II

(Acts whose publication is not obligatory)

COMMISSION

COMMISSION DECISION

of 28 May 1999

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

(notified under document number C(1999) 1377)

(Text with EEA relevance)

(1999/427/EC)

THE COMMISSION OF THE EUROPEAN COMMUNITIES,

Having regard to the Treaty establishing the European Community,

Having regard to Council Regulation (EEC) No 880/92 of 23 March 1992 on a Community eco-label award scheme [1], and in particular the second subparagraph of Article 5(1) thereof,

(1) Whereas the first subparagraph of Article 5(1) of Regulation (EEC) No 880/92 provides that the conditions for the award of the Community eco-label shall be defined by product group;

(2) Whereas Article 10(2) of Regulation (EEC) No 880/92 states that environmental performance of a product shall be assessed by reference to the specific criteria for product groups;

(3) Whereas Article 4(2)(a) of Regulation (EEC) No 880/92 states that an eco-label shall not be awarded to products which are substances or preparations classified as dangerous in accordance with Council Directive 67/548/EEC [2] as last ameded by Commission Directive 98/73/EC [3] and Council Directive 88/379/EEC [4], as last amended by Commission Directive 96/65/EC [5], but it may be awarded to products containing such substances or preparations in so far as they meet the objectives of the Community eco-label award scheme;

(4) Whereas detergents for dishwashers contain substances or preparations classified as dangerous in accordance with the abovementioned Directives;

(5) Whereas the ecological criteria established by this Decision include, in particular, hurdles and scores limiting to a minimum the content of substances and preparations classified as dangerous in the detergents which may be awarded an eco-label;

(6) Whereas detergents complying with these criteria have therefore a reduced environmental impact and meet the objectives of the Community eco-label award scheme;

(7) Whereas in accordance with Article 6 of Regulation (EEC) No 880/92 the Commission has consulted the principal interest groups within a consultation forum;

(8) Whereas the committee set up by Article 7(1) of Regulation (EEC) No 880/92 has not delivered an opinion on the measures laid down in a draft Commission Decision;

[1] OJ L 99, 11.4.1992, p. 1.
[2] OJ 196, 16.8.1967, p.1.
[3] OJ L 305, 16.11.1998, p. 1.
[4] OJ L 187, 16.7.1988, p. 14.
[5] OJ L 265, 18.10.1996, p. 15.

(9) Whereas the Commission has therefore proposed these measures to the Council on 27 January 1999 in accordance with Article 7(4) of Regulation (EEC) No 880/92;

(10) Whereas the Council has not acted within three months from the date of referral to it;

(11) Whereas in accordance with Article 7(5) of Regulation (EEC) No 880/92 the measures should now be adopted by the Commission,

HAS ADOPTED THIS DECISION:

Article 1

The product group 'detergents for dishwashers' means all detergents which are intended to be used exclusively in automatic domestic dishwashers.

Article 2

The environmental performance and the fitness for use of the product group, as defined in Article 1, shall be assessed by reference to the specific ecological and performance criteria set out in the Annex and Appendix IA, IB, II, III and IV.

Article 3

The definition of the product group and the specific ecological criteria for the product group shall be valid for a period of three years from the first day of the month following the adoption of the criteria.

Article 4

For administrative purposes the product group code number assigned to this product group shall be '15'.

Article 5

This Decision is addressed to the Member States.

Done at Brussels, 28 May 1999.

For the Commission

Ritt BJERREGAARD

Member of the Commission

ANNEX

FRAMEWORK

The general requirements established by Regulation (EEC) No 880/92 on a Community eco-label award scheme and the specific criteria of this Annex shall apply for the awarding of an eco-label to detergents for dishwashers.

These criteria aim at promoting:

— **the reduction of water pollution both by reducing the quantity of detergent used and by limiting the quantity of harmful ingredients,**

— **the minimisation of waste production by reducing the amount of primary packaging and promoting its re-usability and/or recyclability,**

— **the reduction of energy use by promoting low temperature detergents.**

Additionally, the criteria enhance the consumers' environmental awareness.

1. FUNCTIONAL UNIT AND REFERENCE DOSAGE

1.1. **Functional unit**

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

1.2. **Reference dosage**

The dosage recommended by the manufacturer to consumers for normally soiled dishes and 12 place settings is taken as a reference dosage under standard conditions.

2. KEY CRITERIA

2.1. **Ecological criteria on ingredients**

Key parameters

The following parameters are considered:

— total chemicals,

— critical dilution volume, toxicity (CDVtox),

— phosphates (as STPP) [1],

— non-biodegradable organics (aerobic) (NBDO aerobic),

— non-biodegradable organics (anaerobic) (NBDO anaerobic),

Appendix II presents the definition of the parameters used in the calculations. These parameters are calculated and expressed as g/wash, or l/wash, where appropriate. They are aggregates and assessed as a whole, according to the approach presented in this document.

Scoring/weighting factors

The following table summarises the selected criteria, their exclusion hurdles, their weighting factors and the maximum achievable scoring result. The scoring system formulae to be used to calculate the score in respect of each criterion are presented in point 2.3.

[1] Inclusion of this provisional criterion is aimed at taking into account the potential of certain detergents to contribute to eutrophication Consideration will be given to replacing this criterion with an impact-based criterion when revising this Decision, in the light of future developments in scientific knowledge, availability of relevant data and the factual situation.

Detergents for dishwashers' scoring/weighting calculation system

Criterion	Score				Exclusion hurdle	Weighting factor	Sum
	4	3	2	1			
Total chemicals	16,5	18	19,5	21	22,5	3	12
Critical dilution volume, tox.	60	120	180	240	250	8	32
Phosphates (as STPP)	0	3	6	9	10	2	8
Non-biodegradable organic (aerobic)	0	0,05	0,10	0,15	1	1	4
Non-biodegradable organic (anaerobic)	0	0,05	0,10	0,15	0,2	1,5	6
Total							62
Minimum score required	26						

Notes:
All values are expressed in g/wash, except the CDV_{tox}, value which is expressed in l/wash.
W_{factor} = weighting factor $H_{EXCL.}$ = hurdle.

2.2. **Pass/fail level for awarding an eco-label**

The sum of the scores related to the five criteria concerning the ingredients shall be equal to or greater than 26.

The exclusion hurdle value should not be exceeded on any criterion. The product shall also be in compliance with the criteria set out in other parts of this Annex.

2.3. **Calculations related to ecological criteria on ingredients**

Detergent Ingredient database (DID-list)

Appendix I.A presents-the detergent ingredients database (DID-list) which shall be used for calculations concerning the ingredient criteria. Data on loading factor, toxicity, non-biodegradability (aerobic) non-biodegradability (anaerobic) are listed for the major ingredients in Appendix I.A and these data must be used for the calculation concerning these ingredients.

The criteria:

— total chemicals

— non biodegradable (aerobic/anaerobic)

— phosphates (as STPP)

are calculated for each ingredient by considering the dosage per wash, water content and mass percentage in the formulation and they are added up for each product formulation.

The criterion on critical dilution volume toxicity is calculated for each ingredient by the equation:

$\mathbf{kfv}_{tox}$:

$$\mathbf{kfv}_{TOX} = \frac{\text{dosage} \times \text{loading factor}}{\text{long term effect}} \quad \text{x } 1000$$

Procedure for the calculation of criteria and scores

For the calculatlon of scores, the following equations are used:

Total chemicals (TC):

If **tc** > 22,5 g/wash	then	EXCLUSION
If **tc** ≤ 21 g/wash	then	Score = 15 - **tc**/1,5
If 22,5 ≥ **tc** > 21 g/wash	then	Score = 0
If **tc** ≤ 16,5 g/wash	then	Score = 4

Maximum score = 4

Critical dilution volume toxicity (CDV_{tox}):

If $\mathbf{cdv}_{tox} > 250$ l/wash	then	EXCLUSION
If $\mathbf{cdv}_{tox} \leq 240$ l/wash	then	Score = $5 - \mathbf{cdv}_{tox}/60$
If $250 \geq \mathbf{cdv}_{tox} > 240$ l/wash	then	Score = 0
If $\mathbf{cdv}_{tox} \leq 60$ l/wash	then	Score = 4

Maximum score = 4

Phosphates (P):

If $\mathbf{p} > 10$ g/wash	then	EXCLUSION
If $\mathbf{p} \leq 9$ g/wash	then	Score = $4 - \mathbf{p}/3$
If $10 \geq \mathbf{p} > 9$ g/wash	then	Score = 0

Maximum score = 4

Aerobic non-biodegradable organics (aNBDO):

If a**nbdo** > 1 g/wash	then	EXCLUSION
If a**nbdo** ≤ 0,15 g/wash	then	Score = 4 − a**nbdo**/0,05
If 1 ≥ a**nbdo** > 0,15 g/wash	then	Score = 0

Maximum score = 4

Anaerobic non-biodegradable organics (anNBDO):

If an**nbdo** > 0,2 g/wash	then	EXCLUSION
If an**nbdo** ≤ 0,15 g/wash	then	Score = 4 − an**nbdo**/0,05
If 0,2 ≥ an**nbdo** > 0,15 g/wash	then	Score = 0

Maximum score = 4

New chemical additional ingredients

(a) In the case of new chemicals or additional ingredients which are not listed in the detergent ingredient database the approach described here in Appendix I.B shall be followed.

Experimental data have to be submitted by the applicant to the competent body.

The data on anaerobic biodegradability (ECETOC test No 28, June 1988) have to be provided.

All the available documentation has to be provided concerning the data which are presented on biodegradation, removal, long-term effects (NOEC data) on fish, *daphina magna,* algae.

The reference for the relevant tests shall be the appropriate Annexes to Council Directive 67/518/EEC [1]

The provisions of Appendix I.B. shall apply, as appropriate.

In particular, if complete data concerning long-term effects (NOEC) are not available, the relevant simplified procedures described in Appendix I.B may be applied.

(b) A different approach may be followed if it is recognised by the Commission to be equivalent to the one referred to above, for the specific objectives of assessing compliance with the relevant criteria, at the request of a competent body or an interest group represented in the eco-label Consultation Forum (Article 6 of Regulation (EEC) No 880/92).

2.4. **Other ecological criteria related to ingredients**

Certain specific ingredients shall not exceed a maximum content in the detergent formulation or are excluded as specified below:

(a) the surfactant alkylphenothoxylate (APEO), the perfumes containing the aromatic nitro compounds referred to in Appendix II, the complex formation agent EDTA and ingredients [2] classified as carcinogenic, mutagenic or teratogenic as defined in Directives 67/548/EEC and 88/379/EEC are excluded;

[1] OJ 196, 16.8.1967, p. 1.
[2] 'Ingredients' means either substances or preparations.

(b) phosphonates shall not exceed 0,2 g/wash;

(c) total chlorine compounds shall not exceed 0,1 %. (1)

2.5. **Ecological criteria on product packaging**

Only primary packaging is considered. The packaging may not exceed 2,5 grams per functional unit. The packaging should be made of reusable and/or recyclable materials. The cardboard packaging shall be 80 % recycled material and the plastic packaging shall be labelled according to ISO 1043.

3. PERFORMANCE CRITERIA

The product shall have a satisfactory washing performance at the recommended dosage according to the standard test developed by IKW. It should work best at 55 °C or at a lower temperature. This has to be documented by the manufacturer.

4. TESTING

4.1. **Test on purity of enzymes to verify the absence of production organisms**

A test on the purity of enzymes has to be performed on enzymes that are produced by biotechnological processes and used in detergents for dishwashers applying for the eco-label. It is the aim of this test to ensure that production organisms are not contained in the final enzyme preparation.

The growth of micro-organisms is tested together with specific antibiotics. The test procedure on purity must ensure that no production organism is detected in a 20 ml standard test sample of the final enzyme product.

4.2. **Testing laboratories**

The testing shall be performed at the expense of the applicant by laboratories that meet the general requirements laid out in the EN 45001 standards or any equivalent systems.

5. CONSUMER INFORMATION

5.1. **Information on the packaging**

The following information shall appear on the product:

'As a general rule:

— use detergents that work at temperatures lower than 65 °C,

— select low temperature washing cycles on the dishwasher,

— wash full loads,

— do not exceed the recommended dosage,

— this will minimise both energy and water consumption and reduce water pollution'..

'This product has been awarded the European Union eco-label because it helps to reduce water pollution, waste production and energy consumption'.

For more information about the European Union eco-label, contact the European Commission:

Internet: *http://europa.eu.int/ecolabel*

By post: European Commission DG XI E4

Rue de la Loi 200, B-1049 Bruxelles/Westraat 200, B-1049 Brussel.

5.2. **Dosage instructions.**

Dosage instructions shall appear on the product packages. The recommended dosages must be specified for 'normally' and 'heavily' soiled dishes. The instructions shall specify how to make best use of the product according to the soil.

(1) On the occasion of the future revision of the criteria. particular attention will be given to the issu,: of chlorine compounds with a view to considering their ultimate inclusion.

5.3. **Information and labelling of ingredients**

Commission Recommendation 89/542/EEC of 13 September 1989 concerning the labelling of detergents and cleaning agents [1] must be applied:

The following groups of ingredients shall be labelled:

— Enzymes: indication of the type of enzymes.

— Preservation agents: characterisation and labelling according to IUPAC nomenclature.

— If the product contains perfume, it shall be indicated on the packaging.

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

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 are to be used for the calculation of the ecological criteria (see following table):**

DETERGENT INGREDIENTS DATABASE

DID No	Ingredients	Toxicity		Loading factor	Anaerobic Non-biodegradable	Aerobic Non-biode-gradable	Soluble Inorganics	Insoluble Inorganics	THOD
		NOEC Measured	LTE						
	Anionic surfactants								
1	C 10-13 LAS (NA ∅ 11.5-11,8, C 14 < 1 %)	0,3	0,3	0,05	Y, CF = 0,75	0	0	0	2,3
2	Other LAS (C 14 > 1 %)	0,12	0,12	0,05	Y, CF = 1,5	0	0	0	2,3
3	C 14/17 Alkylsulfonate	0,27	0,27	0,03	Y, CF = 0,75	0	0	0	2,5
4	C 8/10 Alkylsulphate	EC50 = 2,9	0,15	0,02	0	0	0	0	1,9
5	C 12/15 AS	0,1	0,1	0,02	0	0	0	0	2,2
6	C 12/18 AS	LC50 = 3	0,15	0,02	0	0	0	0	2,3
7	C 16-18 FAS	0,55	0,55	0,02	0	0	0	0	2,5
8	C 12/15 A 1-3 EO sulphate	0,15	0,15	0,03	0	0	0	0	2,1
9	C 16/18 A 3-4 EO sulphate	No valid data	0,1	0,03	0	0	0	0	2,2
10	C 8-Dialkylsulfosuccinate	LC50 = 7,5	0,4	0,5	Y, CF = 1,5	0	0	0	2
11	C 12/14 sulpho-fat.-acid methylester	EC50 = 5	0,25	0,05	Y, CF = 0,75	0	0	0	2,1
12	C 16/18 sulpho-fat.-acid methylester	0,15	0,15	0,05	Y, CF = 0,75	0	0	0	2,3
13	C 14/16 alpha olefine sulphonate	LC50 = 2,5	0,13	0,05	Y, CF = 0,75	0	0	0	2,3
14	C 14-18 alpha olefien sulphonate	LC50 = 1,4	0,07	0,05	Y, CF = 2,0	0	0	0	2,4
15	C 12-22 SOAPS	ECO = 1,6	1,6	0,05	0	0	0	0	2,9
	Non-ionic surfactants								
16	C 9/11 A > 3-6 EO lin. or mono br.	EC50 = 3,3	0,7	0,03	0	0	0	0	2,4
17	C 9/11 A > 6-9 EO lin. or mono br.	EC50 = 5,4	1,1	0,03	0	0	0	0	2,2
18	C 12-15 A 2-6 EO lin. or mono br.	0,18	0,18	0,03	0	0	0	0	2,5
19	C 12-15 (Avg. C < 14) A > 6-9 EO lin. or mono br.	0,24	0,24	0,03	0	0	0	0	2,3
20	C 12-15 (Avg. C > 14) A > 6-9 EO lin. or mono br.	0,17	0,17	0,03	0	0	0	0	2,3
21	C 12-15 A > 9-12 EO	LC50 = 0,8	0,3	0,03	0	0	0	0	2,2
22	C 12-15 A > 20-30 EO	EC50 = 13	0,65	0,05	0	0	0	0	2
23	C 12-15 A > 30 EO	LC50 = 130	6,5	0,75	0	0	Y	0	0* (1)

DID No	Ingredients	Toxicity		Loading factor	Anaerobic Non-biodegradable	Aerobic Non-biode-gradable	Soluble Inorganics	Insoluble Inorganics	THOD
		NOEC Measured	LTE						
24	C 12/18 A 0-3 EO	No data	0,01	0,03	0	0	0	0	2,9
25	C 12-18 A 9 EO	0,2	0,2	0,03	0	0	0	0	2,4
26	C 16/18 A 2-6 EO	0,03	0,03	0,03	0	0	0	0	2,6
27	C 16/18 A > 9-12 EO	LC50 = 0,5	0,05	0,03	0	0	0	0	2,3
28	C 16/18 A 20-30 EO	EC50 = 18	0,36	0,05	0	0	0	0	2,1
29	C 16/18 A > 30 EO	LC50 = 50	2,5	0,75	0	Y	0	0	0* (1)
30	C 12/14 Glucose Amide	4,3	4,3	0,03	0	0	0	0	2,2
31	C 16/18 Glucose Amide	0,116	0,116	0,03	0	0	0	0	2,5
32	C 12/14 Alkylpolyglucoside	1	1	0,03	0	0	0	0	2,3
	Amphoteric surfactants								
33	C 12-15 Alkyldimethylbetaine	0,03	0,03	0,05	Y, CF = 2,5	0	0	0	2,9
34	Alkyl (C 12-18) amidopropylbetaine	0,03	0,03	0,05	Y, CF = 2,5	0	0	0	2,8
	Sud controllers								
35	Silicone	EC50 = 241	4,82	0,4	Y, CF = 0,75	Y	0	0	0,0
36	Paraffin	No data	100	0,4	0	Y	0	0	0* (1)
	Fabric softening								
37	Glycerol	LC50 > 5-10 gl	1 000	0,13	0	0	0	0	1,2
	Builders								
38	Phosphate, as STPP		1 000	0,6	0	0	Y	0	0,0
39	Zeolite A	120	120	0,05	0	0	0	Y	0,0
40	Citrate	EC50 = 85	85	0,07	0	0	0	0	0,6
41	Polycarboxylates and related derivates	124	124	0,4	Y, CF = 0,1	Y	0	0	0* (1)
42	Clay		1 000	0,05	0	0	0	Y	0,0
43	Carbonate/bicarbonate	LC50 = 250	250	0,8	0	0	Y	0	0,0
44	Fatty acid (C > = 14)	EC0 = 1,6	1,6	0,05	0	0	0	0	2,9
45	Silicate/disilicate	EC50 > 1 000	1 000	0,8	0	0	Y	0	0,0
46	NTA	19	19	0,13	0	0	0	0	0,6
47	Polyaspartic acid, Na salt	125	12,5	0,13	Y, CF = 0,1	0	0	0	1,2

DID No	Ingredients	Toxicity		Loading factor	Anaerobic Non-biodegradable	Aerobic Non-biode-gradable	Soluble Inorganics	Insoluble Inorganics	THOD
		NOEC Measured	LTE						
	Bleaching								
48	Perborate mono (as borate)	1-10	6	1	0	0	Y	0	0,0
49	Perborate tetra (as borate)	1-10	6	1	0	0	Y	0	0,0
50	Percarbonate (see carbonate)	LC50 = 250	250	0,8	0	0	Y	0	0,0
51	TAED	EC0 = 500	EC0 = 500	0,13	0	0	0	0	2,0
	Solvents								
52	C 1-C 4 alcohols	LC50 = 8 000	100	0,13	0	0	0	0	2,3
53	Monoethanolamine	0,78	0,78	0,13	0	0	0	0	2,7
54	Diethanolamine	0,78	0,78	0,13	0	0	0	0	2,3
55	Triethanolamine	0,78	0,78	0,13	0	0	0	0	2
	Miscellaneus								
56	Polyvinylpyrrolidon (PVP/PVNO/PVPVI)	EC50 > 100	100	0,75	Y, CF = 0,1	Y	0	0	0* (1)
57	Phosphonates	7,4	7	0,4	Y, CF = 0,5	Y	0	0	0* (1)
58	EDTA	LOEC = 11	11	1	Y, CF = 0,1	Y	0	0	0* (1)
59	CMC	LC50 > 250	250	0,75	Y, CF = 0,1	Y	0	0	0* (1)
60	Na Sulphate	EC50 = 2 460	1 000	1	0	0	Y	0	0,0
61	Mg Sulphate	EC50 = 788	800	1	0	0	Y	0	0,0
62	Na Chloride	EC50 = 650	650	1	0	0	Y	0	0,0
63	Urea	LC50 > 10 000	100	0,13	0	0	0	0	2,1
64	Maleic acid	LC50 = 106	2,1	0,13	0	0	0	0	0,8
65	Malic acid	LC50 = 106	2,1	0,13	0	0	0	0	0,6
66	Ca formiate		100	0,13	0	0	0	0	2,0
67	Silica		100	0,05	0	0	0	Y	0,0
68	Higg MW polymers PEG > 4 000		100	0,4	0	Y	0	0	0* (1)
69	Low MW polymers PEG < 4 000		100	0,13	0	0	0	0	1,1
70	Cumene sulphonate	LC50 = 66	6,6	0,13	Y, CF = 0,25	0	0	0	1,7
71	Xylene sulphonate	LC50 = 66	6,6	0,13	Y, CF = 0,25	0	0	0	1,6

DID No	Ingredients	Toxicity		Loading factor	Anaerobic Non-biodegradable	Aerobic Non-biode-gradable	Soluble Inorganics	Insoluble Inorganics	THOD
		NOEC Measured	LTE						
72	Toluene sulphonate	LC50 = 66	6,6	0,13	Y, CF = 0,25	0	0	0	1,4
73	Na-/Mg-/KOH		100	1	0	0	Y	0	0,0
74	Enzymes	LC50 = 25	25	0,13	0	0	0	0	2,0
75	Perfume mixtures as used	LC50 = 2-10	0,02	0,1	Y, CF = 3,0	Y	0	0	0* (1)
76	Dyes	LC50 = 10	0,1	0,4	Y, CF = 3,0	Y	0	0	0* (1)
77	Starch	no data	250	0,1	0	0	0	0	0,97
78	Zn Phtalocyanine sulphonate	NOEC = 0,16	0,016	0,07 (2)	Y, CF = 2,5	Y	0	0	0* (1)
79	Anionic Polyester (Soil release polyester)	NOEC = 310	310	0,4	Y, CF = 0,1	Y	0	0	0* (1)
80	Iminodisuccinate	23	2,3	0,13	Y, CF = 0,25	0	0	0	1,1
	Optical brighteners (FWA)								
81	FWA 1 (3)	LC0 = 10	1,0	0,4	Y, CF = 1,5	Y	0	0	0* (1)
82	FWA 5 (4)	3,13	3,13	0,4	Y, CF = 0,5	Y	0	0	0* (1)
	Additional ingredients								
83	Alkyl Aminoxides (C 12-18)	EC0 = 0,08	0,08	0,05	Y, CF = 2,5	0	0	0	3,2
84	Glycereth (C 6-17) EO cocoate	EC50 = 32	1,6	0,05	0	0	0	0	2,1
85	Phosphate esters (C 12-18)	EC50 = 38	1,9	0,05	Y, CF = 0,25	0	0	0	2,3

(1) 0* = THOD for aerobic non-degradable organic substances is set to zero.
(2) Rapid photodegradation.
(3) FWA 1 = Disodium 4,4′-bis (4-anilino-5-morpholino-1,3,5-triazin-2-yl) amino stilbene-2,2′-disulfonate.
(4) FWA 5 = Disodium 4,4′-bis (2-sulfostyryl) biphenyl.

Notes:

Y = Yes
CF = Correction factor, to be applied to the dosage Expressed in g/wash
0 = not to be used
NOEC = Non-observed measured concentration
LTE = Ong-term effect
THOD = Theoretical oxygen demand

B. **The following approach applies, as appropriate in the case of ingredients that are not listed on the DID-list**

Aquatic toxicity

The lowest validated long-term effect (LTE) data on fish, *daphnia magna* or algae should be considered for the calculation of the critical dilution volume criterion (toxicity).

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 data.

In the absence of LTE data the following procedure has to be applied in order to estimate the LTE data by using the specified uncertainty factor (UF) on the data of the most sensitive species:

Non-surfactants

DATA AVAILABLE	UF TO BE USED
At least two acute LC_{50} on fish or *daphnia* or algae	100
1 NOEC on fish, *daphnia* or algae	10
2 NOEC on fish, *daphnia* or algae	5
3 NOEC on fish, *daphnia* or algae	1
	Take lowest validated NOEC

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

Surfactants

DATA AVAILABLE	UF TO BE USED
At least two NOEC on fish or *daphnia* or algae	1 (lowest NOEC)
1 NOEC on fish *daphnia* or algae	1 (NOEC - if species is most sensitive in acute toxicity)
3 LC_{50} on fish *daphnia* or algae	20 (lowest LC_{50})
At least one LC_{50} on fish, *daphnia* or algae	50 (lowest LC_{50})
	or 20 in specific cases (see below)

In the last case referred to above, an uncertainty factor of 20 may be used instead of 50 only if 1-2 L(E)C_{50} (LC_{50} in case of fish toxicity, EC_{50} in case of *daphnia* or algal 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 should be emphasised that the LTEs (long-term effects) used must be consistent within a group of homologues with respect to the influence of length of alkyl chain for LAS (linear alkylbenzene sulphonate) or number of EOs (ethoxy groups) for alcohol-ethoxylate if such QSARs can be established.

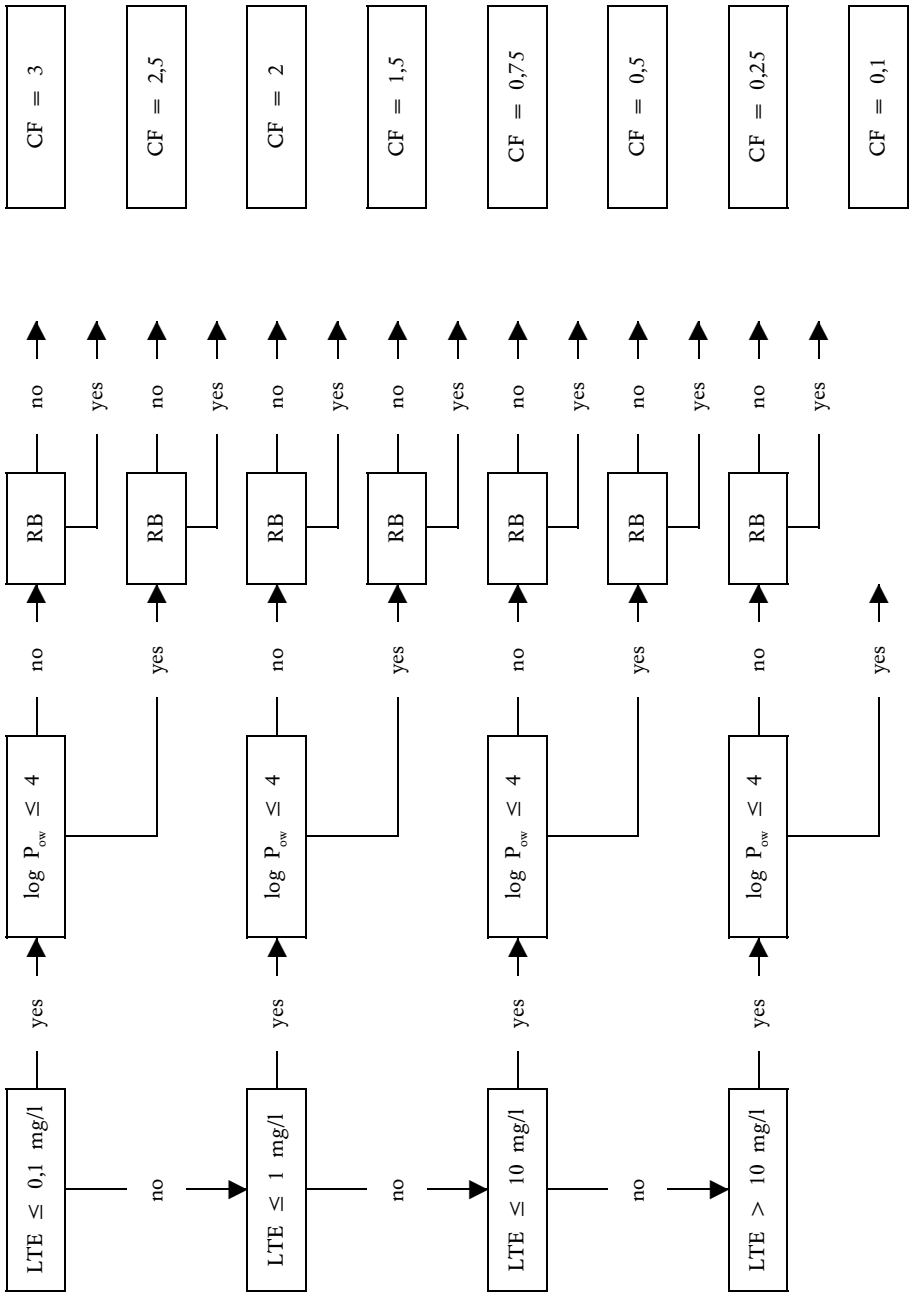
Any deviation from the above described scheme has to be well-reasoned for the specific chemical.

Loading factors

Loading factors shall be established according to Commission Directive 93/67/EEC of 20 July 1993 laying down the principles for assessment of risk to man and the enviroment of substances notified in accordance with Council Directive 67/548/EEC [1] and to Council Regulation (EEC) No 793/93 [2]

[1] OJ L 227, 8.9.1993, p. 9.
[2] OJ L 84, 5.4.1993, p. 1.

Non-bidegradable organics (anaerobic): flow diagram to define correction factors (CF)(1)



RB: Ready aerobic biodegradability
LTE: Long-term effect
CF: Correktion factor

(1) The correction factors are to be established on the basis of the ingredient properties and applied to the dosage expressed in g/wash.

Appendix II

DEFINITIONS RELATED TO THE ECOLOGICAL CRITERIA

1. **Total chemicals**

   Total chemicals are the dosage minus water content in g/wash.

2. **Critical dilution volume toxicity (CDV_{tox})**

   The CDV_{tox} is calculated for each ingredient i in the formulation according to the respective data for loading factors (LF) and long-term effects (LTE) in the DID-list in l/wash:

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

   The CDV_{tox} of the product is the sum of all ingredients CDV_{tox} in l/wash.

3. **Phosphates (as STPP)**

   Weight per wash of all inorganic phosphates expressed as STPP, in g/wash.

4. **Non-biodegradable organics (aerobic)**

   Weight per wash of all ingredients which are aerobically non-biodegradable organics (see DID-list) in g/wash.

5. **Non-biodegradable organics (anaerobic)**

   Weight per wash of all ingredients which are non-biodegradable using respective correction factors (see DID-list) in g/wash.

6. **Nitro musk**

   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

Appendix III

DATA AND INFORMATION TO BE REQUIRED FROM THE APPLICANT BY THE COMPETENT BODY RECEIVING THE APPLICATION FOR AN ECO-LABEL

1.1. **Declaration of product formulation and calculation of criteria**

The competent body shall require from the manufacturer applying for the eco-label submission of:

— the exact formulation of the product,

— the exact chemical description of ingredients (e.g. identification according to IUPAC, CAS No, sum and structural formulae, purity, type and percentage of impurities, additives; for mixtures, for example surfactants: DID number, composition and spectrum of distribution homologues, isomers, and trade names); analytical evidence of the composition of surfactants,

— the exact tonnage of product which is put on the market (reporting on 1 March, related to the year before),

— the detailed calculation of the criteria,

— a summary test report on the purity of enzymes according to point 4 of the Annex to this Decision and a certification on the non-content of production organisms has to be provided,

— a declaration that:

  — The product does not contain the surfactant alkylphenothoxylate (APEO), the perfumes containing the aromatic nitro compounds referred to in Appendix II, the complex formation agent EDTA and ingredients classified as carcinogenic, mutagenic or teratogenic as defined in Directives 67/548/EEC and 88/379/EEC.

  — Phosphonates do not exceed 0,2 g/wash.

1.2. **Washing performance test**

The applicant shall submit the results of the washing performance test to the competent body.

1.3. **Dosage equipment, packaging and consumer information**

In order to prove compliance with the abovementioned requirements, the packages of the product and dosage device shall be required by the competent body from the applicant for the product considered.

In case of differences with respect to different national markets, and different packaging sizes, all these data will be required.

1.4. **Application for the eco-label on detergents**

The national competent body may audit the applying company on site and visit the production and packaging facilities.

The competent body itself shall ensure that applications are presented according to the relevant requirements of Regulation (EEC) No 880/92 and the procedural requirements.

Appendix IV

TABLE OF ABBREVIATIONS

APEO:	alkyl phenol ethoxylates
BCF:	bio-concentration factors in fish
CDV_{tox}:	critical dilution volume (toxicity)
CEN:	European Standards Organisation
CF:	correction factor
DIN:	Deutsches Institut für Normung
EOs:	ethoxy groups
EC_{50}:	effect concentration (concentration at which 50 % of the organisms show an effect in defined time)
ECETOC:	European Centre for Ecotoxicology and Toxicology of Chemicals
EDTA:	ethylene diamine tetra acetate
EN:	European Standard
H_{excl}:	exclusion hurdle
IUPAC:	International Union of Pure and Applied Chemistry
ISO:	International Standards Organisation
LF:	loading factor
LC_{50}:	lethal concentration (concentration at which 50 % of test organisms show lethal effect in defined time)
LTE:	long-term effect
NOEC:	no observed effect concentration (in a chronic test)
P_{ow}:	partition coefficient octanol/water
QSARs:	quantitative structure activity relationships
RB:	ready biodegradability
STPP:	sodium tripolyphosphate
THOD:	theoretical oxygen demand
UF:	uncertainty factor
WF:	weighting factor