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COMMISSION DECISION

of 19 July 2001

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

(notified under document number C(2001) 1989)

(Text with EEA relevance)

(2001/607/EC)

(OJ L 214, 8.8.2001, p. 30)

Corrected by:

►**C1** Corrigendum, OJ L 334, 18.12.2001, p. 34 (2001/607/EC)

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

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(Text with EEA relevance)

(2001/607/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 Articles 3, 4 and 6 thereof,

Whereas:

(1) Article 3 of Regulation (EC) No 1980/2000 provides that the 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) Article 4 of Regulation (EC) No 1980/2000 provides that specific eco-label criteria shall be established according to product groups.

(3) The measures set out in this Decision have been developed and adopted under the procedures for the setting of eco-label criteria as laid down in Article 6 of Regulation (EC) No 1980/2000.

(4) The measures set out in this Decision are in accordance with the opinion of the committee set up under Article 17 of Regulation (EC) No 1980/2000,

HAS ADOPTED THIS DECISION:

Article 1

The product group ‘hand dishwashing detergents’ (hereinafter referred to as 'the product group') shall mean:

All detergents intended to be used to wash by hand dishes, crockery, cutlery, pots, pans and other kitchen utensils, etc.

Article 2

The environmental performance and the fitness for use of the product group shall be assessed by reference to the criteria set out in the Annex.

Article 3

The product group definition and the criteria for the product group shall be valid for three years from the date on which this Decision takes effect. If revised ecological criteria have not been adopted before the end of this period, their validity shall be extended for a further year.

Article 4

For administrative purposes the code number assigned to the product group shall be 019.

Article 5

This Decision is addressed to the Member States.

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

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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, with tests carried out on application as indicated in the criteria and the technical appendix. Where appropriate, other test methods may be used if their equivalence is accepted by the competent body or bodies assessing the application (hereinafter referred to as the 'competent body'). 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 it is indicated that specific documentation and/or declarations are required, these shall be provided by the applicant and/or the manufacturer(s) and/or the supplier(s) as appropriate. Where ingredients are referred to, this includes substances and preparations.

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.)

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.

ECOLOGICAL CRITERIA

1. **Toxicity to aquatic organisms**

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

$$CDV_{tox}\ (\text{ingredient i}) = \frac{\text{weight (i)} \times \text{LF (i)}}{\text{LTE (i)}} \times 1\,000$$

where weight (i) is the weight of the ingredient per recommended dose for 1 l of dishwashing water, LF is the loading factor and LTE is the long-term toxicity effect concentration of the ingredient.

The values of the LF and LTE parameters shall be as given in the detergent ingredient database list (DID list) in Appendix IA. If the ingredient in question is not included in the DID list, the applicant shall estimate their values following the approach described in Appendix IB. 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 l of dishwashing water shall not exceed 170 l.

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. **Biodegradabiltiy of surfactants**

(a) *Ready biodegradability (aerobic)*

Each surfactant used in the product shall be readily biodegradable.

The exact formulation of the product shall be provided to the competent body. The DID list (see Appendix IA) indicates whether a specific surfactant is aerobically biodegradable or not (i.e. those that have an entry of 'Y' in the column on aerobic biodegradabiltiy shall not be used). For surfactants which are not included in the DID list, the relevant information from literature or other sources, or appropriate test results, showing that they are aerobically biodegradable shall be provided. The tests for ready biodegradabiltiy shall be as referred to in Council Directive 67/548/EEC of 27 June 1967 on the approximation of laws, regulations and administrative provisions relating to the classification, packaging

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and labelling of dangerous substances [1], and its subsequent amendments, in particular the methods detailed in Annex V.C4, or their equivalent OECD 301 A-F test methods, or their equivalent ISO tests. The 10 days window principle shall not apply. The pass levels shall be 70 % for the tests referred to in Annex V.C4-A and C.4-B of Directive 67/548/EEC (and theirequivalent OECD 301 A and E tests and ISO equivalent), and shall be 60 % for tests C4-C, D, E and F (and their equivalent OECD 301 B, F, D and tests and ISO equivalents).

(b) *Anaerobic biodegradability*

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

The exact formulation of the product shall be provided. The DID list (see Appendix IA) indicates whether a specific surfactant is anaerobically biodegradable or not (i.e. those that have an entry of 'Y' in the column on anaerobic biodegradability shall not be used). For surfactants which are not included in the DID list, 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 ISO 11734, ECETOC No 28 (June 1988) or equivalent test method, with the requirement of a minimum of 60 % degradability under anaerobic conditions.

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)
— quaternary ammonium compounds
— trichlorocarbon
— EDTA (ethylene-diamine-tetra-acetate)
— NTA (nitrilo-tri-acetate)
— polyglycol solvents: polyethylene glycols
— 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).

(b) No ingredient shall be included in the product that is classified as:

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 organisms and may cause long-term adverse effects in the aquatic environment),

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

R59 (dangerous to the ozone layer),

R60 (may impair fertility),

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R61 (may cause harm to the unborn child),

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R62 (possible risk of impaired fertility),

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

R64 (may cause harm to breastfed babies),

or any combination thereof, according to Directive 67/548/EEC and its subsequent amendments, or according to Directive 1999/45/EC of the

[1] OJ 196, 16.8.1967, p. 1.

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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 [1], and its subsequent amendments.

Each ingredient of any preparation used in the formulation that exceeds 0,1 % by weight of the preparation shall also meet the above requirement.

Biocides that are used to preserve the product (as allowed under the criterion on biocides below), and are classified as R50+53 or R51+53 are nevertheless permitted, but only if they are not potentially bio-accumulative. In this context, a biocide is considered to be potentially bio-accumulative if the log Pow (log octanol/water partition coefficient) $\geq$ 3,0 (unless the experimentally determined BCF $\leq$ 100).

The exact formulation of the product shall be provided to the competent body, together with copies of the material safety data sheets of each ingredient which shall indicate the classification or lack thereof of each ingredient, as well as a declaration that none of the above substances have been included in the product.

Similarly the suppliers of any preparation used in the formulation shall provide a declaration that their preparation complies with the above requirements.

4. **Fragrances**

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

(b) If the product contains one or more of the following fragances, this shall be clearly indicated on the packaging, mentioning the name or names of the fragances concerned:

Common name	CAS-No	Common name	CAS-No
Amyl Cinnamal	122-40-7	Amylcinnamyl alcohol	101-85-9
Benzyl alcohol	100-51-6	Benzyl salicylate	118-58-1
Cinnamyl alcohol	104-54-1	Cinnamal	104-55-2
Citral	5392-40-5	Coumarin	91-64-5
Eugenol	97-53-0	Geraniol	106-24-1
Hydroxycitronellal	107-75-5	Hydroxymethyl penthylcyclohexe-necarboxaldehyde	31906-04-4
Isoeugenol	97-54-1		

(c) Any ingredients added to the product as a fragance must have been manufactured and/or handled following the code of practice of the International Fragrance Association.

A declaration of compliance with each part of this criterion shall be provided to the competent body.

5. **Dyes or colouring agents**

Any dyes or colouring agents used in the product must be permitted by Council Directive 76/768/EEC of 27 July 1976 on the approximation of the laws of the Member States relating to cosmetic products [2] and its subsequent amendments, and must be permitted by Directive 94/36/EEC of the European Parliament and of the Council of 30 June 1994 on colours for use in foodstuffs [3] and its subsequent amendments.

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.

(1) OJ L 200, 30.7.1999, p. 1.
(2) OJ L 262, 27.9.1976, p. 169.
(3) OJ L 237, 10.9.1994, p. 13.

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6. **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.

The exact formulation of the product shall be provided, together with copies of the material safety data sheets of any preservatives added, as well as information on the dosage necessary to preserve the product. A declaration of compliance with this criterion shall be provided.

(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.

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, together with a declaration of compliance with this criterion.

7. **Sensitising substances**

The product shall not be classified as R42 (may cause sensitisation by inhalation) and/or R43 (may cause sensitisation by skin contact) according to Directive 1999/45/EC concerning the approximation of the laws, regulations and administrative provisions of the Member States relating to the classification, packaging and labelling of dangerous preparations.

The exact formulation of the product shall be provided to the competent body, together, with copies of the material safety data sheets of each ingredient which shall indicate the relevant classification or lack thereof of each ingredient, and also a declaration of compliance with this criterion.

8. **Limitation of the total surfactants per wash**

The weight of total surfactants in the recommended dose for 1 l of dishwashing water shall not exceed 0,4 g for dirty dishes.

Data on the total active matter per ml of product shall be provided to the comeptent body, together with the recommended dosage in ml for 1l of dishwashing water for dirty dishes that appears on the packaging. On the basis of this data, compliance with this criterion shall be demonstrated.

9. **Packaging requirements**

(a) The primary packaging 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 shall be marked according to Directive 94/62/EC of the European Parliament and of the Council of 20 December 1994 on packaging and packaging waste [1], or DIN 6120 parts 1 and 2 in connection with DIN 7728 part 1.

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 this criterion.

FITNESS FOR USE

10. **Fitness for use**

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

All relevant data shall be provided to the competent body. This shall at least include the results of a performance test comparing the product (at the recommended dosage, tested on dirty dishes, in realistic conditions) with water and at least one other product (commonly available in the area where the eco-

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

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labelled product is to be marketed, and at its recommended dosage). The choice of the reference product(s) and test protocol used for these comparisons shall be justified. The applicant may use, for example, the test method entitled 'Dishwashing' established by the CTTN-IREN.

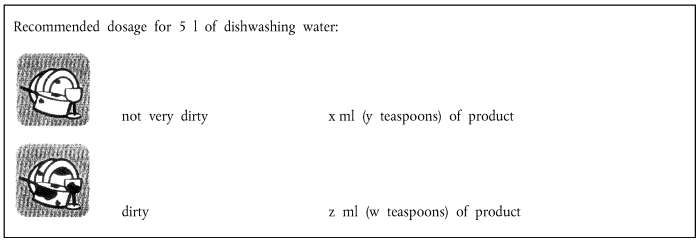
CONSUMER INFORMATION

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 pictogram and information below shall appear on the packaging in a reasonably sufficient size and against a visible background:



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 mililitres. A second well-known measure, 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 measure (e.g capfulls, squirts, or other) may be used.

(c) An indication of the approximate number of washes that the consumer can perform with one bottle.

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

(d) Commission recommendation 89/542/EEC of 13 September 1989 for the labelling of detergents and cleaning products [1] shall be applied.

(e) If the product contains perfumes, this shall be indicated on the packaging.

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

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,

— clear dosage instructions.

[1] OJ L 291, 10.10.1989, p. 55.

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Appendix I

DETERGENT INGREDIENTS DATABASE AND APPROACH TO BE FOLLOWED FOR INGREDIENTS NOT LISTED IN THE DATABASE

A. **The data given below on the most commonly used detergent ingredients shall be used for the calculation of the ecological criteria**

(*Note:* the parameters a NBO, SI, II, THOD as well as the CF-factors for an NBO are not used within this product group)

Detergent ingredients database (DID-list; version 29.9.1998)

DID-No	Ingredients	Toxicity		Loading factor (LF)	Anaerobic non-biodegradable (a NBO)	Aerobic non-biodegradable (a NBO)	Soluble inorganics (SI)	Insoluble inorganics (II)	THOD
		NOEC measured	LTE						
	Anionic surfactants								
1	C 10-13 LAS (Na Ø 11,5-11,8, C14 < 1 %)	0,3	0,3	0,05	Y, CF = 0,75	O	O	O	2,3
2	other LAS (C 14 > 1 %)	0,12	0,12	0,05	Y, CF = 1,5	O	O	O	2,3
3	C 14/17 Alk. sulphonate	0,27	0,27	0,03	Y, CF = 0,75	O	O	O	2,5
4	C 8/10 Alkylsulphate	EC50 = 2,9	0,15	0,02	O	O	O	O	1,9
5	C 12-15 AS	0,1	0,1	0,02	O	O	O	O	2,2
6	C 12-18 AS	LC50 = 3	0,15	0,02	O	O	O	O	2,3
7	C 16/18 FAS	0,55	0,55	0,02	O	O	O	O	2,5
8	C 12-15 A 1-3 EO sulphate	0,15	0,15	0,03	O	O	O	O	2,1
9	C 16/18 A 3-4 EO sulphate	no valid data	0,1	0,03	O	O	O	O	2,2
10	C 8 Dialkylsulphosuccinate	LC50 = 7,5	0,4	0,5	Y, CF = 1,5	O	O	O	2
11	C 12/14 sulpho-fat.-acid methylester	EC50 = 5	0,25	0,05	Y, CF = 0,75	O	O	O	2,1
12	C 16/18 sulpho-fat.-acid methylester	0,15	0,15	0,05	Y, CF = 0,75	O	O	O	2,3
13	C 14/16 alpha olefine sulphonate	LC50 = 2,5	0,13	0,05	Y, CF = 0,75	O	O	O	2,3
14	C 14-18 alpha olefine sulphonate	LC50 = 1,4	0,07	0,05	Y, CF = 2,0	O	O	O	2,4
15	Soaps (C 12-22)	EC0 = 1,6	1,6	0,05	O	O	O	O	2,9
	Nonionic surfactants								
16	C 9/11 A > 3-6 EO lin. or mono br.	EC50 = 3,3	0,7	0,03	O	O	O	O	2,4
17	C 9/11 A > 6-9 EO lin. or mono br.	EC50 = 5,4	1,1	0,03	O	O	O	O	2,2
18	C 12-15 A 2-6 EO lin. or mono br.	0,18	0,18	0,03	O	O	O	O	2,5

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DID-No	Ingredients	Toxicity		Loading factor (LF)	Anaerobic non-biodegradable (a NBO)	Aerobic non-biodegradable (a NBO)	Soluble inorganics (SI)	Insoluble inorganics (II)	THOD
		NOEC measured	LTE						
19	C 12-15 (Avg. C < 14) A > 6-9 EO lin. or mono br.	0,24	0,24	0,03	O	O	O	O	2,3
20	C 12-15 (Avg. C > 14) A > 6-9 EO	0,17	0,17	0,03	O	O	O	O	2,3
21	C 12-15 A > 9-12 EO	LC50 = 0,8	0,3	0,03	O	O	O	O	2,2
22	C 12-15 A 20-30 EO	EC50 = 13	0,65	0,05	O	O	O	O	2
23	C 12-15 A > 30 EO	LC50 = 130	6,5	0,75	O	Y	O	O	0 (*)
24	C 12/18 A 0-3 EO	no data	0,01	0,03	O	O	O	O	2,9
25	C 12-18 A 9 EO	0,2	0,2	0,03	O	O	O	O	2,4
26	C 16/18 A 2-6 EO	0,03	0,03	0,03	O	O	O	O	2,6
27	C 16/18 A > 9-12 EO	LC50 = 0,5	0,05	0,03	O	O	O	O	2,3
28	C 16/18 A 20-30 EO	EC50 = 18	0,36	0,05	O	O	O	O	2,1
29	C 16/18 A > 30 EO	LC50 = 50	2,5	0,75	O	Y	O	O	0 (*)
30	C 12/14 glucose amide	4,3	4,3	0,03	O	O	O	O	2,2
31	C 16/18 glucose amide	0,116	0,116	0,03	O	O	O	O	2,5
32	C 12/14 alkylpolyglucoside	1	1	0,03	O	O	O	O	2,3
	Amphoteric surfactants								
33	C 12-15 alkyl dimethylbetaine	0,03	0,03	0,05	Y, CF = 2,5	O	O	O	2,9
34	C 12-18 alkyl amidopropylbetaine	0,03	0,03	0,05	Y, CF = 2,5	O	O	O	2,8
	Suds controllers								
35	Silicone	EC0 = 241	4,82	0,4	Y, CF = 0,75	Y	O	O	0,0
36	Paraffin	no data	100	0,4	O	Y	O	O	0 (*)
	Fabric softening								
37	Glycerol	LC50 >5-10 gl	1 000	0,13	O	O	O	O	1,2
	Builders								
38	Phosphate as sodium-tri-polyphosphate (STPP)		1 000	0,6	O	O	Y	O	0,0

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DID-No	Ingredients	Toxicity		Loading factor (LF)	Anaerobic non-biodegradable (a NBO)	Aerobic non-biodegradable (a NBO)	Soluble inorganics (SI)	Insoluble inorganics (II)	THOD
		NOEC measured	LTE						
39	Zeolite A	120	120	0,05	O	O	O	Y	0,0
40	Citrate	EC50 = 85	85	0,07	O	O	O	O	0,6
41	Polycarboxylates and related derivates	124	124	0,4	Y, CF = 0,1	Y	O	O	0 (*)
42	Clay		1 000	0,05	O	O	O	Y	0,0
43	Carbonate/bicarbonate	LC50 = 250	250	0,8	O	O	Y	O	0,0
44	Fatty acid (C ≥ 14)	EC0 = 1,6	1,6	0,05	O	O	O	O	2,9
45	Silicate/disilicate	EC50 >1 000	1 000	0,8	O	O	Y	O	0,0
46	NTA	19	19	0,13	O	O	O	O	0,6
47	Polyaspartic acid. Na salt	125	12,5	0,13	Y, CF = 0,1	O	O	O	1,2
	Bleaching								
48	Perborate mono (as borate)	1-10	6	1	O	O	Y	O	0,0
49	Perborate tetra (as borate)	1-10	6	1	O	O	Y	O	0,0
50	percarbonate (see carbonate)	LC50 = 250	250	0,8	O	O	Y	O	0,0
51	TAED	EC0 = 500	EC0 = 500	0,13	O	O	O	O	2,0
	Solvents								
52	C 1-C 4 alcohols	LC50 = 8 000	100	0,13	O	O	O	O	2,3
53	Monoethanolamine	0,78	0,78	0,13	O	O	O	O	2,4
54	Diethanolamine	0,78	0,78	0,13	O	O	O	O	2,3
55	Triethanolamine	0,78	0,78	0,13	O	O	O	O	2
	Miscellaneous								
56	Polyvinylpyrrolidon (PVP/PVNO/PVPVI)	EC50 > 100	100	0,75	Y, CF = 0,1	Y	O	O	0 (*)
57	Phosphonates	7,4	7	0,4	Y, CF = 0,5	Y	O	O	0 (*)
58	EDTA	LOEC = 11	11	1	Y, CF = 0,1	Y	O	O	0 (*)
59	CMC	LC50 > 250	250	0,75	Y, CF = 0,1	Y	O	O	0 (*)
60	Na sulphate	EC50 = 2 460	1 000	1	O	O	Y	O	0,0
61	Mg sulphate	EC50 = 788	800	1	O	O	Y	O	0,0

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DID-No	Ingredients	Toxicity		Loading factor (LF)	Anaerobic non-biodegradable (a NBO)	Aerobic non-biodegradable (a NBO)	Soluble inorganics (SI)	Insoluble inorganics (II)	THOD
		NOEC measured	LTE						
62	Na chloride	EC50 = 650	650	1	O	O	Y	O	0,0
63	Urea	LC50 > 10 000	100	0,13	O	O	O	O	2,1
64	Maleic acid	LC50 = 106	2,1	0,13	O	O	O	O	0,8
65	Malic acid	LC50 = 106	2,1	0,13	O	O	O	O	0,6
66	Ca formiate		100	0,13	O	O	O	O	2,0
67	Silica		100	0,05	O	O	O	Y	0,0
68	High MW polymers PEG > 4 000		100	0,4	O	O	O	O	0 (*)
69	Low MW polymers PEG < 4 000		100	0,13	O	O	O	O	1,1
70	Cumene sulphonate	LC50 = 66	6,6	0,13	Y, CF = 0,25	O	O	O	1,7
71	Xylene sulphonate	LC50 = 66	6,6	0,13	Y, CF = 0,25	O	O	O	1,6
72	Toluene sulphonates	LC50 = 66	6,6	0,13	Y, CF = 0,25	O	O	O	1,4
73	Na-/Mg-/KOH		100	1	O	O	Y	O	0,0
74	Enzymes	LC50 = 25	25	0,13	O	O	O	O	2,0
75	Perfume formulation as used	LC50 = 2-10	0,02	0,1	Y, CF = 3,0	Y	O	O	0 (*)
76	Dyes	LC50 = 10	0,1	0,4	Y, CF = 3,0	Y	O	O	0 (*)
77	Starch	no data	250	0,1	O	O	O	O	0,97
78	Zn phthalocyanine sulphonate	0,16	0,016	0,074 (**)	Y, CF = 2,5	Y	O	O	0 (*)
79	Anionic polyester (soil release polymer)	EC50 = 310	310	0,4	Y, CF = 0,1	Y	O	O	0 (*)
80	Iminodisuccinate	23	2,3	0,13	Y, CF = 0,25	O	O	O	1,1
	Optical brighteners = (FWA)								
81	FWA 1 ([1])	LC0 = 10	1,0	0,4	Y, CF = 1,5	Y	O	O	0 (*)
82	FWA 5 ([2])	3,13	3,13	0,4	Y, CF = 0,5	Y	O	O	0 (*)
	Additional ingredients								
83	Alkyl aminoxides (C 12-18)	0,08	0,08	0,05	Y, CF = 2,5	O	O	O	3,2
84	Glycereth (6-17EO) cocoate	EC50 = 32	1,6	0,05	O	O	O	O	2,1
85	Phosphate esters (C 12-18)	EC50 = 38	1,9	0,05	Y, CF = 0,25	O	O	O	2,3

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(1) FWA 1 = Disodium 4.4-bis (4-anilino-5-morpholino-1,3,5-triazin-2-yl)amino-stilbene-2.2-disulphonate.
(2) FWA 5 = Disodium 4.4-bis(2-sulfostryryl)biphenyl.
(*) THOD for aerobically non degradable organic substances is set to zero.
(**) rapid photodegradation.

Notes

Y = yes, criterion applies.

O = no, criterion does not apply.

LTE = long-term effect concentration.

NOEC = non-observed effect concentration.

CF = correction factor for anaerobic non degradable organic substances.

THOD = theoretical oxygen demand.

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B. **Approach for ingredients which are not included in the DID-list**

For ingredients which are not included in the DID-list, the applicant shall, under his own responsibility, find the appropriate values for the relevant parameters. The reference for the relevant test methods shall be the appropriate Annexes to Directive 67/548/EC.

The approach for estimating long-term-toxicity effect concentration (LTE) and loading factors (LF) is given below.

1. *How to estimate long-term-toxicity-effect concentration (LTE)*

As LTE the lowest validated long-term toxicity concentration for fish, *daphnia magna* or algae shall be considered.

In cases where data on homologues and/or QSARs (quantitative structure activity relationships) are used, a correction could be considered for the finally selected LTE. If long-term toxicity data (such as NOEC) for one or more of the three species are missing, or only short-term toxicity data (such as LC50) are available, the following uncertainty factors (UF) shall be used:

1.1. Uncertainty factors (UF) for non-surfactants

Data available	UF to be used
3 NOEC on fish, daphnia or algae	1 (take lowest validated NOEC)
2 NOEC on fish or daphnia or algae	5
1 NOEC on fish or daphnia or algae	10
At least 2 acute LC50 on fish or daphnia or algae	100

Deviation from this rule may be admitted if evidence can be provided that lower factors or data can be justified scientifically.

1.2. Uncertainity factors (UF) for surfactants

Data available	UF to be used
At least 2 NOEC on fish or daphnia or algae	1 (lowest NOEC)
1 NOEC on fish or daphnia or algae	1 (if species is most sensitive in acute toxicity)
	10 (if species is not the most sensitive in acute toxicity)
3 LC50 on fish or daphnia or algae	20 (lowest LC50)
At least 1 LC50 on fish, daphnia or algae	50 (lowest LC50) or 20 in specific cases (*)

(*) In the last case referred to above, an uncertainty factor of 20 may be used instead of 50 only if 1-2 L(E)C50 (LC50 in case of fish toxicity, EC50 in case of *daphnia magna* and algae toxicity) data are available and if it can be concluded from the information for other compounds that the most sensitive species have been tested. Such a rule can be applied only within a group of homologues. It is emphasised that the LTEs used must be consistent within a group of homologues with respect to the influence of, for example length of alkyl chain for LAS (linear alkylbenzene sulphonate) or number of EOs (ethoxy groups) for alcohol-ethoxylate. Any deviation from the scheme described above shall be well reasoned for the specific chemical.

2. *How to estimate loading factors (LF)*

The loading factors (LF) for calculating the critical dilution volume toxicity (CDV_{tox}) reflect the percentage of the substance which passes the sewage treatment system and depends on biodegradability and sorption tendency of the substance.

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2.1. Loading factors for organic substances

Degradability of substance	Sorption	Loading factor (LF)
Ready biodegradable	Low	0,13
	Medium	0,1
	High	0,07
Inherent biodegradable	Low	0,6
	Medium	0,5
	High	0,3
Non-biodegradable	Low	1
	Medium	0,75
	High	0,4

Note: Sorption can be estimated by log P_{ow} (partition coefficient octanol/water), where $P_{ow} < 2$ is considered as 'low sorption', $P_{ow} < x < 4$ is 'medium sorption' and $P_{ow} > 4$ is 'high sorption'. Where no sorption data are available, low sorption is assumed.

2.2. Special approach for readily degradable surfactants

Type of surfactant	Loading factor (LF) to be used
Readily degradable surfactants in general	0,05
Alcohol ethoxylates (EO < 20) and alcohol ethoxysulphates	0,03
Alcohol sulphates	0,02

2.3. Special approach for inorganic substances

Type of inorganic substance	loading factor (LF) to be used
Soluble inorganic substances	1
Insoluble inorganic substances	0,05