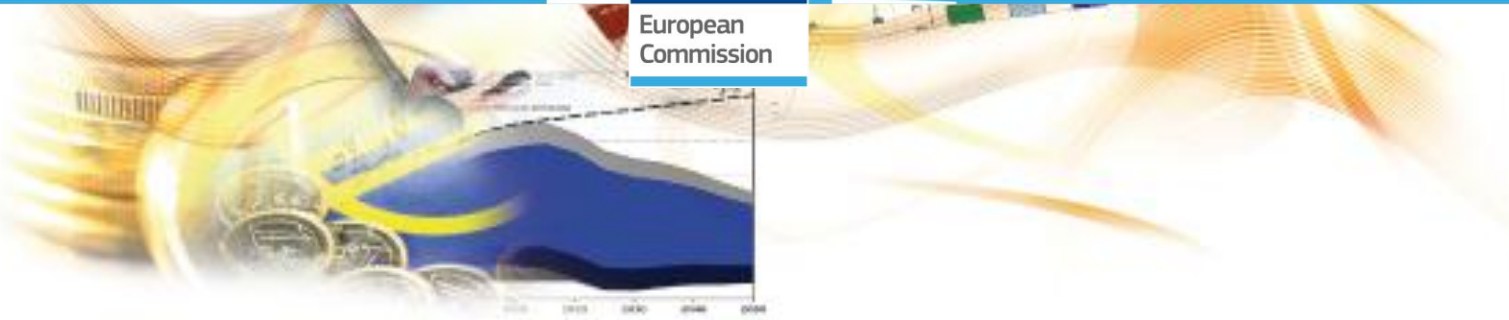




European
Commission



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

Revision of European Ecolabel Criteria for industrial and institutional laundry detergents

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

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1 INTRODUCTION

The following Technical Report presents a proposal of revised EU Ecolabel criteria for the product group of "industrial and institutional laundry detergents" (IILD). 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 Report¹ on the revision of the European Ecolabel criteria for laundry detergents: domestic and industrial and institutional and a Technical Annexe. The Preliminary Report covers in detail areas such as: scope and legislative analysis (Task 1), market analysis (Task 2), technical analysis (Task 3) and improvement potential (Task 4). The Technical Annexe is common to all detergent product groups as they share common issues and the revisions of their EU Ecolabel criteria are being done at the same time in order to facilitate harmonisation between criteria, where appropriate.

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

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

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

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

A revision of EU Ecolabel criteria must ensure that, based on impacts of the products covered by the EU Ecolabel for "industrial and institutional laundry 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:

¹ <http://susproc.jrc.ec.europa.eu/detergents/stakeholders.html>

-
- A clarification in the scope text on multi-component systems.
 - An update of several criteria with revised values and new values for categories of products that are not covered in the current criteria.

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 groups covered by the EU Ecolabel on industrial and institutional laundry detergents. The preliminary report is a document that provides the background information and underpins the new criteria proposal for two product groups: laundry detergents and industrial and institutional laundry detergents, due to their multiple overlaps.

The main findings of the Preliminary Report are:

-The *legal review* revealed that the 2012 Revision to the EU Detergents Regulation (EU/259/2012)² will limit the use of phosphates and phosphorus compounds in consumer automatic dishwasher detergents, but does not cover industrial and institutional dishwasher detergents.

-The *market analysis* revealed that IILDs only account for 4 % of the retail value of the EU market for laundry detergent products.

-The *technical analysis* revealed that the key environmental impacts associated with the product group can be summarised as follows:

- The life cycle stage with the largest contribution to the environmental impact profile of laundry detergents is the use phase, particularly the energy needed to heat the water for the wash cycle. For some impact categories, the sourcing of raw materials is also important.
- Based on the normalisation assessment, the most significant impact categories for laundry detergents in Europe are Freshwater Eutrophication, Human Toxicity, Freshwater Ecotoxicity, Marine Ecotoxicity, and Natural Land Transformation.

The results of the LCA for a consumer powder laundry detergent conducted as part of the technical analysis showed that the environmental impacts are strongly correlated to each other via the energy use in the use phase (with the exception of Natural Land Transformation). The use phase dominates the impact categories Freshwater Eutrophication, Human Toxicity, and Marine Ecotoxicity, whereas Freshwater Ecotoxicity and Natural Land Transformation are dominated by ingredients sourcing.

The key environmental performance indicators (KPIs), i.e. those variables that mainly drive the results for laundry detergents in Europe, based on the results of this study are:

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

Apart from the LCA analysis, a revision of other scientific evidences, current national schemes and legislation have been performed. These sources of information pointed out the potential presence of hazardous substances in the product that can have environmental and health impacts, and these are addressed according to Articles 6.6 and 6.7 of the Regulation EC/66/2010 on the Ecolabel Regulation³.

² 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

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

This document shows the process and the evidences to draft the EU Ecolabel criteria that tackle the mentioned main environmental impacts identified through the LCA analysis and the non-LCA impacts identified by revising other sources. The EU Ecolabel criteria are developed to directly or indirectly address the identified LCA and non-LCA impacts (eg the choice and amount of surfactants is an environmental impact directly addressed through one or several EU Ecolabel criteria while the amount of detergent is indirectly addressed). The "energy source used to heat the water" is the only environmental impact that cannot be addressed through the EU Ecolabel as it is not directly linked to the products; even when consumers can choose the source of energy to heat the water or an electricity provider with a share of renewable energies, this is something out of the scope of what can be promoted through a product environmental label. Moreover, even though waste generation was not among the top 5 KPIs, it can still have an impact of up to 36% for some environmental aspects. Given the large amount of industrial and institutional laundry detergents 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 LCA and non-LCA impacts identified 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	% of total impact⁴	Revised or new EU Ecolabel criteria	Comments on the related criteria
Wash temperature	3-96%	User information	The criterion encourages users to opt for lower water temperatures.
		Fitness for use	It ensures that the product is fit to wash at lowest temperature recommended by the producer.
		Information appearing on the EU Ecolabel	It informs consumers that the product's performance has been tested, even at low temperatures.
Energy sources to heat up the water	3-96%	--	Out of the scope of this policy tool
Amount of product used per application	3-95 %	User information	It informs users about the amount of product to be used depending on the washing conditions.
		Automatic dosing systems	The criterion ensures that users do not use an incorrect dose when using multi-component systems.
Choice and amount of surfactants	3-95 %	Biodegradability	It ensures that surfactants are biodegradable and will not persist in water.
		Restricted substances	It ensures that hazardous surfactants are not included in the bill of materials.
		Phosphorus content	It ensures that limited and restricted types of phosphorus compounds are not included as ingredients.
		Sustainable Palm oil	It ensures that renewable palm oil surfactants do not cause unnecessary strain on the ecosystem.

⁴ 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	% of total impact⁴	Revised or new EU Ecolabel criteria	Comments on the related criteria
Emissions to water	3-95 %	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.
		Phosphorus content	It ensures that eutrophication due to phosphorus is limited.
		Restricted substances	It ensures that hazardous substances do not reach water ways.
		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.
		Information appearing on the EU Ecolabel	It informs consumers that the product contains a limited amount of hazardous substances while they are making purchase decisions.
Waste generation	0-37%	Packaging	It ensures that a limited amount of waste will be generated and that this waste can be recycled.
		User information	It reminds consumers to dispose of the packaging in a responsible manner.
Water consumption	Not rated	User information	The criterion encourages users to opt for full wash loads. It provides information to the users on how to get the most out of the product while lowering the damage to the environment.
Hazardous substances	Not rated	Hazardous substances and mixtures	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	
		Information appearing on the EU Ecolabel	It informs consumers that the product has a limited amount of hazardous substances, at purchase

3 SUMMARY OF THE FEEDBACK REQUESTED FROM STAKEHOLDERS

INDUSTRIAL AND INSTITUTIONAL LAUNDRY DETERGENTS		
CRITERION / SECTION	QUESTIONS	
Name, definition and scope	1	Do you agree with the minor changes proposed to the definition?
Reference dosage	1	Do you agree with the changes proposed to the reference dosage?
Product and dosage information	1	Is the removal of this criterion appropriate?
Aquatic toxicity	1	Should the CDV limits be changed? Input is requested for further limit revision
	2	Should the tables be changed to be differentiated by product type and not by water hardness?
Biodegradability	1	Do you agree with keeping the current criterion?
	2	What would be the appropriate limits for aNBO and anNBO? Could stakeholders please share with the project team data on the amount of aNBO and anNBO organic substances and mixtures in the product groups covered?
Excluded substances and mixtures	1	Are exclusions required for other substances?
Derogations	1	Is a derogation for peracetic acid necessary?
	2	Are there any viable alternatives for peracetic acid?
	3	Do you have information which could substantiate keeping/removing the current derogations.
Preservatives	1	Do you agree with the changes proposed to requirement on preservatives?
Packaging requirements	1	Packaging is not one of the top 5 KPIs for I&l laundry detergents, should a criterion related to it be kept?
	2	Are the WUR limits appropriate?
	3	Is the design for recycling requirement suitable for this product group?
Automatic dosing systems	1	Is the criterion on multi-component products relevant to the product group?
User information – Information appearing on the EU Ecolabel	1	Is the change to the dosage instruction wording acceptable?
	2	Is a statement on overdosing required as part of the consumer information criterion?
	3	Should information on use of renewable energy be included?
	4	Should recycling labels be included on laundry detergent packaging?
	5	Is it appropriate to have the information appearing on the EU Ecolabel as a separate criterion?

4 CRITERIA STRUCTURE COMPARISON TABLE

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

5 NAME AND DEFINITION COMPARISON TABLE

NAME OF THE EU ECOLABEL	
Current name of the EU Ecolabel	Potential changes, modifications or amendments
Industrial and institutional laundry detergents	No change proposed
DEFINITION OF THE PRODUCT GROUP	
<p>The product group 'Industrial and Institutional Laundry Detergents' shall comprise: laundry detergent products performed by professional users in the industrial and institutional sector.</p> <p>Included in this product group are multi-component-systems constituting of more than one component used to build up a complete detergent or a laundering program for automatic dosing system.</p> <p>This product group shall not comprise products for obtaining textile attributes such as water-repellent, waterproof or fire-proof, etc. Furthermore, the product group shall not comprise products that are dosed by carriers such as sheets, cloths or other materials, as well as washing auxiliaries used without subsequent washing, such as stain removers for carpets and furniture upholstery.</p> <p>Consumer laundry products are excluded from the scope of this product group.</p>	<p>The product group 'Industrial and institutional laundry detergents' shall comprise: laundry detergent products used by professionals in industrial and institutional facilities.</p> <p>Included in this product group are multi-component-systems constituting of more than one component used to build up a complete detergent or a laundering program for automatic dosing system. Multi-component systems may incorporate a number of products including fabric softeners, stain removers and rinsing agents.</p> <p>This product group shall not comprise products which induce textile attributes such as water-repellency, waterproof-ness or fire retardancy, etc. Furthermore, the product group shall not comprise products that are dosed by carriers such as sheets, cloths or other materials, as well as washing auxiliaries used without subsequent washing, such as stain removers for carpets and furniture upholstery.</p> <p>Consumer laundry products are excluded from the scope of this product group.</p>
	<p>The proposed change aims to bring further harmonisation in the wording of the different EU Ecolabels related to detergents and the Detergents Regulation. It also proposes a clarification of what constitutes a multi-component system through examples. The wording is also proposed to be changed for attributes as previously they were adjectives and not nouns.</p>

6 COMPARISON OF EXISTING AND PROPOSED CRITERIA

CRITERIA														
Existing EU Ecolabel criteria	Potential changes, modifications or amendments													
Criterion 1: Product and dosage information														
<p>The recommended total dosage for 1 kg of laundry according to the degree of soiling and water hardness shall be given in g/kg laundry or ml/kg laundry. All products in a multi-component system have to be included with the worst case dosage when assessments of the criteria are made.</p> <p>Examples of degree of soiling:</p> <table border="1"> <thead> <tr> <th>Light</th> <th>Medium</th> <th>Heavy</th> </tr> </thead> <tbody> <tr> <td>Hotel: bed-linen, bedclothes and towels, etc. (towels may be considered heavily soiled)</td> <td>Work clothes: institutions/retail/service, etc.</td> <td>Work clothes: industry/kitchen/butchery, etc.</td> </tr> <tr> <td>Cloth hand towel rolls</td> <td>Restaurants: table-cloths, napkins, etc.</td> <td>Kitchen textiles: clothes, dish towels, etc.</td> </tr> <tr> <td></td> <td>Mops and mats</td> <td>Institutions as hospitals: bed-linen, bedclothes, contour sheets, patient clothing, doctor's coat or coatdress, etc.</td> </tr> </tbody> </table> <p>The product name, or in case of a multi-component system, a list of all products part of that system, together with the recommended water hardness (soft, medium or hard) and the intended degree of soiling shall be provided.</p> <p>The applicant must document compliance with criteria 2, 3 and 6 for all product names.</p> <p>Assessment and verification: the applicant shall provide the product name, or in case of a multi-component system, a list of all products part of that system, together with exact formulation of the product(s) and the label or artwork including dosage instructions according to the three degrees of soiling</p>	Light	Medium	Heavy	Hotel: bed-linen, bedclothes and towels, etc. (towels may be considered heavily soiled)	Work clothes: institutions/retail/service, etc.	Work clothes: industry/kitchen/butchery, etc.	Cloth hand towel rolls	Restaurants: table-cloths, napkins, etc.	Kitchen textiles: clothes, dish towels, etc.		Mops and mats	Institutions as hospitals: bed-linen, bedclothes, contour sheets, patient clothing, doctor's coat or coatdress, etc.	<p>It is proposed to remove the criterion.</p>	
Light	Medium	Heavy												
Hotel: bed-linen, bedclothes and towels, etc. (towels may be considered heavily soiled)	Work clothes: institutions/retail/service, etc.	Work clothes: industry/kitchen/butchery, etc.												
Cloth hand towel rolls	Restaurants: table-cloths, napkins, etc.	Kitchen textiles: clothes, dish towels, etc.												
	Mops and mats	Institutions as hospitals: bed-linen, bedclothes, contour sheets, patient clothing, doctor's coat or coatdress, etc.												

and water hardness. The density (g/ml) shall be stated for all products (either on the packaging or in a Safety Data Sheet).

As this criterion presents requirements that are already included in the section on "reference dosage" and in the criterion on "user instructions", it is proposed to remove it.

Criterion 2: Toxicity to aquatic organisms (CDV)

The Critical Dilution Volume (CDV chronic) of the product shall not exceed the following limits:

Soft water (0-6 °dH)	CDV_{chronic} (L/kg laundry)		
Product type/Degree of soiling	Light	Medium	Heavy
Powder	30,000	40,000	50,000
Liquid	50,000	60,000	70,000
Multi-component-system	50,000	70,000	90,000

Medium water (7-13 °dH)	CDV_{chronic} (L/kg laundry)		
Product type/Degree of soiling	Light	Medium	Heavy
Powder	40,000	60,000	80,000
Liquid	60,000	75,000	90,000
Multi-component-system	60,000	80,000	100,000

Hard water (>14 °dH)	CDV_{chronic} (L/kg laundry)		
Product type/Degree of soiling	Light	Medium	Heavy
Powder	50,000	75,000	90,000
Liquid	75,000	90,000	120,000
Multi-component-system	75,000	100,000	120,000

The Critical Dilution Volume (CDV chronic) is calculated for all ingoing substances (i) in the product using the following equation:

$$CDV_{chronic} = \sum CDV_{(i)} = \sum \text{weight}_{(i)} \times DF_{(i)} / TF_{chronic(i)} \times 1000$$

Where:

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

Soft water (<1,5 mmol CaCO₃/L)			
Degree of soiling	Light	Medium	Heavy
Product type			
Powder	30 000	40 000	50 000
Liquid	50 000	60 000	70 000
Multi-component-system	50 000	70 000	90 000

Medium water (1,5 – 2,5 mmolCaCO₃/L)			
Degree of soiling	Light	Medium	Heavy
Product type			
Powder	40 000	60 000	80 000
Liquid	60 000	75 000	90 000
Multi-component-system	60 000	80 000	100 000

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

Assessment and verification: Calculation of the CDV of the product. A spreadsheet for calculation of the CDV value is available on the EU Ecolabel

<p>weight = the weight of the ingoing substance per recommended dose</p> <p>DF = the degradation factor</p> <p>TF = the chronic toxicity factor of the substance as stated in the DID list.</p> <p>Biocides, colouring agents and fragrances present in the product must also be included in the CDV calculation even if the concentration is lower than 0,010 % (100 ppm).</p> <p>Because of the degradation of the substances in the wash process, separate rules apply to the following substances:</p> <ul style="list-style-type: none"> - Hydrogen Peroxide (H₂O₂) — not to be included in calculation of CDV - Peracetic acid — to be included in the calculation as acetic acid. <p>Assessment and verification: the applicant shall provide calculation of the CDV chronic of the product. A spreadsheet for calculation of the CDV value is available on the EU Ecolabel website.</p> <p>The values of the DF and TF parameters shall be as given in the Detergent Ingredient Database list (DID list). If the</p>	<p>website.</p> <p>The Critical Dilution Volume (CDV) is calculated for all ingoing substances and mixtures (i) in the product using the following equation:</p> $CDV = \sum CDV(i) = 1000 \cdot \sum dosage(i) \cdot \frac{DF(i)}{TF(i)}$ <p>Where:</p> <p><i>dosage(i)</i>: weight (g) of the substance or mixture <i>i</i> in the reference dose,</p> <p><i>DF(i)</i>: degradation factor for the substance or mixture <i>i</i></p> <p><i>TF(i)</i>: toxicity factor for the substance or mixture <i>i</i></p> <p>The values of <i>DF(i)</i> and <i>TF(i)</i> shall be as given in the DID list Part A (Appendix I⁵). 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).</p> <p>Because of the degradation of the substances in the wash process, separate rules apply to the following substances:</p> <ul style="list-style-type: none"> • hydrogen peroxide (H₂O₂) – not to be included in calculation of CDV • peracetic acid – to be included in the calculation as acetic acid.
<p>No change of thresholds or requirements is proposed, except of referencing water hardness in mmol CaCO₃/l.</p>	
<p>Criterion 3: Biodegradability</p>	
<p>(a) Biodegradability of surfactants</p> <p>All surfactants must be biodegradable under aerobic conditions.</p> <p>All non-ionic and cationic surfactants must also be biodegradable under anaerobic conditions.</p>	<p>a) Biodegradability of surfactants</p> <p>All surfactants shall be biodegradable under aerobic conditions.</p> <p>Non-ionic and cationic surfactants shall be biodegradable under anaerobic conditions.</p>

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

(b) Biodegradability of organic substances

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

aNBO

Soft water (0-6 °dH)	aNBO (g/kg laundry)		
Product type/Degree of soiling	Light	Medium	Heavy
Powder	0.70	1.10	1.40
Liquid	0.50	0.60	0.70
Multi-component system	1.25	1.75	2.50

Medium water (7-13 °dH)	aNBO (g/kg laundry)		
Product type/Degree of soiling	Light	Medium	Heavy
Powder	1.10	1.40	1.75
Liquid	0.60	0.70	0.90
Multi-component system	1.75	2.50	3.75

Hard water (>14 °dH)	aNBO (g/kg laundry)		
Product type/Degree of soiling	Light	Medium	Heavy
Powder	1.40	1.75	2.20
Liquid	0.70	0.90	1.20
Multi-component system	2.50	3.75	4.80

anNBO

Soft water (0-6 °dH)	anNBO (g/kg laundry)		
Product type/Degree of soiling	Light	Medium	Heavy
Powder	0.70	1.10	1.40
Liquid	0.50	0.60	0.70
Multi-component system	1.25	1.75	2.50

Medium water (7-13 °dH)	anNBO (g/kg laundry)		
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b) Biodegradability of organic substances and mixtures

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

aNBO (g/kg laundry)

Soft water (<1,5 mmol CaCO3/L)			
Degree of soiling	Light	Medium	Heavy
Product type			
Powder	0,70	1,10	1,40
Liquid	0,50	0,60	0,70
Multi-component-system	1,25	1,75	2,50

Medium water (1,5 – 2,5 mmolCaCO3/L)			
Degree of soiling	Light	Medium	Heavy
Product type			
Powder	1,10	1,40	1,75
Liquid	0,60	0,70	0,90
Multi-component-system	1,75	2,50	3,75

Hard water (> 2,5 mmol CaCO3/L)			
Degree of soiling	Light	Medium	Heavy
Product type			
Powder	1,40	1,75	2,20
Liquid	0,70	0,90	1,20
Multi-component-system	2,50	3,75	4,80

anNBO (g/kg laundry)

Soft water (<1,5 mmol CaCO3/L)
--

Product type/Degree of soiling	Light	Medium	Heavy
Powder	1.10	1.40	1.75
Liquid	0.60	0.70	0.90
Multi-component system	1.75	2.50	3.75

Hard water (>14 °dH)	anNBO (g/kg laundry)		
Product type/Degree of soiling	Light	Medium	Heavy
Powder	1.40	1.75	2.20
Liquid	0.70	0.90	1.20
Multi-component system	2.50	3.75	4.80

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

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

Note that TAED should be considered as anaerobically biodegradable.

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

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

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

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

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

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

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:

	<ol style="list-style-type: none"> 1. Readily degradable and has low adsorption ($A < 25\%$); 2. Readily degradable and has high desorption ($D > 75\%$); 3. Readily degradable and non-bioaccumulating. <p>Testing for adsorption/desorption may be conducted in accordance with OECD guidelines 106.</p>
	<p>As six EU Ecolabels related to detergents are being revised at the same time and as these products often have similar formulations, it is judicious to consider the harmonisation of their criteria. The current six EU Ecolabel criteria approach the subject using three different manners and stakeholder consultation has yielded a multitude of opinions. It has thus been decided that a discussion during the 1st AHWG meeting will be held. As a starting point for the harmonised approach, the criterion included in the most recently voted criteria for industrial and institutional products (laundry and dishwasher detergents) is proposed. The criterion will be revised following discussions with stakeholders. Collection of data on aNBO and anNBO is conducted.</p>
Criterion 4: Excluded or limited substances and mixtures	
<p>(a) Specified excluded substances</p> <p>The following substances shall not be included in the product, either as part of the formulation nor as part of any mixture included in the formulation:</p> <ul style="list-style-type: none"> - Phosphates (phosphonates are not excluded but limited by criterion 3) - APEO (Alkyl phenol ethoxylates) and ADP (Alkylphenols and derivatives thereof) - EDTA (ethylene-diamine-tetra-acetic-acid) and its salts <p>Assessment and verification: the applicant shall provide a declaration supported by declarations from manufacturers of substances, as appropriate, confirming that the listed substances have not been included in the product.</p>	<p>(a) Specified excluded ingoing substances and mixtures</p> <p>The product shall not be formulated or manufactured using any of the following compounds:</p> <ol style="list-style-type: none"> (i) Phosphates (ii) Phosphonates that are not readily biodegradable (iii) APEO (alkylphenol ethoxylates) and APD (alkylphenol derivatives) (iv) EDTA (ethylenediaminetetraacetate) (v) Nitro-musks and polycyclic musks (vi) Hydroxyisohexyl 3-cyclohexene carboxaldehyde (HICC) (vii) Atranol and Chloroatranol (viii) 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 X(b) shall not be present in quantities $\geq 0,010\%$ (≥ 100 ppm) per substance in the final product.

	<p>Assessment and verification: the applicant shall provide:</p> <p>a) a signed declaration of compliance supported by declarations from manufacturers of mixtures, as appropriate, confirming that the listed substances and/or mixtures have not been included in the product.</p> <p>b) written statements on compliance, including:</p> <ul style="list-style-type: none"> - information on the complexing agents in the product (detail information of the type of phosphonates added as ingredients); - information for the biodegradability of the phosphonates. A spreadsheet for use in calculating aNBO values is available on the EU Ecolabel website. <p>For aNBO values reference should be done to the DID List. For phosphonates which are not included in the most updated DID list, the relevant information from literature or other sources, or appropriate test results, showing that they are aerobically biodegradable shall be provided as described in Appendix (to be added).</p> <p>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.</p>						
	<p>The proposed changes aim at excluding ingredients with undesired environmental and health-related properties from EU Ecolabel products. Further discussion on the harmonisation of this criterion across all product groups is needed.</p>						
<p>(b) Hazardous substances and mixtures</p> <p>According to the Article 6(6) of Regulation (EC) No 66/2010 on the EU Ecolabel, the product or any component of it shall not contain substances 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. The risk phrases below generally refer to substances. However, if information on substances cannot be obtained, the classification rules for mixtures apply.</p> <p>List of hazard statements:</p> <table border="1" data-bbox="226 1265 1028 1369"> <thead> <tr> <th>GHS Hazard Statement</th> <th>EU Risk Phrase</th> </tr> </thead> <tbody> <tr> <td>H300 Fatal if swallowed</td> <td>R28</td> </tr> <tr> <td>H301 Toxic if swallowed</td> <td>R25</td> </tr> </tbody> </table>	GHS Hazard Statement	EU Risk Phrase	H300 Fatal if swallowed	R28	H301 Toxic if swallowed	R25	<p>(b) Hazardous substances and mixtures</p> <p>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 or substances referred to in Article 57 of Regulation (EC) No 1907/2006.</p> <p>The hazard statements in Table 2 generally refer to substances. However, if information on substances cannot be obtained, the classification rules for mixtures apply.</p> <p>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).</p> <p>Table 2: Hazard statements</p>
GHS Hazard Statement	EU Risk Phrase						
H300 Fatal if swallowed	R28						
H301 Toxic if swallowed	R25						

H304 May be fatal if swallowed and enters airways	R65		GHS Hazard Statement
H310 Fatal in contact with skin	R27		H300 Fatal if swallowed
H311 Toxic in contact with skin	R24		H301 Toxic if swallowed
H330 Fatal if inhaled	R23/26		H304 May be fatal if swallowed and enters airways
H331 Toxic if inhaled	R23		H310 Fatal in contact with skin
H340 May cause genetic defects	R46		H311 Toxic in contact with skin
H341 Suspected of causing genetic defects	R68		H330 Fatal if inhaled
H350 May cause cancer	R45		H331 Toxic if inhaled
H350i May cause cancer by inhalation	R49		H340 May cause genetic defects
H351 Suspected of causing cancer	R40		H341 Suspected of causing genetic defects
H360F May damage fertility	R60		H350 May cause cancer
H360D May damage the unborn child	R61		H350i May cause cancer by inhalation
H360FD May damage fertility. May damage the unborn child	R60-61		H351 Suspected of causing cancer
H360Fd May damage fertility. Suspected of damaging the unborn child	R60-63		H360F May damage fertility
H360Df May damage the unborn child. Suspected of damaging fertility	R61-62		H360D May damage the unborn child
H361f Suspected of damaging fertility	R62		H360FD May damage fertility. May damage the unborn child
H361d Suspected of damaging the unborn child	R63		H360Fd May damage fertility. Suspected of damaging the unborn child
H361fd Suspected of damaging fertility. Suspected of damaging the unborn child.	R62-63		H360Df May damage the unborn child. Suspected of damaging fertility
H362 May cause harm to breast fed children	R64		H361f Suspected of damaging fertility
H370 Causes damage to organs	R39/23; R39/24; R39/25; R39/26; R39/27; R39/28		H361d Suspected of damaging the unborn child
H371 May cause damage to organs	R68/20; R68/21; R68/22		H361fd Suspected of damaging fertility. Suspected of damaging the unborn child.
H372 Causes damage to organs through prolonged or repeated exposure	R48/25; R48/24; R48/23		H362 May cause harm to breast fed children
H373 May cause damage to organs through prolonged or repeated exposure	R48/20; R48/21; R48/22		H370 Causes damage to organs
H400 Very toxic to aquatic life	R50		H371 May cause damage to organs
H410 Very toxic to aquatic life with long-lasting effects	R50-53		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

H411 Toxic to aquatic life with long-lasting effects	R51-53	<p>EUH070 Toxic by eye contact</p> <p>H334: May cause allergy or asthma symptoms or breathing difficulties if inhaled</p> <p>H317: May cause allergic skin reaction</p> <p>This criterion applies to all ingredients present in concentrations $\geq 0,01\%$, including preservatives, colouring agents and fragrances.</p> <p>For consumer industrial and institutional laundry detergents, 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.</p> <p>Table 3: Derogated substances - To be discussed in the 1st AHWG meeting</p> <table border="1"> <thead> <tr> <th>Derogated substance</th> <th>H phrases</th> </tr> </thead> <tbody> <tr> <td></td> <td></td> </tr> </tbody> </table>	Derogated substance	H phrases				
Derogated substance	H phrases							
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		<p>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.</p> <p>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.</p> <p>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:</p> <p>(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;</p> <p>(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;</p> <p>(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</p>						
H334: May cause allergy or asthma symptoms or breathing difficulties if inhaled	R42							
H317: May cause allergic skin reaction	R43							
<p>Note that this criterion also applies to known degradation products such as formaldehyde from formaldehyde releasers.</p> <p>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.</p> <p>The final product must not be labelled according to the hazard statements above.</p> <p>Derogations</p> <p>The following substances are specifically exempted from this requirement:</p> <table border="1"> <tr> <td>Surfactants in concentrations <25 % in the final product</td> <td>H400 Very toxic to aquatic life</td> <td>R50</td> </tr> <tr> <td>Surfactants in concentrations <25 % in the final product (*)</td> <td>H412 Harmful to aquatic life with long-lasting effects</td> <td>R52-53</td> </tr> </table>		Surfactants in concentrations <25 % in the final product	H400 Very toxic to aquatic life	R50	Surfactants in concentrations <25 % in the final product (*)	H412 Harmful to aquatic life with long-lasting effects	R52-53	
Surfactants in concentrations <25 % in the final product	H400 Very toxic to aquatic life	R50						
Surfactants in concentrations <25 % in the final product (*)	H412 Harmful to aquatic life with long-lasting effects	R52-53						

Biocides used for preservation purposes (**)	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
Fragrances	H412 Harmful to aquatic life with long-lasting effects	R52-53
Enzymes(***)	H334: May cause allergy or asthma symptoms or breathing difficulties if inhaled	R42
	H317: May cause allergic skin reaction	R43
Bleach catalysts (***)	H334: May cause allergy or asthma symptoms or breathing difficulties if inhaled	R42
	H317: May cause allergic skin reaction	R43
NTA as an impurity in MGDA and GLDA (****)	H351 suspected of causing cancer	R40
Optical brighteners (only for heavy duty laundry detergent)	H413: May cause long lasting effects to aquatic life	R33

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

Information on intrinsic properties of substances may be generated by means other than tests, for instance through the use of alternative methods such as in

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

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

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

<p>vitro methods, by quantitative structure activity models or by the use of grouping or read-across in accordance with Annex XI to Regulation (EC) No 1907/2006. The sharing of relevant data is strongly encouraged.</p> <p>The information provided shall relate to the forms or physical states of the substance or mixtures as used in the final product.</p> <p>For substances listed in Annexes IV and V to REACH, exempted from registration obligations under Article 2(7)(a) and (b) of Regulation (EC) No 1907/2006 REACH, a declaration to this effect will suffice to comply with the requirements set out above.</p>	
	<p>The proposed changes are linked to an alignment with the criterion text for rinse-off cosmetics (ROCs). The assessment and verification part explains in more detail what evidence should be provided depending on the situation, e.g. availability of harmonised classification or SDS.</p> <p>Derogations will be discussed at the 1st AHWG meeting. Industry/stakeholders are asked to provide information substantiating requests to keep the current derogations by filling in the derogation request form included at the end of the Technical Annexe. The same applies to potential new requests for derogations.</p>
<p>(c) Substances listed in accordance with Article 59(1) of Regulation (EC) No 1907/2006</p> <p>No derogation from the exclusion in Article 6(6) of the Regulation (EC) No 66/2010 shall be given concerning substances identified as substances of very high concern and included in the list foreseen in Article 59 of Regulation (EC) No 1907/2006, present in mixtures in concentrations > 0,010 %.</p> <p>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 at: http://echa.europa.eu/chem_data/authorisation_process/candidate_list_table_en.asp</p> <p>Reference to the list shall be made on the date of application. The applicant shall provide the exact formulation of the product to the competent body. The applicant shall also provide a declaration of compliance with this criterion, together with related documentation, such as declarations of compliance signed by the material suppliers and copies of relevant Safety Data Sheets for</p>	<p>(c) "Ingoing substances listed in accordance with Article 59(1) of Regulation (EC) No 1907/2006"</p> <p>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, present in the product in concentrations higher than 0.010 % (weight by weight).</p> <p>Assessment and verification: reference to the list of substances identified as substances of very high concern shall be made on the date of application. The applicant shall provide the full formulation of the product to the competent body. The applicant shall also provide a declaration of compliance with criterion X(c), together with related documentation, such as declarations of compliance signed by the material suppliers and copies of relevant safety data sheets for substances or mixtures.</p>

substances or mixtures.	
	No content-wise changes are proposed. The text is proposed to be aligned with that of the corresponding criterion in the ROC criteria.
<p>(d) Specified limited ingoing substances — fragrances</p> <p>The product shall not contain perfumes containing nitro-musk or polycyclic musk</p> <p>Any ingoing substance added to the product as a fragrance shall be manufactured and handled following the code of practice of the International Fragrance Association (IFRA). The code can be found on IFRA website: http://www.ifraorg.org. The recommendations of the IFRA Standards concerning prohibition, restricted use and specified purity criteria for materials shall be followed by the manufacturer.</p> <p>Fragrance substances subject to the declaration requirement provided for in Regulation (EC) No 648/2004 of the European Parliament and of the Council (1) on detergents (Annex VII) and which are not already excluded by criterion 4(b) shall not be present in quantities $\geq 0,010\%$ (≥ 100 ppm) per substance in the final product.</p> <p>Assessment and verification: the applicant shall provide a signed declaration of compliance indicating the amount of fragrances in the product. The applicant shall also provide a declaration from the fragrance manufacturer specifying the content of each of the substances in the fragrances which are listed in Annex III, Part I to Council Directive 76/768/EEC.</p>	<p>(d) Fragrances</p> <p>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.</p> <p>Assessment and verification: the applicant shall provide a signed declaration of compliance, supported by a declaration of the fragrance manufacturer, as appropriate</p>
	No content-wise changes are proposed. The text is proposed to be aligned with that of other product groups and the exclusion of nitro-musks and polycyclic musks is now included in sub-criterion X(a) Specified excluded ingoing substances and mixtures.. The reference to the Cosmetics Directive 76/768/EEC should be changed to the Cosmetics Regulation (EC) No 1223/2009.
<p>(e) Biocides</p> <p>(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.</p> <p>Assessment and verification: the applicant shall provide copies of the</p>	<p>(e) Preservatives</p> <p>(i) The product may contain preservatives provided that they are not bioaccumulating. A preservative is not considered bioaccumulating if $BCF < 100$ or $\log Pow < 3,0$. If both BCF and $\log K_{ow}$ values are available, the highest measured BCF value shall be used.</p>

<p>material safety data sheets of any biocides added, together with information on their exact concentration in the product. The manufacturer or supplier of the biocides shall provide information on the dosage necessary to preserve the product.</p> <p>(ii) It is prohibited to claim or suggest on the packaging or by any other communication that the product has an antimicrobial or disinfecting effect.</p> <p>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.</p> <p>(iii) The product may contain biocides provided that they are not bioaccumulating. A biocide is not considered bioaccumulating if $BCF < 100$ or $\log K_{ow} < 3.0$. If both BCF and $\log K_{ow}$ values are available, the highest measured BCF value shall be used.</p> <p>Assessment and verification: the applicant shall provide copies of the material safety data sheets of any biocide added, together with information on their BCF and/or $\log K_{ow}$ values.</p>	<p>(ii) Preservatives in the product shall not release or degrade to substances that are classified in accordance with the requirements of criterion x(b) Hazardous substances and mixtures.</p> <p>(iii) It is prohibited to claim or suggest on the packaging or by any other communication that the product has an antimicrobial action.</p> <p>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.</p>
	<p>The proposed changes aim at harmonising the requirements on preservatives across all six product groups and they add two additional restrictions. Firstly, it is requested that preservatives used are not bioaccumulating and secondly, that they do not release or degrade to hazardous substances excluded by criterion X(b). The statement that "product may only include biocides in order to preserve the product, and in the appropriate dosage for this purpose alone. This does not refer to surfactants, which may also have biocidal properties" is proposed to be removed as it is not easily verifiable by competent bodies.</p>
	<p>(f) Colorants</p> <p>Colorants in the product must not be bioaccumulating. A colorant is considered not bioaccumulating if $BCF < 100$ or $\log Pow < 3.0$. If both BCF and $\log Kow$ values are available, the highest measured BCF value shall be used. In the case of colouring agents approved for use in food, it is not necessary to submit documentation of bioaccumulation potential.</p> <p>Assessment and verification: the applicant shall provide copies of the safety data sheets of any colorant added together with information on its BCF and/or $\log Kow$ value, or documentation to ensure that the colouring agent is approved for use in food.</p>

	The addition of this criterion is proposed in order to harmonise requirements with the other criteria for detergents and cleaning product groups.								
<p>(f) Enzymes</p> <p>Enzymes must be in liquid form or dust-free granulate. Enzymes must be free from micro-organism remnants from manufacture.</p> <p>Assessment and verification: the applicant shall provide copies of the material safety data sheets of any enzyme added, together with documentation to ensure that the enzyme is free from micro-organism remnants.</p>	<p>(g) Enzymes</p> <p>Enzymes must be in liquid form or dust-free granulate. Enzymes must be free from micro-organism remnants from manufacture.</p> <p>Assessment and verification: the applicant shall provide copies of the material safety data sheets of any enzyme added, together with documentation to ensure that the enzyme is free from micro-organism remnants.</p>								
	<p>(g) Phosphorus content</p> <p>The total content of phosphorus compounds in the product is limited to</p> <table border="1"> <thead> <tr> <th>Soiling</th> <th>Light</th> <th>Medium</th> <th>Heavy</th> </tr> </thead> <tbody> <tr> <td>Pg/kg laundry (dry weight)</td> <td>0.5</td> <td>1</td> <td>1.5</td> </tr> </tbody> </table> <p>Assessment and verification: the applicant should provide written statements on compliance, including:</p> <ul style="list-style-type: none"> - information on the complexing agents in the product (detail information of the type of phosphorus-content substances added as ingredients); - information on the recommended dose for different levels of soiling or water hardness (when applicable); - calculation of the product's total P-content 	Soiling	Light	Medium	Heavy	Pg/kg laundry (dry weight)	0.5	1	1.5
Soiling	Light	Medium	Heavy						
Pg/kg laundry (dry weight)	0.5	1	1.5						
	While all phosphates and non-readily biodegradable phosphonates are proposed to be excluded through criterion X(a), the total phosphorus content is proposed to be limited in order to ensure that this type of substance will contribute to eutrophication.								
Criterion 5 — Packaging requirements									
<p>(a) Weight/utility ratio (WUR)</p> <p>The weight/utility ratio (WUR) of the product shall not exceed the following values:</p> <table border="1"> <thead> <tr> <th>Product type/water</th> <th>WUR (g/kg laundry)</th> </tr> </thead> <tbody> <tr> <td></td> <td></td> </tr> </tbody> </table>	Product type/water	WUR (g/kg laundry)			<p>(a) Weight/utility ratio (WUR)</p> <p>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:</p>				
Product type/water	WUR (g/kg laundry)								

hardness	Soft	Medium	Hard
Powders	1.5	2.0	2.5
Liquids	2.0	2.5	3.0

WUR shall be calculated only for primary packaging and a calculation shall be made for every product within a multi- component system (including caps, stoppers and hand pumps/spraying devices) using the formula below:

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

Where:

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

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

D_i = the number of functional units contained in the packaging component (i). The functional unit = dosage in g/kg laundry. Note that the highest recommended dosage for each water hardness must be used in the WUR calculation.

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

Exceptions

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

Packaging is regarded as recycled if the raw material used to make the packaging has been collected from packaging manufacturers at the distribution stage or at the consumer stage. Where the raw material is industrial waste from the material manufacturer's own production process, then the material will

Product type/water hardness mmol CaCO ₃ /l	WUR (g/kg laundry)		
	Soft <1,5	Medium 1.5-2.5	Hard >2,5
Powders	1,5	2,0	2,5
Liquids	2,0	2,5	3,0

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 TBD⁶. For plastic, the applicant shall provide TBD.

⁶ TBD: to be determined. The acceptable certification schemes for the assessment and verification of this criterion have not been determined yet.

not be regarded as recycled.

Assessment and verification: the applicant shall provide the calculation of the WUR for every product. A spreadsheet for this calculation is available on the EU Ecolabel website. The applicant shall provide a completed and signed declaration for the content of recycled or material from renewable origin in the packaging. For approval of refill packaging, the applicant and/or retailer shall document that the refills will be/are available for purchase on the market.

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

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

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

b) Plastic packaging

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

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

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

The WUR is calculated as follows:

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

Where:

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

U_i: weight (g) of non-recycled and non-sustainably sourced packaging in the primary packaging (i). *U_i* = *W_i* unless the applicant can document otherwise,

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

R_i: number of times that the primary packaging (i) can be refilled and used for the same purpose. *R_i* = 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 recycle. The label or sleeve, closure and, where applicable, barrier coatings shall not comprise, either singularly or in combination the materials and components listed in Table 4. Pumps are exempted from this requirement.

Table 4: Materials and components excluded from packaging elements

Packaging element	Excluded materials and components ⁷
Label or sleeve	<ul style="list-style-type: none"> - 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

⁷ EVA – Ethylene Vinyl Acetate, EVOH – Ethylene vinyl alcohol, HDPE – High-density polyethylene, PET – Polyethylene terephthalate, PETG – Polyethylene terephthalate glycol-modified, PP – Polypropylene, PS – Polystyrene, PVC – Polyvinylchloride

	<table border="1"> <tr> <td data-bbox="1131 188 1339 255"></td> <td data-bbox="1339 188 2016 255">- Labels or sleeves that are metallised or are welded to a packaging body (in mould labelling)</td> </tr> <tr> <td data-bbox="1131 255 1339 606">Closure</td> <td data-bbox="1339 255 2016 606"> <ul style="list-style-type: none"> - 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 </td> </tr> <tr> <td data-bbox="1131 606 1339 670">Barrier coatings</td> <td data-bbox="1339 606 2016 670">Polyamide, EVOH, functional polyolefins, metallised and light blocking barriers</td> </tr> </table> <p>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.</p>		- Labels or sleeves that are metallised or are welded to a packaging body (in mould labelling)	Closure	<ul style="list-style-type: none"> - PS closure in combination 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
	- Labels or sleeves that are metallised or are welded to a packaging body (in mould labelling)						
Closure	<ul style="list-style-type: none"> - PS closure in combination 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						
	<p>The minor proposed change in WUR aims to promote sustainably sourced raw materials. The currently present specific criteria on plastic packaging are proposed to be removed, while the recyclability of plastic packaging is proposed to be promoted by limiting combinations of materials that can hinder the recycling process.</p>						
Criterion 6 – Washing performance (fitness for use)							
<p>The primary laundering effects of the detergent such as dirt removal and stain removal capacity must be documented by the producer/applicant with the aid of artificially soiled test clothes which are washed in the process.</p> <p>The test may be conducted by an external or internal laboratory fulfilling the requirements in Appendix II(a). The test must be conducted with the recommended dosage and at the corresponding water hardness and the degree of soiling at the lowest recommended wash temperature. The measurements must be performed on unlaundered and laundered test clothes. Evaluation of the test results shall be made by the laboratory and it shall be clearly stated in</p>	<p>Tests shall be carried out to ensure that the product has a satisfactory wash performance at the lowest recommended dosage for the water hardness and the degree of soiling. Test shall be performed according to laboratory tests (Appendix - to be added) or alternatively, user test (Appendix - to be added) may be used to document efficiency.</p> <p>The laboratory test shall be performed by an external laboratory complying with the Appendix (to be added). The tests shall be carried out at the water temperature stated in the Appendix to be added) or at the lowest temperature at which the product claims to be effective.</p> <p>The reference product is tested at the lowest recommended dosage that is</p>						

<p>the report.</p> <p>The measurements of secondary effects such as bleaching effect, bleaching/damage factor, ash content, greying and fluidity increase can for instance be made with multi wash test clothes and analysed according to standard ISO 4312.</p> <p>Examples of what may be used as wash test clothes included the following:</p> <ul style="list-style-type: none"> – WFK-PCMS-55 for industrial laundering processes, consisting of 13 different small dirt patches (WFK-Cleaning Technology Research Institute, Germany) – EMPA 102, consisting of 15 different fresh spots (Swiss EMPA-Testmaterials) – wash clothes of DTI (Danish Technology Institute) for industrial washing processes or equivalent <p>As an alternative to the above mentioned laboratory test, a user test may be used to document efficiency. The user test should then meet the requirements stated in Appendix II(b).</p> <p>For both laboratory test and user test the following apply:</p> <p>The test product must be tested against a reference product. The reference product may be a well-established product on the market or — in the case of a user test — the product normally used by the user. The test product must show efficiency equal to or better than the reference product.</p> <p>Assessment and verification: the applicant shall provide a test report stating that the product fulfils the minimum requirements defined in the chosen test; also see Appendix II(a) and II(b) respectively.</p>	<p>stated on the packaging for the degree of soiling and water hardness. If no dosage instructions are provided, the same dosage is used as for the test product.</p> <p>Assessment and verification</p> <p>The applicant shall provide documentation confirming that the product has been tested under the laboratory tests conditions in accordance with Appendix (to be added). Information should be provided on:</p> <ul style="list-style-type: none"> (a) Type of spots that are representative for the kind of soiled expected in the areas where the products will be marketed. (b) Information on the recommended dosage at the corresponding water hardness and the lowest recommended wash temperature at which the product claims to be effective. (c) The product's ability to remove soiling from the surfaces or materials and the effectiveness of other products the detergent shall be used with (eg. Rinseaids) . (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). <p>If a user test is performed, the applicant should provide information on:</p> <ul style="list-style-type: none"> (a) the way the test users were selected, all raw data from the tests and the test procedure. (b) all reply forms received from the test users and the overall result on the wash performance of the user test specified in a table/a form. The response must be rated in accordance with Appendix (to be added). (c) information on how satisfied the test centre is with visit reporting arrangements and the categories rated.
<p>The proposed changes bring harmonization among the detergents EU Ecolabel schemes. As there is no an EU Ecolabel protocol or an international standard for this product group, laboratory tests or alternatively user tests are proposed.</p>	
<p>Criterion 7 – Automatic dosing systems</p>	
<p>Multi-component systems shall be offered to the customer together with an automatic and controlled dosing system.</p>	<p>Multi-component systems shall be offered together with an automatic and controlled dosing system.</p>

<p>In order to ensure correct dosage in the automatic dosing systems, customer visits must be incorporated as a normal routine for manufacturers/suppliers. These customer visits are performed at all premises at least once a year during the license period; as a minimum they must include calibration of the dosage equipment. A third party can perform customer visits as well.</p> <p>Assessment and verification: the applicant shall provide a written description of responsibility for, frequency and content of customer visits.</p>	<p>In order to ensure correct dosage in the automatic dosing systems, customer visits must be incorporated as a normal routine for manufacturers/suppliers. These customer visits are performed at all premises at least once a year during the license period; they must include calibration of the dosage equipment. A third party can perform customer visits.</p> <p>In exceptional cases, customer visits may be dispensed with if the distance and method of delivery makes the visit impracticable.</p> <p>Assessment and verification: the applicant shall provide a written description of responsibility for, frequency and content of customer visits.</p>
	<p>No changes are proposed to this criterion, except the addition of a clause for cases when the requirement for annual visits would be too restrictive.</p>
<p>Criterion 8 – User information</p>	
<p>(a) Information on the packaging/product information sheet</p> <p>The following washing recommendations (or equivalent) must appear on the packaging, and/or on a product information sheet. The washing recommendations must include examples of the classification of the textiles soiling degree and shall include the following text:</p> <ul style="list-style-type: none"> – Wash at the lowest recommended temperature – Always wash with the highest possible load, the textiles allow – Dose according to the dosing instructions and use the dosage according to water hardness and degree of soiling – Using this EU Ecolabelled product according to the dosage instructions will contribute to the reduction of water pollution, waste production and energy consumption. <p>(b) Claims on the packaging</p> <p>In general, claims on the packaging shall be documented through performance testing (e.g. claims of efficiency at low temperatures, claims of removal of certain stain types, claims of benefits for certain types or colours of textile or other claims of specific properties/benefits of the product). e.g. if a product claims efficiency at 20 °C, the performance test must be performed at ≤ 20 °C (and correspondingly for other temperature claims below 40 °C). e.g. if a product claims to be efficient on certain stain types, this must be documented</p>	<p>The detergent shall be accompanied by instructions for proper use so as to maximise product performance and minimise waste. <i>These instructions shall be legible or include graphical representation or icons and include information on:</i></p> <p>a) dosing instructions</p> <p>The primary packaging or product information sheet shall include information on the recommended dosage in g or ml for 1kg of laundry for various levels of water hardness and various levels of soiling.</p> <p>The packaging or product information sheet shall indicate the most prevalent water hardness in the area where the product is intended to be marketed or where this information can be found.</p> <p>The applicant shall take suitable steps to help consumers respect the recommended dosage, making available a dosage device and/or indicating the recommended dosage in a well-known metric.</p> <p>b) resource saving measures</p> <p>The applicant shall recommend washing at the lowest temperature the product claims effectiveness and washing with full loads.</p> <p>c) packaging disposal information</p> <p>The primary packaging or product information sheet shall include information on the reuse, recycling and/or correct disposal of packaging.</p> <p>d) environmental information (voluntary)</p>

with performance test.	<p>The following text is recommended to appear on the primary packaging or product information sheet but its use is voluntary: "All detergents have an effect on the environment. Always use the correct dose for maximum effectiveness, the lowest recommended temperature. This will minimize both energy and water consumption and reduce water pollution".</p> <p>Assessment and verification: The applicant shall provide a sample of the product label or product information sheet</p>
	The proposed criterion is aligned with the corresponding criterion for other industrial and institutional products.
Criterion 9 – Information appearing on the EU Ecolabel	
<p>(c) Information appearing on the EU Ecolabel</p> <p>The logo should be visible and legible. The use of the EU Ecolabel logo is protected in primary EU law. The EU Ecolabel registration/license number must appear on the product, it must be legible and clearly visible.</p> <p>The optional label with text box shall contain the following text: – Reduced impact on aquatic ecosystems – Limited hazardous substances – Performance tested.</p> <p>The guidelines for the use of the optional label with text box can be found in the 'Guidelines for use of the Ecolabel logo' on the website: http://ec.europa.eu/environment/ecolabel/documents/logo_guidelines.pdf</p> <p>Assessment and verification (a-c): the applicant shall provide a sample of the product label and/or product sheet, together with a declaration of compliance with this criterion. Product claims shall be documented through appropriate test reports</p>	<p>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</p> <p>Assessment and verification: The applicant shall provide a sample of the product label</p>
	No content-wise changes are proposed. In order to be aligned with the other detergent product group criteria, it is proposed to set this as a separate criterion.
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

	<p>management that have been developed by multi-stakeholder organisations who have a broad based membership including NGOs, industry and government.</p> <p>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.</p>
	<p>New criterion proposal to ensure that palm oil, palm kernel oil and their derivatives come from sustainable source.</p>

7 REVISION OF MAIN DECISION TEXT

7.1 Name, definition and scope for EU Ecolabel

Current definition and scope

The product group 'Industrial and Institutional Laundry Detergents' shall comprise: laundry detergent products performed by professional users in the industrial and institutional sector.

Included in this product group are multi-component-systems constituting of more than one component used to build up a complete detergent or a laundering program for automatic dosing system.

This product group shall not comprise products for obtaining textile attributes such as water-repellent, waterproof or fire-proof, etc. Furthermore, the product group shall not comprise products that are dosed by carriers such as sheets, cloths or other materials, as well as washing auxiliaries used without subsequent washing, such as stain removers for carpets and furniture upholstery.

Consumer laundry products are excluded from the scope of this product group.

Proposal for new definition and scope

The product group 'Industrial and Institutional Laundry Detergents' shall comprise: laundry detergent products [used by professionals in industrial and institutional facilities](#).

Included in this product group are multi-component-systems constituting of more than one component used to build up a complete detergent or a laundering program for automatic dosing system. [Multi-component systems may incorporate a number of products including fabric softeners, stain removers and rinsing agents](#).

This product group shall not comprise products which induce textile attributes such as [water-repellency, waterproof-ness or fire retardancy](#), etc. Furthermore, the product group shall not comprise products that are dosed by carriers such as sheets, cloths or other materials, as well as washing auxiliaries used without subsequent washing, such as stain removers for carpets and furniture upholstery.

Consumer laundry products are excluded from the scope of this product group.

Rationale and discussion

No change is proposed to the **name** of the EU Ecolabel as it is in line with the Detergents Regulation and does not require clarification.

Following stakeholder feedback during consultation (Section 2.3 of Preliminary Report), it is proposed to include several minor changes to the **definition** of the product. First, the wording of the areas of applicability of the detergents is proposed to be modified in order to bring further harmonisation between this EU Ecolabel, the other EU Ecolabels covering industrial and institutional product groups and the Detergents Regulation. Second, the addition of a clarification of what constitutes of multi-component system is proposed through the inclusion of examples. Finally, a grammatical change is proposed in the description of types of products that are not covered by the EU Ecolabel. Currently the text reads "for obtaining textile attributes such as water-repellent, waterproof or fire-proof, etc." where "water-repellent", etc. are adjectives whereas nouns should be used as the text refers to "textile attributes".

The **scope** of the EU Ecolabel is proposed to remain the same. Market analysis showed that the current criteria covers all products on the market (Section 3 of the Preliminary Report) and stakeholder consultation and the review of other ecolabels and voluntary agreements for

industrial and institutional laundry detergents have not raised further issues on the scope (Sections 2.3 and 2.5 of the Preliminary Report).

Consultation questions	
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1	Do you agree with the minor changes proposed to the definition?
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7.2 Definitions

Current definition text
(inexistent)

Proposal for definitions text
(1) "ingoin substances and mixtures" means <ul style="list-style-type: none">- 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, including label where applicable.

Rationale and discussion

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

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

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

8 REVISION OF EXISTING CRITERIA OF EU ECOLABEL

8.1 Assessment and verification requirements and measurement thresholds

Current assessment and verification requirements and measurement thresholds	
a) Requirements	<p>The specific assessment and verification requirements are indicated within each criterion</p> <p>Where the applicant is required to provide declarations, documentation, analyses test reports, or other evidence to show compliance with the criteria, it is understood that these may originate from the applicant and/or his supplier(s) and/or their supplier(s), et cetera, as appropriate.</p> <p>Where possible, the testing should be performed by laboratories that meet the general requirements of EN ISO 17025 or equivalent.</p> <p>Where appropriate, test methods other than those indicated for each criterion may be used if the competent body assessing the application accepts their equivalence.</p> <p>Appendix I makes reference to the detergent ingredient database (DID list) which contains the most widely used ingoing substances used in detergent formulations. It shall be used for deriving the data for the calculations of the Critical Dilution Volume (CDV) and for the assessment of the biodegradability of the ingoing substances. For substances not present on the DID list, guidance is given on how to calculate or extrapolate the relevant data. The latest version of the DID list is available from the EU Ecolabel website or via the websites of the individual competent bodies.</p> <p>Where appropriate, competent bodies may require supporting documentation and may carry out independent verifications.</p>
b) Measurement thresholds	<p>Compliance with the ecological criteria is required for substances intentionally added, as well as for by-products and impurities from raw materials, the concentration of which equals or exceeds 0,010 % by weight of final formulation.</p> <p>For biocides, colouring agents and fragrance compliance with the criteria is required regardless of their concentration.</p> <p>Substances meeting the threshold limit as listed above are hereby referred to as 'Ingoing substances'.</p> <p>For all products: it is the highest total dosage recommended for the individual degree of soiling which must comply with the ecological criteria. If the dosage is stated in intervals the worst case dosage must be used when the criterions are assessed.</p>

Proposal for assessment and verification requirements and measurement thresholds	
a) Requirements	<p>The specific assessment and verification requirements are indicated for each criterion.</p> <p>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.</p> <p>Where possible, the testing shall be performed by laboratories that meet the general requirements of European Standard EN ISO 17025 or equivalent.</p> <p>Where appropriate, test methods other than those indicated for each criterion may be used if the competent body assessing the application accepts their equivalence.</p> <p>Where appropriate, competent bodies may require supporting documentation and may carry out independent verifications.</p>

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. 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.

The following information shall be provided to the competent body:

(i) The full formulation of the product indicating trade name, or in case of a multi-component system, a list of all products part of that system, chemical name, CAS no. and INCI designations, DID no.2, the ingoing quantity including and excluding water, the function and the form of all ingredients regardless of concentration;

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

b) Measurement thresholds

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

Rationale and discussion

a) Requirements

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

b) Measurement thresholds

The measurement threshold is the concentration of ingredients in the product for which there is a requirement for documentation of compliance with the ecological criteria. It is proposed to harmonise the measurement thresholds for all the EU Ecolabels in the detergents group and the EU Ecolabel for rinse-off cosmetics. The new text and thresholds are discussed in Section 5 of the Technical Annex.

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

8.2 Functional unit (reference dosage)

Current requirements for functional unit

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

Requirements relating to assessment and verification of the functional unit:

The full formulation indicating trade name, chemical name, CAS No, DID No (*), the ingoing quantity including and excluding water, the function and the form of all the ingoing substances (regardless of concentration) in the product shall be submitted to the competent body. A sample of the artwork including dosage recommendations must be submitted to the competent body.

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

*Part A and Part B of the DID list can be found on the EU Ecolabel website:
http://ec.europa.eu/environment/ecolabel/documents/did_list/didlist_part_a_en.pdf
http://ec.europa.eu/environment/ecolabel/documents/did_list/didlist_part_b_en.pdf*

Proposal for reference dosage

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

Worst-case dosage recommended by the manufacturer to wash one kilogram of dry laundry (indicated in g/kg laundry or ml/kg laundry). The worst-case scenario is considered to be the worst soiling acceptable for clothes (see classification in table below) and the maximum water hardness found at the location where the product is marketed. All products in a multi-component system have to be included with the worst case dosage when assessments of the criteria are made.

Examples of degree of soiling:

Light	Medium	Heavy
Hotel: bed-linen, bedclothes and towels, etc. (towels may be considered heavily soiled) Cloth hand towel rolls	Work clothes: institutions/retail/service, etc. Restaurants: table-cloths, napkins, etc. Mops and mats	Work clothes: industry/kitchen/butchering, etc. Kitchen textiles: clothes, dish towels, etc. Institutions as hospitals: bed-linen, bedclothes, contour sheets, patient clothing, doctor's coat or coatdress, etc.

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.

In the case of industrial and institutional laundry detergents, it is proposed to remove the paragraph on the functional unit and to introduce the notion of "reference dosage" as it is this quantity that should be used when calculating compliance with the different requirements in the EU Ecolabel. As there are multiple applications for industrial and institutional laundry detergents and the dosage can highly vary based on the type of soiling, the reference dosage is considered to be the one recommended for the worst-case scenario by the manufacturer (heavily soiled laundry). This specification is currently included in Criterion 1 on Dosage Requirements, but it is proposed to include it in the general statements that are applicable to all requirements.

Consultation questions

1	Do you agree with the changes proposed to the reference dosage?
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8.3 Criterion 1: Product and dosage information

Current criterion 1

The recommended total dosage for 1 kg of laundry according to the degree of soiling and water hardness shall be given in g/kg laundry or ml/kg laundry. All products in a multi-component system have to be included with the worst case dosage when assessments of the criteria are made.

Example of degree of soiling:

Light	Medium	Heavy
Hotel: bed-linen, bedclothes and towels, etc. (towels may be considered heavily soiled) Cloth hand towel rolls	Work clothes: institutions/retail/service, etc. Restaurants: table-cloths, napkins, etc. Mops and mats	Work clothes: industry/kitchen/butchery, etc. Kitchen textiles: clothes, dish towels, etc. Institutions as hospitals: bed-linen, bedclothes, contour sheets, patient clothing, doctor's coat or coatdress, etc.

The product name, or in case of a multi-component system, a list of all products part of that system, together with the recommended water hardness (soft, medium or hard) and the intended degree of soiling shall be provided.

The applicant must document compliance with criteria 2, 3 and 6 for all product names.

Assessment and verification: the applicant shall provide the product name, or in case of a multi-component system, a list of all products part of that system, together with exact formulation of the product(s) and the label or artwork including dosage instructions according to the three degrees of soiling and water hardness. The density (g/ml) shall be stated for all products (either on the packaging or in a Safety Data Sheet).

Proposed criterion 1

Removal of criterion

Rationale and discussion

This criterion presents requirements that are already included in the section on "reference dosage" and in the criterion on "user instructions". Indeed, the reference dosage is required to be given for the worst-case scenario based on the maximum soiling that is expected and the water hardness of the location where the product is marketed. The criterion on "user instructions" requires the presentation of labels and artwork for dosage instructions for different levels of soiling and water hardness.

Thus, it is proposed to remove this criterion in order to simplify the EU Ecolabel and avoid repetition.

Consultation questions

1 Is the removal of this criterion appropriate?

8.4 Criterion 2: Toxicity to aquatic organisms: Critical dilution volume (CDV)

Current criterion 2			
The critical dilution volume of the product must not exceed the following limits (CDV _{chronic}):			
Soft water (0-6 °dH)		CDV _{chronic} (L/kg laundry)	
Product type/Degree of soiling	Light	Medium	Heavy
Powder	30,000	40,000	50,000
Liquid	50,000	60,000	70,000
Multi-component-system	50,000	70,000	90,000
Medium water (7-13 °dH)		CDV _{chronic} (L/kg laundry)	
Product type/Degree of soiling	Light	Medium	Heavy
Powder	40,000	60,000	80,000
Liquid	60,000	75,000	90,000
Multi-component-system	60,000	80,000	100,000
Hard water (>14 °dH)		CDV _{chronic} (L/kg laundry)	
Product type/Degree of soiling	Light	Medium	Heavy
Powder	50,000	75,000	90,000
Liquid	75,000	90,000	120,000
Multi-component-system	75,000	100,000	120,000
The full formula for calculating the CDV value is given in the criteria document.			
Biocides, colouring agents and fragrances present in the product must also be included in the CDV calculation even if the concentration is lower than 0.01 % (100 ppm). Because of degradation in the wash process, separate rules apply to the following substances:			
<ul style="list-style-type: none"> hydrogen peroxide (H₂O₂) – not to be included in the calculation of CDV. peracetic acid – to be included in the calculation as acetic acid. 			
Assessment and verification: the applicant shall provide calculation of the CDV _{chronic} of the product. A spreadsheet for calculation of the CDV value is available on the EU Ecolabel website.			
The values of the DF and TF parameters shall be as given in the Detergent Ingredient Database list (DID list). If the substance is not found on the DID list, the parameters shall be calculated using the guidelines in part B of the DID list and attaching the associated documentation.			

Proposal for criterion 1 – "Toxicity to aquatic organisms"			
The critical dilution volume (CDV) of the product must not exceed the following limits for the reference dosage :			
Soft water (<1,5 mmol CaCO ₃ /L)			
Degree of soiling Product type	Light	Medium	Heavy
Powder	30 000	40 000	50 000
Liquid	50 000	60 000	70 000
Multi-component-system	50 000	70 000	90 000
Medium water (1,5 – 2,5 mmolCaCO ₃ /L)			

Degree of soiling Product type	Light	Medium	Heavy
Powder	40 000	60 000	80 000
Liquid	60 000	75 000	90 000
Multi-component-system	60 000	80 000	100 000

Hard water (> 2,5 mmol CaCO ₃ /L)			
Degree of soiling Product type	Light	Medium	Heavy
Powder	50 000	75 000	90 000
Liquid	75 000	90 000	120 000
Multi-component-system	75 000	100 000	120 000

Assessment and verification: Calculation of the CDV of the product. A spreadsheet for calculation of the CDV value is available on the EU Ecolabel website.

The Critical Dilution Volume (CDV) is calculated for all ingoing substances and mixtures (i) in the product using the following equation:

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

Where:

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

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

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

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

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

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

Rationale and discussion

Detergents have great potential to cause disturbances in aquatic ecosystems as they cause chemical emissions to water during their entire life cycle. For this reason, EU Ecolabels limit the amount of emissions due to EU Ecolabel products. Critical Dilution Volume (CDV) is used in the current EU Ecolabels related to detergents to assess toxicity to aquatic organisms. It is proposed to keep this assessment method in this revision. Further description of CDV and discussion of other assessment methods can be found in the Technical Annexe Section 8.

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

For this product group the CDV calculation is set for different levels of water hardness and degrees of soiling, as well as for different product types (liquid/powder/multi-functional). This is because the required dosage/product formulation is dependent on the degree of soiling and level of water hardness. As outlined in the reference dosage (Section 6), this product group covers a wide range of potential washing requirements including hotel bed linen, restaurant table cloths and sheets used in hospitals. It is important that these different needs are reflected in the requirements of the EU Ecolabel for IILD.

The CDV value for the IILD product group are less strict than those set for laundry detergents for domestic use. The levels for professional products reflect the fact that textiles washed have tougher stains and shorter wash cycles are used. Examples of soiling and wash requirements of users of IILD products include: removal of soil from hospital goods and dirt from engineering industry as well as maintenance of whiteness for linens used in the

hospitality industry. As a consequence products are more concentrated than those intended for domestic use.

An overview of the differences in LD and IILD is presented in Section 2.6 of the Preliminary Report.

No changes have been proposed for the CDV limits for this product group as not enough CDV values of products were obtained from stakeholders for IILD products to substantiate a change. In fact CDV values for only four different products were obtained (Table 5). The values obtained were significantly lower than the current limits for all water hardness levels. For multi-component liquid detergents they range from 20,700 to 38,700 l/kg laundry for medium soiled textiles in medium water hardness.

Table 5: CDV ranges found for IILD products

	Soiling	Values	CDV (L/kg laundry)			Current Limit (L/kg laundry) (medium water)
			Min	Max	Average	
I&I Multi-component liquid	Light	3	14,700	32,700	23,600	60,000
	Medium	3	20,700	38,700	29,600	80,000
	Heavy	3	26,100	43,900	35,100	100,000
I&I Heavy duty powder	N/A	1	34,700	34,700	34,700	40,000 (light soilage) 60,000 (medium soilage) 80,000 (medium soilage)

Water hardness is proposed to be referenced in mmol CaCO₃/l, as indicated in Section 7.1 of the Technical Annexe the ranges commonly used with mmol CaCO₃/l are different than those that are indicated in the current text with °dH.

Restructuring of tables (for discussion, not set as a proposal)

The CDV values are currently presented in tables related to water hardness as the principle parameter of interest. In reality, the principle parameter of interest to applicants is the format of the detergent: powder, liquid or multi-format. It would be more sensible to organise the tables per product format and have the water hardness/degree of soiling matrix within each table. This information would also be aligned to the way users would expect to see usage information presented on packaging. The change would be simple to implement.

Consultation questions	
1	Should the CDV limits be changed? Input is requested for further limit revision
2	Should the tables be changed to be differentiated by product type and not by water hardness?

8.5 Criterion 3: Biodegradability of organic substances

Current criterion 3

a) Biodegradability of surfactants

All surfactants must be biodegradable under aerobic conditions

All non-ionic and cationic surfactants must also be biodegradable under anaerobic conditions

b) Biodegradability of organic substances

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

aNBO

Soft water (0-6 °dH)	aNBO (g/kg laundry)		
Product type/Degree of soiling	Light	Medium	Heavy
Powder	0.70	1.10	1.40
Liquid	0.50	0.60	0.70
Multi-component system	1.25	1.75	2.50

Medium water (7-13 °dH)	aNBO (g/kg laundry)		
Product type/Degree of soiling	Light	Medium	Heavy
Powder	1.10	1.40	1.75
Liquid	0.60	0.70	0.90
Multi-component system	1.75	2.50	3.75

Hard water (>14 °dH)	aNBO (g/kg laundry)		
Product type/Degree of soiling	Light	Medium	Heavy
Powder	1.40	1.75	2.20
Liquid	0.70	0.90	1.20
Multi-component system	2.50	3.75	4.80

anNBO

Soft water (0-6 °dH)	anNBO (g/kg laundry)		
Product type/Degree of soiling	Light	Medium	Heavy
Powder	0.70	1.10	1.40
Liquid	0.50	0.60	0.70
Multi-component system	1.25	1.75	2.50

Medium water (7-13 °dH)	anNBO (g/kg laundry)		
Product type/Degree of soiling	Light	Medium	Heavy
Powder	1.10	1.40	1.75
Liquid	0.60	0.70	0.90
Multi-component system	1.75	2.50	3.75

Hard water (>14 °dH)	anNBO (g/kg laundry)		
Product type/Degree of soiling	Light	Medium	Heavy
Powder	1.40	1.75	2.20
Liquid	0.70	0.90	1.20
Multi-component system	2.50	3.75	4.80

Assessment and verification: the applicant shall provide documentation for the degradability of surfactants as well as the calculation of aNBO and anNBO for the product. A spreadsheet for use in

calculating aNBO and anNBO values is available on the EU Ecolabel website.
 For both surfactants and aNBO and anNBO values reference should be done to the DID List. For ingoing substances which are not included in the DID list, the relevant information from literature or other sources, or appropriate test results, showing that they are aerobically and anaerobically biodegradable shall be provided as described in Appendix I.

Note that TAED should be considered as anaerobically biodegradable.

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

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

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

Proposed criterion 3 – "Biodegradability"

a) Biodegradability of surfactants

All surfactants shall be biodegradable under aerobic conditions.

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

b) Biodegradability of organic substances and mixtures

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

aNBO (g/kg laundry)

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

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

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

anNBO (g/kg laundry)

Soft water (<1,5 mmol CaCO ₃ /L)			
Degree of soiling Product type	Light	Medium	Heavy
Powder	0,70	1,10	1,40
Liquid	0,50	0,60	0,70

Multi-component-system	1,25	1,75	2,50
Medium water (1,5 – 2,5 mmolCaCO₃/L)			
Degree of soiling Product type	Light	Medium	Heavy
Powder	1,10	1,40	1,75
Liquid	0,60	0,70	0,90
Multi-component-system	1,75	2,50	3,75
Hard water (> 2,5 mmol CaCO₃/L)			
Degree of soiling Product type	Light	Medium	Heavy
Powder	1,40	1,75	2,20
Liquid	0,70	0,90	1,20
Multi-component-system	2,50	3,75	4,80

Assessment and verification: The applicant shall provide documentation for the degradability of surfactants, as well as the calculations of aNBO and anNBO for the product. A spreadsheet for use in calculating aNBO and anNBO values is available on the EU Ecolabel website. For both surfactants and aNBO and anNBO values, reference shall be made to the DID List. For ingredients which are not included in the DID List, the relevant information from literature or other sources, or appropriate test results, showing that they are aerobically and anaerobically biodegradable shall be provided as described in Appendix I.

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

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

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

Rationale and discussion

In the current EU Ecolabel industrial and institutional laundry detergents the biodegradability of surfactants and organic substances is considered. As explained in Section 9 of the Technical Annex, 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

As six EU Ecolabels related to detergents are being revised at the same time and as these products often have similar formulations, it is judicious to consider the harmonisation of their criteria. In the case of biodegradability, the current six EU Ecolabel criteria approach the subject using three different approaches and stakeholder consultation has yielded a multitude of opinions. It has thus been decided 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. In this sense the current criterion is proposed to be kept. It requires aerobic (all) and anaerobic (only for non-ionic and cationic) degradability of surfactants and limits the amount of non-aerobically and non-anaerobically degradable organics. At present the values for aNBO and anNBO of the products are collected. This exercise will help evaluating validity of the current thresholds. The criterion on biodegradability will be revised following discussions with stakeholders.

Water hardness is proposed to be referenced in mmol CaCO₃/l, as indicated in Section 7.1 of the Technical Annexe the ranges commonly used with mmol CaCO₃/l are different than those that are indicated in the current text with °dH.

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

8.6 Criterion 4: Excluded or limited substances and mixtures

Current criterion 4a Specified excluded ingoing substances

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

- phosphates
- APEO (alkylphenoethoxylates) and APD (alkylphenols and derivatives thereof)
- EDTA (ethylenediaminetetraacetate).

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

Proposal for criterion Xa – "Specified excluded ingoing substances and mixtures"

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

- (i) Phosphates
- (ii) [Phosphonates that are not readily biodegradable](#)
- (iii) APEO (alkylphenol ethoxylates) and APD (alkylphenol derivatives)
- (iv) EDTA (ethylenediaminetetraacetate)
- (v) [Nitro-musks and polycyclic musks](#)
- (vi) [Hydroxyisohexyl 3-cyclohexene carboxaldehyde \(HICC\)](#)
- (vii) [Atranol and Chloroatranol](#)
- (viii) [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 \$\geq 0,010\%\$ \(\$\geq 100\$ ppm\) per substance.](#)

Assessment and verification: the applicant shall provide a declaration supported by declarations from manufacturers of substances, as appropriate, confirming that the listed substances have not been included 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 of the Regulation (EC) No 1223/2009.

Rationale and discussion

Limiting environmentally harmful substances from the product group of IILDs is important, as most ingredients of these products end up in the aquatic environment through sewage treatment systems after use and sometimes they can be released directly to aquatic environment.

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

The information and grounds that lead to the exclusion of the following substances and substance groups are summarized in Section 10 of the Technical Annexe.

Harmonisation with LD product group

Where possible, the list of specified excluded ingoing substances should be harmonised between the IILD and LD product groups. The Commission Statement following the previous revision on of the requirements expressed that the possibility of a closer alignment between the industrial and institutional and domestic criteria should be investigated. As a consequence the substances to be excluded in various product groups will be discussed in a horizontal session in the 1st AHWG meeting.

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

- Nitro-musks and polycyclic musks (covered previously under criterion for fragrances)
- Hydroxyisohexyl 3-cyclohexene carboxaldehyde (HICC), Atranol and Chloroatranol;

Consultation questions	
1	Are exclusions required for other substances?

Current criterion 4b

According to Article 6(6) of the Regulation (EC) No 66/2010 on the EU Ecolabel, the product or any part of it thereof shall not contain substances or mixtures meeting the criteria for classification with the hazard classes or categories in accordance with Regulation (EC) No 1272/2008 specified below nor shall it contain substances referred to in Article 57 of Regulation (EC) No 1907/2006. The risk phrases below generally refer to substances. However, if information on substances cannot be obtained, the classification rules for mixtures apply.

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	R60/61/60-61
H360Fd May damage fertility. Suspected of damaging the unborn child	R60/63
H360Df May damage the unborn child. Suspected of damaging fertility	R61/62
H361f Suspected of damaging fertility	R62
H361d Suspected of damaging the unborn child	R63
H361fd Suspected of damaging fertility. Suspected of damaging the unborn child.	R62-63
H362 May cause harm to breast fed children	R64
H370 Causes damage to organs	R39/23/24/25/26/27/28

H371 May cause damage to organs	R68/20/21/22
H372 Causes damage to organs through prolonged or repeated exposure	R48/25/24/23
H373 May cause damage to organs through prolonged or repeated exposure	R48/20/21/22
H400 Very toxic to aquatic life	R50
H410 Very toxic to aquatic life with long-lasting effects	R50-53
H411 Toxic to aquatic life with long-lasting effects	R51-53
H412 Harmful to aquatic life with long-lasting effects	R52-53
H413 May cause long-lasting harmful effects to aquatic life	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

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

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

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

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

Surfactants in concentrations <20 % in the final product	H400 Very toxic to aquatic life	R50
Surfactants in concentrations <25 % in the final product (*)	H412 Harmful to aquatic life with long-lasting effects	R52-53
Biocides used for preservation purposes (**) (only for liquids with pH between 2 and 12 and maximum 0.10 % w/w of active material)	H331: Toxic if inhaled H334: May cause allergy or asthma symptoms or breathing difficulties if inhaled H317: May cause allergic skin reaction H400: Very toxic to aquatic life	R23 R42 R43 R50
Enzymes (***)	H334: May cause allergy or asthma symptoms or breathing difficulties if inhaled H317: May cause allergic skin reaction H400: Very toxic to aquatic life	R42 R43 R50
Bleach catalysts (***)	H400: Very toxic to aquatic life	R50
NTA as an impurity in MGDA and GLDA (****)	H351 suspected of causing cancer	R40

(*) This derogation is applicable provided that surfactants comply with Criterion 3(a) and they are anaerobically degradable

(**) Derogation is only for Criterion 4(b). Biocides shall comply with Criterion 4(e).

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

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

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

Regulation (EC) No 1907/2006 (Requirements for the Compilation of Safety Data Sheets).

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

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

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

Proposal for criterion Xb – "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 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
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 $\geq 0.01\%$, including preservatives, colouring agents and fragrances.

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

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

Derogated substance	H phrases
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Assessment and verification: the applicant shall demonstrate compliance with criterion X(b) for any ingoing substance or mixture present at concentrations greater than 0.010% in the product.

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

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

Rationale and discussion

Background information on the criterion for hazardous substance is given in Section 10 of the Technical Annexe.

Proposed derogation for peracetic acid

Peracetic acid (also known as peroxyacetic acid, or PAA, CAS 79-21-0) is organic peroxide that is used as a bleaching agent in certain detergents to improve cleaning results. In washing powders it is produced *in situ* through mixing TAED with “active bleaching agents” such as sodium percarbonate, or generated in a mixture hydrogen peroxide and acetic acid together. It is used as an antimicrobial in the medical industry, a property that some manufacturers highlight as a benefit in laundry and dishwashing applications.⁸ Due to its antimicrobial properties, PAA has been excluded from both LDs and DDs.

In laundry applications, peracetic acid is primarily used as a bleaching agent which is added into to remove stubborn stains by bleaching the nature substances in the fibres of the textiles. As it is highly reactive, its bleaching and disinfecting properties are effective at much lower temperatures than hydrogen peroxide alone.⁹ The review of alternative ecolabelling schemes presented in Section 2.5 of the Preliminary Report found that the Nordic Swan criteria for laundry detergents for professional use has an exemption for peracetic acid. It is exempted from the requirements for the classification of the product (H332, H312, H373, H371 and H304) on the basis that use of peracetic acid in laundry detergents allows for lower wash temperatures and thereby reduces energy consumption.

Stakeholders called for a derogation for peracetic acid classified as H400. The reasons given were that bleaching agents such as peracetic acid are necessary for the formulation of both domestic and I&I laundry detergents formulation. Stakeholders only gave limited reasoning for the addition of this derogation.

At this stage it has not been possible to gather enough evidence to support a derogation. In accordance with the EU Ecolabel Regulation (66/2010) derogations are only allowed when it is not technically feasible to substitute the substance or if the use of alternatives leads to a significantly increased environmental impact of the product.

Stakeholders are requested to provide further information in support of the proposed derogation for peracetic acid. A template for derogation, which needs to be filled in by the requesting party is included in Section 16 of the Technical Annex.

Also other derogations (included in the currently valid criteria) will be discussed during the 1st AHWG meeting.

Consultation questions	
1	Is a derogation for peracetic acid necessary?
2	Are there any viable alternatives for peracetic acid?
3	Do you have information which could substantiate keeping/removing the current derogations.

Current criterion 4c
a) Substances listed in accordance with Article 59(1) of Regulation (EC) No 1907/2006

⁸ The clean and clever way of bleaching - Peractive®, Clariant Detergents, 2013

⁹ Nordic Ecolabelling of Laundry detergents for professional use, version 3.0, March 2014.

No derogation from the exclusion in Article 6(6) shall be given concerning substances identified as substances of very high concern and included in the list foreseen in Article 59 of Regulation (EC) No 1907/2006 present in mixtures in concentrations higher than 0.010 %.

Assessment and verification: the list of substances identified as substances of very high concern and included in the candidate list in accordance with Article 59 of Regulation (EC) No 1907/2006 can be found at: http://echa.europa.eu/chem_data/authorisation_process/candidate_list_table_en.asp

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

Proposal for criterion Xc – "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 1907/2006¹⁰, present in the product in concentrations higher than 0.010 % (weight by weight).

Assessment and verification: *reference to the list of substances identified as substances of very high concern shall be made on the date of application. The applicant shall provide the full formulation of the product to the competent body. The applicant shall also provide a declaration of compliance with criterion X(c), together with related documentation, such as declarations of compliance signed by the material suppliers and copies of relevant safety data sheets for substances or mixtures.*

Rationale and discussion

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

Current criterion 4d

(d) Specified limited ingoing substances – fragrances

The product shall not contain perfumes containing nitro-musk or polycyclic musk

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

Fragrance substances subject to the declaration requirement provided for in Regulation (EC) No 648/2004 of the European Parliament and of the Council (1) on detergents (Annex VII) and which are not already excluded by criterion 4(b) shall not be present in quantities $\geq 0.010\%$ (≥ 100 ppm) per substance in the final product.

Assessment and verification: the applicant shall provide a signed declaration of compliance indicating the amount of fragrances in the product. The applicant shall also provide a declaration from the fragrance manufacturer specifying the content of each of the substances in the fragrances which are listed in Annex III, Part I to Council Directive 76/768/EEC ⁽¹⁾.

¹⁰ http://echa.europa.eu/chem_data/authorisation_process/candidate_list_table_en.asp

Proposal for criterion 4d – "Fragrances"

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

Assessment and verification: the applicant shall provide a signed declaration of compliance, supported by a declaration of the fragrance manufacturer, as appropriate.

Proposed changes

Background information on the criterion for fragrances is given in Section 10.3 of the Technical Annex.

No content-wise change is proposed to this criterion. Exclusion of specific fragrances:

- Nitro-musks and polycyclic musks (currently in this criterion)
- Hydroxyisohexyl 3-cyclohexene carboxaldehyde (HICC) (new exclusion),
- Atranol and Chloroatranol (new exclusion)
- 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 X(b) in quantities $\geq 0,010\%$ (≥ 100 ppm) per substance (currently in this criterion).

was included in sub-criterion (a) Specified excluded ingoing substances and mixtures.

Furthermore, the reference to the Directive 76/768/EEC (Cosmetics Directive) was changed for the reference to Regulation (EC) No 1223/2009 (Cosmetic Regulation).

Current criterion 4e

Biocides

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

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

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

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

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

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

Proposal for criterion X(e) – "Preservatives"

(e) Preservatives

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

(ii) [Preservatives in the product shall not release or degrade to substances that are classified in](#)

accordance with the requirements of criterion x(b) Hazardous substances and mixtures.

(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.

Proposed changes

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

In the current criteria the following changes are proposed:

- The name of sub-criterion is proposed to be changed to 'Preservatives'.
- The statement "Product may only include biocides in order to preserve the product, and in the appropriate dosage for this purpose alone. This does not refer to surfactants, which may also have biocidal properties" is proposed to be removed as CBs mentioned in the ROC criteria development process that they cannot verify the compliance with this requirement and it should be removed.

Consultation questions

1	Do you agree with the changes proposed to requirement on preservatives?
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Proposal for criterion X(f) – Colorants **NEW REQUIREMENT**

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

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

Rationale and discussion

The inclusion of this criterion is proposed in order to harmonise the different criteria sets.

For more information on colorants see Section 10.6 of the Technical Annexe.

Current criterion 4f

(f) Enzymes

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

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

Proposal for criterion X(g) – (Enzymes)

No changes are proposed.

Proposal for criterion X(h) – Phosphorus content **NEW REQUIREMENT**

The total content of phosphorus compounds in the product is limited to

Soiling	Light	Medium	Heavy
Pg/kg laundry (dry weight)	0.5	1	1.5

Assessment and verification: the applicant should provide

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

b) written statements on compliance, including:

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

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

c) written statements on compliance, including:

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

Rationale and discussion

The current evidence confirms that eutrophication caused by the use of phosphorus content compounds and in particular phosphates is still a subject of high relevance. Further information is found in Section 10.1.1 of the Technical Annexe.

Although the Detergent Regulation regards the use of phosphates and other phosphorus compounds in consumer laundry and dishwasher detergents, it does not affect industrial and institutional detergents, since technically and economically feasible alternatives seem not to be yet available throughout the EU. However, it has been decided to go, in line with other Ecolabel schemes, a step further with the ban of phosphates and restrictions in the use of phosphorus compounds in industrial and institutional laundry detergents.

Information reported in the Preliminary Report for the current EU Ecolabel criteria for laundry detergents (consumer and industrial and institutional) indicates that a ban on phosphates would significantly limit the number of products that can comply with the phosphorus criterion. It is difficult to give a precise estimation, but it could be that about 50-70% of the laundry products contained phosphate in 2007 and they were assessed to be the best performing products for the industrial and institutional laundry market. Nevertheless, there is evidence of alternatives are on the market, often based on phosphonates or phosphonic acid or even phosphorus-free, although they can be less effective than phosphate-based detergents.

Regarding the limitations in other schemes, the Nordic Swan labelling and the Good Environmental Choice in New Zealand schemes have continued to allow low levels of phosphates within products while the Good Environmental Choice Australia scheme bans the use of phosphates. The choice of allowing the use of phosphate is justified by the fact that industrial and institutional laundry facilities are not likely to be located in areas where there

would be a reliance on septic tank systems and a greater level of cleaning performance is expected. Thus, these schemes do not consider it is appropriate to outright ban phosphates for industrial and institutional laundry detergents but they have very low limits for quantity of phosphorus allowed and they also limit the quantity of phosphonates and phosphonic acid. In the case of the Nordic labelling, the maximum quantity of phosphonates and phosphonic acid depends on the intended temperature to be used and in the case of the New Zealand scheme the total amount of phosphonates that are not readily biodegradable is also restricted.

The revision and comparison among the ecolabel schemes demonstrate that stricter requirements can be considered without creating marketing restrictions. In line with other EU Ecolabel schemes, the revised EU Ecolabel criterion proposes a maximum phosphorus-content, a ban for phosphates and a limit on phosphonate compounds that are not biodegradable.

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

8.7 Criterion 5: Packaging requirements

Current criterion 5

a) Weight/utility ratio (WUR)

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

Product type/water hardness	WUR (g/kg laundry)		
	Soft	Medium	Hard
Powders	1.5	2.0	2.5
Liquids	2.0	2.5	3.0

WUR shall be calculated only for primary packaging and a calculation shall be made for every product within a multi-component system (including caps, stoppers and hand pumps/spraying devices) using the formula provided in annex

Exceptions:

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

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

Assessment and verification: the applicant shall provide the calculation of the WUR for every product. A spreadsheet for this calculation is available on the EU Ecolabel website. The applicant shall provide a completed and signed declaration for the content of recycled or material from renewable origin in the packaging. For approval of refill packaging, the applicant and/or retailer shall document that the refills will be/are available for purchase on the market.

b) Plastic packaging

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

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

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

Proposed criterion 5

a) Weight/utility ratio (WUR)

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

Product type \ Water hardness	Soft	Medium	Hard
	<1,5 mmol CaCO ₃ /l	1.5 – 2,5 mmol CaCO ₃ /l	> 2,5 mmol CaCO ₃ /l
Powders	1.5	2.0	2.5
Liquids	2.0	2.5	3.0

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),

U_i : weight (g) of non-recycled and non-sustainably sourced packaging in the primary packaging (i). $U_i = W_i$ unless the applicant can document otherwise,

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

R_i : number of times that the primary packaging (i) can be refilled and used for the same purpose. $R_i = 1$ (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 recycle. The label or sleeve, closure and, where applicable, barrier coatings shall not comprise, either singularly or in combination the materials and components listed in Table 4. Pumps are exempted from this requirement.

Table 4: Materials and components excluded from packaging elements

Packaging element	Excluded materials and components ¹¹
Label or sleeve	<ul style="list-style-type: none"> - 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)

¹¹ EVA – Ethylene Vinyl Acetate, EVOH – Ethylene vinyl alcohol, HDPE – High-density polyethylene, PET – Polyethylene terephthalate, PETG – Polyethylene terephthalate glycol-modified, PP – Polypropylene, PS – Polystyrene, PVC – Polyvinylchloride

Closure	<ul style="list-style-type: none"> - 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 industrial and institutional laundry detergents. If the packaging is comparable to that of consumer laundry detergents, it can represent up to 37% of impact contribution for agricultural land occupation when non-recycled material is used in the packaging (Section 4.4 - Preliminary Report), for example. It is therefore proposed that a criterion on packaging is kept present in the EU Ecolabels for all laundry detergents.

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

a) Weight/Utility Ratio (WUR)

No changes are proposed to the WUR values as little feedback was received on this issue. 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.

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

c) Design for recycling

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

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

Consultation questions	
1	Packaging is not one of the top 5 KPIs for I&I laundry 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?

8.8 Criterion 6: Fitness for use

Current criterion 6

The primary laundering effects of the detergent such as dirt removal and stain removal capacity must be documented by the producer/applicant with the aid of artificially soiled test clothes which are washed in the process.

The test may be conducted by an external or internal laboratory fulfilling the requirements in Appendix II(a). The test must be conducted with the recommended dosage and at the corresponding water hardness and the degree of soiling at the lowest recommended wash temperature. The measurements must be performed on unlaundered and laundered test clothes. Evaluation of the test results shall be made by the laboratory and it shall be clearly stated in the report.

The measurements of secondary effects such as bleaching effect, bleaching/damage factor, ash content, greying and fluidity increase can for instance be made with multi wash test clothes and analysed according to standard ISO 4312.

Examples of what may be used as wash test clothes included the following:

- WFK-PCMS-55 for industrial laundering processes, consisting of 13 different small dirt patches (WFK-Cleaning Technology Research Institute, Germany)
- EMPA 102, consisting of 15 different fresh spots (Swiss EMPA-Test materials)
- wash clothes of DTI (Danish Technology Institute) for industrial washing processes or equivalent

As an alternative to the above mentioned laboratory test, a user test may be used to document efficiency. The user test should then meet the requirements stated in Appendix II(b).

For both laboratory test and user test the following apply:

The test product must be tested against a reference product. The reference product may be a well-established product on the market or — in the case of a user test — the product normally used by the user. The test product must show efficiency equal to or better than the reference product.

(From Appendix II)

a) Laboratory test

The analysis laboratory must meet the general requirements pursuant to standard EN ISO 17025 or be an officially GLP-approved analysis laboratory.

The applicant's analysis laboratory/measurement may be approved to conduct analyses and measurements if:

- the authorities monitor the sampling and analysis process, or
- the manufacturer has a quality system incorporating testing and analyses and which is certified in accordance with ISO 9001, or
- the manufacturer can show that there is conformity between a first-time test conducted as a parallel test between an impartial test institution and the manufacturer's own laboratory and that the manufacturer takes samples in accordance with a prescribed sampling plan.

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

- It must be possible for ecolabelling organisations to monitor the performance of testing
- The ecolabelling organisation must have access to all data on the product
- The samples must be made anonymous for the test laboratory
- Performance of the effectiveness test must be described in the quality control system.

b) User test

1. Responses must be obtained from at least five test centres representing a selection of customers
2. The procedure and dosage must conform to the manufacturer's recommendations.
3. The test period must continue for at least four weeks.
4. Every test centre must assess the serviceability of the product or multi-component system, dosability, compressibility, rinsing and solubility.
5. Every test centre must assess the effectiveness of the product or multi-component system by answering questions relating to the following aspects (or similar formulations):
 - a) ability to launder lightly, moderately or heavily soiled articles to be washed;
 - b) an assessment of primary laundering effects such as dirt removal, stain removal capacity and bleaching effect must be rated;
 - c) assessment of secondary laundering effects such as greying of white washing and colour-fastness and staining of coloured washing;
 - d) assessment of the effect of the rinsing agent on drying, ironing or mangling of the articles to be washed;
 - e) how satisfied the test subject is with customer visiting arrangements
6. The response must be rated on a scale comprising at least three levels, for example, 'insufficiently effective', 'sufficiently effective' or 'very effective'. With regard to how satisfied the test centre is with visit reporting arrangements, the categories must be 'not satisfied', 'satisfied' and 'very satisfied'.
7. At least five test centres must submit responses. At least 80 % must rate the product as sufficiently effective or very effective on all points (see point 4 and be satisfied or very satisfied with customer visiting arrangements.
8. All raw data from the test must be specified
9. The test procedure must be described in detail.

Assessment and verification: the applicant shall provide a test report. The reference product may be a well-established product on the market or – in the case of the use test – the product normally used by the user. The test product fulfils the minimum requirements defined in the chosen test, also see Appendix II(a) and II(b) respectively.

Proposed criterion 6 – Fitness for use

Tests shall be carried out to ensure that the product has a satisfactory wash performance at the lowest recommended dosage for the water hardness and the degree of soiling. Test shall be performed according to laboratory tests (Appendix - to be added) or alternatively, user test (Appendix - to be added) may be used to document efficiency.

The laboratory test shall be performed by an external laboratory complying with the Appendix (to be added). The tests shall be carried out at the water temperature stated in the Appendix to be added) or at the lowest temperature at which the product claims to be effective.

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

Assessment and verification

The applicant shall provide documentation confirming that the product has been tested under the laboratory tests conditions in accordance with Appendix (to be added). Information should be provided on:

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

(b) Information on the recommended dosage at the corresponding water hardness and the lowest recommended wash temperature at which the product claims to be effective.

(c) The product's ability to remove soiling from the surfaces or materials and the effectiveness of other products the detergent shall be used with (eg. Rinse-aids) .

(d) Information about the reference product against which the test product has been tested: market leadership, lowest commended dosage or dosage used (if no information is provided) and temperature, date of purchase and date of testing.

(e) Documentation confirming the compliance within the laboratory requirements included in Appendix (to be added).

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

(a) the way the test users were selected, all raw data from the tests and the test procedure.

(b) all reply forms received from the test users and the overall result on the wash performance of the user test specified in a table/a form. The response must be rated in accordance with Appendix (to be added).

(c) information on how satisfied the test centre is with visit reporting arrangements and the categories rated.

Rationale and discussion

Satisfactory fitness for use of industrial and institutional laundry 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 Technical Annex Section 12.

For the time being, there are neither EU Ecolabel protocol nor IKW recommendations for the quality assessment of the cleaning performance of industrial and institutional laundry detergents, therefore the laboratory tests or the user tests are proposed to check this criterion.

The fitness for use test for industrial and institutional laundry detergents is difficult to check due to the wide range of washing parameters in Europe (water hardness, types of soil, customer habits, and different types of machines) and the different purpose of these washings. The range of conditions under which industrial and institutional laundry detergents may be employed confounds the inclusion of a number of parameters of potential interest. On the whole however, it is incumbent on the applicant to specify the working ranges of their product and provide substantiating evidence for whatever claims are made.

8.9 Criterion 7: Automatic dosing systems

Current criterion 7

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

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

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

Proposed criterion 7

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

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

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

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

Rationale and discussion

No changes are proposed to this criterion, except the addition of a clause for cases when the requirement for annual visits would be too restrictive.

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

Consultation questions

1	Is the criterion on multi-component products relevant to the product group?
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8.10 Criterion 8: User information – Information appearing on the EU Ecolabel

Current criterion 8

a) Information on the packaging/information sheet

The following washing recommendations (or equivalent) must appear on the packaging, and/or on a product information sheet. The washing recommendations must include examples of the classification of the textiles soiling degree and shall include the following text:

- Wash at the lowest recommended temperature
- Always wash with the highest possible load, the textiles allow
- Dose according to the dosing instructions and use the dosage according to water hardness and degree of soiling
- Using this EU Ecolabelled product according to the dosage instructions will contribute to the reduction of water pollution, waste production and energy consumption.

b) Claims on the packaging

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

- e.g. if a product claims efficiency at 20 °C, the performance test must be performed at ≤ 20 °C (and correspondingly for other temperature claims below 40 °C).
- e.g. if a product claims to be efficient on certain stain types, this must be documented with performance test.

c) Information appearing on the EU Ecolabel

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

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

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

The guidelines for the use of the optional label with text box can be found in the 'Guidelines for use of the Ecolabel logo' on the website:
http://ec.europa.eu/environment/ecolabel/documents/logo_guidelines.pdf

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

Proposed criterion 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 or product information sheet shall include information on the recommended

dosage in g or ml for 1kg of laundry for various levels of water hardness and various levels of soiling. The packaging or product information sheet shall indicate the most prevalent water hardness in the area where the product is intended to be marketed or where this information can be found. The applicant shall take suitable steps to help consumers respect the recommended dosage, making available a dosage device and/or indicating the recommended dosage in a well-known metric.

b) resource saving measures

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

c) packaging disposal information

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

d) environmental information (voluntary)

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

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

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

Proposed criterion 9 – "Information appearing on the EU Ecolabel"

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

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

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

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

Rationale and discussion

Information appearing on the packaging and/or information sheets provides useful information on how the user should use the product most effectively to achieve the best cleaning results whilst minimising the environmental impacts. Further information on the rationale why these statements should be included can be found in the Technical Annex Section 13-14.

It is proposed that the text should include information regarding:

- the dosage depending on the level of soiling and water hardness,
- the water hardness of the place to be used
- the lowest temperature at which the detergent is effective
- instructions to reduce the environmental impacts during the end-of-life of the packaging
- and environmental impacts preventing from the perception that an EU Ecolabel detergent causes no environmental impact.

The text included in the EU Ecolabel box is proposed in line with other EU Ecolabel criteria for detergents under revision. The three statements highlight the most important aspects of an EU Ecolabel detergent.

Information on the label is useful for reinforcing messages that endorse the user's or consumer's choice of this product over non-EU Ecolabel alternatives. The background and rationale behind the selection of these statements are included in the Technical Annex 14.

Consultation questions	
1	Is the change to the dosage instruction wording acceptable?
2	Is a statement on overdosing required as part of the consumer information criterion?
3	Should information on use of renewable energy be included?
4	Should recycling labels be included on laundry detergent packaging?
5	Is it appropriate to have the information appearing on the EU Ecolabel as a separate criterion?

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

Proposed addition

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

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

Rationale and discussion

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