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COMMISSION DECISION

of 23 March 2005

establishing revised ecological criteria for the award of the Community eco-label to hand dishwashing detergents

(notified under document number C(2005) 1026)

(Text with EEA relevance)

(2005/342/EC)

(OJ L 115, 4.5.2005, p. 9)

Amended by:

		Official Journal		
		No	page	date
►**M1**	Commission Decision 2008/889/EC of 18 November 2008	L 318	12	28.11.2008

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(Text with EEA relevance)

(2005/342/EC)

THE COMMISSION OF THE EUROPEAN COMMUNITIES,

Having regard to the Treaty establishing the European Community,

Having regard to Regulation (EC) No 1980/2000 of the European Parliament and of the Council of 17 July 2000 on a revised Community eco-label award scheme ([1]), and in particular the second subparagraph of Article 6(1) thereof,

After consulting the European Union Eco-Labelling Board,

Whereas:

(1) Under Regulation (EC) No 1980/2000 the Community eco-label may be awarded to a product possessing characteristics which enable it to contribute significantly to improvements in relation to key environmental aspects.

(2) Regulation (EC) No 1980/2000 provides that specific eco-label criteria, drawn up on the basis of the criteria drafted by the European Union Eco-Labelling Board, are to be established according to product groups.

(3) It also provides that the review of the eco-label criteria, as well as of the assessment and verification requirements related to the criteria, is to take place in good time before the end of the period of validity of the criteria specified for the product group concerned.

(4) It is appropriate, in order to take account of scientific and market developments, to revise the ecological criteria established by Commission Decision 2001/607/EC of 19 July 2001 establishing the ecological criteria for the award of the Community eco-label to hand dishwashing detergents ([2]).

(5) Furthermore, in order to specify that products for both private and professional use are covered, it is necessary to modify the definition of the product group laid down in that Decision.

(6) In the interests of clarity, Decision 2001/607/EC should therefore be replaced.

(7) The revised ecological criteria should be valid for a period of four years.

(8) It is appropriate to allow a transitional period of not more than 12 months for applicants whose products have been awarded the eco-label before the date of notification of this Decision or who have applied for such an award before that date, so that they have sufficient time to adapt their products to comply with the revised criteria and requirements.

(9) The measures provided for in this Decision are in accordance with the opinion of the Committee instituted by Article 17 of Regulation (EC) No 1980/2000,

([1]) OJ L 237, 21.9.2000, p. 1.
([2]) OJ L 214, 8.8.2001, p. 30.

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HAS ADOPTED THIS DECISION:

Article 1

The product group ‘hand dishwashing detergents’ shall comprise:

‘all detergents intended to be used, to wash by hand, dishes, crockery, cutlery, pots, pans, kitchen utensils and so on’

The product group shall cover products for both private and professional use.

Article 2

In order to be awarded the Community eco-label, for hand dishwashing detergents, under Regulation (EC) No 1980/2000, a detergent must fall within the product group ‘hand dishwashing detergents’ and must comply with the ecological criteria set out in the Annex to this Decision.

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Article 3

The ecological criteria for the product group ‘hand dishwashing detergents’, as well as the related assessment and verification requirements, shall be valid until 31 December 2010.

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Article 4

For administrative purposes the code number assigned to the product group ‘hand dishwashing detergents’ shall be 019.

Article 5

Decision 2001/607/EC is repealed.

Article 6

Eco-labels awarded before the notification date of this Decision in respect of products falling within the product group ‘hand dishwashing detergents’ may continue to be used until 31 March 2006.

Where applications have been submitted before the notification date of this Decision for award of the eco-label in respect of products falling within the product group ‘hand dishwashing detergents’ those products may be awarded the eco-label under the conditions laid down in Decision 2001/607/EC. In such cases, the eco-label may be used until 31 March 2006.

Article 7

This Decision is addressed to the Member States.

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ANNEX

FRAMEWORK

In order to qualify for the eco-label, a hand dishwashing detergent (hereinafter referred to as the product) must fall within the product group as defined in Article 1, and must comply with the criteria of this Annex.

The aims of the criteria

These criteria aim in particular at promoting:

— the reduction of discharges of toxic or otherwise polluting substances into the aquatic environment,

— the reduction or prevention of risks to health or the environment related to the use of hazardous substances,

— the minimisation of packaging waste,

— information that will enable the consumer to use the product in the way that is efficient and minimises environmental impact.

The criteria are set at levels that promote the labelling of hand dishwashing detergents that have a low environmental impact.

Assessment and verification requirements

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

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 no tests are mentioned, or are mentioned as being for use in verification or monitoring, competent bodies should rely as appropriate on declarations and documentation provided by the applicant and/or independent verifications.

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

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

Where ingredients are referred to, this includes substances and preparations.

Appendix I presents the new revised detergent ingredient database (DID list), version 30 June 2004, which contains the most widely used ingredients in detergent formulations. Part A of the DID list shall be used for deriving the data for the calculations of CDV_{tox} and for the assessment of the biodegradability of surfactants.

Where appropriate, the applicant may use subsequent revisions of the detergent ingredient database as they become available.

For ingredients which are not included in part A of the DID list, the applicant shall, under his own responsibility, apply the procedure as described in the part-B of Appendix I.

For ingredients, which are not listed in the DID list, the applicant may use an approach to provide the necessary documentation of anaerobic degradability described in Appendix II.

The competent bodies are recommended to take into account the implementation of recognised environmental management schemes, such as EMAS or ISO 14001, when assessing applications and monitoring compliance with the criteria in this Annex (Note: It is not required to implement such management scheme).

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ECOLOGICAL CRITERIA

1. Toxicity to aquatic organisms

The critical dilution volume toxicity (CDV_{tox}) is calculated for each ingredient (i) using the following equation:

$$CDV_{tox}\,(\text{ingredient i}) = \frac{\text{weight (i)} \times \text{DF (i)}}{\text{TF chronic (i)}} \times 1000$$

where weight (i) is the weight of the ingredient (in grams) per recommended dose for 1 litre of dishwashing water, DF (i) is the degradation factor and TF chronic (i) is the toxicity factor of the ingredient (in milligram/litre).

The values of DF and TF chronic shall be as given in the Detergent Ingredient Database list-part A (DID list-part A) (Appendix I). If the ingredient in question is not included in the DID list part A, the applicant shall estimate the values following the approach described in the DID list part B (Appendix I). The CDV_{tox} is summed for each ingredient, making the CDV_{tox} for the product.

The CDV_{tox} of the recommended dose expressed for 1 litre of dishwashing water shall not exceed 4 200 l.

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

2. Biodegradability of surfactants

(a) *Ready biodegradability (aerobic)*

Each surfactant used in the product shall be readily biodegradable.

Assessment and verification: the exact formulation of the product as well as a description of the function of each ingredient shall be provided to the Competent Body. The DID list part A (Appendix I) indicates whether a specific surfactant is aerobically biodegradable or not (the surfactants with an entry of 'R' in the column on aerobic biodegradability are readily biodegradable). For surfactants which are not included in the DID list part A, the relevant information from literature or other sources, or appropriate test results, showing that they are aerobically biodegradable shall be provided. The tests for ready biodegradability shall be as referred to in Regulation (EC) No 648/2004 of the European Parliament and of the Council of 31 March 2004 on detergents ([1]). Surfactants shall be considered as readily biodegradable if the level of biodegradability (mineralisation) measured according to one of the five following tests is at least 60 % within 28 days: CO_2 headspace test (OECD 310), carbon dioxide (CO_2) Evolution Modified Sturm test (OECD 301B; Directive 67/548/EEC Annex V.C.4-C), Closed Bottle test (OECD 301D; Directive 67/548/EEC Annex VC(4E)), Manometric Respirometry (OECD 301F; Directive 67/548/EEC Annex VC(4D)), or MITI (I) test (OECD 301C; Directive 67/548/EEC Annex VC(4F)), or their equivalent ISO tests. Depending on the physical characteristics of the surfactant, one of the following tests might be used to confirm ready biodegradability, if the level of biodegradability is at least 70 % within 28 days: Dissolved Organic Carbon DOC Die-Away (OECD 301A; Directive 67/548/EEC Annex VC(4A)) or Modified OECD Screening DOC Die-Away (OECD 301E; Directive 67/548/EEC Annex VC(4B)), or their equivalent ISO tests. The applicability of test methods based on measurement of dissolved organic carbon needs to be appropriately justified as these methods could give results on the removal and not on the biodegradability. Pre-adaptation is not to be used in tests for aerobic ready biodegradability. The 10 days window principle shall not apply.

(b) *Anaerobic biodegradability*

Each surfactant used in the product shall be biodegradable under anaerobic conditions.

Assessment and verification: the exact formulation of the product as well as a description of the function of each ingredient shall be provided to the competent body. The DID list part A (Appendix I) indicates whether a specific surfactant is

([1]) OJ L 104, 8.4.2004, p. 1.

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anaerobically biodegradable or not (the surfactants with an entry of 'Y' in the column on anaerobic biodegradability are biodegradable under anaerobic conditions). For surfactants which are not included in the DID list part A, the relevant information from literature or other sources, or appropriate test results, showing that they are anaerobically biodegradable shall be provided. The reference test for anaerobic degradability shall be OECD 311, ISO 11734, ECETOC No 28 (June 1988) or an equivalent test method, with the requirement of a minimum of 60 % ultimate degradability under anaerobic conditions. Test methods simulating the conditions in a relevant anaerobic environment may also be used to document that 60 % ultimate degradability has been attained under anaerobic conditions (see Appendix II).

3. **Dangerous, hazardous or toxic substances or preparations**

(a) The following ingredients shall not be included in the product, either as part of the formulation or as part of any preparation included in the formulation:

— alkyl phenol ethoxylates (APEOs) and derivatives thereof

— EDTA (ethylene-diamine-tetra-acetic acid) and its salts

— NTA (nitrilo-tri-acetate)

— nitromusks and polycyclic musks, including for example:

musk xylene: 5-tert-butyl-2,4,6-trinitro-m-xylene

musk ambrette: 4-tert-butyl-3-methoxy-2,6-dinitrotoluene

moskene: 1,1,3,3,5-pentamethyl-4,6-dinitroindan

musk tibetine: 1-tert-butyl-3,4,5-trimethyl-2,6-dinitrobenzene

musk ketone: 4'-tert-butyl-2',6'-dimethyl-3',5'-dinitroacetaphenone

HHCB (1,3,4,6,7,8-Hexahydro-4,6,6,7,8,8-hexamethylcyclopenta(g)-2-benzopyran)

AHTN (6-Acetyl-1,1,2,4,4,7-hexamethyltetralin).

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

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

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

(c) No ingredient (substance or preparation) shall be included in the product that is classified with any of the following risk phrases, or any combination thereof, in accordance with Council Directive 67/548/EEC of 27 June 1967 on the approximation of laws, regulations and administrative provisions relating to the classification, packaging and labelling of dangerous substances ([1]) and its amendments or Directive 1999/45/EC of the European Parliament and of the Council of 31 May 1999 concerning the approximation of the laws, regulations and administrative provisions of the Member States relating to the classification, packaging and labelling of dangerous preparations ([2]) and its amendments:

R40 (limited evidence of a carcinogenic effect),

R45 (may cause cancer),

R46 (may cause heritable genetic damage),

R49 (may cause cancer by inhalation),

R68 (possible risks of irreversible effects),

R50-53 (very toxic to aquatic organism and may cause long term adverse effects in the aquatic environment),

R51-53 (toxic to aquatic organism and may cause long term adverse effects in the aquatic environment),

([1]) OJ 196, 16.8.1967, p. 1.
([2]) OJ L 200, 30.7.1999, p. 1.

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R59 (dangerous to the ozone layer),

R60 (may impair fertility),

R61 (may cause harm to the unborn child),

R62 (possible risk of impaired fertility),

R63 (possible risk of harm to the unborn child),

R64 (may cause harm to breastfed babies).

Specific requirements are prescribed for biocides, either as part of the formulation or as part of any preparation included in the formulation (see criterion on biocides below).

The above requirements shall apply to each ingredient (substance or preparation) that exceeds 0,01 % by weight of the final product. This includes also each ingredient of any preparation used in the formulation that exceeds 0,01 % by weight of the final product.

Assessment and verification: copies of the material safety data sheets shall be provided for all ingredients (whether substances or preparations). A declaration prepared by the manufacturer of ingredients and showing compliance with this criterion shall be provided by the applicant.

4. **Biocides**

(a) 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: copies of the material safety data sheets of any preservatives added shall be provided, together with information on their exact concentration in the final product. The manufacturer or supplier of the preservatives shall provide information on the dosage necessary to preserve the product.

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

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

(c) Biocides, either as part of the formulation or as part of any preparation included in the formulation, that are used to preserve the product and that are classified with R50-53 or R51-53 risk phrases, in accordance with Directive 67/548/EEC and its amendments or Directive 1999/45/EC, are permitted but only if they are not potentially bioaccumulative. In this context, a biocide is considered to be potentially bioaccumulative if the log P_{ow} (log octanol/water partition coefficient) $\geq$ 3,0 (unless the experimentally determined BCF $\leq$ 100).

The concentration of biocides in the final product shall not exceed the maximum authorised concentration in Council Directive 76/768/EEC of 27 July 1976 on the approximation of the laws of the Member States relating to cosmetic products ([1]) and its subsequent amendments.

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

5. **Dyes or colouring agents**

Any dyes or colouring agents used in the product must be permitted by Directive 76/768/EEC and its subsequent amendments, or must be permitted by European Parliament and Council Directive 94/36/EC of 30 June 1994 on colours for use in foodstuffs (([2])) and its subsequent amendments, or must be characterised by environmental properties that do not imply classification with R5053 or R51-53 risk phrases, in accordance with Directive 67/548/EEC and its amendments.

([1]) OJ L 262, 27.9.1976, p. 169.
([2]) OJ L 237, 10.9.1994, p. 13.

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Assessment and verification: a declaration of compliance with this criterion shall be provided to the competent body, together with a full list of all dyes or colouring agents used.

6. **Fragrances**

(a) The product shall not contain perfumes containing nitro-musks or polycyclic musks (as specified in the criterion 3a).

(b) Any ingredients added to the product as a fragrance must have been manufactured and/or handled in accordance with the code of practice of the International Fragrance Association.

(c) Fragrances shall not be used in hand dishwashing detergents for professional use.

Assessment and verification: a declaration of compliance with each part of this criterion shall be provided to the competent body.

7. **Sensitising substances**

The product shall not be classified with R42 (may cause sensitisation by inhalation) and/or R43 (may cause sensitisation by skin contact) risk phrases, in accordance with Directive 1999/45/EC and its amendments.

The concentration of any substance or ingredient classified with R42 (may cause sensitisation by inhalation) and/or R43 (may cause sensitisation by skin contact) risk phrases, in accordance with Directive 67/548/EEC and its amendments or Directive 1999/45/EC and its amendments, shall not exceed 0,1 % by weight of the final product.

Assessment and verification: the exact concentrations of all ingredients that are classified as R42 and/or R43 shall be provided to the competent body, together with copies of the material safety data sheets.

8. **Harmful or corrosive properties**

The product shall not be classified as 'Harmful' (Xn) or 'Corrosive' (C) according to Directive 1999/45/EC.

Assessment and verification: the exact concentrations of all substances used in the product, either as part of the formulation or as part of any preparation included in the formulation, that are classified as 'Harmful' (Xn) or 'Corrosive' (C) shall be provided to the Competent Body, together with copies of the material safety data sheets.

9. **Packaging requirements**

(a) The primary packaging, except for the cap, shall have a volumetric coefficient of packaging (VCP) less than or equal to 1,9. This criterion does not apply if the primary packaging is made up of 50 % or more recycled material.

VCP is equal to the volume of the smallest rectangular solid (rectangular parallelepiped) that can contain the packaging divided by the volume of the product contained in the packaging.

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

(c) The primary packaging parts shall be easily separable into mono-material parts.

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

[1] OJ L 365, 31.12.1994, p. 10.

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Assessment and verification: data on the packaging, and/or a sample thereof if appropriate, shall be provided to the competent body, together with a declaration of compliance with each part of this criterion.

FITNESS FOR USE

10. Fitness for use

The product shall be fit for use, meeting the needs of the consumers.

The cleaning ability must be equivalent to or better than that of a market-leading or generic reference product (see Appendix III), approved by a competent body, and better than pure water.

The cleaning capacity must be equivalent to or better than that of a market-leading or generic reference product, approved by a competent body.

Assessment and verification: the cleaning ability and cleaning capacity must be tested by means of an adequate and justifiable laboratory performance test carried out within specified parameters as stated in the framework described in Appendix III.

CONSUMER INFORMATION

11. User instructions

The product shall bear the following information on the packaging:

(a) 'To wash your dishes in the most efficient way, to save water and energy, and to protect the environment, do not use running water but immerse the dishes, and use the recommended dosage. You can wash most efficiently without lots of foam' (or equivalent text);

(b) The information below shall appear on the packaging in a reasonably sufficient size and against a visible background. The use of pictograms is voluntary.

Recommended dosage for 5 litres of dishwashing water:



not very dirty — x ml (y tea spoons) of product



dirty — z ml (w tea spoons) of product

where x, y, z and w have to be defined by the applicant and/or the manufacturer.

The measure used in the above pictogram shall be millilitres. A second well-known metric, such as teaspoons, shall additionally be given in brackets (as in the pictogram above). However, if the packaging has an efficient and convenient dosing system that can provide an equally reliable dosage, an alternative metric (e.g. capfuls, squirts, or other) may be used;

(c) an indication of the approximate number of washes that the consumer can perform with one bottle is recommended but voluntary.

This is calculated by dividing the volume of the product by the dosage required for 5 l of dishwashing detergent for dirty dishes (as indicated in the pictogram above);

(d) Regulation (EC) No 648/2004 shall be applied;

(e) 'For more information visit the EU eco-label website: http://europa.eu.int/-ecolabel' (or equivalent text).

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Assessment and verification: a sample of the product packaging, including the label, shall be provided to the competent body, together with a declaration of compliance with each part of this criterion.

12. **Information appearing on the eco-label**

Box 2 of the eco-label shall contain the following text:

— reduced impact on aquatic life,

— reduced use of hazardous substances,

— clear user instructions.

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Appendix I

DID LIST

For ingredients that are included in the part A of DID list, the values for toxicity and degradability in the list must be used for the assessment of compliance with the ecological criteria. For ingredients that are not in the part-A of DID list, the procedure described in part B shall be used for establishing toxicity and degradability values.

Detergents Ingredients Database

version 30/6/2004

Part A - List of ingredients

		Acute toxicity			Chronic toxicity			Degradation		
DID No	Ingredient name	LC50/EC50	SF(acute)	TF(acute)	NOEC (*)	SF (chronic) (*)	TF (chronic)	DF	Aerobic	Anaerobic
	Anionic surfactants									
1	Linear alkyl benzene sulphonates 11,5 - 11,8 (LAS)	4,1	1 000	0,0041	0,69	10	0,069	0,05	R	N
2	LAS (C 10-13 alkyl) triethanolamine salt	4,2	1 000	0,0042	3,4	100	0,034	0,05	R	O
3	C 14/17 Alkyl sulphonate	6,7	5 000	0,00134	0,44	10	0,044	0,05	R	N
4	C 8/10 Alkyl sulphate	132	5 000	0,0264			0,0264	0,05	R	Y
5	C 12/14 Alkyl sulphate (AS)	2,8	1 000	0,0028	2	100	0,02	0,05	R	Y
6	C 12/18 Alkyl sulphate (AS) (#)			0,0149			0,027	0,05	R	Y
7	C 16/18 Fatty alcohol sulphate (FAS)	27	1 000	0,027	1,7	50	0,034	0,05	R	Y
8	C 12/15 A 1-3 EO sulphate	4,6	1 000	0,0046	0,1	10	0,01	0,05	R	Y
9	C 16/18 A 3-4 EO sulphate	0,57	10 000	0,000057			0,000057	0,05	R	Y

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		Acute toxicity			Chronic toxicity			Degradation		
DID No	Ingredient name	LC50/EC50	SF(acute)	TF(acute)	NOEC (*)	SF (chronic) (*)	TF (chronic)	DF	Aerobic	Anaerobic
10	Dialkyl sulpho succinate	15,7	1 000	0,0157			0,0157	0,5	I	N
11	C 12/14 Sulpho- fatty acid methylester	9	10 000	0,0009	0,23	50	0,0046	0,05	R	N
12	C 16/18 Sulpho- fatty acid methylester	0,51	5 000	0,000102	0,2	50	0,004	0,05	R	N
13	C 14/16 alfa Olefin sulphonate	3,3	10 000	0,00033			0,00033	0,05	R	N
14	C 14/18 alfa Olefin sulphonate	0,5	5 000	0,0001			0,0001	0,05	R	N
15	Soap C > 12-22	22	1 000	0,022	10	100	0,1	0,05	R	Y
16	Lauroyl Sarcosinate	56	10 000	0,0056			0,0056	0,05	R	Y
17	C 9/11 2-10 EO Carboxymethylated, sodium salt or acid	100	10 000	0,01			0,01	0,05	R	O
18	C 12/18 2-10 EO Carboxymethylated, sodium salt or acid	8,8	1 000	0,0088	5	100	0,05	0,05	R	O
19	C 12/18 Alkyl phosphate esters	38	1 000	0,038			0,038	0,05	R	N
	Non-ionic surfactants									
20	C 8 A 1-5 EO	7,8	1 000	0,0078			0,0078	0,05	R	Y
21	C 9/11 A, > 3-6 EO predominantly linear	5,6	1 000	0,0056			0,0056	0,05	R	Y
22	C 9/11 A, > 6-10 EO predominantly linear	5	1 000	0,005			0,005	0,05	R	Y
23	C 9/11 A, 5-11 EO multibranched	1	1 000	0,001			0,001	0,05	R	O
24	C 10 A, 5-11 EO multibr.(Trimer-propen-oxo-alcohol)	1	1 000	0,001			0,001	0,05	R	Y

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		Acute toxicity			Chronic toxicity			Degradation		
DID No	Ingredient name	LC50/EC50	SF(acute)	TF(acute)	NOEC (*)	SF (chronic) (*)	TF (chronic)	DF	Aerobic	Anaerobic
25	C 12/15 A, 2-6 EO predominantly linear	0,43	1 000	0,00043	0,18	50	0,0036	0,05	R	Y
26	C 12/14 5-8 EO 1 t-BuO (endcapped)	0,23	1 000	0,00023	0,18	100	0,0018	0,05	R	O
27	C 12/15 A, 3-12 EO multibranched	1	1 000	0,001	3,2	100	0,032	0,05	R	O
28	C 12/15 (mean value C < 14) A, >6-9 EO	0,63	1 000	0,00063	0,24	10	0,024	0,05	R	Y
29	C 12/15 (mean value C > 14) A, >6-9 EO	0,4	1 000	0,0004	0,17	10	0,017	0,05	R	Y
30	C 12/15 A, > 9-12 EO	1,1	1 000	0,0011			0,017	0,05	R	Y
31	C 12/15 A >12-20 EO	0,7	1 000	0,0007			0,0007	0,05	R	O
32	C 12/15 A > 20-30 EO	13	1 000	0,013	10	100	0,1	0,05	R	O
33	C 12/15 A, > 30 EO	130	1 000	0,13			0,13	0,5	I	O
34	C 12/18 A, 0-3 EO	0,3	1 000	0,0003			0,0003	0,05	R	Y
35	C 12/18 A, 5-10 EO	1	1 000	0,001	0,35	100	0,0035	0,05	R	O
36	C 12/18 A, > 10-20 EO	1	1 000	0,001			0,0035	0,05	R	O
37	C 16/18 A, 2-8 EO	3,2	1 000	0,0032	0,4	100	0,004	0,05	R	Y
38	C 16/18 A, > 9-18 EO	0,72	1 000	0,00072	0,32	10	0,032	0,05	R	Y
39	C 16/18 A, 20-30 EO	4,1	1 000	0,0041			0,0041	0,05	R	Y
40	C 16/18 A, > 30 EO	30	1 000	0,03			0,03	0,5	I	Y
41	C 12-15 A 2-6 EO 2-6 PO	0,78	1 000	0,00078	0,36	100	0,0036	0,05	R	O

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		Acute toxicity			Chronic toxicity			Degradation		
DID No	Ingredient name	LC50/EC50	SF(acute)	TF(acute)	NOEC (*)	SF (chronic) (*)	TF (chronic)	DF	Aerobic	Anaerobic
42	C 10-16 A 0-3 PO 6-7 EO	3,2	5 000	0,00064	1	100	0,01	0,05	R	O
43	Glycerin (1-5 EO) cocoate	16	1 000	0,016	6,3	100	0,063	0,05	R	Y
44	Glycerin (6-17 EO) cocoate	100	1 000	0,1			0,1	0,05	R	Y
45	C 12/14 Glucose amide	13	1 000	0,013	4,3	50	0,086	0,05	R	Y
46	C 16/18 Glucose amide	1	1 000	0,001	0,33	50	0,0066	0,05	R	Y
47	C 8/10 Alkyl polyglycoside	28	1 000	0,028	5,7	100	0,057	0,05	R	Y
48	C 8/12 Alkyl polyglycoside, branched	480	1 000	0,48	100	100	1	0,05	R	N
49	C 8/16 or C 12-14 Alkyl polyglycoside	5,3	1 000	0,0053	1	10	0,1	0,05	R	Y
50	Coconut fatty acid monoethanolamide	9,5	1 000	0,0095	1	100	0,01	0,05	R	Y
51	Coconut fatty acid monoethanolamide 4-5 EO	17	10 000	0,0017			0,0017	0,05	R	Y
52	Coconut fatty acid diethanolamide	2	1 000	0,002	0,3	100	0,003	0,05	R	O
53	PEG-4 Rapeseed amide	7	5 000	0,0014			0,0014	0,05	R	Y
	Amphoteric surfactants									
60	C 12/15 Alkyl dimethylbetaine	1,7	1 000	0,0017	0,1	100	0,001	0,05	R	O
61	Alkyl C 12/18 amidopropylbetaine	1,8	1 000	0,0018	0,09	100	0,0009	0,05	R	Y
62	C 12/18 Alkyl amine oxide	0,3	1 000	0,0003			0,0003	0,05	R	Y

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		Acute toxicity			Chronic toxicity			Degradation		
DID No	Ingredient name	LC50/EC50	SF(acute)	TF(acute)	NOEC (*)	SF (chronic) (*)	TF (chronic)	DF	Aerobic	Anaerobic
	Cationic surfactants									
70	Alkyl trimethyl ammonium salts	0,1	1 000	0,0001	0,046	100	0,00046	0,5	I	O
71	Alkyl ester ammonium salts	2,9	1 000	0,0029	1	10	0,1	0,05	R	Y
	Preservatives									
80	1,2-Benzisothiazol-3-one	0,15	1 000	0,00015			0,00015	0,5	I	N
81	Benzyl alcohol	360	1 000	0,36			0,36	0,05	R	Y
82	5-bromo-5-nitro-1,3-dioxane	0,4	5 000	0,00008			0,00008	1	P	O
83	2-bromo-2-nitropropane-1,3-diol	0,78	1 000	0,00078	0,2	100	0,002	0,5	I	O
84	Chloroacetamide	55,6	10 000	0,00556			0,00556	1	O	O
85	Diazolinidylurea	35	5 000	0,007			0,007	1	P	O
86	Formaldehyde	2	1 000	0,002			0,002	0,05	R	O
87	Glutaraldehyde	0,31	1 000	0,00031			0,00031	0,05	R	O
88	Guanidine, hexamethylene-, homopolymer	0,18	1 000	0,00018	0,024	100	0,00024	1	P	O
89	CMI + MIT in mixture 3:1 (§)	0,0067	1 000	0,0000067	0,0057	50	0,000114	0,5	I	O
90	2-Methyl-2H-isothiazol-3-one (MIT)	0,06	1 000	0,00006			0,00006	0,5	I	O
91	Methyldibromoglutaronitrile	0,15	1 000	0,00015			0,00015	0,05	R	O
92	e-phtaloimidoperoxyhexanoic acid	0,59	5 000	0,000118			0,000118	1	P	O

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		Acute toxicity			Chronic toxicity			Degradation		
DID No	Ingredient name	LC50/EC50	SF(acute)	TF(acute)	NOEC (*)	SF (chronic) (*)	TF (chronic)	DF	Aerobic	Anaerobic
93	Methyl-, Ethyl- and Propylparaben	15,4	5 000	0,00308			0,00308	0,05	R	N
94	o-Phenylphenol	0,92	1 000	0,00092			0,00092	0,05	R	O
95	Sodium benzoate	128	1 000	0,128			0,128	0,05	R	Y
96	Sodium hydroxy methyl glycinate	36,5	5 000	0,0073			0,0073	1	O	O
97	Sodium nitrite	87	10 000	0,0087			0,0087	1	NA	NA
98	Triclosan	0,0014	1 000	0,0000014			0,0000014	0,5	I	O
	Other ingredients									
110	Silicon	250	1 000	0,25			0,25	1	P	N
111	Paraffin	1 000	10 000	0,1			0,1	1	P	O
112	Glycerol	4 400	5 000	0,88			0,88	0,05	R	Y
113	Phosphate, as STPP	1 000	1 000	1			1	0,15	NA	NA
114	Zeolite (Insoluble Inorganic)	1 000	1 000	1	175	50	3,5	1	NA	NA
115	Citrate and citric acid	825	1 000	0,825	80	50	1,6	0,05	R	Y
116	Polycarboxylates	200	1 000	0,2	106	10	10,6	1	P	N
117	Nitrilotriacetat (NTA)	494	1 000	0,494	64	50	1,28	0,5	I	O
118	EDTA	121	1 000	0,121	22	50	0,44	0,5	I	N
119	Phosphonates	650	1 000	0,65	25	50	0,5	1	P	N

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		Acute toxicity			Chronic toxicity			Degradation		
DID No	Ingredient name	LC50/EC50	SF(acute)	TF(acute)	NOEC (*)	SF (chronic) (*)	TF (chronic)	DF	Aerobic	Anaerobic
120	EDDS	320	1 000	0,32	32	50	0,64	0,05	R	N
121	Clay (Insoluble Inorganic)	1 000	1 000	1			1	1	NA	NA
122	Carbonates	250	1 000	0,25			0,25	0,15	NA	NA
123	Fatty acids C ≥ 14	3,7	5 000	0,00074			0,00074	0,05	R	Y
124	Silicates	250	1 000	0,25			0,25	1	NA	NA
125	Polyasparaginic acid, Na-salt	410	1 000	0,41			0,41	0,05	R	N
126	Perborates (as Boron)	14	1 000	0,014			0,014	1	NA	NA
127	Percarbonate (See carbonate)	250	1 000	0,25			0,25	0,15	NA	NA
128	Tetraacetylethylenediamine (TAED)	250	1 000	0,25	500	100	5	0,05	R	O
129	C 1-C 4 alcohols	1 000	1 000	1			1	0,05	R	Y
130	Mono-, di- and triethanol amine	90	1 000	0,09	0,78	100	0,0078	0,05	R	Y
131	Polyvinylpyrrolidon (PVP)	1 000	1 000	1			1	0,5	I	N
132	Carboxymethylcellulose (CMC)	250	5 000	0,05			0,05	0,5	I	N
133	Sodium and magnesium sulphate	1 000	1 000	1	100	100	1	1	NA	NA
134	Calcium- and sodiumchloride	1 000	1 000	1	100	100	1	1	NA	NA
135	Urea	1 000	5 000	0,2			0,2	1	NA	NA

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		Acute toxicity			Chronic toxicity			Degradation		
DID No	Ingredient name	LC50/EC50	SF(acute)	TF(acute)	NOEC (*)	SF (chronic) (*)	TF (chronic)	DF	Aerobic	Anaerobic
136	Silicon dioxide, quartz (Insoluble inorganic)	1 000	1 000	1			1	1	NA	NA
137	Polyethylene glycol, MW>4000	1 000	10 000	0,1			0,1	1	P	N
138	Polyethylene glycol, MW<4000	1 000	10 000	0,1			0,1	1	P	O
139	Cumene-, Xylene- and Toluene sulphonates	66	10 000	0,0066			0,0066	0,5	I	N
140	Na-/Mg-/KOH	30	1 000	0,03			0,03	0,05	NA	NA
141	Enzymes/proteins	25	5 000	0,005			0,005	0,05	R	Y
142	Perfume, if not other specified (**)	2	1 000	0,002			0,002	0,5	I	N
143	Dyes, if not other specified (**)	10	1 000	0,01			0,01	1	P	N
144	Starch	100	1 000	0,1			0,1	0,05	R	Y
145	Anionic polyester	655	1 000	0,655			0,655	1	P	N
146	PVNO/PVPI	530	1 000	0,53			0,53	1	P	N
147	Zn Ftalocyanin sulphonate	0,2	1 000	0,0002	0,16	100	0,0016	1	P	N
148	Iminodisuccinat	81	1 000	0,081	17	100	0,17	0,05	R	N
149	FWA 1	11	1 000	0,011	10	100	0,1	1	P	N
150	FWA 5	10	1 000	0,01	1	10	0,1	1	P	N
151	1-decanol	2,3	5 000	0,00046			0,00046	0,05	R	O
152	Methyl laurate	1 360	10 000	0,136			0,136	0,05	R	O

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		Acute toxicity			Chronic toxicity			Degradation		
DID No	Ingredient name	LC50/EC50	SF(acute)	TF(acute)	NOEC (*)	SF (chronic) (*)	TF (chronic)	DF	Aerobic	Anaerobic
153	Formic acid (Ca salt)	100	1 000	0,1			0,1	0,05	R	Y
154	Adipic acid	31	1 000	0,031			0,031	0,05	R	O
155	Maleic acid	106	1 000	0,106			0,106	0,05	R	Y
156	Malic acid	106	1 000	0,106			0,106	0,05	R	O
157	Tartaric acid	200	10 000	0,02			0,02	0,05	R	O
158	Phosphoric acid	138	1 000	0,138			0,138	0,15	NA	NA
159	Oxalic acid	128	5 000	0,0256			0,0256	0,05	R	O
160	Acetic acid	30	1 000	0,03			0,03	0,05	R	Y
161	Lactic acid	130	1 000	0,13			0,13	0,05	R	Y
162	Sulphamic acid	75	1 000	0,075			0,075	1	NA	NA
163	Salicylic acid	46	1 000	0,046			0,046	0,15	R	O
164	Glycollic acid	141	5 000	0,0282			0,0282	0,05	R	O
165	Glutaric acid	208	5 000	0,0416			0,0416	0,05	R	O
166	Malonic acid	95	5 000	0,019			0,019	0,05	R	O
167	Ethylene glycol	6 500	1 000	6,5			6,5	0,05	R	Y
168	Ethylene glycol monobutyl ether	747	5 000	0,1494			0,1494	0,05	R	O
169	Diethylene glycol	4 400	10 000	0,44			0,44	0,15	I	Y

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		Acute toxicity			Chronic toxicity			Degradation		
DID No	Ingredient name	LC50/EC50	SF(acute)	TF(acute)	NOEC (*)	SF (chronic) (*)	TF (chronic)	DF	Aerobic	Anaerobic
170	Diethylene glycol monomethyl ether	500	1 000	0,5			0,5	0,5	I	O
171	Diethylene glycol monoethyl ether	3 940	5 000	0,788			0,788	0,05	R	O
172	Diethylene glycol monobutyl ether	1 254	1 000	1,254			1,254	0,05	R	O
173	Diethylene glycol dimethylether	2 000	10 000	0,2			0,2	0,5	I	O
174	Propylene glycol	32 000	1 000	32			32	0,15	R	Y
175	Propylene glycol monomethyl ether	12 700	5 000	2,54			2,54	0,05	R	O
176	Propylene glycol monobutylether	748	5 000	0,1496			0,1496	0,05	R	O
177	Dipropylene glycol	1 625	10 000	0,1625			0,1625	0,05	R	O
178	Dipropylene glycol monomethyl ether	1 919	5 000	0,3838			0,3838	0,05	R	O
179	Dipropylene glycol monobutylether	841	5 000	0,1682			0,1682	0,05	R	O
180	Dipropylene glycol dimethylether	1 000	5 000	0,2			0,2	0,5	I	O
181	Triethylene glycol	4 400	1 000	4,4			4,4	0,5	I	O
182	Tall oil	1,8	1 000	0,0018			0,0018	0,5	I	O
183	Ethylenebisstearamides	140	5 000	0,028			0,028	0,5	I	O
184	Sodium gluconate	10 000	10 000	1			1	0,05	R	O
185	Glycol distearate	100	5 000	0,02			0,02	0,5	I	O
186	Hydroxyl ethyl cellulose	209	5 000	0,0418			0,0418	1	P	O

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		Acute toxicity			Chronic toxicity			Degradation		
DID No	Ingredient name	LC50/EC50	SF(acute)	TF(acute)	NOEC (*)	SF (chronic) (*)	TF (chronic)	DF	Aerobic	Anaerobic
187	Hydroxy propyl methyl cellulose	188	5 000	0,0376			0,0376	1	P	O
188	1-methyl-2-pyrrolidone	500	1 000	0,5			0,5	0,05	R	O
189	Xanthan gum	490	1 000	0,49			0,49	0,05	R	O
190	Trimethyl Pentanediol mono-isobutyrate	18	1 000	0,018	3,3	100	0,033	0,05	R	O
191	Benzotriazole	29	1 000	0,029			0,029	1	P	O
192	Piperidinol-propanetricarboxylate salt	100	1 000	0,1	120	100	1,2	0,5	I	O
193	Diethylaminopropyl-DAS	120	1 000	0,12	120	100	1,2	1	P	O
194	Methylbenzamide-DAS	120	1 000	0,12	120	100	1,2	0,5	I	O
195	Pentaerythritol-tetrakis-phenol-propionate	38	1 000	0,038			0,038	1	P	O
196	Block polymers	100	5 000	0,02			0,02	1	P	N
197	Denatonium benzoate	13	5 000	0,0026			0,0026	1	O	O
198	Succinate	374	10 000	0,0374			0,0374	0,05	R	O
199	Polyaspartic acid	528	1 000	0,528			0,528	0,05	R	N

Insoluble inorganic ingredient with very low, or no ability to dissolve in water.

(*) If no acceptable chronic toxicity data was found, these columns are empty. In that case TF(chronic) is defined as equal to TF(acute).
(**) As a general rule licence applicants must use the data on the list. Perfumes and dyes are exceptions. If toxicity data is submitted by the licence applicant the submitted data shall be used to calculate the TF and determine the degradability. If not, the values on the list shall be used.
(#) Due to a lack of toxicity results the TF has been calculated as an average of the values of C 12/14 Alkyl sulphate (AS) and C 16/18 Alkyl sulphate (AS).
(§) 5-Chloro-2-Methyl-4-isothiazolin-3-one and 2-Methyl-4-isothiazolin-3-one in mixture 3: 1

List of abbreviations:

SF(acute) = safety factor for acute toxicity.

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TF(acute)	=	toxicity factor based on acute toxicity on aquatic organisms.
SF(chronic)	=	xafety factor for chronic toxicity.
TF(chronic)	=	toxicity factor based on chronic toxicity on aquatic organisms.
DF	=	degradation factor.

Aerobic degradation:

R	=	readily biodegradable according to OECD guidelines.
I	=	Iinherently biodegradable according to OECD guidelines.
P	=	persistent. The ingredient has failed the test for inherent biodegradability.
O	=	the ingredient has not been tested.
NA	=	not applicable.

Anaerobic degradation:

Y	=	biodegradable under anaerobic conditions.
N	=	not biodegradable under anaerobic conditions.
O	=	the ingredient has not been tested.
NA	=	not applicable.

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Part B - Critical dilution volume

The Critical dilution volume is calculated according to the following equation:

CDV= 1000 * Σdosage(i)*DF(i)/TF(i)

Dosage(i) = dosage of ingredient i, expressed in g/wash, or in some cases as g/100 g product.

DF(i) = degradation factor for ingredient i.

TF(i) = toxicity factor for ingredient i.

PROCEDURE FOR ESTABLISHING PARAMETER VALUES FOR INGREDIENTS NOT ON THE DID LIST

As a general rule the listed parameter values must be used for all ingredients on the DID list. An exception is made for perfumes and dyes, where additional test results are accepted (see footnote in part A).

The following approach applies for ingredients that are not listed on the DID list.

Aquatic toxicity

In the European eco-label scheme, the CDV is calculated based on the chronic toxicity and chronic safety factors. If no chronic test results are available, the acute toxicity and safety factor must be used.

The chronic toxicity factor ($TF_{chronic}$)

— Calculate the median value within each trophic level (fish, crustaceans or algae) using validated test results for chronic toxicity. If several test results are available for one species within a trophic level, a median for the species shall be calculated first, and these median values shall be used when calculating the median value for the trophic level.

— The chronic toxicity factor ($TF_{chronic}$) is the lowest median of the trophic levels calculated.

— The $TF_{chronic}$ shall be used when calculating the critical dilution volume criterion.

The acute toxicity factor (TF_{acute})

— Calculate the median value within each trophic level (fish, crustaceans or algae) using validated test results for acute toxicity. If several test results are available for one species within a trophic level, a median for the species shall be calculated first, and these median values shall be used when calculating the median value for the trophic level.

— The acute toxicity factor (TF_{acute}) is the lowest median of the trophic levels.

— The TF_{acute} shall be used when calculating the critical dilution volume criterion.

Safety factor

The safety factor (SF) is depending on how many trophic levels are tested, and whether chronic test results are available or not. SF is determined as follows:

Data	Safety factor (SF)	Toxicity factor (TF)
One short-term L(E)C50	10 000	Toxicity/10 000
Two short-term L(E)C50 from species representing two trophic levels (fish and/or crustaceans and/or algae)	5 000	Toxicity/5 000
At least one short-term L(E)C50 from each of three trophic levels of the base-set 1	1 000	Toxicity/1 000

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Data	Safety factor (SF)	Toxicity factor (TF)
One long-term NOEC (fish or crustaceans)	100	Toxicity/100
Two long-term NOEC from species representing two trophic levels (fish and/or crustaceans and/or algae)	50	Toxicity/50
Long-term NOEC from at least three species (normally fish, crustaceans and algae) representing three trophic levels	10	Toxicity/10

— The base set for testing the toxicity of substances towards aquatic organisms consists of acute tests with fish, daphnia and algae.

Degradation factors

The degradation factor is defined as follows:

Table 1 - Degradation factor (DF)

	DF
Readily biodegradable (*)	0,05
Readily biodegradable (**)	0,15
Inherently biodegradable	0,5
Persistent	1

(*) All surfactants or other ingredients consisting of a series of homologues and fulfilling the final degradation requirement of the test, shall be included in this class regardless of fulfilment of the 10-day window criterion.
(**) 10-day window criterion not fulfilled.
For inorganic ingredients the DF is set according to observed degradation rate. If the ingredient degrade within five days: DF = 0,05, within 15 days: DF = 0,15 or within 50 days: DF = 0,5.

Anaerobic biodegradability

The ingredient must be classified into one of the following classes of compounds:

Category	Label
Anaerobically not biodegradable, i.e. tested and found not biodegradable.	N
Anaerobically biodegradable, i.e. tested and found biodegradable or not tested but demonstrated through analogy considerations etc.	Y
Not tested for anaerobic biodegradability.	0

Aerobic biodegradability

The ingredient must be classified into one of the following classes of compounds:

Category	Label
Readily biodegradable	R
Inherently biodegradable, but not readily biodegradable	I

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Category	Label
Persistent	P
Not tested for aerobic biodegradability	O

Insoluble inorganic ingredients

If an inorganic ingredient has a very low water-solubility, or is not soluble in water this must be indicated in the submitted file.

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Appendix II

Documentation of anaerobic biodegradability

The following approach may be used to provide the necessary documentation of anaerobic biodegradability in the case of ingredients that are not listed in the DID list.

Apply reasonable extrapolation. Use test results obtained with one raw material to extrapolate the ultimate anaerobic degradability of structurally related surfactants. If anaerobic biodegradability has been confirmed for a surfactant (or a group of homologues) according to the DID list (Appendix I), it can be assumed that a similar type of surfactant is also anaerobically biodegradable (for example, C12-15 A 1-3 EO sulphate (DID No 8) is anaerobically biodegradable, and a similar anaerobic biodegradability may also be assumed for C12-15 A 6 EO sulphate). If anaerobic biodegradability has been confirmed for a surfactant by use of an appropriate test method, it can be assumed that a similar type of surfactant is also anaerobically biodegradable (for example, literature data confirming the anaerobic biodegradability of surfactants belonging to the group alkyl ester ammonium salts may be used as documentation for a similar anaerobic biodegradability of other quaternary ammonium salts containing ester-linkages in the alkyl chain(s)).

Perform screening test for anaerobic degradability. If new testing is necessary, perform a screening test by use of OECD 311, ISO 11734, ECETOC No 28 (June 1988) or an equivalent method.

Perform low-dosage degradability test. If new testing is necessary, and in the case of experimental problems in the screening test (for example, inhibition due to toxicity of test substance), repeat testing by using a low dosage of surfactant and monitor degradation by 14C measurements or chemical analyses. Testing at low dosages may be performed by use of OECD 308 (24 April 2002) or an equivalent method provided that strict anaerobic conditions are applied. The testing and interpretation of the test results should be conducted by an independent expert.

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Appendix III

Framework for a performance test

The purpose of the performance test is to compare the ability and capacity of a test product to that of a reference product. The framework allows for a wide range of test procedures as long as the requirements below are a part of the test procedure. In the test, washing-up may be done by hand or, alternatively, a machine may be responsible for the mechanical work. The test may either involve the washing up of crockery, e.g. dishes or plates, or tests that do not involve crockery may be used.

NUMBER OF TESTS

Five rounds of testing must be performed in which the test and reference products are compared with one another in each round. Each round shall accordingly consist of two subtests: one for the test product and one for the reference product. Besides the 10 subtests at least one additional test must be performed in which that no hand dishwashing detergent is used (water test). This test must show that the results of the chosen test method confirm that the test product has a better cleaning performance than that of pure water.

WATER PARAMETERS

— The same volume of water must be used in all subtests. The volume must be determined in litres to one decimal point.

— The water hardness, specified in ^{O}dH, and the calcium-magnesium-ratio must be known.

— The water temperature must be the same for all subtests. It shall be measured at the start and kept constant throughout the test. However, a decrease of the water temperature during the test is acceptable, if the same temperature decrease is documented for all subtests.

TEST AND REFERENCE PRODUCT PARAMETERS

— The reference product may either be a market-leading product or a generic formulation.

— If a market-leading reference product is used, it shall be one of the three to four products with the highest sales volume on the market in a region, where the eco-labelled product is to be marketed. Furthermore, the market-leading reference product must be approved by the competent body, and the trade name must be available to the public.

— If a generic reference product is used, it must have a composition, which is representative of the products on the market. Furthermore, the generic reference product must be approved by the competent body and the exact formulation must be commonly available free of charge.

— The dosage of test product and reference product shall be the recommended dosage in all tests, normalised to the given volume of water and weighed in grams to one decimal point. If no recommended dosage is stated for the reference product, the same dosage must be used for both the test product and the reference product.

— If a dosage interval is given, the lowest recommended dosage must be used for the test.

— The detergent must be mixed and completely dissolved in the water.

SOIL PARAMETERS

— At least one type of soil, consisting primarily of fresh animal fat and vegetable fat, must be used.

— The same soil must be used for all subtests.

— The origin or chemical composition of the soil, e.g. olive oil, beef tallow, etc., must be described in detail.

— The soil must be homogenous and of even consistency.

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— Enough soil for the entire test must be prepared in one batch.

— The quantity of soil applied to a substrate, e.g. plates or dishes, or to the washing-water must be the same in all subtests and must be weighed in grams to one decimal point.

TEST PROCEDURE

— The test and reference products must be made anonymous to the person(s) performing the test.

— The elements and stages included in each subtest must be decided in advance and must be identical for each subtest.

— The temperature and relative humidity of the room must be measured and kept constant in all subtests.

— A fixed procedure for application of soil, allowing sufficient time for drying, must be determined in advance.

— A fixed procedure for manual dishwashing or removal of soil by machinery must be described in advance

— At least five subtests must be performed with both the test and reference product, and at least one test must be performed with water without addition of detergent.

ASSESSMENT OF CAPACITY

— The test must be capable of generating results that provide a measure of capacity. The capacity must be expressed in grams of soil removed per five litres of water before reaching a predefined point of saturation. The point of saturation can for example be when a cleaning effect is no longer observed, when soil is floating at the surface of the water, when the foam layer is not completely covering the surface, or when there is no visible foam.

ASSESSMENT OF CLEANNESS

— The test must be capable of generating results that provide a measure of the cleanness. Cleanness can be measured visually, optically or by means of another relevant method. The method of measurement, including a possible scoring system, must be decided in advance.

COMPARISON

— A positive result of a test round is obtained when the capacity and cleanness are as good as or better for the test product compared with the reference product.

— The test product is considered to have fulfilled the performance requirements when positive results are obtained in at least 80 % of the test rounds. As an alternative, the applicant may use statistical methods and demonstrate with a one-sided 95 % confidence range that the test product is as good as or better than the reference product in at least 80 % of the test rounds.

— It shall also be shown that the test product has a better cleaning ability than that of pure water.

DOCUMENTATION

All tests must be reported in accordance with the following specification. The report must contain the following points:

— description of how the test and reference products were made anonymous to the person(s) performing the test,

— specification of the temperature and humidity in the test room and details describing how the test person(s) ensured that these conditions were kept constant in all subtests,

— description of the composition of the soil and of the procedure used to ensure that the soil was of a homogenous and even consistency,

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— specification of the hardness of the water, and how it was achieved, and specification of the calcium-magnesium ratio,

— specification of the quantity of water used in the subtests and specification of how the water temperature requirement was fulfilled,

— specification of the results of the weighing of the hand dishwashing detergent in each subtest and description of the procedure for dissolving the product in the water,

— description of the procedure for adding the soil to either a substrate (e.g. plates or dishes) or to the washing water,

— specification of the results of the weighing of soil in each subtest,

— description of the other elements and stages in each individual subtest,

— description of how capacity and cleanness were measured,

— raw data from all test rounds stated in terms of capacity and cleanness,

— final results including the results of the water test (in which no detergent is used) and, if applicable, a statistical evaluation of the data.

Note on available tests

The IKW performance test ‘Recommendation for the quality assessment of the cleaning performance of hand dishwashing detergents’ (Nitsch, C. & Hüttmann, G. SÖFW-Journal, 128, Jahrgang 5, 2002) and the CHELAB test ‘Washing up liquid detergents: Assessment of comparative soil removal performance’ (Internal CHELAB method No 0357) fulfil the requirements of this framework provided that testing of cleanness is included.

The performance test from the Danish Consumer Information (‘Testing of hand dishwashing detergents’; Danish title: ‘Undersøgelse af håndopvaskemidler med FI smuds’, 2003) fulfils the requirements of this framework provided that testing of cleaning capacity is included.

The performance test from CTTN-IREN, ‘Washing efficiency and foaming power with soils/Dishwashing test’ (CTTN-IREN — BP41 F — 69131 Ecully CEDEX) fulfils the requirements of this framework provided that the number of tests prescribed by the framework is being conducted.