COMMISSION DECISION

of 23 March 2005

establishing ecological criteria for the award of the Community eco-label to all-purpose cleaners and cleaners for sanitary facilities

(notified under document number C(2005) 1028)

(Text with EEA relevance)

(2005/344/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 goodtime 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 2001/523/EC of 27 June 2001 establishing the ecological criteria for the award of the Community eco-label to all-purpose cleaners and cleaners for sanitary facilities [2].

(5) Furthermore, in order to specify that detergent products for the routine cleaning of windows are to be regarded as all-purpose cleaners, rather than as products for more specific cleaning uses, it is necessary to modify the definition of the product group laid down in that Decision.

(6) In the interests of clarity, Decision 2001/523/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 twelve 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,

HAS ADOPTED THIS DECISION:

Article 1

The product group 'all-purpose cleaners and cleaners for sanitary facilities' shall be composed of the following three subgroups:

(a) all-purpose cleaners comprising detergent products intended for the routine cleaning of floors, walls, ceilings, windows and other fixed surfaces, and which are dissolved or diluted in water prior to use. All purpose cleaners must have water content ≤ 90 % (w/w).

(b) window cleaners comprising specific all-purpose cleaners intended for the routing cleaning of windows, and which are either diluted in water prior to use or used without dilution. All window cleaners must have water content ≤ 95 % (w/w).

(c) cleaners for sanitary facilities comprising detergent products intended for the routine removal, including by scouring, of dirt and/or deposits in sanitary facilities, such as laundry rooms, bathrooms, showers, toilets and kitchens. All cleaners for sanitary facilities must have water content ≤ 90 % (w/w).

[1] OJ L 237, 21.9.2000, p. 1.

[2] OJ L 189, 11.7.2001, p. 25.

The subgroup specified in point (c) of the first paragraph shall not include the following:

(a) products which are automatically used when a toilet is flushed, such as 'self-dosing-products', including toilet blocks;

(b) products for use in a toilet cistern;

(c) products, which have no cleaning effects other than the removal of calcium carbonate (scale);

(d) disinfectants.

The product group shall not cover products for more specific cleaning uses, such as oven cleaners, floor-strippers, polishes, drain cleaners, 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 all-purpose cleaners and cleaners for sanitary facilities, under Regulation (EC) No 1980/2000, a cleaner must fall within the product group 'all-purpose cleaners and cleaners for sanitary facilities' and must comply with the ecological criteria set out in the Annex to this Decision.

Article 3

The ecological criteria for the product group 'all purpose cleaners and cleaners for sanitary facilities', as well as the related assessment and verification requirements, shall be valid until 31 December 2008.

Article 4

For administrative purposes the code number assigned to the product group 'all purpose cleaners and cleaners for sanitary facilities' shall be 020.

Article 5

Decision 2001/523/EC is repealed.

Article 6

Eco-labels awarded before the notification date of this Decision in respect of products falling within the product group 'all-purpose cleaners and cleaners for sanitary facilities' 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 'all-purpose cleaners and cleaners for sanitary facilities', those products may be awarded the eco-label under the conditions laid down in Decision 2001/523/EC. In such cases the eco-label may be used until 31 March 2006.

Article 7

This Decision is addressed to the Member States.

Done at Brussels, 23 March 2005.

For the Commission
Stavros DIMAS
Member of the Commission

ANNEX

FRAMEWORK

In order to qualify for the eco-label, an all purpose cleaner or a cleaner for sanitary facilities (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 at promoting:

— the reduction of environmental impact by limiting the quantity of harmful ingredients, by reducing the quantity of detergent used and by reducing packaging waste,

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

— 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 all-purpose cleaners and sanitary cleaners 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 possible, the testing should be performed by laboratories that meet the general requirements of EN ISO 17025 or equivalent

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 part-B of the 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 schemes.)

FUNCTIONAL UNIT

For all-purpose cleaners the functional unit (used in the criteria below) is the dosage in grams of the product recommended by the manufacturer for 1 litre of suds (washing water).

For window cleaners and cleaners for sanitary facilities, no functional unit is defined (the relevant criteria below being calculated in relation to 100 g of the product).

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 functional unit (for all-purpose cleaners) or per 100 g of product (cleaners for sanitary facilities). 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 1). The CDV_{tox} is summed for each ingredient, making the CDV_{tox} for the product.

For all-purpose cleaners, the CDV_{tox} for the product shall not exceed 20 000 l/functional unit.

For cleaners for sanitary facilities, the CDV_{tox} for the product shall not exceed 100 000 l per 100 g product.

For window cleaners, the CDV_{tox} for the product shall not exceed 5 000 l per 100 g product.

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; Council Directive 67/548/EEC ([2]) Annex V.C.4-C), closed bottle test (OECD 301D; Directive 67/548/EEC Annex V.C.4-E), manometric respirometry (OECD 301F; Directive 67/548/EEC Annex V.C.4-D), or MITI (I) test (OECD 301C; Directive 67/548/EEC Annex V.C.4-F), or their equivalent ISO tests. Depending on

([1]) OJ L 104, 8.4.2004, p. 13.

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

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 V.C.4-A) or modified OECD screening DOC die-away (OECD 301E; Directive 67/548/EEC Annex V.C.4-B), or their equivalent ISO tests. The applicability of test methods based on measurement of dissolved organic carbon needs to be appropriately justified as these methods could give results on the removal and not on the biodegradability. Pre-adaptation is not to be used in tests for aerobic ready biodegradability. The 10 days window principle shall not apply.

(b) *Anaerobic biodegradability*

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 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-acetate) 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 of ingredients, 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 Directive 67/548/EEC and its amendments or Directive 1999/45/EC of the European Parliament and of the Council* [3] *and its amendments:*

R31 (contact with acid liberates toxic gas),

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),

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 product. The manufacturer or supplier of the preservatives shall provide information on the dosage necessary to preserve the product.

([3]) 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 (OJ L 200, 30.7.1999, p. 1).

(b) 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 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.

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) ≥3,0 (unless the experimentally determined BCF ≤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 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 Council Directive 76/768/EEC relating to cosmetic products ([4]) 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 ([5]) and its subsequent amendments, or must be characterised by environmental properties that do not imply classification with R50-53 or R51-53 risk phrases, in accordance with Directive 67/548/EEC and its amendments.

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 3(a).

(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.

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. Volatile organic compounds

The product shall not contain more than 10 % (by weight) of volatile organic compounds with a boiling point lower than 150 °C.

([4]) OJ L 262, 27.9.1976, p. 169.

([5]) OJ L 237, 10.9.1994, p. 13.

Assessment and verification: copies of the material safety data sheets of each organic solvent together with details of the calculations of the total volatile organic compounds with a boiling point lower than 150 °C shall be provided by the applicant.

9. **Phosphorus**

The total quantity of elemental phosphorous in the product shall be calculated per functional unit (for all-purpose cleaners) or per 100 g of product (cleaners for sanitary facilities) taking into account all ingredients containing phosphorus (e.g. phosphates and phosphonates).

For all-purpose cleaners, the total phosphorus content (P) shall not exceed 0,02 g/functional unit.

For cleaners for sanitary facilities, the total phosphorus content (P) shall not exceed 1,0 g/100 g of product.

Ingredients used in window cleaning products must not contain phosphorus.

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

10. **Packaging requirements**

(a) Sprays containing propellants must not be used.

(b) Plastic materials 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 ([6]), or DIN 6120 Parts 1 and 2 in connection with DIN 7728 part 1.

(c) 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)'.

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

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

11. **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 a market-leading or generic reference product (see Appendix III), approved by a competent body, as well as better than pure water.

For all-purpose cleaners and cleaning products for kitchens, only fat-removing effects must be documented. For sanitary cleaning products and window cleaners, both calcium and fat-removing effects must be documented.

Assessment and verification: the performance of the product must either be tested by:

— an adequate and justifiable laboratory test, or

— an adequate and justifiable consumer test.

Both tests must be carried out and reported within specified parameters as stated in the framework described in Appendix III.

([6]) OJ L 365, 31.12.1994, p. 10.

CONSUMER INFORMATION

12. **User instructions**

(a) *Dosage instructions*

For all-purpose cleaners, an exact dosage recommendation shall appear on the packaging in a reasonably sufficient size and against a visible background. The use of a pictogram (such as a 5 1 tub and number of caps with ml) is recommended but voluntary.

In the case of a concentrated cleaner for sanitary facilities, it shall be clearly indicated on the packaging that only a small quantity of the product is needed compared to normal (i.e. diluted) products.

The following text (or equivalent text) shall appear on the packaging:

'Proper dosage saves costs and minimises environmental impacts'.

(b) *Safety advice*

The following safety advice (or equivalent text) shall appear on the product (in both text form and with an equivalent pictogram):

'Keep away from children'

'Do not mix different cleaners'

'Avoid inhaling sprayed product' (only for products that are packaged as sprays).

(c) *Information and labelling of ingredients*

Regulation (EC) No 648/2004 shall be applied.

(d) *Information about the eco-label*

The following text (or equivalent text) shall appear on the packaging:

'For more information visit the EU eco-label web-site: http://europa.eu.int/ecolabel'.

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.

13. **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.

14. **Professional training**

For detergents, which are used by professional users, the producer, its distributor or a third party shall offer training or training materials for cleaning staff. These shall include step-by-step instructions for proper dilution, use, disposal and the use of equipment.

Assessment and verification: a sample of training material containing step-by-step instructions for proper dilution, use, disposal and the use of equipment and a description of training courses shall be provided to the competent body.

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 the part-B shall be used for establishing toxicity and degradability values.

Detergents ingredients database

Version 30 June 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	$C_{12/14}$-Alkylsulfaat (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
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

		Acute toxicity			Chronic toxicity			Degradation		
DID-no	Ingredient name	LC50/EC50	SF(acute)	TF(acute)	NOEC (*)	SF(chronic) (*)	$TF_{(chronic)}$	DF	Aerobic	Anaerobic
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 multibranched (Trimer-propen-oxo-alcohol)	1	1 000	0,001			0,001	0,05	R	Y
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

		Acute toxicity			Chronic toxicity			Degradation		
DID-no	Ingredient name	LC50/EC50	SF(acute)	TF(acute)	NOEC (*)	SF(chronic) (*)	$TF_{(chronic)}$	DF	Aerobic	Anaerobic
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
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	Glycerine (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

		Acute toxicity			Chronic toxicity			Degradation		
DID-no	Ingredient name	LC50/EC50	SF(acute)	TF(acute)	NOEC (*)	SF(chronic) (*)	$TF_{(chronic)}$	DF	Aerobic	Anaerobic
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
	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

		Acute toxicity			Chronic toxicity			Degradation		
DID-no	Ingredient name	LC50/EC50	SF(acute)	TF(acute)	NOEC (*)	SF(chronic) (*)	$TF_{(chronic)}$	DF	Aerobic	Anaerobic
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
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
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

		Acute toxicity			Chronic toxicity			Degradation		
DID-no	Ingredient name	LC50/EC50	SF(acute)	TF(acute)	NOEC (*)	SF(chronic) (*)	$TF_{(chronic)}$	DF	Aerobic	Anaerobic
123	Fatty acids $C_{\geq 14}$	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
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

		Acute toxicity			Chronic toxicity			Degradation		
DID-no	Ingredient name	LC50/EC50	SF(acute)	TF(acute)	NOEC (*)	SF(chronic) (*)	$TF_{(chronic)}$	DF	Aerobic	Anaerobic
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
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	6500	1 000	6,5			6,5	0,05	R	Y

		Acute toxicity			Chronic toxicity			Degradation		
DID-no	Ingredient name	LC50/EC50	SF(acute)	TF(acute)	NOEC (*)	SF(chronic) (*)	$TF_{(chronic)}$	DF	Aerobic	Anaerobic
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
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
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

		Acute toxicity			Chronic toxicity			Degradation		
DID-no	Ingredient name	LC50/EC50	SF(acute)	TF(acute)	NOEC (*)	SF(chronic) (*)	$TF_{(chronic)}$	DF	Aerobic	Anaerobic
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 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
$TF_{(acute)}$ = Toxicity factor based on acute toxicity on aquatic organisms.
$SF_{(chronic)}$ = Safety 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 = Inherently 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.

Part B. Critical dilution volume

The Critical Dilution Volume is calculated according to the following equation:

$CDV = 1000 * \Sigma dosage(i)*DF(i)/TF(i)$

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)
1 short-term L(E)C50	10 000	Toxicity/10 000
2 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 1 short-term L(E)C50 from each of three trophic levels of the base-set1	1 000	Toxicity/1 000
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
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.

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, C 12-15 A 1-3 EO sulphate (DID No 8) is anaerobically biodegradable, and a similar anaerobic biodegradability may also be assumed for C 12-15 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 the interpretation of the test results should be conducted by an independent expert.

Appendix III

FRAMEWORK FOR A PERFORMANCE TEST

The performance test can be either a laboratory test or a consumer test. The conditions for both types of test are described in the following sections.

1. **Laboratory tests**

The aim of the laboratory test is to confirm that the test product cleans as well as or better than a comparative reference product and better than pure water, and to confirm that the test product does not damage the surfaces it is intended for.

General framework requirements

— The test product and the reference product shall be of the same product category.

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

— If a market-leading reference product is used, it shall be one of the three or 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 for the products on the market. Furthermore, the generic reference product must be approved by the Competent body and the exact formulation must be publicly available free of charge.

— The dosages used shall be the recommended dosage for normal soil or normal use. 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 in the test.

— The soil mixture must be relevant for the use of the product, homogeneous and, if prepared artificially, based on well-described substances. Enough soil for the whole test must be prepared in a single batch.

— For all-purpose cleaners and cleaning products for kitchens, only fat-removing effects shall be documented. For sanitary cleaners and window cleaners, both calcium and fat removing effects shall be documented.

— The washing procedure must reflect realistic use conditions and can be manual or by machinery.

Testing requirements

— The assessment of cleanness must include testing and comparison of test product, reference product.

— Each product must be tested in at least five parallels (see documentation requirements). Additionally, one test must be performed with water only, i.e. without any cleaning agent.

— The quantity of soil applied to plates or another substrate must be the same for each plate or substrate-part, weighed in grams to one decimal point.

— The order of testing of the two products shall be randomised.

— The test must be capable of generating results that provide a measure of the cleanness (fat and calcium removing effects) according to the product tested. Cleanness can be measured visually, photometrically (e.g. measuring reflectance), gravimetrically or by means of another relevant method. The method of measurement, including a possible scoring system, must be decided in advance.

— Testing of fat and calcium removing effects may be done either separately or jointly.

Documentation requirements

A detailed test report shall be submitted to the competent body, including information on:

— The dosages used for the test product and the reference product.

— Common application area(s) for the test and the reference product.

— Justification of the choice of the reference product with respect to its position on the market and its function.

— Type(s) of surface used in the test, their relevance and whether the products are gentle on the chosen surface(s).

— Description of the soil mixture used in the test, together with an argumentation for its relevance in relation to the testing of fitness for use.

— Description of the procedures for soiling, washing and measurement of cleaning performance.

— Calculation and statistical comparison procedures.

— All raw data used in the testing and calculations.

— For the test product to be considered to have fulfilled the performance requirements its results must be positive in 100 % of the test rounds. If the result is less than 100 % positive, five new parallel tests must be performed. Of these 10 parallel tests, 80 % must be positive.

  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, if more than 10 parallel tests are made.

— How it is shown that the product tested has a better performance than that of pure water.

Note on tests

The CTTN-IREN test 'Washing of tiled floor and grease removal on kitchen surface' fulfils the requirements for all-purpose cleaners provided that the number of tests is increased, the same amount of soil is applied in all subtests, and an assessment of the gentleness of the products on surfaces is included. The method described by the Danish Consumer Information fulfils the requirements for all-purpose cleaners provided that the number of tests with each product is increased (Testing of all-purpose cleaners, 2004; Danish title: 'Sådan er universalrengøringsmidlerne testet'; (www.forbrug.dk/test/testbasen/rengoering/universalrengoerings/saadan-er-de-testet/).

The IKW-test 'Empfehlung zur Qualitätsbewertung für Badezimmerreiniger' (SÖFW-Journal, 129, Jahrgang 3, 2003) fulfils the requirements for bathroom cleaners. The IKW-test 'Recommendations for the quality assessment of acidic toilet cleaners' (SÖFW-Journal, 126, 11-2000) fulfils the requirements for sanitary cleaners. The method described by the Danish Consumer Information fulfils the requirements for sanitary cleaners (Testing of sanitary cleaners, 2004; Danish title: 'Sådan er toiletrensemidlerne testet';
(www.forbrug.dk/test/testbasen/rengoering/toiletrensemidler/saadan-er-de-testet/).

The CHELAB test 'Detergents for hard surfaces: washing efficiency' (CHELAB internal test method n. 0578) fulfils the requirements for all-purpose cleaners provided that a test with pure water (without addition of detergent) is included in the procedure (www.chelab.it/).

2. **Consumer tests**

The aim of the consumer test is to show whether the test product cleans as good as or better than a comparative reference product, and that the test product does not hurt the surfaces it is intended for.

General framework requirements

— For testing of consumer products, responses must be received from a minimum of 20 persons, randomly selected in the sales region and normally using the reference product

— For testing of professional products, responses must be received from at least five professional users, randomly selected in the sales region and normally using the reference product

— The test product and the reference product should be of the same product category. The reference products shall be the products normally used by the test persons.

— The dosages used must be the dose recommended by the manufacturer

— The test must be performed on the type(s) of surface relevant in relation to the recommendations on the label

— The test period must allow for at least five uses of the test product

Testing requirements

— Effectiveness of all-purpose cleaners must be assessed by the following properties:

  — The ability of the products to remove soil

  — The gentleness of the products on the surface(s) on which it is used

— Effectiveness of sanitary cleaners must be assessed by the following properties:

  — The ability to remove fat-based soil

  — The ability to remove calcium deposits (not relevant for cleaning products for kitchens)

  — The gentleness of the product on the surface(s) on which it is used

— The test persons must reply to the question 'How effective do you consider the test product to be compared to the product you normally use?' — or equivalent. At least three possibilities for a response must be available, e.g. 'poorer', 'as good as' and 'better'

— At least 80 % of the test persons must assess the product to be 'as good as' or 'better' than the reference product

Documentation requirements

A detailed test report must be submitted to the competent body, including information/documentation on:

— The selection of the test persons

— The information provided by the test persons and a summary describing how the testing was performed

— The type of surface(s) the product was tested on.

— For each test person, the following information must be available, e.g. in the form of answers to a questionnaire:

  — The dosage used by the test person

  — The name of the reference product

  — A statement declaring that the product has been tested at least five times

  — The result of the comparison of the test product and the reference product

— Calculation and documentation showing that at least 80 % of the test persons assess the product to be as good as or better than the reference product.