II

(Acts whose publication is not obligatory)

COMMISSION

COMMISSION DECISION

of 17 February 1999

establishing the ecological criteria for the award of the Community eco-label to textile products

(notified under document number C(1999) 339)

(Text with EEA relevance)

(1999/178/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,

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;

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

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

Whereas the measures set out in this Decision are in accordance with the opinion of the committee set up under Article 7 of Regulation (EEC) No 880/92,

HAS ADOPTED THIS DECISION:

Article 1

The product group 'textile products' (hereinafter referred to as 'the product group') shall mean:

textile clothing: clothing consisting at least 90 % by weight of textile fibres,

interior textiles: textile products for indoor use, consisting at least 90 % by weight of textile fibres, and excluding floor coverings,

yarn and fabric, for use in textile clothing or interior textiles.

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 fitness-for-use criteria set out in the Annex.

Article 3

The product group definition and the 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.

[1] OJ L 99, 11. 4. 1992, p. 1.

Article 4

For administrative purposes the code number assigned to the product group shall be '016'.

Article 5

This Decision is addressed to the Member States.

Done at Brussels, 17 February 1999.

For the Commission
Ritt BJERREGAARD
Member of the Commission

ANNEX

In order to qualify for an eco-label, the product as defined in Article 1 must comply with the criteria of this Annex, with tests carried out on application as indicated in the criteria. Where appropriate, other test methods may be used if their equivalence is accepted by the competent body assessing the application. 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.

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.

These criteria aim in particular at promoting the reduction of water pollution related to the key processes throughout the textile manufacturing chain, including fibre production, spinning, weaving, knitting, bleaching, dyeing and finishing.

Functional unit

The functional unit, to which inputs and outputs should be related, is:

1 kg of textile product at normal conditions (65 % RH ± 2 % and 20 °C ± 2 °C — these norm conditions are specified in ISO 139 Textiles — standard atmospheres for conditioning and testing).

A. **ECOLOGICAL CRITERIA**

The ecological criteria are divided into two main categories, concerning textile fibres (A1) and processes and chemicals (A2).

A1. TEXTILE FIBRES

Fibre-specific criteria are set in this section A1 for acrylic, cotton, elastane, flax and other bast fibres, greasy wool and other keratin fibres, man-made cellulose fibres, polyamide, polyester and polypropylene. Other fibres for which no fibre specific criteria are set are also allowed, with the exception of mineral fibres, glass fibres, metal fibres, carbon fibres and other inorganic fibres.

The applicant shall supply detailed information as to the composition of the textile product. The criteria set in this section A1 for a given fibre-type need not be met if that fibre contributes to less than 5 % of the total weight of the textile fibres in the product. Similarly they need not be met if the fibres are of recycled origin. In this context, recycled fibres are defined as fibres originating only from cuttings from textile and clothing manufacturers or from post-consumer waste (textile or otherwise). Neverthelss, at least 85 % by weight of all fibres in the product must be either in compliance with the corresponding fibre-specific criteria, if any, or of recycled origin.

1. **Acrylic**

(a) The residual acrylonitrile content in raw white fibres leaving the fibre production plant shall be less than 1,5 mg/kg.

Test-method: extraction with boiling water and quantification by capillary gas-liquid chromatography. Test report required on application.

(b) The emissions to air of acrylonitrile (during polymerisation and up to the solution ready for spinning), expressed as an annual average, shall be less than 1 g/kg of fibre produced.

2. **Cotton**

Cotton fibres shall not contain more than 0,05 ppm (sensibility of the test method permitting) of each of the following substances: aldrin, captafol, chlordane, DDT, dieldrin, endrin, heptachlor, hexachlorobenzene, hexachlorocyclohexane (total isomers), 2,4,5-T, chlordimeform, chlorobenzilate, dinoseb and its salts, and monocrotophos.

Test methods: as appropriate, US EPA 8081 A (organo-chlorine pesticides, with ultrasonic or Soxhlet extraction and apolar solvents (iso-octane or hexane)), 8151 A (chlorinated herbicides, using methanol), 8141 A (organophosphorus compounds), or 8270 C (semi-volatile organic compounds). Test report required on application.

This requirement does not apply where more than 50 % of the cotton content is organic, that is to say certified by an independent organisation to have been produced in conformity with the production and inspection requirements laid down in Council Regulation (EEC) No 2092/91 ([1]).

This requirement does not apply if documentary evidence can be presented that establishes the identity of the farmers producing at least 75 % of the cotton used in the final product, together with a declaration from these farmers that the substances listed above have not been applied to the fields or cotton plants producing the cotton in question, or to the cotton itself.

Where more than 95 % of the cotton is organic, that is to say certified by an independent organisation to have been produced in conformity with the production and inspection requirements laid down in Regulation (EEC) No 2092/91, the applicant may place the mention 'organic cotton' next to the eco-label.

3. **Elastane**

(a) The content of zinc shall not exceed 1 000 ppm.

Test method: direct determination by atomic absorbtion spectrometry. Test report required on application

(b) The emissions to air of aromatic diisocyanates during polymerisation and spinning, expressed as an annual average, shall be less than 5 mg/kg of fibre produced.

4. **Flax and other bast fibres (including hemp, jute, and ramie)**

Flax and other bast fibres shall not be obtained by water retting, unless the wastewater from the water retting is treated so as to reduce the COD or TOC by at least 75 % for hemp fibres and by at least 95 % for linen and the other bast fibres.

Test method: ISO 6060 (COD). Test report required on application if water retting used.

5. **Greasy wool and other keratin fibres (including wool from sheep, camel, alpaca, goat)**

(a) The sum total content of the following substances shall not exceed 0,5 ppm: α-hexachlorocyclohexane, ß-hexachlorocyclohexane, lindane (γ-hexachlorocyclohexane), δ-hexachlorocyclohexane, aldrin, dieldrin, endrin, p,p'-DDT, p,p'-DDD.

(b) The sum total content of the following substances shall not exceed 2 ppm: propetamphos, diazinon, dichlofenthion, fenchlorphos, chlorfenvinphos.

(c) The sum total content of the following substances shall not exceed 3 ppm: cyhalothrin, cypermethrin, deltamethrin, fenvalerate.

These requirements (as detailed in (a), (b) and (c) and taken separately) do not apply if documentary evidence can be presented that establishes the identity of the farmers producing at least 75 % of the wool or keratin fibres in question, together with a declaration from these farmers that the substances listed above have not been applied to the fields or animals concerned.

Test method for (a), (b) and (c): serial non-polar/polar solvent extraction, clean up with gel permeation chromatography and determination with capillary gas-liquid chromatography with electron capture detection. Test report required on application.

(d) For scouring effluent discharged to sewer, the COD discharged to sewer shall not exceed 60 g/kg greasy wool, and the effluent shall be treated off-site so as to achieve at least a further 75 % reduction of COD content.

([1]) OJ L 198, 22. 7. 1991, p. 1.

For scouring effluent treated on site and discharged to surface waters, the COD discharged to surface waters shall not exceed 5 g COD/kg greasy wool. The pH of the effluent discharged to surface waters shall be between 6 and 9 (unless the pH of the receiving waters is outside this range), and the temperature shall be below 40 °C (unless the temperature of the receiving water is above this value).

Test method for (d): ISO 6060. Test report and appropriate data required on application.

6. **Man-made cellulose fibres (including viscose, lyocell, acetate, cupro, triacetate)**

(a) The level of AOX in the fibres shall not exceed 250 ppm

Test method: ISO 11480.97 (controlled combustion and microcoulometry). Test report required on application.

(b) For viscose fibres, the sulphur content of the emissions of sulphur compounds to air from the processing during fibre production, expressed as an annual average, shall not exceed 160 g/kg filament fibre produced and 30 g/kg staple fibre produced. Where both types of fibre are produced on a given site, the overall emissions must not exceed the corresponding weighted average.

(c) For viscose fibres, the emission to water of zinc from the production site, expressed as an annual average, shall not exceed 1 g/kg.

(d) For cupro fibres, the copper content of the effluent water leaving the site, expressed as an annual average, shall not exceed 0,1 ppm.

7. **Polyamide**

The emissions to air of N_2O during monomer production, expressed as an annual average, shall not exceed 1 g/kg fibre produced.

8. **Polyester**

(a) The amount of antimony in the polyester fibres shall not exceed 300 ppm.

Test method: direct determination by atomic absorbtion spectrometry. Test report required on application

(b) The emissions of VOCs during polymerisation of polyester, expressed as an annual average, shall not exceed 1,2 g/kg of produced polyester resin. (VOCs are any organic compound having at 293,15 K a vapour pressure of 0,01 kPa or more, or having a corresponding volatility under the particular conditions of use.)

9. **Polypropylene**

Lead based pigments shall not be used.

A2. PROCESSES AND CHEMICALS

The criteria in this section apply, where appropriate, to all stages of production of the product, including the production of the fibres. It is nevertheless accepted that recycled fibres may contain some of the dyes or other substances excluded by these criteria, but only if they were applied in the previous life-cycle of the fibres.

10. **Carding and spinning oils, waxes, finishes, lubricants and sizeing applied to fibres or yarns**

(a) At each given manufacturing step where carding and spinning oils, waxes, finishes, or lubricants are applied to fibres or yarns, the substances applied individually or at least 90 % (by dry weight) of the component substances of the preparations applied shall be sufficiently biodegradable or eliminable in waste water treatment plants.

At least 95 % (by dry weight) of the component substances of any sizeing preparation applied to fibres or yarns shall be sufficiently biodegradable or eliminable in waste water treatment plants, or else shall be recycled.

In this context, a substance is considered as sufficiently biodegradable or eliminable:

— if when tested with one of the methods OECD 301 A, OECD 301 E, ISO 7827, OECD 302 A, ISO 9887, OECD 302 B, or ISO 9888 it shows a percentage degradation of at least 70 % within 28 days,

— or if when tested with one of the methods OECD 301 B, ISO 9439, OECD 301 C, OECD 302 C, OECD 301 D, ISO 10707, OECD 301 F, ISO 9408, ISO 10708 or ISO 14593 it shows a percentage degradation of at least 60 % within 28 days,

— or if when tested with one of the methods OECD 303 or ISO 11733 it shows a percentage degradation of at least 80 % within 28 days,

— or, for substances for which these test methods are inapplicable, if evidence of an equivalent level of biodegradation or elimination is presented.

This requirement does not apply to inorganic substances or silicone oils.

Test methods and thresholds as above. Test report required on application if appropriate (notably if sufficient information on the biodegradability or eliminability of the substances used is not available).

(b) Mineral oils used shall not contain more than 1 ppm of aromatic compounds.

11. **TCP and PCP**

Tetrachlorophenol and pentachlorphenol (their salts and esters) shall not be used.

Test method for purposes of verification on yarn, fabric or final product: extraction as appropriate, derivatisation with acetic anhydride, determination by capillary gas-liquid chromatography with electron capture detection, limit value 0,05 ppm.

12. **Stripping or depigmentation**

Heavy metal salts (except of iron) or formaldehyde shall not be used for stripping or depigmentation.

13. **Weighting**

Compounds of cerium shall not be used in the weighting of yarn or fabrics.

14. **Detergents, fabric softeners and complexing agents**

(a) Alkylphenolethoxylates (APEOs), bis(hydrogenated tallow alkyl) dimethyl ammonium chloride (DTDMAC), distearyl dimethyl ammonium chloride (DSDMAC), di(hardened tallow) dimethyl ammonium chloride (DHTDMAC) and ethylene diamine tetra acetate (EDTA) shall not be used and shall not be part of any preparations or formulations used.

(b) At each wet-processing site, more than 95 % by weight of the detergents, fabric softeners and complexing agents used shall be sufficiently degradable or eliminable in waste water treatment plants (as defined above in the criterion related to carding and spinning oils, waxes, finishes, lubricants and sizeing).

Test methods and thresholds as defined in the criterion above related to carding and spinning oils, waxes, finishes, lubricants and sizeing. Test report required on application if appropriate (notably if sufficient information on the biodegradability or eliminability of the substances used is not available).

15. **Bleaching agents**

In general, AOX emissions in the mixed bleaching effluent shall be less than 40 mg C1/kg. In the following cases, the level shall be less than 100 mg C1/kg:

— wool before printing,

— linen and other bast fibres,

— cotton which has a degree of polymerisation below 1 800 and which is intended for white end products.

This requirement does not apply to the production of man-made cellulose fibres.

Test method: ISO 9562 or prEN 1485. Test report required on application only if chlorinated bleaching agents are used.

16. **Impurities in dyes**

The levels of ionic impurities for dyes used shall not exceed the following: As 50 ppm; Cd 20 ppm; Cr 100 ppm; Cu 250 ppm; Hg 4 ppm; Ni 200 ppm; Pb 100 ppm; Sb 50 ppm; Sn 250 ppm; Zn 1500 ppm.

17. **Impurities in pigments**

The levels of ionic impurities for pigments used shall not exceed the following: As 50 ppm; Cd 50 ppm; Cr 100 ppm; Hg 25 ppm; Pb 100 ppm; Sb 250 ppm; Zn 1000 ppm.

18. **Chrome mordant dyeing**

Chrome mordant dyeing shall only be used for wools and other keratin fibres, and only if low-chrome dyeing is applied, as follows:

(a) no more than 1,8 % of potassium dichromate nor more than 1,5 % of sodium dichromate (oww) to be used for chroming blacks, no more than 1 % of these substances for chroming other shades;

(b) the exhausted chroming bath must not contain more than 5 mg/l Cr III or 0.5 mg/l Cr VI.

Test method: atomic absorbtion spectrometry. Test report required on application only if chrome mordant dyeing is used.

19. **Metal complex dyes**

If metal complex dyes based on copper, chromium or nickel are used:

(a) where the metal complex dye constitutes more than 20 % of the dye components, less than 7 % of the dyestuff applied (input to the process) shall be discharged to waste water treatment (whether on-site or off-site);

(b) the emissions to water after treatment shall not exceed: Cu 75 mg/kg (staple, yarn or fabric); Cr 50 mg/kg; Ni 75 mg/kg.

Test method: ISO 8288 for Cu, Ni; ISO 9174 or prEN 1233 for Cr. Test report required on application if the corresponding metal complex dyes are used.

20. **Azo dyes**

Azo dyes shall not be used that may cleave to any one of the following aromatic amines:

4-aminodiphenyl	(92-67-1)
benzidine	(92-87-5)
4-chloro-o-toluidine	(95-69-2)
2-naphthylamine	(91-59-8)
o-amino-azotoluene	(97-56-3)
2-amino-4-nitrotoluene	(99-55-8)
p-chloroaniline	(106-47-8)
2,4-diaminoanisol	(615-05-4)
4,4'-diaminodiphenylmethane	(101-77-9)
3,3'-dichlorobenzidine	(91-94-1)4
3,3'-dimethoxybenzidine	(119-90-4)
3,3'-dimethylbenzidine	(119-93-7)
3,3'-dimethyl-4,4'-diaminodiphenylmethane	(838-88-0)
p-cresidine	(120-71-8)
4,4'-methylene-bis-(2-chloraniline)	(101-14-4)
4,4'-oxydianiline	(101-80-4)
4,4'-thiodianiline	(139-65-1)
o-toluidine	(95-53-4)
2,4-diaminotoluene	(95-80-7)
2,4,5-trimethylaniline	(137-17-7)
4-aminoazobenzene	(60-09-3)
o-anisidine	(90-04-0)

Test method if required for verification: German method B-82.02 or French method XP G 08-014, 30 ppm threshold. (*Note:* false positives may be possible with respect to the presence of 4-aminoazobenzene, and confirmation is therefore recommended).

21. **Dyes that are carcinogenic, mutagenic or toxic to reproduction**

The following dyes shall not be used:

(a) C.I. Solvent Yellow 1
C.I. Solvent Yellow 2
C.I. Solvent Yellow 3
C.I. Basic Red 9
C.I. Disperse Blue 1
C.I. Acid Red 26;

(b) any dye or dye preparation that is assigned or may be assigned any of the risk phrases R45 (may cause cancer), R46 (may cause heritable genetic damage), R60 (may impair fertility) or R61 (may cause harm to the unborn child), as defined in Council Directive 67/548/EEC [1], as last amended by Commission Directive 98/73/EEC [2].

22. **Potentially sensitising dyes**

The following potentially sensitising dyes shall only be used if the fastness to perspiration (acid and alkaline) of the dyed yarn or fabric is at least 4:

C.I. Disperse Blue 3
C.I. Disperse Blue 35
C.I. Disperse Blue 106
C.I. Disperse Blue 124
C.I. Disperse Yellow 3
C.I. Disperse Orange 3
C.I. Disperse Orange 37/76
C.I. Disperse Red 1.

Test method for colour fastness: ISO 105-E04. Test report required on application only if one or more of these dyes are used.

23. **Halogenated carriers**

Halogenated carriers shall not be used.

24. **Printing**

(a) Printing pastes used shall not contain more than 5 % volatile organic compounds (VOCs: any organic compound having at 293,15 K a vapour pressure of 0,01 kPa or more, or having a corresponding volatility under the particular conditions of use).

(b) Plastisol-based printing is not allowed.

25. **Formaldehyde**

The amount of free and partly hydrolysable formaldehyde in the final fabric shall not exceed 30 ppm for products intended for infants of less than 2 years of age, 75 ppm for products that come into direct contact with the skin, and 300 ppm for all other products.

Test method: Japan Law 112, PRENISO 14184-1 or Finnish standard SFS 4996. Test report required on application (except for yarns).

26. **Waste water discharges from wet-processing**

(a) Waste water from wet-processing **sites** (except greasy wool scouring **sites**) shall, when discharged to surface waters after treatment (whether on-site or off-site), have a COD content of less than 25 g/kg.

(b) If the effluent is treated on site and discharged directly to surface waters, it shall also have a pH between 6 and 9 (unless the pH of the receiving water is outside this range) and a temperature of less than 40 °C (unless the temperature of the receiving water is above this value).

Test method: ISO 6060. Test report and appropriate data required on application.

[1] OJ L 196, 16. 8. 1967, p. 1.
[2] OJ L 305, 16. 11. 1998, p. 1.

27. **Flame retardants**

No use is allowed of flame retardant substances or preparations containing substances that are assigned or may be assigned any of the risk phrases R45 (may cause cancer), R46 (may cause heritable genetic damage), R50 (very toxic to aquatic organisms), R51 (toxic to aquatic organisms), R52 (harmful to aquatic organisms), R53 (may cause long-term adverse effects in the aquatic environment), R60 (may impair fertility) or R61 (may cause harm to the unborn child), as defined in Directive 67/548/EEC.

This requirement does not apply to flame retardants that on application change their chemical nature to no longer warrant classification under any of the R-phrases listed above, and where less than 0,1 % of the flame retardant on the treated yarn or fabric remains in the form as before application.

28. **Shrink resistant finishes**

Halogenated shrink-resist substances or preparations shall only be applied to wool slivers.

B. FITNESS FOR USE

The following tests shall be carried out on either the dyed yarn, the final fabric(s), or on the final product as appropriate.

29. **Dimensional changes during washing and drying**

The dimensional changes shall not exceed 6 % (length and width) for knitted products, 8 % (warp and weft) for terry towelling, or 4 % for other woven products. This criterion does not apply to products clearly labelled 'dry clean only' or equivalent (insofar as it is normal practice for such products to be so labelled), or to furniture fabrics.

Test method: ISO 5077 (three washes at temperatures as indicated on the product, with tumble drying unless otherwise indicated on the product, at temperatures as marked on the product, wash load (2 or 4 kg) as indicated on the product). Test report required on application.

30. **Colour fastness to washing**

The colour fastness to washing shall be at least level 3-4 (colour change and staining). This criterion does not apply to products clearly labelled 'dry clean only' or equivalent (insofar as it is normal practice for such products to be so labelled), to white products or products that are neither dyed nor printed, or to furniture fabrics.

Test method: ISO 105 C06 (single wash, at temperature as marked on the product, with perborate powder). Test report required on application.

31. **Colour fastness to perspiration (acid, alkaline)**

The colour fastness to perspiration (acid and alkaline) shall be at least level 3-4 (colour change and staining). This criterion does not apply to white products, to products that are neither dyed nor printed, to furniture fabrics, curtains or similar textiles intended for interior decoration. A level of 3 is nevertheless allowed when fabrics are both light coloured (standard depth $< 1/12$) and made of silk or of blends with more than 20 % silk.

Test method: ISO 105 E04 (acid and alkaline, comparison with multi-fibre fabric). Test report required on application.

32. **Colour fastness to wet rubbing**

The colour fastness to wet rubbing shall be at least level 2-3. A level of 2 is nevertheless allowed for indigo dyed denim. This criterion does not apply to white products, products that are neither dyed nor printed, or to curtains or similar textiles intended for interior decoration.

Test method: ISO 105 X12. Test report required on application.

33. **Colour fastness to dry rubbing**

The colour fastness to dry rubbing shall be at least level 4. A level of 3-4 is nevertheless allowed for indigo dyed denim. This criterion does not apply to white products or products that are neither dyed nor printed, or to curtains or similar textiles intended for interior decoration.

Test method: ISO 105 X12. Test report required on application.

34. **Colour fastness to light**

For fabrics intended for furniture, curtains or drapes, the colour fastness to light shall be at least level 5. A level of 4 is nevertheless allowed when fabrics are both light coloured (standard depth < 1/12) and made of silk, wool or other keratin fibres, linen or other bast fibres, or of blends with more than 20 % wool or other keratin fibres, or of blends with more than 20 % silk, or of blends with more than 20 % linen or other bast fibres.

Note: this requirement does not apply to mattress ticking.

Test method: ISO 105 B02. Test report required on application.

C. ENERGY AND WATER USE

The applicant is requested, on a voluntary basis, to provide detailed information on water and energy use for the manufacturing sites involved in spinning, knitting, weaving and wet-processing.