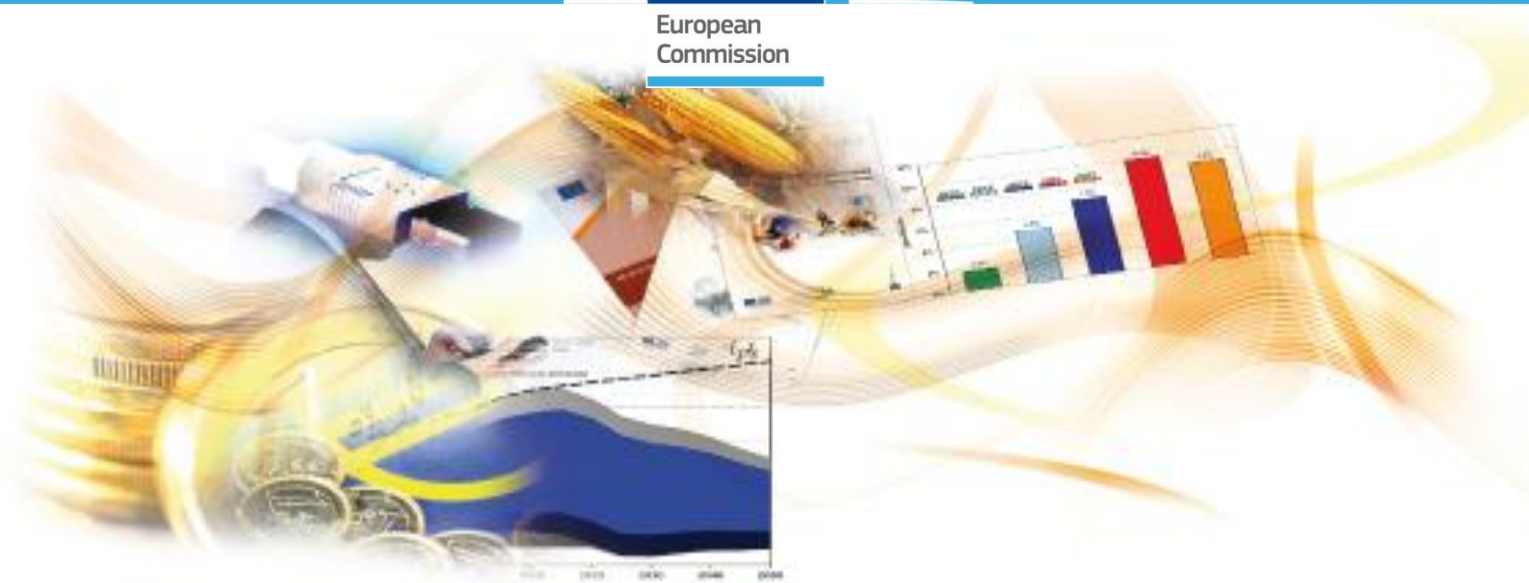




European
Commission



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 detergents for dishwashers

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 "detergents for dishwashers" (DD). The study has been carried out by the Joint Research Centre's Institute for Prospective Technological Studies (JRC-IPTS) with technical support from Oakdene Hollins and PRé Consultants. The work is being developed for the European Commission's Directorate General for the Environment.

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

This document is complemented by the Preliminary Report¹ on the revision of the European Ecolabel criteria for Detergents for Dishwashers 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 detergents for dishwashers. 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 industrial and institutional automatic dishwasher detergents (IIDD) 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 "detergents for dishwashers" 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.

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

The main criteria changes proposed in this report are as follows:

- A change of the name of the EU Ecolabel to "consumer dishwasher detergents" as the current name does not accurately reflect the product groups covered and is not in line with the definition provided in the 2012 Revision to the EU Detergents Regulation (EU/259/2012)².
- An update of several criteria with updates values and new values for categories of products that are not covered in the current criteria.

² Regulation (EU) No 259/2012 of the European Parliament and of the Council of 14 March 2012 amending Regulation (EC) No 648/2004 as regards the use of phosphates and other phosphorus compounds in consumer laundry detergents and consumer automatic dishwasher detergents Text with EEA relevance OJ L 94, 30.3.2012, p. 16–21

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

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

The main findings of the Preliminary Report are:

-The *legal review* revealed that the Detergents Regulation will impact on the consumer automatic dishwasher detergents on the market. The revision limits the use of phosphates and phosphorus compounds and lays down requirements for dosage information. The revision of the EU Ecolabel criteria shall take into account these changes to the Detergents Regulation.

-The *market analysis* revealed that the dishwasher detergent market is primarily intra-EU trade, with five large manufacturers accounting for 65 % of the European market. Consumer dishwasher detergents are mainly sold in three forms (powder, liquid, tablets) of which the most popular is tablets and accounts for an estimated 83 % of the market share in Europe, based on sales.

- 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 dishwasher detergents is the use phase, particularly the energy needed to heat the water for the wash cycle. For some impact categories, the sourcing of raw materials is also important.
- Based on the normalisation assessment, the most significant impact categories for consumer dishwasher detergents in Europe are fossil depletion, climate change, human toxicity, particulate matter formation, and natural land transformation.
- The results of the LCA for a consumer dishwasher detergent, conducted as part of the technical analysis, are shown in Figure 1.

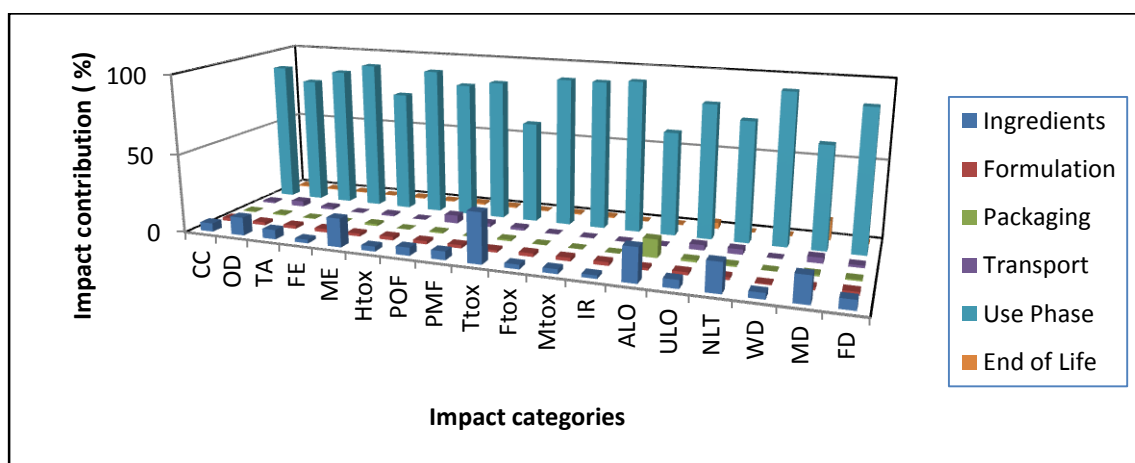


Figure 1: Impact contribution of different life cycle stages of a laundry detergent

These 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 dishwasher detergents in Europe, based on the results of this study are:

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

Apart from the LCA analysis, a revision of other scientific evidences, current national schemes and legislation have been performed. These sources of information pointed out the potential 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 the Regulation EC/66/2010 on the Ecolabel Regulation³.

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

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

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

Hotspots	% of total impact⁴	Revised or new EU Ecolabel criteria	Comments in the related criteria
Energy sources to heat up the water	64-95 %	--	Out of the scope of this policy tool

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

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>

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

Hotspots	% of total impact⁴	Revised or new EU Ecolabel criteria	Comments in the related criteria
		Information appearing on the EU Ecolabel	It informs consumers that the product has a limited amount of hazardous substances at purchasing

3 SUMMARY OF THE FEEDBACK REQUESTED FROM STAKEHOLDERS

CONSUMER AUTOMATIC DISHWASHER DETERGENTS		
CRITERION / SECTION	QUESTIONS FOR CONSULTATION	
Toxicity to aquatic life	1	Do you agree that the proposed CDV limits or should they be kept as they are in the current criteria?
Biodegradability of substances	1	Is the proposed approach to biodegradability suitable for consumer dishwasher detergents?
	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?
	1	Horizontal question – what should be the EU Ecolabel's approach to biodegradability?
Excluded or limited substances a)	1	Do you agree with the proposed approach? (Phosphorus content)
	2	Are exclusions required for other substances?
	3	Should the surfactant LAS be excluded?
Excluded or limited substances b)	1	Do you have information which could substances keeping/removing the current derogations?
Fitness for use	1	Are any other changes required for this criterion?
	2	Should IKW be the only test allowed for this product group?
	3	Stakeholders are invited to indicate a suitable reference detergent for the EN test method?
Packaging	1	Are the WUR limits appropriate?
	2	Is the design for recycling requirement suitable for this product group?
User information	1	Should a recommendation on the use of salt be included?
	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	Is it appropriate to remove the requirement to report the type of enzyme?
	5	Should recycling labels be included on dishwasher detergent packaging?
Information appearing in the EU ecolabel	1	Are the proposed statements suitable?
	2	Do these statements translate well into other languages?

4 CRITERIA STRUCTURE COMPARISON TABLE

STRUCTURE OF THE CRITERIA	
Current organisation of the EU Ecolabel criteria	Potential changes, modifications or amendments
<p>Criterion 1: Total chemicals</p> <p>Criterion 2: Excluded or limited substances or mixtures</p> <p>Criterion 3: Toxicity to aquatic organisms: Critical Dilution Volume.</p> <p>Criterion 4: Biodegradability of organics.</p> <p>Criterion 5: Washing performance</p> <p>Criterion 6: Packaging requirements</p> <p>Criterion 7: Consumer information</p> <p>Criterion 8: Information appearing on the EU Ecolabel</p>	<p>Criterion 1: Dosage requirement</p> <p>Criterion 2: Toxicity to aquatic organisms</p> <p>Criterion 3: Biodegradability</p> <p>Criterion 4: Sustainable sourcing of palm oil, etc.</p> <p>Criterion 5: Restricted substances</p> <p>Criterion 6: Packaging</p> <p>Criterion 7: Fitness for use</p> <p>Criterion 8: User information</p> <p>Criterion 9: Information appearing on the EU Ecolabel</p>
	<p>The proposed changes to the structure reflect harmonisation of criteria structure for all EU Ecolabel detergent products groups as well as the inclusion of an additional criterion is proposed to cover sustainable sourcing of some ingredients.</p>

5 NAME AND DEFINITION COMPARISON TABLE

NAME OF THE EU ECOLABEL	
Current name of the EU Ecolabel	Potential changes, modifications or amendments
Detergents for dishwasher	Consumer dishwasher detergents
	The proposed name is in line with the name used in the Detergents Regulation and provides more clarity on the fact that only consumer products are covered.
Definition of the product group	
The product group 'Detergents for Dishwashers' shall comprise detergents for dishwashers and products used as rinse aids, whether in powder, liquid or any other form, which are intended to be marketed and used exclusively in automatic domestic dishwashers and in automatic dishwashers for professional use, the size and usage of which is similar to that of domestic dishwashers.	The product group ' consumer dishwasher detergents ' shall comprise detergents for dishwashers and products used as rinse aids, whether in powder, liquid or any other form , which are intended to be marketed and used exclusively in automatic domestic dishwashers and in automatic dishwashers for professional use, the size and usage of which is similar to that of domestic dishwashers.
	The main proposed changes include the change in the name of the product groups covered by the EU Ecolabel.

6 COMPARISON OF EXISTING AND PROPOSED CRITERIA

CRITERIA							
Existing EU Ecolabel criteria	Potential changes, modifications or amendments						
Criterion 1: Total chemicals							
<p>Total chemicals (TC) are the recommended dosage in g/wash minus the water content. The amount of total chemicals shall not exceed the following amounts: (a) Single-functional dishwasher detergents: TC max = 20,0 g/wash (b) Multi-functional dishwasher detergents: TC max = 22,0 g/wash When calculating the CDV, aNBO and anNBO a dosage of rinse aid of 3 ml shall be used.</p> <p>Assessment and verification: Calculation of the TC of the product. The density (g/ml) shall be stated for liquid products.</p>	<p>Criterion 1: "Dosage requirements"</p> <p>The reference dosage shall not exceed the following amounts:</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th>Product type</th> <th>Dosage</th> </tr> </thead> <tbody> <tr> <td>Single-function dishwasher detergent</td> <td>18,0 g/wash</td> </tr> <tr> <td>Multi-function dishwasher detergent</td> <td>20,0 g/wash</td> </tr> </tbody> </table> <p>Rinse aids are exempted from this requirement</p> <p>Assessment and verification: Full formulation of the product, label or artwork including dosage instructions. The density (g/ml) shall be stated for all products (either on the packaging or in a Safety Data Sheet).</p>	Product type	Dosage	Single-function dishwasher detergent	18,0 g/wash	Multi-function dishwasher detergent	20,0 g/wash
Product type	Dosage						
Single-function dishwasher detergent	18,0 g/wash						
Multi-function dishwasher detergent	20,0 g/wash						
	<p>The proposed changes focus on the following issues:</p> <p>a) The name of the criterion is changed to dosage requirements in line with other EU Ecolabel criterion for similar products. It considers the whole reference dosage and not only the dry content</p> <p>b) The strictness of the dosage is increased based on the collected data across Europe in this study and the evidences that lower dosage per wash are needed to achieve good washing performance</p> <p>c) Rinse aids are exempted from this requirement as it is usually automatically added by the dishwasher</p> <p>d) The assessment and verification has been updated requiring further evidence to ensure an easier verification process</p>						
Criterion 2: Excluded or limited substances							
<p>(a) Specified excluded ingredients</p> <p>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</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>						

<ul style="list-style-type: none"> – DTPA (Diethylene triamine pentaacetic acid) – Perborates – Reactive chlorine compounds – EDTA (ethylenediamine tetraacetate) – Nitromusks and polycyclic musks <p>Assessment and verification: the applicant shall provide a completed and signed declaration of compliance</p>	<ul style="list-style-type: none"> (i) Phosphates (ii) Phosphonates that are not readily biodegradable (iii) DTPA (diethylenetriaminepentaacetic acid) (iv) Perborates (v) Reactive chlorine compounds (vi) EDTA (ethylenediaminetetraacetate) (vii) Nitro-musks and polycyclic musks (viii) APEO (alkylphenol ethoxylates) and APD (alkylphenol derivatives) (ix) Hydroxyisohexyl 3-cyclohexene carboxaldehyde (HICC) (x) Atranol and Chloroatranol (xi) Fragrance substances subject to the declaration requirement provided for in Regulation (EC) No 648/2004 of the European Parliament and of the Council on detergents (Annex VII) and which are not already excluded by criterion X(b) shall not be present in quantities $\geq 0,010\%$ (≥ 100 ppm) per substance. <p>Assessment and verification: the applicant shall provide:</p> <ul style="list-style-type: none"> - a signed declaration of compliance supported by declarations from manufacturers of mixtures, as appropriate, confirming that phosphates have not been included in the product. - written statements on compliance (concerning phosphonates which are readily biodegradable), including: <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 Appendix⁵ (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</p>
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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) Hazardous substances and mixtures

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.

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

[Regulation \(EC\) No 1223/2009.](#)

(b) Hazardous substances and mixtures

According to Article 6(6) of Regulation (EC) No 66/2010, the EU Ecolabel may not be awarded to any product that contains substances meeting criteria for classification with the hazard statements specified in list of hazard statement 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

H372 Causes damage to organs through prolonged or repeated exposure	R48/25/24/23
H373 May cause damage to organs through prolonged or repeated exposure	R48/20/21/22
H400 Very toxic to aquatic life	R50
H410 Very toxic to aquatic life with long-lasting effects	R50-53
H411 Toxic to aquatic life with long-lasting effects	R51-53
H412 Harmful to aquatic life with long-lasting effects	R52-53
H413 May cause long-lasting harmful effects to aquatic life	R5R593
EUH059 Hazardous to the ozone layer	R29
EUH029 Contact with water liberates toxic gas	R29
EUH031 Contact with acids liberates toxic gas	R31
EUH032 Contact with acids liberates very toxic gas	R32
EUH070 Toxic by eye contact	R39-41
Sensitising substances	
H334: May cause allergy or asthma symptoms or breathing difficulties if inhaled	R42
H317: May cause allergic skin reaction	R43

This criterion applies to all ingredients present in concentrations $\geq 0,010$ %, including preservatives, colouring agents and fragrances.

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

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

Surfactants in concentrations < 25 % in the product	H400 Very toxic to aquatic life	R 50
Biocides used for preservation purposes (*)	H410 Very toxic to aquatic life with long-lasting effects	R50-53
	H411 Toxic to aquatic life with long-lasting effects	R51-53
Fragrances	H412 Harmful to aquatic life with long-lasting effects	R52-53
Biocides used for preservation purposes (*)		

H361fd Suspected of damaging fertility. Suspected of damaging the unborn child.	
H362 May cause harm to breast fed children	
H370 Causes damage to organs	
H371 May cause damage to organs	
H372 Causes damage to organs through prolonged or repeated exposure	
H373 May cause damage to organs through prolonged or repeated exposure	
H400 Very toxic to aquatic life	
H410 Very toxic to aquatic life with long-lasting effects	
H411 Toxic to aquatic life with long-lasting effects	
H412 Harmful to aquatic life with long-lasting effects	
H413 May cause long-lasting harmful effects to aquatic life	
EUH059 Hazardous to the ozone layer	
EUH029 Contact with water liberates toxic gas	
EUH031 Contact with acids liberates toxic gas	
EUH032 Contact with acids liberates very toxic gas	
EUH070 Toxic by eye contact	
Sensitising substances	
H334: May cause allergy or asthma symptoms or breathing difficulties if inhaled	
H317: May cause allergic skin reaction	

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

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

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

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

A declaration of compliance shall be provided by the applicant supported, where

Enzymes (**)	H334: May cause allergy or asthma symptoms or breathing difficulties if inhaled	R42	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 the form(s) and physical state(s) they are present in the product. The following technical information related to the form(s) and physical state(s) of the ingoing substances and/or mixtures as present in the product shall be provided to support the declaration of non-classification: (i) For substances that have not been registered under Regulation (EC) No 1907/2006 and/or which do not yet have a harmonised CLP classification: Information meeting the requirements listed in Annex VII to that Regulation; (ii) For substances that have been registered under Regulation (EC) No 1907/2006 and which do not meet the requirements for CLP classification: Information based on the REACH registration dossier confirming the non-classified status of the substance; (iii) For substances that have a harmonised classification or are self-classified: safety data sheets where available. If these are not available or the substance is self-classified then information shall be provided relevant to the substances hazard classification according to Annex II to Regulation (EC) No 1907/2006; (iv) In the case of mixtures: safety data sheets where available. If these are not available then calculation of the mixture classification shall be provided according to the rules under Regulation (EC) No 1272/2008 together with information relevant to the mixtures hazard classification according to Annex II to Regulation (EC) No 1907/2006. For substances listed in Annexes IV and V to Regulation (EC) No 1907/2006, which are exempted from registration obligations under point (a) and (b) of Article 2(7) of that Regulation, a declaration to this effect by the applicant shall suffice to comply with criterion 3(b). A declaration on the presence of ingoing substances that fulfil the derogation conditions shall be provided by the applicant, supported, where appropriate, by declarations from the producer(s) of the raw materials. Where required for the derogation, the applicant shall confirm the concentrations of these ingoing substances in the final product.
	H317: May cause allergic skin reaction	R43	
NTA as an impurity in MGDA and GLDA (***)	H351 Suspected of causing cancer	R40	

(*) Referred to in criterion 2e. This exemption is applicable provided that biocides' bioaccumulation potentials are characterised by log Pow (log octanol/water partition coefficient) < 3,0 or an experimentally determined bioconcentration factor (BCF) ≤ 100.
(**) Including stabilisers and other auxiliary substances in the preparations.
(***) In concentrations lower than 1,0 % in the raw material as long as the total concentration in the final product is lower than 0,10 %.

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

(c) Substances listed in accordance with Article 59(1) of Regulation (EC) No 1907/2006
No derogation from the exclusion in Article 6(6) shall be given concerning

(c) 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

substances identified as substances of very high concern and included in the list foreseen in Article 59 of Regulation (EC) No 1907/2006 present in mixtures in concentrations higher than 0,010 %.

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

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

(d) Specified limited ingredients – fragrances

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

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

Fragrance substances subject to the declaration requirement provided for in Regulation (EC) No 648/2004 of the European Parliament and of the Council on detergents (Annex VII) and which are not already excluded by criterion 2b and (other) fragrance substances classified H317/R43 (May cause allergic skin reaction) and/or H334/R42 (May cause allergy or asthma symptoms or breathing difficulties if inhaled) shall not be present in quantities $\geq 0,010$ % (≥ 100 ppm) per substance.

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

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 1907/2006⁶, present in the product in concentrations higher than 0,010 % (weight by weight).

Assessment and verification: *reference to the list of substances identified as substances of very high concern shall be made on the date of application. The applicant shall provide the full formulation of the product to the competent body. The applicant shall also provide a declaration of compliance with criterion 3(c), together with related documentation, such as declarations of compliance signed by the material suppliers and copies of relevant safety data sheets for substances or mixtures.*

(d) Specified limited ingredients – 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.ifraorg.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.*

⁶

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

of (other) substances which have been assigned the risk phrases H317/R43 and/or H334/R42.

(e) Biocides

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

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

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

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

(e) Preservatives

- i. The product may contain preservatives provided that they are not bioaccumulating. A preservative is not considered bioaccumulating if $BCF < 100$ or $\log P_{ow} < 3,0$. If both BCF and $\log K_{ow}$ values are available, the highest measured BCF value shall be used.
- i. 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.
- i. It is prohibited to claim or suggest on the packaging or by any other communication that the product has an antimicrobial action.

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

(e) Colorants

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

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

(e) Enzymes

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

Assessment and verification: the applicant shall provide copies of the material safety data sheets of any enzyme added, together with documentation to ensure that the

	<p>enzyme is free from micro-organism remnants.</p> <p>(f) Phosphorus compounds The total quantity of phosphorus compounds must not exceed</p> <ul style="list-style-type: none"> - 0,20 Pg/wash for dishwasher detergents and - 0,03 Pg/wash rinsing agents <p>Assessment and verification The applicant shall provide written statements on compliance (concerning the total amount of phosphorus), 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
	<p>The proposed changes are focused on the following aspects:</p> <p>(a) Specified excluded ingoing substances and mixtures Several substances are proposed to be added to the excluded substances list based on initial feedback and information collected, however further consideration of the scope of this sub-criterion is needed</p> <p>(b) Hazardous substances and mixtures Updating removing the R-phrases that are about to be phased out is included. For the time being, there is no enough evidences to keep the current derogations, therefore no derogations are proposed in this revision and it is open the period for requiring derogations of those substances with classification that are needed to be used in this product group.</p> <p>(d) Specific limited substances</p> <ul style="list-style-type: none"> - Fragrances: exclusion of specific fragrances is proposed as well as updating of the Regulation (EC) No 1223/2009 (moved to criterion (a)). - Preservatives: replace the current sub-criterion on biocides. The changes proposed remove the difficulties of verification of the current criterion and introduce the requirement on non-bioaccumulation and that the preservatives do not release or degrade to substances that are even more hazardous. - new limitations dealing with colorants, enzymes and phosphorus content are proposed to be included.

Criterion 3: Toxicity to aquatic organisms: Critical Dilution Volume

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

Product type	Limit CDV chronic
Single-functional dishwasher detergents	25 000 l/wash
Multi-functional dishwasher detergents	30 000 l/wash
Rinse aid	10 000 l/wash

The critical dilution volume toxicity (CDV_{chronic}) is calculated for all ingredients (i) in the product using the following equation:

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

where

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

DF = the degradation factor

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

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

Assessment and verification: Calculation of the 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.

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

Product type	Limit CDV
Single-function dishwasher detergents	20 000 l/wash
Multi-function dishwasher detergents	25 000 l/wash
Rinse aid	7 500 l/wash

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).

The proposed changes focused on the criterion name to be in line with other schemes and stricter limits of CDV values in all the products included in this product group. The grounds for this revision are the information collected during this revision showing the most of the detergents easily achieved the current limits. A restriction of 20% for the detergents and 25% for rinse aids is proposed.

Criterion 4- Biodegradability of organics

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

Product type	aNBO	anNBO

a) Biodegradability of surfactants

To be discussed at the 1st AHWG meeting.

All surfactants shall be biodegradable under aerobic conditions.

All surfactants shall be biodegradable under anaerobic conditions.

<table border="1"> <tr> <td>Dishwasher detergents</td> <td>1,0 g/wash</td> <td>5,5 g/wash</td> </tr> <tr> <td>Rinsed-off</td> <td>0,15 g/wash</td> <td>0,5 g/wash</td> </tr> </table>	Dishwasher detergents	1,0 g/wash	5,5 g/wash	Rinsed-off	0,15 g/wash	0,5 g/wash		<p>b) Biodegradability of organic substances and mixtures <u>To be discussed at the 1st AHWG meeting.</u> The content of organic substances and mixtures in the product that are aerobically non-biodegradable (not readily biodegradable aNBO) or anaerobically non-biodegradable (anNBO) shall not exceed the following limits for the reference dosage:</p> <table border="1"> <thead> <tr> <th>Product type</th> <th>aNBO</th> <th>anNBO</th> </tr> </thead> <tbody> <tr> <td>Dishwasher detergents</td> <td>1,0 g/wash</td> <td>5,5 g/wash</td> </tr> <tr> <td>Rinsed-aids</td> <td>0,15 g/wash</td> <td>0,5 g/wash</td> </tr> </tbody> </table> <p>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.</p>	Product type	aNBO	anNBO	Dishwasher detergents	1,0 g/wash	5,5 g/wash	Rinsed-aids	0,15 g/wash	0,5 g/wash
Dishwasher detergents	1,0 g/wash	5,5 g/wash															
Rinsed-off	0,15 g/wash	0,5 g/wash															
Product type	aNBO	anNBO															
Dishwasher detergents	1,0 g/wash	5,5 g/wash															
Rinsed-aids	0,15 g/wash	0,5 g/wash															
		<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 5 – Fitness for use																	
<p>The product shall have a satisfactory washing performance at the recommended dosage according to the standard test developed by IKW or the standard EN 50242 as modified as follows. The tests shall be carried out at 55 °C or at a lower temperature if the product</p>	<p>Tests shall be carried out to ensure that the product has a satisfactory wash performance at the lowest recommended dosage for the water hardness according to most updated IKW standard available at http://www.ikw.org/fileadmin/content/downloads/Haushaltspflege/HP_DishwasherA_B_e.pdf</p>																

claims to be efficient at this temperature.
When applying for rinse aids in combination with dishwasher detergents, the rinse aid shall be used in the test instead of the reference rinse aid.
For multifunctional products the applicant must submit documentation proving the effect of the claimed functions.

Assessment and verification: The test report shall be submitted to the Competent Body. A test other than the IKW test or the modified version of EN 50242 may be used if the Competent Body assessing the application accepts its equivalence.

If EN 50242:2008 is used, the following modifications shall apply:

- the tests shall be carried out at $55\text{ °C} \pm 2\text{ °C}$ (or at a lower temperature if the detergent claims to be efficient at a temperature below 55 °C) with cold pre-wash without detergent,
- the machine used in the test shall be connected to cold water and must hold 12 place settings with a washing index of between 3,35 and 3,75,
- the machine's drying programme shall be used, but only the cleanliness of the dishes shall be assessed,
- a weak acidic rinsing agent in accordance with the standard (formula III) shall be used,
- the rinsing agent setting shall be between 2 and 3,
- the dosage of dishwasher detergent shall be as recommended by the manufacturer,
- three attempts shall be carried out at a water hardness in accordance with the standard,
- an attempt consists of five washes where the result is read after the fifth wash without the dishes being cleaned between the washes,
- the result shall be better than or identical to the reference detergent after the fifth wash,
- recipe for the reference detergent (Detergent B IEC 436) and rinsing agent (formula III), see Appendix B in the standard EN 50242:2008 (the surfactants are to be stored in a cool place in watertight containers not exceeding 1 kg and are to be used within 3 months).

If rinse aid and salt functions are a part of a multifunctional product the effect must be documented by test.

The applicant must be able to document the effect of other functions in multifunctional detergents.

or the modified standard EN 50242:2008

The tests shall be carried out at **50C water** temperature or at the lowest temperature the product claims to be effective at. When applying for rinse aids in combination with dishwasher detergents, the rinse aid shall be used in the test instead of the reference rinse aid. For multifunctional products the applicant must submit documentation proving the effect of the claimed functions.

The test shall be performed by a laboratory complying with Appendix (to be added)

Assessment and verification: The applicant shall provide documentation confirming that the product has been tested under the standard conditions. 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 EN 50242:2008 is used the following modifications shall apply:

- **the tests shall be carried out at $50\text{ °C} \pm 2\text{ °C}$ (or at a lower temperature if the detergent claims to be efficient at a temperature below 50 °C) with cold pre-wash without detergent**
- the machine used in the test shall be connected to cold water and must hold 12 place settings with a washing index of between 3.35 and 3.75
- the machine's drying programme shall be used, but only the cleanliness of the dishes shall be assessed
- a weak acidic rinsing agent in accordance with the standard (formula III) shall be used,
- the rinsing agent setting shall be between 2 and 3
- the dosage of dishwasher detergent shall be as recommended by the manufacturer
- three attempts shall be carried out at a water hardness in accordance with the

	<p>standard</p> <ul style="list-style-type: none"> • an attempt consists of five washes where the result is read after the fifth wash without the dishes being cleaned between the washes • the result shall be better than or identical to the reference detergent after the fifth wash • recipe for the reference detergent (Detergent B IEC 436) and rinsing agent (formula III), see Appendix B in the standard EN 50242:2008 (the surfactants are to be stored in a cool place in watertight containers not exceeding 1 kg and are to be used within 3 months). <p>If rinse aid and salt functions are a part of a multifunctional product the effect must be documented by test.</p> <p>The applicant must be able to document the effect of other functions in multifunctional detergents.</p>
	<p>The proposed changes include the updating of the link to the current IKW standard and the recommendation of using the most updated version of this standard. Additionally, a list of information needed to verify the fitness for use of the consumer dishwasher detergent in accordance with the claims of the producer has been added and a lower temperature (50C instead of 55C) is proposed to carry out the test method.</p>
<p>Criterion 6 - Packaging</p>	

(a) Primary packaging per functional unit

Primary packaging shall not exceed 2,0 grams per wash.

(b) Cardboard packaging

Cardboard primary packaging shall consist of ≥ 80 % recycled material.

(c) Labelling of plastic packaging

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

(d) Plastic packaging

Only phthalates that at the time of application have been risk assessed and have not been classified according to criterion 2(b) may be used in the plastic packaging.

Assessment and verification: The applicant shall provide the calculation of the quantity of primary packaging and a declaration regarding the percentage of recycled material in cardboard packaging to the competent body. The applicant shall provide completed and signed declaration of compliance with 6d.

a) Weight/utility ratio (WUR)

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

Product type	WUR
Dishwasher detergents	2,4 g
Rinse aids	1,5 g

Are exempted from this requirement:

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

Assessment and verification: the applicant shall provide the calculation of the WUR of the product. A spreadsheet for this calculation is available on the EU Ecolabel website. If the product is sold in different packaging (i.e. with different volumes), the calculation shall be submitted for each packaging size for which the EU Ecolabel shall be awarded.

The applicant shall provide a completed and signed declaration for the content of recycled material in the packaging.

- For paper and cardboard, packaging is regarded as recycled if the raw material used to make the packaging has been collected from packaging manufacturers at the distribution stage or at the consumer stage. Where the raw material is industrial waste from the material manufacturer’s own production process, then the material will not be regarded as recycled.
- For plastic, packaging is regarded as recycled if the raw material used to make the packaging comes from industrial waste or has been collected from packaging manufacturer at the distribution or at the consumer stage.

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

The WUR is calculated as follows:

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

Where:

	<p> <i>W_i</i>: weight (g) of the primary packaging (i), <i>U_i</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, <i>D_i</i>: number of reference doses contained in the primary packaging (i), <i>R_i</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. </p> <p>b) Design for recycling</p> <p>Plastic packaging shall be designed to facilitate effective recycling by avoiding potential contaminants and incompatible materials that are known to impede separation or reprocessing or to reduce the quality of recyclate. The label or sleeve, closure and, where applicable, barrier coatings shall not comprise, either singularly or in combination the materials and components listed in Table 4. Pumps are exempted from this requirement.</p> <p>Table 4: Materials and components excluded from packaging elements</p> <table border="1" data-bbox="1077 751 2072 1043"> <thead> <tr> <th data-bbox="1077 751 1288 818">Packaging element</th> <th data-bbox="1288 751 2072 818">Excluded materials and components⁷</th> </tr> </thead> <tbody> <tr> <td data-bbox="1077 818 1288 1043">Label or sleeve</td> <td data-bbox="1288 818 2072 1043"> <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) </td> </tr> </tbody> </table>	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 - Labels or sleeves that are metallised or are welded to a packaging body (in mould labelling)
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 - Labels or sleeves that are metallised or are welded to a packaging body (in mould labelling) 				

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="1075 188 1288 539">Closure</td> <td data-bbox="1288 188 2049 539"> <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="1075 539 1288 603">Barrier coatings</td> <td data-bbox="1288 539 2049 603">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>	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
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 proposed changes are focused on the introduction of WUR index to assess the quantity of packaging from raw materials used in the product group. Technical Annexe Section 4.2 provides the definition for primary packaging. The criterion is also proposed to be expanded to promote the recyclability of plastic packaging by limiting combinations of materials that can hinder the recycling process.</p>				
Criterion 7 – User information					
<p>(a) Information on the packaging</p> <p>The following text (or equivalent) shall appear on or in the product: ‘This Ecolabelled detergent works well at low temperatures (*). Select low temperature washing cycles on the dishwasher, wash full loads and do not exceed the recommended dosage. This will minimise both energy and water consumption and reduce water pollution. (*) The applicant shall insert here the recommended temperature or range of temperatures that shall not exceed 55 °C.’</p> <p>(b) Dosage instructions</p> <p>Dosage instructions shall appear on the product packages. The recommended dosages shall be specified for the ranges of water hardness appropriate to where the product is marketed. The instructions shall specify how to make best</p>	<p>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:</p> <p>a) dosing instructions</p> <p>The primary packaging shall include information on the recommended dosage for a standard load for at least two levels of soiling. A second well-known metric may be given in brackets. If the packing has an efficient and convenient dosage system that can provide an equally reliable dosage, an alternative metric (e.g. capsules, squirts, or other) can be used. The dosing instructions shall include information on the impact of water hardness on dosing and indicate the most prevalent water hardness in the area where the product is intended to be marketed or where this information can be found. A recommendation of</p>				

<p>use of the product according to the soil. The applicant shall take suitable steps to help the consumer respect the recommended dosage, for example by making available a dosage device (for powdered or liquid products), and/or by indicating the recommended dosage at least in ml (for powdered or liquid products).</p> <p>(c) Information and labelling of ingredients The type of enzymes shall be indicated on the packaging. Assessment and verification: The applicant shall provide a sample of the product label together with a declaration of compliance with each Part (a), (b) and (c) of this criterion</p>	<p>using salt to reduce the water hardness and the amount of detergent needed should be included, if appropriate in the location to be marketed.</p> <p>b) resource saving measures An indication on the primary packaging shall encourage users to wash at the lowest appropriate temperature: the applicant shall recommend washing at the lowest temperature the product claims effectiveness, which shall not be higher than 50C. An indication on the primary packaging shall encourage users to wash full loads.</p> <p>c) packaging disposal information The primary packaging shall include information on the reuse, recycling and/or correct disposal of packaging.</p> <p>d) environmental information (voluntary) The following text is recommended to appear on the primary packaging but its use is voluntary: "All detergents have an effect on the environment. Always use the correct dose for maximum effectiveness, the lowest recommended temperature. This will minimize both energy and water consumption and reduce water pollution".</p> <p>Assessment and verification: The applicant shall provide a sample of the product packaging, including the label.</p>
<p>The proposed changes bring further harmonisation among the "User information" criteria found in the different detergent EU Ecolabels and mention key information on aspects that ensure the best performance of the detergent while reducing environmental impacts.</p>	
<p>Criterion 8 – Information appearing on the EU Ecolabel</p>	
<p>Optional label with text box shall contain the following text: ‘— Reduced impact on aquatic ecosystems — Restricted hazardous substances — Performance tested’ The guidelines for the use of the optional label with text box can be found in the ‘Guidelines for use of the Ecolabel logo’ on the website: http://ec.europa.eu/environment/ecolabel/promo/logos_en.htm Assessment and verification: The applicant shall provide a sample of the label.</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 packaging, including the label.</p>

	The proposed change is the introduction of the guidelines to place the EU Ecolabel logo in a visible and legible position on the packaging. The licence number should be displayed
Criterion NEW - Sustainable sourcing of palm oil, palm kernel oil and their derivatives	
	<p>Ingredients used in the product which are derived from palm oil or palm kernel oil must be sourced from plantations that meet the criteria for sustainable management that have been developed by multi-stakeholder organisations who have a broad based membership including NGOs, industry and government.</p> <p>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>

7 REVISION OF MAIN DECISION TEXT

7.1 Name, definition and scope for EU Ecolabel

Current definition:

The product group 'Detergents for Dishwashers' shall comprise detergents for dishwashers and products used as rinse aids, whether in powder, liquid or any other form, which are intended to be marketed and used exclusively in automatic domestic dishwashers and in automatic dishwashers for professional use, the size and usage of which is similar to that of domestic dishwashers.

Proposal for new definition and scope:

The product group 'consumer dishwasher detergents' shall comprise detergents for dishwashers and products used as rinse aids, whether in powder, liquid or any other form, which are intended to be marketed and used exclusively in automatic **consumer** dishwashers and in automatic dishwashers for professional use, the size and usage of which is similar to that of **private use**.

Rationale and discussion

The Detergents Regulation provides the following definition for the product group covered by this EU Ecolabel:

"consumer automatic dishwasher detergent' means a detergent placed on the market for use in automatic dishwashers by non-professionals."

In order to harmonise the EU Ecolabel with the Detergents Regulation and the EU Ecolabel for industrial and institutional automatic dishwasher detergents and to clarify the scope, it is proposed to change the **name** of the product group from **"detergents for dishwashers"** to **"consumer dishwasher detergents"**. The term "automatic" is not proposed to be included in the definition, unlike in the Regulation, as modern dishwashers are automatic by definition. *Further information on the differences between consumer and industrial and institutional detergents can be found in the Technical Annexe Section 3.1.*

No changes are proposed to the **definition** and **scope** of the EU Ecolabel as the market analysis, the stakeholder survey and review of other ecolabels and voluntary agreements for dishwasher detergents have shown that the current definition and scope are in line with the current state of the consumer dishwasher detergent market and no further issues were raised during consultation.

Further information on these can be found in Sections 3.2, 2.3 and 2.5 respectively of the Preliminary Report⁸.

⁸ Preliminary report for the revision of European Ecological Criteria for detergents for dishwashers: domestic and industrial and institutional, available at: <http://susproc.jrc.ec.europa.eu/detergents/index.html>

7.2 Definitions

Current definition text

For the purpose of this Decision, the following definitions shall apply:

'Substance' means a chemical element and their compounds in the natural state or obtained by any production process, including any additive necessary to preserve the stability of the products and any impurity deriving from the process used, but excluding any solvent which may be separated without affecting the stability of the substance or changing its composition.

Proposal for definitions text

(1) "ingoin substances and mixtures" means

- biocides, fragrances, colouring agents, and mixtures thereof, regardless of concentration in the final formulation,
- substances and mixtures intentionally added, by-products and impurities from raw materials, the concentration of which equals or exceeds 0,010% by weight of final formulation,

(2) "primary packaging" means

- for single doses in a wrapper that is intended to be removed before washing, the individual dose wrapping in direct contact with the content and the packaging conceived so as to constitute the smallest sales unit of distribution to the final user or consumer at the point of purchase, including label where applicable,
- for all other types of products, 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 the Technical Annexe Section 4.3.

Several definitions are proposed to be added in the main decision text in order to clarify and simply the subsequent wording of criteria.

The definition for "substance" is proposed to be replaced with "ingoin substances and mixtures", which also provides 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 criterion on packaging to the definition section. The proposed expansion of the definition reflects the fact that consumer dishwasher detergents are often sold in single dose form that may or may not be wrapped in a wrapper that should be thrown away.

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

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

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

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

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

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

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

(b) Measurement thresholds

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

For preservatives, colouring agents and fragrance compliance with the criteria is required regardless of their concentration except for criterion 2(b) on the content of hazardous substances and mixtures.

Ingoing substances are defined as all substances in the product including additives (e.g. preservatives or stabilizers) in the ingredients. Impurities resulting from the raw material production, which are present in concentrations > 0,010 % by weight of the final formulation shall also comply with the criteria.

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

Proposal for assessment and verification requirements and measurement thresholds

a) Requirements

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

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

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

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

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

independent verifications.

The Appendix 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, 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 Council³.

b) Measurement thresholds

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

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

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

Rationale and discussion

a) Requirements

The text regarding the assessment and verification requirements is proposed to be aligned with the text from the EU Ecolabel on Rinse-off Cosmetics. One of the most significant changes proposed is the addition of the text that clarifies what is to be provided to the Competent Bodies, it was previously found in the section on the assessment and verification of the measurement threshold and 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 5.3 of the Technical Annex.

In the specific case of the EU Ecolabel for detergents for dishwashers, the new text proposes the same thresholds as in the current one except in the case of section (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 except for section (b) of the criterion on restricted substances, where the measurement threshold of 0,01% applies. In the proposed text, this exception would also apply to section (c) of that same criterion.

8.2 Functional unit and reference dose

Current requirements for functional unit and reference dose

Functional unit

The functional unit shall be the quantity of product required to wash 12 place settings with a standard soil (as defined by DIN or ISO standards).

Reference dosage

The dosage recommended by the manufacturer to consumers for normally soiled dishes and 12 place settings is taken as a reference dosage under standard conditions, as laid down in the IKW washing performance test referred to in criterion 5.

Proposal for reference dose

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:

Dishwasher detergent	Dosage recommended by the manufacturer to wash 12 normally soiled place settings under standard conditions ("wash"), as laid down in the IKW washing performance test referred to in criterion 5* (indicated in g/wash or ml/wash).
Rinse aid	3ml

*number of criterion to be updated if the criteria structure changes

Rationale and discussion

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

It is proposed to remove the paragraph on the functional unit as it is also defined in the text related to the reference dosage. The reference dosage, both for dishwasher detergents and rinse aids, is proposed to remain the same. In the current text, the reference dosage for rinse aids is indicated in the criteria where it is required (e.g. total chemicals, CDV, aNBO, anNBO) and it is proposed to indicate it alongside the reference dosage for detergents.

8.3 Criterion 1: Total chemicals

Current criterion 1

Total chemicals (TC) are the recommended dosage in g/wash minus the water content:

The amount of total chemicals shall not exceed the following amounts:

- a) For single-functional dishwasher detergents: $TC_{max} = 20.0$ g/wash
- b) For multi-functional dishwasher detergents: $TC_{max} = 22.0$ g/wash

When calculating the CDV, aNBO, and anNBO a dosage of rinse aid of 3 ml shall be used.

Assessment and verification: Calculation of the TC of the product. The density (g/ml) shall be stated for liquid products.

Proposal for criterion 1 "Dosage requirements"

The reference dosage shall not exceed the following amounts:

Product type	Dosage
Single-function dishwasher detergent	18,0 g/wash
Multi-function dishwasher detergent	20,0 g/wash

Rinse aids are exempted from this requirement

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

Rationale and discussion

As dosage is recognised as an important factor for dishwasher detergents, the environmental impacts of product dosage were investigated in the LCA (Section 4.5.1 of the Preliminary Report). The results of the sensitivity analysis found that a 20% decrease of product dosage lead to environmental gains of up to 7%. The impact is relatively small due to the significance of the high impacts related to the product use phase (see Figure 2).

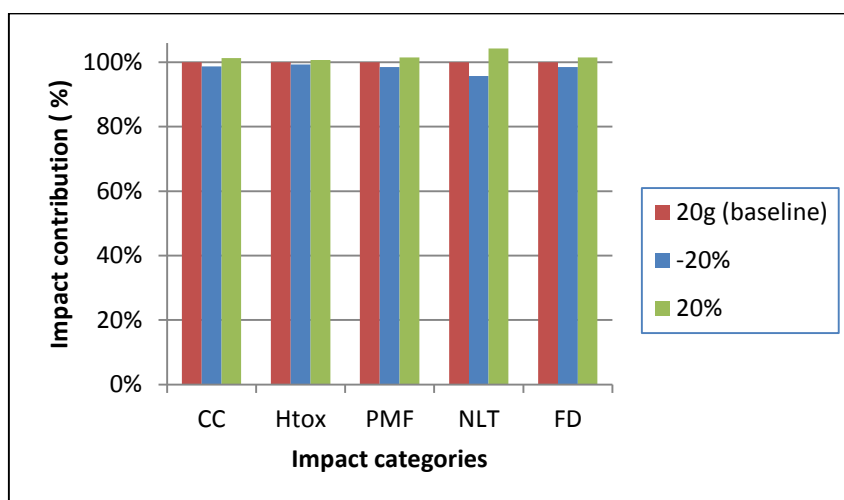


Figure 2: Characterised results of dosage sensitivity

Impact categories stand for FE: Freshwater eutrophication, HTox: Human toxicity, FTox: Freshwater ecotoxicity, MTox: Marine ecotoxicity, NLT: Natural land transformation, WD: Water Depletion

The criterion included in the current EU Ecolabel text considers the total chemicals contained in the product. The impacts of these chemicals are also considered in the toxicity to aquatic organisms criterion as well as in the one of their biodegradability. It is proposed to change the aim of the criterion to target from simply chemical to the concentration of products, as in the EU Ecolabel for laundry detergents. By increasing the concentration of products and reducing the dosage, such aspects as transport, packaging and raw material extraction can be impacted.

Thus, the name of the criterion is proposed to be changed to "Dosage requirements" and to consider the whole reference dosage and non-only the dry content. The limits proposed are aligned with those of Nordic Swan (Table 5) as they are the most demanding and are a good starting point for discussions. The requirement for stricter limits for this EU Ecolabel was pointed out by several comments from stakeholder on the current Total Chemicals criterion as it was stated to be too lax.

Nordic Swan limits are stated for soft water, which is not the state of the water throughout a large portion of Europe, and could possibly be considered as too strict for a water hardness of 2.5 mmol CaCO₃/l but many modern dishwashers are equipped with water softeners and multi-function products often contain salt to help with water softening. Moreover, a sample study of the market leaders for consumer dishwasher detergents found that multi-function tablets weigh around 19 g and single-function tablets do not weigh over 17g.

In the current criterion, no limit was set for rinse aids. The reasoning behind this is that rinse aid is not dosed by the consumer but instead by the dishwasher and as such the dosage is fixed. Therefore a dosage limit for rinse aids is not a suitable requirement. This is in line with other ecolabels for dishwasher detergents.

Table 5: Dosage requirements for other ecolabels and voluntary schemes

Scheme	Requirement						
AISE Charter for Sustainable Cleaning	For ADW powders and unit doses (e.g. tabs, gel sachets, liquid sachets) with rinse function Dosage g/job (1 dish wash cycle, normal soil, excluding free water from liquid / gel unit doses): ≤ 25 g For ADW powders and unit doses (e.g. tabs, gel sachets, liquid sachets) without rinse function Dosage g/job (1 dish wash cycle, normal soil, excluding free water from liquid / gel unit doses): ≤ 20 g						
Nordic Swan	The maximum dosage limits are: <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th>Dishwasher detergent</th> <th>Dose (g/wash)</th> </tr> </thead> <tbody> <tr> <td>Single function products</td> <td>18</td> </tr> <tr> <td>Multifunctional products</td> <td>20</td> </tr> </tbody> </table> Rinsing agent is exempted from this requirement.	Dishwasher detergent	Dose (g/wash)	Single function products	18	Multifunctional products	20
Dishwasher detergent	Dose (g/wash)						
Single function products	18						
Multifunctional products	20						
Env. Choice NZ	<i>No dosage limits specified</i>						
EU Ecolabel	Total chemicals (TC) are the recommended dosage in g/wash minus the water content: The amount of total chemicals shall not exceed the following amounts: a) For single-functional dishwasher detergents: TC _{max} = 20.0 g/wash b) For multi-functional dishwasher detergents: TC _{max} = 22.0 g/wash						
Good Env. Choice	Products must give good results at a dosage not exceeding 18 g for soft water (0-6°dH) in a 12-setting dishwasher.						

Consultation questions

1	Do you agree with the name and focus change for this criterion?
2	Do you agree that the dosage limits proposed?

8.4 Criterion 2: Excluded or limited substances or mixtures

Current criterion 2a

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
- DTPA (diethylenetriaminepentaacetic acid)
- perborates
- reactive chlorine compounds
- EDTA (ethylenediaminetetraacetate)
- Nitro-musks and polycyclic musks

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

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

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

- (i) Phosphates
- (ii) Phosphonates that are not readily biodegradable
- (iii) DTPA (diethylenetriaminepentaacetic acid)
- (iv) Perborates
- (v) Reactive chlorine compounds
- (vi) EDTA (ethylenediaminetetraacetate)
- (vii) Nitro-musks and polycyclic musks
- (viii) APEO (alkylphenol ethoxylates) and APD (alkylphenol derivatives)
- (ix) Hydroxyisohexyl 3-cyclohexene carboxaldehyde (HICC)
- (x) Atranol and Chloroatranol
- (xi) Fragrance substances subject to the declaration requirement provided for in Regulation (EC) No 648/2004 of the European Parliament and of the Council on detergents (Annex VII) and which are not already excluded by criterion 2b and (other) fragrance substances classified H317/R43 (May cause allergic skin reaction) and/or H334/R42 (May cause allergy or asthma symptoms or breathing difficulties if inhaled) shall not be present in quantities $\geq 0,010\%$ (≥ 100 ppm) per substance.

Assessment and verification: the applicant shall provide

- a signed declaration of compliance supported by declarations from manufacturers of mixtures, as appropriate, confirming that phosphates have not been included in the product.
- written statements on compliance (concerning phosphonates which are readily biodegradable), 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).

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 detergents for dishwasher 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 Technical Annexe Section 10.1.

Harmonisation with ILDD product group

Where possible, the list of specified excluded ingoing substances should be harmonised between the IIDD 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 consumer criteria should be investigated. As a consequence the substances to be excluded in various product groups will be discussed in a horizontal session in the 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):

- APEO (alkylphenol ethoxylates) and APD (alkylphenol derivatives) – already included for IIDD, excluded also by Nordic Ecolabelling and Environmental Choice New Zealand
- Hydroxyisohexyl 3-cyclohexene carboxaldehyde (HICC)
- Atranol and Chloroatranol

Current criterion 2b

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.

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	R5R593
EUH059 Hazardous to the ozone layer	R29
EUH029 Contact with water liberates toxic gas	R29
EUH031 Contact with acids liberates toxic gas	R31
EUH032 Contact with acids liberates very toxic gas	R32
EUH070 Toxic by eye contact	R39-41
Sensitising substances	
H334: May cause allergy or asthma symptoms or breathing difficulties if inhaled	R42
H317: May cause allergic skin reaction	R43

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

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

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

Surfactants in concentrations <25 % in the product	H400 Very toxic to aquatic life	R50
Surfactants in concentrations <25 % in the 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(***)	H317: May cause allergic skin reaction	R43
	H334: May cause allergy or asthma symptoms or breathing difficulties if inhaled	R42
NTA as an impurity in MGDA and GLDA(****)	H351 suspected of causing cancer	R40

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

(**) Referred to in criterion 2e. This exemption is applicable provided that biocides' bioaccumulation potentials are characterised by $\log K_{ow}$ (log octanol/water partition coefficient) < 3.0 or an experimentally determined bioconcentration factor (BCF) ≤ 100 .

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

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

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

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

According to Article 6(6) of Regulation (EC) No 66/2010, the EU Ecolabel may not be awarded to any product that contains substances meeting criteria for classification with the hazard statements specified in 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
Sensitising substances
H334: May cause allergy or asthma symptoms or breathing difficulties if inhaled
H317: May cause allergic skin reaction

This criterion applies to all ingredients present in concentrations ≥ 0.01 %, including preservatives,

colouring agents and fragrances.

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

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

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

A declaration of compliance shall be provided by the applicant supported, where appropriate, by the declarations from producer(s) of the raw materials that none of these ingoing substances and/or mixtures meet the criteria for classification with one or more of hazard statements listed in Table 2 in the form(s) and physical state(s) they are present in the product.

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

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

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

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

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

For substances listed in Annexes IV and V to Regulation (EC) No 1907/2006, which are exempted from registration obligations under point (a) and (b) of Article 2(7) of that Regulation, a declaration to this effect by the applicant shall suffice to comply with criterion 3(b).

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

Consultation questions

1	Do you have information which could substantiate keeping/removing the current derogations.
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Current criterion 2c

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

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

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

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 X(c) – "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 1907/2006⁹, 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.

⁹ http://echa.europa.eu/chem_data/authorisation_process/candidate_list_table_en.asp

Current criterion 2d

(d) Specified limited ingredients – fragrances

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

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

Fragrance substances subject to the declaration requirement provided for in Regulation (EC) No 648/2004 of the European Parliament and of the Council on detergents (Annex VII) and which are not already excluded by criterion 2b and (other) fragrance substances classified H317/R43 (May cause allergic skin reaction) and/or H334/R42 (May cause allergy or asthma symptoms or breathing difficulties if inhaled) shall not be present in quantities $\geq 0.010\%$ (≥ 100 ppm) per substance.

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

Proposal for criterion X(d) – "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.ifraorg.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.*

Rationale and discussion

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

No content-wise change is proposed to this criterion. The exclusion of specific fragrances (Hydroxyisohexyl 3-cyclohexene carboxaldehyde (HICC), Atranol and Chloroatranol) was added to the requirements on fragrances but included in the sub-criterion (a) on Specified excluded ingoing substances and mixtures.

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

Current criterion 2e - Biocides

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

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

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

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

Proposal for criterion X(e) – "Preservatives"

(i) The product may contain preservatives provided that they are not bioaccumulating. A preservative is not considered bioaccumulating if $BCF < 100$ or $\log P_{ow} < 3,0$. 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.

Rationale and discussion

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

In this revision 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.
- A requirement that biocides included in the product shall not be bioaccumulating is proposed to be added to further harmonise the criteria of the six different detergent and cleaning product groups. Some EU Ecolabel criteria (i.e., for the IILD, IIDD and ROC), as well as Nordic Swan criteria for dishwasher detergents have a requirement that preservatives may only be used if they are not bioaccumulating. The motivation

behind this requirement is that substances that bioaccumulate collect in the fat tissues of living organisms and can cause long-lasting damage.

- Finally, in the recent criteria developments it was pointed out that sometimes preservatives may release or degrade to substances that are even more hazardous than the preservatives used. Therefore an additional requirement is proposed for consideration: *Preservatives in the product shall not release or degrade to substances that classified in accordance with the requirements of criterion X(b) Hazardous substances and mixtures.*

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.

Proposal for criterion X(g) – Enzymes **NEW REQUIREMENT**

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

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

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 10.2.4 of the Technical Annexe.

Proposal for criterion X(h) – Phosphorus content

The total quantity of phosphorus compounds must not exceed

- 0,20 Pg/wash for dishwasher detergents and
- 0,03 Pg/wash rinsing agents

Assessment and verification: The applicant shall provide written statements on compliance (concerning the total amount of phosphorus), 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

Phosphorus compounds: phosphates, phosphonates and phosphorus content

Phosphates and phosphonates are widely used as complexing agents in dishwasher detergents for private and professional uses, however there is evidence that there are alternative dishwasher detergents available on the shelves without phosphorus compounds. Further information about the environmental impacts and alternatives can be found in the accompanying Technical Annex Section 10.1.1

The current EU Ecolabel for dishwasher detergents entirely prohibits phosphates for consumer dishwasher detergents and restricts its use for professional use. The Nordic labelling¹⁰ has instead chosen to restrict the quantity of phosphorus in the products. The limit of 0,2g/wash means that phosphates cannot be used as the main complexing agent, as much more phosphate is required for that than the limit permits. The limit of 0,20 Pg/wash means that a maximum dose of 20g/wash may contain around 0,79 Pg phosphate/wash or approximately 0,96 Pg/wash (or combination of two). The limit of 0,2 Pg/wash is tougher than the limit of 0,30 Pg/wash that will come into force under the Detergent Regulation in 2017. The toughest restrictions in the use of phosphorus content comparing the schemes under study are set in the Good Environmental Choice label and in the Australian scheme. It does not allow the intentional addition of any chemical that contains phosphorus and even restricts the presence of phosphorus as impurity.

The restrictions on phosphates are already in the national legislation of several member states. Swedish legislation prohibiting phosphates in dishwasher detergents permits 0,5% phosphorus in products, which equates to around 0,1 Pg/wash for a dose of 20g/wash and it is thus tougher than these requirements. Norwegian legislation also has a limit for phosphorus of 3,8%_{wt}.

In the revised EU Ecolabel criteria, it is proposed to keep the ban for phosphates as there are already products on the market that comply with this requirement. A list of several products and their phosphate-content is reported in Table 6 (Data from 2005)¹¹ and it has been reported that, for example, phosphate-free automatic dishwasher detergents represented 69% of the Swedish market in 2009¹²

¹⁰ Dishwasher detergents and rinsing agents, version 6.0 Background to ecolabelling, 17 September 2013 available at <http://susproc.jrc.ec.europa.eu/detergents/stakeholders.html>

¹¹ http://www.lcbp.org/wp-content/uploads/2013/03/P-free_detergents.pdf

¹² http://www.kemi.se/Documents/Publikationer/Trycksaker/Faktablad/QandA_Phosphates_in_Detergents.pdf

Table 6: Selected dishwasher detergents on the market and their phosphate-content

Dishwasher Detergent	Phosphate-content	Dishwasher Detergent	Phosphate-content
Bi-O-Kleen	0%	Electra-Sol Gel	4.9%
Citra-Dish	0%	Sunlight Powder	5.6%
EcoVer	0%	Electra-Sol Powder	6.1%
Mrs. Meyers	0%	Spot-Free (Wal-Mart) Powder	7.0%
Seventh Generation	0%	Stop N Shop Powder (Lemon)	7.5%
Shaklee	0%	Stop N Shop Powder (Regular)	7.5%
Palmolive Gel	1.6%	Cascade Complete Powder	7.7%
Cascade Complete: Liquid	4.0%	Cascade Complete Tablets	8.5%
Cascade Complete: Gel	4.0%	Sunlight Tablets	8.7%
Sunlight Gel	4.3%	Electra-Sol Tablets	8.7%
Cascade Pure Rinse	4.4%	Palmolive	8.7%

Rinsing agents are restricted separately other national schemes such as the Nordic Swan. The limit for rinsing agents is set at 0,1 Pg/wash without any further requirement on phosphates or phosphonates. The current EU Ecolabel, however, does not include any additional restriction for this type of agents.

During the stakeholders consultation¹³ some of them called for exclusion for phosphonates from this product group, although another stakeholder claimed that the cleaning ability and quality of dishwasher detergents which are free of phosphonates is not so good. Considering the environmental impacts caused by these types of chemicals as well as the presence on the market of alternatives, it is proposed that the ban for phosphates remains and two new restrictions are instated:

- a) a ban on phosphonates that are not aerobically biodegradable and
- b) a limit for total phosphorus content to also limit the total amount of phosphonate content.

¹³ Preliminary report for the revision of European ecological criteria: consumer and industrial and institutional dishwasher detergents, section 2.8.3

Table 7: Comparison of the phosphorus content restrictions in selected mandatory and voluntary schemes and the proposal for the revised EU Ecolabel criterion

Scheme	Phosphorus related criterion						
Detergent Regulation	Shall not be placed on the market if the total content of phosphorus is equal to or greater than 0.3g in the standard dosage as defined in section B of Annex VII						
Swedish regulation	The total content of phosphorus shall not be greater than 0.5% wt of the product, (approx. 0.1g/wash)						
Norwegian regulation	The total content of phosphorus shall not be greater than 3.8% wt of the product, (approx. 0.76g/wash)						
Nordic labelling	The total content of phosphorus in the product must not exceed:						
	<table border="1"> <thead> <tr> <th>Product type</th> <th>P (g/wash)</th> </tr> </thead> <tbody> <tr> <td>Dishwasher detergents</td> <td>0.20</td> </tr> <tr> <td>Rinsing agents</td> <td>0.03</td> </tr> </tbody> </table>	Product type	P (g/wash)	Dishwasher detergents	0.20	Rinsing agents	0.03
	Product type	P (g/wash)					
Dishwasher detergents	0.20						
Rinsing agents	0.03						
Env. Choice NZ	The product must not contain more than 0.2 g phosphonates which are not readily biodegradable (aerobically) per wash.						
EU Ecolabel	Phosphates shall not be included in the product, neither as part of the formulation nor as part of any mixture included in the formulation						
Good Env. Choice	Ingredients that contain phosphorus must not be added to the product intentionally.						
Good env choice AU	The product must not be manufactured using any phosphorus compounds. Trace amounts of phosphorus must not exceed 0.05% w/w excluding water.						
Singapore Green Labelling	The total phosphorus content shall not exceed 0.5 %. The pH value of the detergent shall be < 11.						

Consultation questions

1	Do you agree with the proposed approach?
2	Are exclusions required for other substances?

8.5 Criterion 3: Toxicity to aquatic organisms: Critical dilution volume

Current criterion 3

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

Product type	Limit CDV _{chronic}
Single-functional dishwasher detergents	25 000 l/wash
Multi-function dishwasher detergents	30 000 l/wash
Rinse aid	10 000 l/wash

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

[Formula for CDV_{chronic} calculation removed to limit length]

Assessment and verification: 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.

Proposed criterion 3 – "Toxicity to aquatic organisms"

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

Product type	Limit CDV
Single-function dishwasher detergents	20 000 l/wash
Multi-function dishwasher detergents	25 000 l/wash
Rinse aid	7 500 l/wash

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

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

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

Where:

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

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

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

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

Rationale and discussion

Detergents have great potential to cause disturbances in aquatic ecosystems as they cause chemical emissions to water during their entire life cycle. For this reason, EU Ecolabels limit the amount of emissions due to EU Ecolabel products. Critical Dilution Volume (CDV) is used

in the current EU Ecolabels related to detergents to assess toxicity to aquatic organisms. It is proposed to keep this assessment method in this revision. Further description of CDV and discussion of other assessment methods can be found in the Technical Annex Section 8.3

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

In order to revise the CDV limits for the different products covered by this EU Ecolabel on detergents for dishwashers, stakeholders (including competent bodies) were contacted and asked to provide information on CDV values of products on the market. A total of 22 CDV values were received, including 3 values for rinse aids (Table 8, full data details in Appendix I below), that have applied to be awarded the EU Ecolabel for detergents for dishwashers or other similar ecolabels.

Table 8: CDV ranges for dishwasher detergent product types (rounded to the closest 100)

	No.	CDV (l/wash)			Current Limit (l/wash)	Proposed Limit (l/wash)
		Min	Max	Average		
Single-function dishwasher detergents	8	6 500	24 700	16 300	25 000	20 000
Multi-function dishwasher detergents	11	12 800	27 400	19 400	30 000	24 000
Rinse aid	3	4 530	5 800	5 300	10 000	7 500

While the data sets are limited, it can be observed that the average CDV values recorded are considerably lower than the current CDV limits, although in the case of single function detergents the disparities between values are high (standard deviation of 6 800) and two values are very close to the current limit.

Based on this data, lower CDV limits are proposed as indicated in Table 8 - these represent a 20% decrease for dishwasher detergents and a 25% decrease for rinse aids. It should be noted that with these new values, three currently ecolabelled (either EU Ecolabel or other) would not satisfy the requirement, which is a significant number when the data set only contains 8 data.

Finally, it should also be noted that the latest revision of corresponding Nordic Swan criteria has been focused on the requirements for packaging and energy use¹⁴ and the CDV limits have been left high. The current EU Ecolabel revision also proposes to tackle the issue of energy use through the fitness for use criterion but also to reduce CDV limits in order to limit the chemical load of waste waters.

Consultation questions	
1	Do you agree that the proposed CDV limits or should they be kept as they are in the current criteria?

¹⁴ About Nordic Ecolabelled, Dishwasher detergents and Rinsing agents, Version 6.0, Background to ecolabelling 17 september 2013 Draft for consultation available at: http://www.svanemerket.no/PageFiles/10314/Maskinoppv_E_bkg_v6.pdf

8.6 Criterion 4: Biodegradability of organics

Current criterion 4

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:

Product type	aNBO	anNBO
Dishwasher detergents	1.0 g/wash	5.50 g/wash
Rinse aid	0.15 g/wash	0.50 g/wash

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

Refer to the DID list. For ingredients which are not included in the DID list, the relevant information from literature or other sources, or appropriate test results, showing that they are aerobically and anaerobically biodegradable shall be provided. See Appendix I.

Note that TAED should be considered anaerobically biodegradable.

Proposed criterion 4 – "Biodegradability"

a) Biodegradability of surfactants

[To be discussed at the 1st AHWG meeting.](#)

All surfactants shall be biodegradable under aerobic conditions.

All surfactants shall be biodegradable under anaerobic conditions.

b) Biodegradability of organic substances and mixtures

[To be discussed at the 1st AHWG meeting.](#)

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

Product type	aNBO	anNBO
Dishwasher detergents	1,0 g/wash	5,50 g/wash
Rinse aids	0,15 g/wash	0,50 g/wash

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

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

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

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

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

Rationale and discussion

In the current EU Ecolabel criteria for dishwasher detergents only the biodegradability of organic substances is considered. Nevertheless, dishwasher detergents contain large number

of surfactants, some of which are not readily biodegradable (aerobically, aNBO) or not anaerobically degradable (anNBO).

As explained in Section 9.1 of the Technical Annexe, the use of non-biodegradable (aNBO, anNBO) ingredients should be limited as substances which do not degrade rapidly in the environment have the potential to exert toxicity. A limitation (i.e. having maximum concentrations) allows for flexibility with formulations whilst reducing the risk to the environment.

As six EU Ecolabels related to detergents are being revised at the same time and as these products often have similar formulations, it is judicious to consider the harmonisation of their criteria. In the case of biodegradability, the current six EU Ecolabel criteria approach the subject using three different approaches and stakeholder consultation has yielded a multitude of opinions. It has thus been decided that a discussion during the 1st AHWG meeting will be conducted. As a starting point for the harmonised approach the criterion included in the most recently voted criteria for industrial and institutional products (laundry and dishwasher detergents) is proposed. It requires aerobic and anaerobic degradability of surfactants and limits the amount of non-aerobically and non-anaerobically degradable organics. Specific issues related to single product groups should be then taken into account (for instance in the case of IILD only non-ionic and cationic surfactants have to be anaerobically degradable, while anionic surfactants were exempted from this requirement). At present the values for aNBO and anNBO of the products are collected. This exercise will help evaluating the validity of the current thresholds. The criterion on biodegradability will be revised following discussions with stakeholders.

Consultation questions	
1	Is the proposed approach to biodegradability suitable for consumer dishwasher detergents?
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?

8.7 Criterion 5: Washing performance (fitness for use)

Current criterion 5

The product shall have a satisfactory washing performance at the recommended dosage according to the standard test developed by IKW or the standard EN 50242 as modified as follows:

The tests shall be carried out at 55 °C or at a lower temperature if the product claims to be efficient at this temperature.

When applying for rinse aids in combination with dishwasher detergents, the rinse aid shall be used in the test instead of the reference rinse aid.

For multifunctional products the applicant must submit documentation proving the effect of the claimed functions.

Assessment and verification: The test report shall be submitted to the Competent Body. A test other than the IKW test or the modified version of EN 50242 may be used if the Competent Body assessing the application accepts its equivalence.

If EN 50242:2008 is used the following modifications shall apply:

- the tests shall be carried out at 55 °C ± 2 °C (or at a lower temperature if the detergent claims to be efficient at a temperature below 55 °C) with cold pre-wash without detergent
- the machine used in the test shall be connected to cold water and must hold 12 place settings with a washing index of between 3.35 and 3.75
- the machine's drying programme shall be used, but only the cleanliness of the dishes shall be assessed
 - a weak acidic rinsing agent in accordance with the standard (formula III) shall be used
 - the rinsing agent setting shall be between 2 and 3
 - the dosage of dishwasher detergent shall be as recommended by the manufacturer
 - three attempts shall be carried out at a water hardness in accordance with the standard
- an attempt consists of five washes where the result is read after the fifth wash without the dishes being cleaned between the washes
 - the result shall be better than or identical to the reference detergent after the fifth wash
 - recipe for the reference detergent (Detergent B IEC 436) and rinsing agent (formula III), see Appendix B in the standard EN 50242:2008 (the surfactants are to be stored in a cool place in watertight containers not exceeding 1 kg and are to be used within 3 months).

If rinse aid and salt functions are a part of a multifunctional product the effect must be documented by test.

The applicant must be able to document the effect of other functions in multifunctional detergents.

Proposed criterion 5 – 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 according to [most updated IKW standard](http://www.ikw.org/fileadmin/content/downloads/Haushaltspflege/HP_DishwasherA_B_e.pdf) available at http://www.ikw.org/fileadmin/content/downloads/Haushaltspflege/HP_DishwasherA_B_e.pdf or the modified standard EN 50242:2008

The tests shall be carried out at [50C water](#) temperature or at the lowest temperature the product claims to be effective at. When applying for rinse aids in combination with dishwasher detergents, the rinse aid shall be used in the test instead of the reference rinse aid.

For multifunctional products the applicant must submit documentation proving the effect of the claimed functions.

The test shall be performed by a laboratory complying with Appendix (to be added)

Assessment and verification: The applicant shall provide documentation confirming that the product has been tested under the standard conditions. 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 EN 50242:2008 is used the following modifications shall apply:

- the tests shall be carried out at $50\text{ °C} \pm 2\text{ °C}$ (or at a lower temperature if the detergent claims to be efficient at a temperature below 50 °C) with cold pre-wash without detergent
- the machine used in the test shall be connected to cold water and must hold 12 place settings with a washing index of between 3.35 and 3.75
- the machine's drying programme shall be used, but only the cleanliness of the dishes shall be assessed
- a weak acidic rinsing agent in accordance with the standard (formula III) shall be used,
- the rinsing agent setting shall be between 2 and 3
- the dosage of dishwasher detergent shall be as recommended by the manufacturer
- three attempts shall be carried out at a water hardness in accordance with the standard
- an attempt consists of five washes where the result is read after the fifth wash without the dishes being cleaned between the washes
- the result shall be better than or identical to the reference detergent after the fifth wash
- recipe for the reference detergent (Detergent B IEC 436) and rinsing agent (formula III), see Appendix B in the standard EN 50242:2008 (the surfactants are to be stored in a cool place in watertight containers not exceeding 1 kg and are to be used within 3 months).

If rinse aid and salt functions are a part of a multifunctional product the effect must be documented by test.

The applicant must be able to document the effect of other functions in multifunctional detergents.

Rationale and discussion

Satisfactory fitness for use of hand dishwasher 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 the technical Annex 12.1.

A comparison of the test protocols used by various ecolabels is provided in Table 9. The national schemes propose to use either IKW standard (with amendments) or the EN 50242 with some modifications.

Table 9: Comparison of washing performance tests of various ecolabels

Scheme	Requirement
Nordic Swan	Cleaning performance is to be tested in accordance with the standard test for dishwasher detergents developed by IKW, with the following amendments: <ul style="list-style-type: none"> •wash temperature 50 °C for the test product and 55 °C for the reference •water hardness 6 °dH •reference detergent IEC-D or IEC-B is to be used at a dose of 20 g •reference rinsing agent (formula III) at dose setting of between 2 and 3
Env. Choice NZ	The product shall be fit for its intended use and conform, as appropriate, to relevant product performance standards. Product performance with respect to both cleaning ability (ability to remove soil) and cleaning performance (the total amount of soil removed per wash) must be assessed.
Green Seal	Requires only a test ‘using an objective, scientifically-validated method conducted under controlled and reproducible laboratory conditions’ and in comparison to a market-leading product.
Good Environmental Choice Australia	‘Test reports showing the product to be equal to or better than a reference detergent [defined elsewhere]... after the fifth wash cycle, based on EN 50242 conducted with the following modifications, or equivalent: <ul style="list-style-type: none"> - Tests shall be performed at 50 ± 2°C, with a cold prewash without detergent; - The machine used for testing shall be a 12 place setting machine with a 5 star or higher WELS rating; - The machine’s drying program shall be used but only the cleanliness of the dishes assessed; - A mildly acidic rinsing agent according to the standard (formulation III) shall be used; - The rinsing agent setting shall be set to 2 or 3; - The manufacturer’s recommended dosage shall be used during testing; and - Three trials shall be performed at the water hardness stated in the standard. One trial shall comprise five wash cycles with the results assessed after the fifth cycle without cleaning between cycles
EU Ecolabel	Tests shall be carried out to ensure that the product has a satisfactory wash performance at the recommended dosage according to the standard test developed by IKW or the modified standard EN 50242 (at 55 C or lower in manufacturer claims effectiveness at that temperature).

Both testing methods are proposed to be used in the EU Ecolabel for fitness for use criterion. As the IKW is actually under revision and therefore a claim of using the most updated IKW standard version has been included. Additionally, it was identified that some modifications to the EN 50242:2008 test method are needed because this method refers to powder detergent. Further input is requested in order to locate a suitable liquid reference detergent for this test method.

Lower temperature is included in the modification of the EN 50242:2008 test method since better performance has been achieved in the last years by the detergents and dishwashers. This lower temperature is also in line with other national schemes revisions.

Consultation questions	
1	Are any other changes required for this criterion?
2	Should IKW be the only test allowed for this product group?
3	Stakeholders are invited to indicate a suitable reference detergent for the EN test method and a possible modification to include the use of liquid detergents?

8.8 Criterion 6: Packaging requirements

Current criterion 6

a) Primary packaging per functional unit:

Primary packaging shall not exceed 2.0 grams per wash.

b) Cardboard packaging:

Cardboard packaging shall consist of $\geq 80\%$ recycled material.

c) Labelling of plastic packaging:

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

d) Plastic packaging:

Only phthalates that at the time of application have been risk assessed and have not been classified according to criterion 2(b) may be used in the plastic packaging.

Assessment and verification: The applicant shall provide the calculation of the quantity of primary packaging and a declaration regarding the percentage of recycled material in cardboard packaging to the competent body. The applicant shall provide completed and signed declaration of compliance with 6d.

Proposed criterion 6 - Packaging

a) Weight/utility ratio (WUR)

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

Product type	WUR
Dishwasher detergents	2,4 g
Rinse aids	1,5 g

Are exempted from this requirement:

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

Assessment and verification: the applicant shall provide the calculation of the WUR of the product. A spreadsheet for this calculation is available on the EU Ecolabel website. If the product is sold in different packaging (i.e. with different volumes), the calculation shall be submitted for each packaging size for which the EU Ecolabel shall be awarded.

The applicant shall provide a completed and signed declaration for the content of recycled material in the packaging.

- For paper and cardboard, packaging is regarded as recycled if the raw material used to make the packaging has been collected from packaging manufacturers at the distribution stage or at the consumer stage. Where the raw material is industrial waste from the material manufacturer's own production process, then the material will not be regarded as recycled.
- For plastic, packaging is regarded as recycled if the raw material used to make the packaging comes from industrial waste or has been collected from packaging manufacturer at the distribution or at the consumer stage.

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

applicant shall provide TBD.

The WUR is calculated as follows:

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

Where:

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

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

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

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

b) **Design for recycling**

Plastic packaging shall be designed to facilitate effective recycling by avoiding potential contaminants and incompatible materials that are known to impede separation or reprocessing or to reduce the quality of 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 ¹⁵
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)
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 consumer detergents for dishwashers but can represent up to 11% of impact contribution for

¹⁵ 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

agricultural land occupation when 20% of non-recycled 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 Ecolabel for detergents for dishwashers.

Further information on the wording of the proposed criterion and background information on packaging can be found in the Technical Annex Section 11.1

a) Weight utility ratio

In the current criteria, the packaging requirement is indicated as a general limit for the amount of packaging that can be used per wash and a minimum requirement for 80% recycled cardboard, if it is used. It is proposed to require the calculation of WUR, as for other EU Ecolabels.

The current limit for packaging is 2g/wash. Considering the calculation of WUR and the fact that a minimum of 80% of recycled cardboard is required, the equivalent WUR value is 2,4g/wash:

Current: $\frac{\text{packaging}}{\# \text{doses}} = 2 \text{ g/wash}$

WUR: $\frac{(\text{packaging} + (1 - \text{recycled content}) \cdot \text{packaging})}{\# \text{doses}} = 2 + 0,2 \cdot 2 = 2,4 \text{ g/wash}$

No specific limits are currently provided for rinse aids. As rinse aids necessitate lower doses than dishwasher detergents, it is proposed to first consider the value of 1,5 g/wash, which is aligned on the value required by Nordic Swan. Further information on this aspect can be found in the Technical Annex Section 11.3.1

b) Design for recycling

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

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

Consultation questions	
1	Are the WUR limits appropriate?
2	Is the design for recycling requirement suitable for this product group?

8.9 Criterion 7: Consumer information

Current criterion 7 – Consumer information

a) Information on the packaging:

The following test (or equivalent) shall appear on or in the product:

'This Ecolabelled detergent works well at low temperatures (*). Select low temperature washing cycle on the dishwasher, wash full loads and do not exceed the recommended dosage. This will minimise both energy and water consumption and reduce water pollution.

(* the applicant shall insert here the recommended temperature or range of temperatures that shall not exceed 55 °C

b) Dosage instructions:

Dosage instructions shall appear on the product packages. The recommended dosages shall be specified for the ranges of water hardness appropriate to where the product is marketed. The instructions shall specify how to make best use of the product according to the soil.

The applicant shall take suitable steps to help the consumer respect the recommended dosage, for example by making available a dosage device (for powdered or liquid products) and/or by indicating the recommended dosage at least in ml (for powdered or liquid products).

c) Information and labelling of ingredients:

The type of enzymes shall be indicated on the packaging.

Assessment and verification: The applicant shall provide a sample of the product label together with a declaration of compliance with each Part (a), (b) and (c) of this criterion.

Proposed criterion 7 – "User information"

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

a) dosing instructions

The primary packaging shall include information on the recommended dosage for a standard load for at least two levels of soiling. A second well-known metric may be given in brackets. If the packing has an efficient and convenient dosage system that can provide an equally reliable dosage, an alternative metric (e.g. capsules, squirts, or other) can be used. The dosing instructions shall include information on the impact of water hardness on dosing and indicate the most prevalent water hardness in the area where the product is intended to be marketed or where this information can be found. A recommendation of using salt to reduce the water hardness and the amount of detergent needed should be included, if appropriate in the location to be marketed.

b) resource saving measures

An indication on the primary packaging shall encourage users to wash at the lowest appropriate temperature: the applicant shall recommend washing at the lowest temperature the product claims effectiveness, which shall not be higher than 50C.

An indication on the primary packaging shall encourage users to wash full loads.

c) packaging disposal information

The primary packaging 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 but its use is voluntary:

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

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

Rationale and discussion

Information appearing on the packaging provides useful information on how the consumer should use the product most effectively to achieve the best cleaning results whilst minimising the environmental impacts. Further information about the environmental impacts and why these statements were selected can be found in the Technical Annexe section 13.1.

It is proposed that a recommendation on the use of salt to soften the water and improve the cleaning process should be included on the packaging information. It also ensures that the machine is protected from limescale and brings the EU Ecolabel in line with other ecolabels when considering the product dosage recommendations.

Consultation questions

1	Should a recommendation on the use of salt be included?
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	Is it appropriate to remove the requirement to report the type of enzyme?
5	Should recycling labels be included on dishwasher detergent packaging?

8.10 Criterion 8: Information appearing on the EU Ecolabel

Current criterion 8

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 can be found in the 'Guidelines for the use of the Ecolabel logo' on the website: http://ec.europa.eu/environment/ecolabel/promo/logos_en.htm

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

Proposed criterion 8 – Information appearing on the EU Ecolabel

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

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

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

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

Rationale and discussion

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 Section 14 of the the Technical Annexe.

Consultation questions

1	Are the proposed statements suitable?
2	Do these statements translate well into other languages?

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 Technical Annexe Section 15.

9 APPENDIX 1

9.1 Appendix analysis of CDV values

Product type	Countries where product is sold	Dosage (g or ml/wash)	CDV value (l/wash)
Dishwasher detergent (unspecified)	Austria	16	23,770
Dishwasher detergent (unspecified)	Austria	19	24,680
Dishwasher detergent - liquid	Spain	20	10,863
Dishwasher detergent - liquid	Spain	20	6,454
Multi-functional (compact with perfume)	France	20	27,367
Multi-functional (compact with perfume)	France	20.35	21,516
Multi-functional (compact with perfume)	Germany	20	12,788
Multi-functional (compact with perfume)	Germany	20.25	23,220
Multi-functional (compact with perfume)	France, Russia, Poland	20	20,018
Single-functional (compact no perfume)	Holland, Iceland	16	10,363
Single-functional (compact no perfume)	Holland, Iceland	16	16,022
Multi-functional (compact no perfume)	England, Germany, France, Spain, Norway, Russia	20.3	17,444
Multi-functional (compact no perfume)	England, Germany, France, Spain, Norway, Russia	20.3	16,963
Multi-functional (compact no perfume)	England, Germany, France, Spain, Norway, Russia	20.4	22,870
Multi-functional (compact no perfume)	England, Germany, France, Spain, Norway, Russia	20.3	16,449
Multi-functional (compact no perfume)	England, Germany, France, Spain, Norway, Russia	20.3	16,364
Multi-functional (compact no perfume)	France	20	18,941
Multi-functional powder	Unknown	18	21,694
Rinse aid	Austria	3.0	5,606
Rinse aid (no perfume)	France	3.6	5,796
Rinse aid	Spain	3.0	4,533