) No 1272/2008. ***Assessment and verification**:* the applicant shall provide the exact concentrations of all substances used in the product, either as part of the formulation or as part of any mixture included in the formulation, that are classified as 'Corrosive' (C) with R34 or R35 in accordance with Directive 1999/45/EC, or as a 'Skin Category 1' mixture in accordance with Regulation (EC) No 1272/2008 to the competent body, together with copies of the material safety data sheets.

Proposed criterion 5
(no changes proposed)

Rationale and discussion

There are no proposed changes to this criterion after the initial phase of the consultation.

Corrosives properties are assigned to chemicals (mainly acids and bases) that can attack and chemically destroy exposed body tissues. They can cause damage for instance to skin or eyes. As hand dishwashing detergents come into contact with the hands during use, it is important that the product is not corrosive to skin. As such the motivation behind this requirement still stands. In response to the consultation, stakeholders reported no issues and no suggested changes to the criterion on corrosive properties.

8.8 Criterion 6: Packaging requirements

Current criterion 6

Plastics that are used for the main container shall be marked in accordance with the European Parliament and Council Directive 94/62/EC of 20 December 1994 on packaging and packaging waste (2), or DIN 6120 part 1 and 2 in connection with DIN 7728 part 1.

If the primary packaging is made of recycled material, any indication of this on the packaging shall be in conformity with the ISO 14021 standard 'Environmental labels and declarations — Self declared claims (type II environmental labelling)'.

Only phthalates that at the time of application have been risk assessed and have not been classified according to criterion 3(c) may be used in the plastic packaging.

The weight utility ratio (WUR) of the primary packaging must not exceed the following values:

Product type	WUR
Hand dishwashing detergents that are diluted in water prior to use	1,20 gram packaging per litre use solution (dishwashing water)

Assessment and verification: the applicant shall provide a calculation of the WUR of the product to the competent body, together with a declaration of compliance with each part of this criterion. For criterion (c) the applicant shall provide completed and signed declaration of compliance.

Proposed criterion 6

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	WUR
Hand dishwashing detergents	1,20 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_i: weight (g) of the primary packaging (i),
Ui: weight (g) of non-recycled and non-sustainably sourced packaging in the primary packaging (i). Ui = Wi unless the applicant can document otherwise,
D_i: number of reference doses contained in the primary packaging (i),
R_i: number of times that the primary packaging (i) can be refilled and used for the same purpose. Ri = 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[10]
Label or sleeve	- PS label or sleeve in combination material used with a PET, PP or HDPE bottle - PVC label or sleeve in combination with a PET, PP or HDPE bottle - PETG label or sleeve in combination with a PET bottle - Sleeves made of different polymer than the bottle - Labels or sleeves that are metallised or are welded to a packaging body (in mould labelling)
Closure	- PS closure in combination a with a PET, HDPE or PP bottle - PVC closure in combination with a PET, PP or HDPE bottle - PETG closures and/or closure material with density of above 1 g/cm3 in combination with a PET bottle - Closures made of metal, glass, EVA - Closures made of silicone. Exempted are silicone closures with a density < 1 g/cm3 in combination with a PET bottle and silicone closures with a density > 1g/cm3 in combination with PEHD or PP bottle - Metallic foils or seals which remain fixed to the bottle or its closure after the product has been opened
Barrier coatings	Polyamide, EVOH, functional polyolefins, metallised and light blocking barriers

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, packaging is not the most important environmental impact for consumer laundry detergents but can represent up to 37% of impact contribution for agricultural land occupation when non-recycled is used in the packaging (Section 4.4 -

[10] EVA – Ethylene Vinyl Acetate, EVOH – Ethylene vinyl alcohol, HDPE – High-density polyethylene, PET – Polyethylene terephtalate, PETG – Polyethylene terephthalate glycol-modified, PP – Polypropylene, PS – Polystyrene, PVC – Polyvinylchloride

Preliminary Report), for example. It is therefore proposed that a criterion on packaging is kept present in the EU Ecolabel for laundry detergents.
Further information on the wording of the proposed criterion and background information on packaging can be found in the Technical Annexe Section 11.

a) Weight/Utility Ratio (WUR)

No changes are proposed to the WUR values, although some stakeholders have pointed out that the current limits are too strict. In order to facilitate the compliance with the requirement, it is proposed to consider the percentage of recycled and sustainably sourced materials when calculating WUR, in order to promote the use of these types of materials.
Should fabric softeners be added to the scope of the EU Ecolabel for laundry detergents, these would fall under the "other" category.
Further information on this aspect can be found in the Technical Annex Section 11.3.1.

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 the Technical Annex Section 11.3.4.

Consultation questions	
1	Packaging is not one of the top 4 KPIs for hand dishwashing 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?

8.9 Criterion 7: Fitness for use

Current criterion 7
The product shall be fit for use, meeting the needs of the consumers. The cleaning ability and cleaning capacity must be equivalent to or better than that of the generic reference detergent specified below. ***Assessment and verification*:** the cleaning ability and cleaning capacity must be tested by means of an adequate and justifiable laboratory performance test carried out and reported within specified parameters as stated in the framework described in 'Framework for testing the performance of hand dishwashing detergents' that can be found here: http://ec.europa.eu/environment/ecolabel/ecolabelled_products/categories/hand_dishwashing_detergents_en.htm The generic reference detergent shall be the one prescribed in IKW performance test 'Recommendation for the quality assessment of the cleaning performance of hand dishwashing detergents' (SÖFW-Journal, 128, 5, pp. 11-15, 2002) with the adaptation that the dosage applied in the performance test is set at 2.5 millilitres of the reference detergent per 5 litres of water. The IKW performance test 'Recommendation for the quality assessment of the cleaning performance of hand dishwashing detergents' (SÖFW-Journal, 128, 5, pp. 11-15, 2002) method may be applied with the mentioned adaptation and can be downloaded from: http://www.ikw.org/pdf/broschueren/EQ_Handgeschirr_e.pdf

Proposed criterion 7
Tests shall be carried out to ensure that the product has a satisfactory wash performance at the lowest recommended dosage for the water hardness under 'Framework for testing the performance of hand dishwashing detergents' available at: http://ec.europa.eu/environment/ecolabel/documents/performance_test.pdf 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. The product shall be tested against another consumer product. If the product is marketed for both professional and consumer use it shall be tested against a professional product Alternatively, the IKW performance test 'Recommendation for the quality assessment of the cleaning performance of hand dishwashing detergents' method may be applied with the adaptation that the dosage applied in the performance test is set at 2,5 millilitres of the reference detergent per 5 litres of water. It and can be downloaded from: http://ec.europa.eu/environment/ecolabel/documents/performance_test.pdf ***Assessment and verification:*** The applicant shall provide documentation confirming that the product has been tested under the standard/protocol 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 (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, information should be provided 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 center is with visit reporting arrangements and the categories rated.

Rationale and discussion

Satisfactory fitness for use of hand dishwashing detergents ensures that the maximum performance of the product is achieved while getting a minimum environmental impact. *Further information about the most important parameters that influence the washing performance are included in Section 12 of the Technical Annexe.*

An EU Ecolabel protocol based on the IKW recommendation for the quality assessment of the cleaning performance of hand dishwashing detergents[11] was updated in 2011 being the test proposed in this revision. The test protocol is based on a laboratory test, for which the only feedback collected was the need for improvement in the number of repetitions.

Consultation questions	
1	Should the number of repetitions required under the 'Framework for testing the performance of hand dishwashing detergents' be increased to at least 20 (this was also proposed for APCs)?
2	Does the criterion need to provide further information regarding the specification and supply of test soil?

[11] SÖFW-Journal, 128, 5, pp. 11-15, 2002

8.10 Criterion 8: User instructions

Current criterion 8
The product shall bear the following information on the packaging: a) 'Do not use running water but immerse the dishes, and use the recommended dosage' (or equivalent text); b) Information on the recommended dosage shall appear on the packaging in a reasonably sufficient size and against a visible background. The information shall be provided in millilitres (and tea spoons) of product for 5 litres of dishwashing water suitable for 'dirty' and 'less dirty' dishes; c) An indication of the approximate number of washes that the consumer can perform with one bottle is recommended but voluntary. This is calculated by dividing the volume of the product by the dosage required for 5 litres of dishwashing water for dirty dishes. ***Assessment and verification:*** the applicant shall provide a sample of the product packaging, including the label to the competent body, together with a declaration of compliance with each part of this criterion.

Proposed criterion 8 – "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 shall include information on the recommended dosage and dilution instructions: - for non-professional products: in ml per 5l dishwashing water - for professional products: in ml per liter of dishwashing water A second well-known metric, such as tea spoons, shall be given in brackets. If the packing has an efficient and convenient dosage system, this dosage (i.e. capfuls, squirts, or other) can be used as the alternative metric. If needed, information on water hardness or where this information can be found out shall be included. **b) resource saving measures** The text "do not use running water but immerse the dishes" and "wash at the lowest suitable temperature" or equivalent shall be included on the primary packaging. **c) dose number (voluntary)** An indication of the approximate number of washes that the consumer can perform with one bottle is recommended but voluntary. This is calculated by dividing the volume of the product by the dosage required for 5 litres of dishwashing water for normally soiled dishes. **d) packaging disposal information** The primary packaging shall include information on the reuse, recycling and/or correct disposal of packaging. **e) environmental information (voluntary)** The following text is recommended to appear on the primary packaging 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''. ***Assessment and verification:*** The applicant shall provide a sample of the product packaging, including the label.

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 the environmental impacts. Section 12 of the Technical Annexe analyses the different points that should be communicated to users. Only those points that are relevant for this product group are included in the wording of this criterion.

Consultation questions	
1	Are separate dosage instructions required for professional and non-professional users?
2	Are the proposed dosage instructions clear and easy to understand?
3	Is the use of icons or graphical information an added-value to the product?

8.11 Criterion 9: Information appearing on the EU Ecolabel

Current criterion 9
Optional label with text box shall contain the following text: '— reduced impact on aquatic life, — reduced use of hazardous substances, — reduced packaging waste, — clear user instructions.' The guidelines for the use of the optional label with text box can be found in the 'Guidelines for the use of the EU Ecolabel logo' on the website: http://ec.europa.eu/environment/ecolabel/promo/logos_en.htm ***Assessment and verification:*** the applicant shall provide a sample of the label, together with a declaration of compliance with this criterion.

Proposed criterion 9
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

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.

Consultation questions	
1	Are the proposed statements suitable, illustrative of claims and an improvement?

8.12 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 Annexe.