1 Ecolabel Criteria Proposal 2nd AHWG

Criteria aim

The criteria aim, in particular at promoting:
-products that have a lower environmental impact along their life cycle,
-products which contain a limited amount of hazardous substances
-products which emit a reduced amount of volatile organic compounds
-indoor products which ensure a higher indoor air quality
-the efficient use of the product and the minimization of waste

Criteria

Criteria are set for each of the following aspects:
1. Production phase -Raw material sourcing
2. Use phase
    i) Efficiency in use
    ii) Emissions during use
3. End of life phase
    i) Unused paint disposal
    ii) Packaging material
4. Consumer information- Information appearing on the Ecolabel

(1) Assessment and verification

(a) Requirements
The specific assessment and verification requirements are indicated within each criterion.

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 possible, the testing should be performed by laboratories that meet the general requirements of EN ISO 17025 or equivalent.

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 appropriate, competent bodies may require supporting documentation and may carry out independent verifications. The competent bodies are recommended to take into account the implementation of recognised environmental management schemes, such as EMAS or EN ISO14001, when assessing applications and monitoring compliance with the criteria (*Note*: it is not required to implement such management schemes).

(b) Measurement thresholds

Unless otherwise indicated compliance with the ecological criteria is required for substances intentionally added, as well as for by-products and impurities from raw materials, the concentration of which equals or exceeds 0,010 % by weight of final formulation.

(2) Functional unit and reference flow

The reference flow for the functional unit of this product group is the amount of paint required to cover a 20 m^2 surface to a 98% opacity. The ingoing substances shall be also expressed in g of ingredient per amount of paint required to cover a 20 m^2 surface to a 98% opacity.

The exact formulation of the product (trade name, chemical name, CAS no.), the function and the form of all the ingoing substances (regardless of concentration) that are used by the applicant as well the ingoing quantity including and excluding water or solvent should be provided to the competent body. Any substance, including impurities, present in concentrations greater than 0,01 % (m/m) should be reported unless a lower concentration is specified elsewhere in the criteria.
Where ingredients are referred to in the criteria, this includes substances and preparations. The definitions of 'substances' and 'preparations' are given in the REACH Regulation (Regulation (EC) No 1907/2006 of the European Parliament and of the Council (1).

Safety data sheets for each ingoing substance shall be submitted to the competent body in accordance with Regulation (EC) No 1907/2006 of the European Parliament and of the Council.

Scope and definitions

The product group 'paints and varnishes' shall comprise both indoor and outdoor decorative paints and varnishes, woodstains and related products, as defined in paragraph 2, intended for use by do-it-yourself and professional users (please note that these are not industrial users).

This includes, inter alia, floor coatings and floor paints; products which are tinted by distributors at the request of amateur or professional decorators, tinting systems, decorative paints in liquid or paste formulas which may have been pre- conditioned, tinted or prepared by the manufacturer to meet consumer's needs, including wood paints, wood and decking stains, masonry coatings and metal finishes primers and undercoats of such product systems as defined within Directive 2004/42/CE Annex I 1.1.d and 1.1.g.

'Paint' means a pigmented coating material, in liquid or in paste or powder form, which when applied to a substrate, forms an opaque film having protective, decorative or specific technical properties.

'Varnish' means a clear coating material which when applied to a substrate forms a solid transparent film having protective, decorative or specific technical properties.

After application, the paint or varnish dries to a solid, adherent and protective coating.

'Decorative paints and varnishes' means paints and varnishes that are applied to buildings, their trim and fittings, for decorative and protective purposes. They are applied in-situ. While their main function is decorative in nature, they also have a protective role.

'Woodstains' (lasures) means coatings producing a transparent or semi-transparent (using substantially non-white pigment) film for decoration and protection of wood against weathering, which enables maintenance to be carried out easily.

'Tinting systems' is a method of preparing coloured paints by mixing a 'base' with coloured tints.

Masonry coatings are coatings that produce a decorative and protective film for use on concrete, (paintable) brickwork, blockwork, rendering, calcium silicate or fibre-reinforced cement. They are intended principally for exterior use, but may also be used internally, or on soffits and balcony ceilings.

The following definitions shall be used:

- Transparent contrast ratio < 90% at 120µ
- Semi Transparent contrast ratio 90-98% at 120µ
- Opaque contrast ratio >98% at 120µ.

White and light coloured paints are those with a tri-stimulus (Y-value) >70%.

The product group shall not comprise:

a) anti-fouling coatings
b) wood preservation products
c) coatings for particular industrial and professional uses, including heavy-duty coatings
d) facade coatings
e) powder coatings
f) UV curable paint systems
g) paints primarily intended for vehicles
h) products that do not form film over the substrate.

White pigment

White pigment content (white inorganic pigments with a refractive index higher than 1,8): Paints shall have a white pigment content lower or equal to that described in the table below per m^2 of dry film, with 98 % opacity.

Wet scrub resistance	Indoor limit (g/m2)	Outdoor limit (g/m2)
Class 1	40	42
Class 2	36	38
Class 4	25	27

This requirement does not apply to varnishes and woodstains.

Assessment and verification: The applicant shall either provide a declaration of non-use or provide documentation showing the content of white pigments, the spreading rate and the assessment and verification criteria set out for the wet scrub resistance criterion, together with the detailed calculation showing compliance with this criterion.

Titanium dioxide

If the product contains more than 3.0 weight % of titanium dioxide, the emissions and discharges of wastes from the production of any titanium dioxide pigment used shall not exceed the following (as derived from the Reference Document on Best Available Technology for the Manufacture of Large Volume Inorganic Chemicals (BREF) (August 2007)):

The sulphate process:

- SOx calculated as SO2: 7.0 kg/ton TiO2
- Sulphate waste: 500 kg/ton TiO2.

The chloride process:

- If natural ore is used, 103 kg chloride waste/ton TiO2
- If synthetic ore is used: 179 kg chloride waste /ton TiO2
- If rutile ore is used: 329 kg chloride waste /ton TiO2.

If more than one type of ore is used, the values will apply in proportion to the quantity of the individual ore types used.

Note:
SOx emissions only apply to the sulphate process.

For the avoidance of doubt, the Waste Framework Directive 2008/98/EC, article 3 defines waste. If the TiO_2 producer can satisfy article 5 (by-product production) of the Waste Framework Directive for its solid wastes then, the wastes shall be exempt.

Assessment and verification: The applicant shall either provide a declaration of non-use or provide the supporting documentation indicating the respective levels of emissions and discharges of wastes for these parameters, the titanium dioxide content of the product, the spreading rate, together with the detailed calculations showing compliance with this criterion.

USE

Efficiency in use

Dependant on the claims made on the properties of the paint, the following tests shall be undertaken.

Criteria	All	Outdoor[1]	Varnish	Floor covering and paint	Undercoat	Masonry paint
Spreading rate	X					
Wet scrub resistance	X					
Resistance to water			X			
Adhesion				X	X	X
Abrasion				X		X
Weathering		X				X
Water vapour permeability[2]						X
Liquid water permeability[2]						X
Fungal resistance[2]						X
Crack bridging[2]						X
Alkali resistance[2]						X

Notes:
[1]These are all products marketed as outdoor paints and include masonry paints
[2]Only required where marketing claims are made about the paints

Spreading rate

White paints and light-coloured paints (including finishes, primers, undercoats and/or intermediates) shall have a spreading rate (at a hiding power of 98 %) of at least $8m^2$ per litre of product for indoor paints and $6m^2$ for outdoor paints. For tinting systems, this criterion applies only to the white base (the base containing the most TiO_2). In cases where the white base is unable to achieve this requirement, the criterion shall be met after tinting the white base to produce the standard colour RAL 9010.

For all other bases used to produce tinted products — these are bases which as a rule contain less TiO2, which are unable to achieve the requirement of at least $8m^2$ per litre of product at a hiding power of 98 % — the criterion shall not apply. For paints that are a part of a tinting system, the applicant must advise the end-user on the product packaging and/or POS which shade or primer/undercoat (if possible bearing the Community Eco-label) should be used as a basecoat before applying the darker shade.

Primers with specific blocking/sealing, penetrating/binding properties and primers with special adhesion properties for aluminium and galvanised surfaces shall have a spreading rate (at a hiding power of 98 %) of at least 6m^2 per litre of product.

Thick decorative coatings (paints that are specially designed to give a three-dimensional decorative effect and are therefore characterised by a very thick coat) shall alternatively have a spreading power of 1m^2 per kg of product.

Elastomeric paints shall have a spreading rate (at a hiding power of 98 %) of at least 4m^2 per litre of product.

This requirement does not apply to varnishes, woodstains, floor coatings, floor paints~~,~~ primers or any other transparent coatings.

Assessment and verification: The applicant shall provide a test report using the method ISO 6504/1 (Paints and varnishes — determination of hiding power — Part 1: Kubelka-Munk method for white and light-coloured paints) or 6504/3 (Part 3: determination of contrast ratio (opacity) of light-coloured paints at a fixed spreading rate), or for paints specially designed to give a three-dimensional decorative effect and characterised by a very thick coat the method NF T 30 073 (or equivalent). For bases used to produce tinted products not evaluated according to the abovementioned requirements, the applicant shall produce evidence of how the end-user will be advised to use a primer and/or grey (or other relevant shade) of undercoat before application of the product.

Wet scrub resistance

All paints shall have a wet scrub resistance as measured by EN 13300 and EN ISO 11998 of class 4 (not exceeding 70 microns after 200 cycles).

Paints (according to EN 13300) for which claims are made (whether on the product or in related marketing material) that they are brushable shall have a wet scrub resistance as measured by EN 13300 and EN ISO 11998 of class 2 (not exceeding 20 microns after 200 cycles).

Paints (according to EN 13300) for which claims are made (whether on the product or in related marketing material) that they are hard wearing, shall have a wet scrub resistance as measured by EN 13300 and EN ISO 11998 of class 1 (not exceeding 5 microns after 200 cycles).

Due to the large potential range of possible tinting colours, this criterion will be restricted to the testing of tinting bases.

Assessment and verification: The applicant shall provide a test report according to EN 13300 using the method EN ISO 11998 (Test for cleanability and scrub resistance).

Resistance to water

All varnishes, floor coatings and floor paints shall have a resistance to water, as determined by ISO 2812-3 such that after 24 hours' exposure and 16 hours' recovery no change of gloss or of colour occurs.

Assessment and verification: The applicant shall provide a test report using the method ISO 2812-3 (Paints and varnishes — determination of resistance to liquids — Part 3: Method using an absorbent medium).*
* this test procedure is due for revision during the lifetime of this criterion. If there is a substantive change to this procedure, a decision by the Competent Body Forum shall be taken on the appropriate test standard used.

Adhesion

Pigmented masonry primers shall score a pass in the EN 24624 (ISO 4624) pull-off test where the cohesive strength of the substrate is less than the adhesive strength of the paint, otherwise the adhesion of the paint must be in excess of a pass value of 1,5MPa.
Floor coatings, floor paints, floor undercoats, metal undercoats and wood undercoats shall score **<=** 2 in the EN 2409 test for adhesion.

Transparent primers are not included in this requirement

The applicant shall evaluate the primer and/or finish alone or both as part of a system [the system when tested shall concern products if possible labelled with the European Ecolabel (with the exception of systems designed for metal surfaces)]. When testing the finish alone this shall be considered the worst case scenario concerning adhesion.

Assessment and verification: The applicant shall provide a test report using the method EN ISO 2409 or EN 24624 (ISO 4624) as applicable

Abrasion

Floor coatings and floor paints shall have an abrasion resistance not exceeding 70 mg weight loss after 1000 test cycles with a 1000 g load and a CS10 wheel according to EN ISO 7784-2:2006.

Assessment and verification: The applicant shall provide a test report showing compliance with this criterion using the method EN ISO 7784-2:2006.

Weathering

Masonry finish paints and wood and metal finishes including varnishes shall be exposed to artificial weathering in apparatus including fluorescent UV lamps and condensation or water spray according to 11507:2007.

Masonry paints shall be exposed to test conditions for 1 000 hours, wood and metal finishes (including varnishes) shall be exposed to test conditions for 500 hours. Test conditions are: UVA 4h/60degC + humidity 4h/50degC.

Alternatively, wood finishes and wood varnishes may be exposed to weathering for 500 hours in the QUV accelerated weathering apparatus with cyclic exposure with UV(A) radiation and spraying according to EN 927-6.

According to ISO 7724-3:1984, the colour change of samples exposed to weathering shall not be greater than ΔE * = 4 and is not applicable to transparent varnishes and bases. To determine colour change of woodstains, a separate sample shall be prepared using an inert substrate and undergo weathering using a standard protocol outlined above.

Decrease samples in gloss for paints and varnishes exposed to weathering shall not be greater than 30 % of its initial value and shall be measured using ISO 2813. This is not applicable to matt-finish paints.

Chalking shall be tested using method EN ISO 4628-6:2007 on masonry finish coats and wood and metal finishes (where applicable) after the samples have been exposed to weathering. Coatings shall achieve a score of 1,5 or better (0,5 or 1,0) in this test. In the standard there are illustrated references.

The following parameters shall also be evaluated on masonry finish coats and wood and metal finishes after the samples have been exposed to weathering:

- Flaking according to ISO 4628-5:2003; flake density 2 or less, flake size 2 or less
- Cracking according to ISO 4628-4:2003; crack quantity 2 or less, crack size 3 or less
- Blistering according to ISO 4628-2:2003; blister density 3 or less, blister size 3 or less.

Due to the large number of possible tinting colours, these tests will be restricted to the base paint used.

Assessment and verification: The applicant shall provide test reports using either ISO11507:2007 according to the specified parameters or EN 927-6, or both (if relevant). The applicant shall provide test reports using EN ISO 4628-2, 4, 5, 6 where applicable. **Additionally, the applicant shall provide a test report in conformance to ISO 7724-3:1984* (where applicable).**
* this test procedure is due to be superseded by ISO 11664 during the lifetime of this criteria. If substantial changes to this procedure have been made, a decision by the Competent Body Forum shall be taken on the appropriate test standard to be used.

Water vapour permeability

Where claims are made that exterior masonry and concrete paints are breathable the paint shall be classified as class II (medium vapour permeability) or better according to the test method EN ISO 7783-2. Due to the large number of potential tinting colours, this criterion will be restricted to testing of the base paint; this requirement is not applicable to transparent primers.

Assessment and verification: The applicant shall provide a test report using methodology EN ISO 7783-2.

Liquid water permeability

Where claims are made that exterior masonry and concrete paints are water repellent or elastomeric, the coating shall be classified as class III (low liquid permeability) according to method EN 1062- 3:1999. Due to the large number of potential tinting colours, this criterion will be restricted to the testing of the base paint. All other masonry paints shall be classified as class II (medium liquid permeability) or better according to the test method EN 1062-3:1999.

Assessment and verification: The applicant shall provide a test report using methodology EN 1062-3:1999.

Fungal resistance

Where claims are made that masonry finish coatings have anti-fungal properties, the coating shall have a score of 2 or better (less than 10 % fungal coverage), as determined by method BS 3900:G6. Due to the large number of possible tinting colours, this criterion will be restricted to the testing of the base paint.

Assessment and verification: The applicant shall provide a test report using methodology BS 3900:G6.

Crack bridging

Where claims are made that masonry (or concrete) paint has elastomeric properties, it shall be at least classified as A1 at 23°C according to EN 1062-7:2004. Due to the large number of potential tinting colours, this criterion will be restricted to the testing of the base paint.

Assessment and verification: The applicant shall provide a test report using methodology DIN EN 1062-7:2004.

Alkali resistance

Masonry paints and primers shall show no noticeable damage when the coating is spotted for 24 hours with 10 % NaOH solution according to method ISO 2812-4:2007. The evaluation is done after 24 hours drying-recovery.

Assessment and verification: The applicant shall provide a test report using methodology ISO 2812-4:2007.

Corrosion resistance

-to be determined, criterion will cover only anti-corrosive coatings -

EMISSIONS DURING USE

Volatile Organic Compounds (VOC)

Volatile Organic Compounds content shall not exceed:

Description	VOC limits (g/l including water)
Indoor matt walls and ceilings (Gloss <25@60°)	10
Indoor glossy walls and ceilings (Gloss >25@60°)	40
Outdoor walls of mineral substrate	25
Indoor/Outdoor trim and cladding paints for wood and metal	80
Indoor trim varnishes and woodstains, including opaque woodstains	65
Outdoor trim varnishes and woodstains, including opaque woodstains	75
Indoor and Outdoor minimal build woodstains	50
Primers	10
Binding primers	10
One-pack performance coatings	80
Two-pack reactive performance coatings for specific end use such as floors	80
Decorative effect coatings	80
Anti-corrosion paints	80

In this context volatile organic compounds (VOC) means any organic compounds having an initial boiling point less than or equal to 250 °C measured at a standard pressure of 101,3 kPa as defined in Directive 2004/42/EC. The subcategories for paints and varnishes of the Directive are used for defining VOC limits. These values shall be measured at the point of application and must include any additional solvent added to the paint prior to application.

The total Semi Volatile Organic Compound (SVOC) shall be limited to 30 g/l including water. SVOCs are defined as organic substances or mixtures with a boiling range between 250 and 400°C.
Assessment and verification: The applicant shall provide a declaration of compliance with this criterion. For all products the applicant shall indicate the VOC and SVOC content.

Indoor air quality

Each indoor paint shall undergo testing for Indoor air quality and meet Class A+ as defined within French Decree NOR : DEVL1104875A. This requirement is restricted to the lightest colour paint within a series or, in tinting systems, the base paint.

Verification and assessment: The applicant shall provide test results using the methodology described within NOR : DEVL1104875A.

Metals

The following heavy metals or their compounds shall not be used as an ingredient of the product or tint (if applicable) (whether as a substance or as part of any preparation used): cadmium, lead, chromium VI, mercury, arsenic, barium (excluding barium sulphate), selenium, antimony and cobalt.

It is accepted that ingredients may contain traces of these metals up to 0.01 deriving from impurities in the raw materials and can be present at these quantities for each metal for each ingredient.

Derogations for substances containing cobalt are described under the Hazardous Substances criterion.

Assessment and verification: The applicant shall provide a declaration of compliance with this criterion as well as declarations from ingredient suppliers (where applicable).

Hazardous substances

According to Article 6(6) of the regulation No 66/2010 on EU Ecolabel, the product or any part of it thereof shall not contain substances or mixtures meeting the criteria for classification with the hazard classes or categories in accordance with Regulation (EC) no 1227/2008 specified below nor shall it contain substances referred to in Article 57 of REACH Regulation (EC) no 1907/2006. The risk phrases below generally refer to substances. However, for mixtures of substances where information on the substances is difficult to obtain, classification for rules of mixtures may be applied. The term mixture and substance are used as defined within the CLP Regulation (EC) No 1272/2008.

Hazard Statement[1]	Risk Phrase[2]
H300 Fatal if swallowed	R28
H301 Toxic if swallowed	R25
H304 May be fatal if swallowed and enters airways	R65
H310 Fatal in contact with skin	R27
H311 Toxic in contact with skin	R24
H330 Fatal if inhaled	R23; R26
H331 Toxic if inhaled	R23
H340 May cause genetic defects	R46
H341 Suspected of causing genetic defects	R68
H350 May cause cancer	R45
H350i May cause cancer by inhalation	R49
H351 Suspected of causing cancer	R40
H360F May damage fertility	R60
H360D May damage the unborn child	R61
H360FD May damage fertility. May damage the unborn child	R60-61
H360Fd May damage fertility. Suspected of damaging the unborn child	R60-63

H360Df May damage the unborn child. Suspected of damaging fertility	R61-62
H361f Suspected of damaging fertility	R62
H361d Suspected of damaging the unborn child	R63
H361fd Suspected of damaging fertility. Suspected of damaging the unborn child	R62-63
H362 May cause harm to breast fed children	R64
H370 Causes damage to organs	R39/23; R39/24; R39/25; R39/26; R39/27; R39/28
H371 May cause damage to organs	R68/20; R68/21; R68/22
H372 Causes damage to organs through prolonged or repeated exposure	R48/25; R48/24; R48/23
H373 May cause damage to organs through prolonged or repeated exposure	R48/20; R48/21; R48/22
H400 Very toxic to aquatic life	R50
H410 Very toxic to aquatic life with long-lasting effects	R50-53
H411 Toxic to aquatic life with long-lasting effects	R51-53
H412 Harmful to aquatic life with long-lasting effects	R52-53
H413 May cause long-lasting harmful effects to aquatic life	R53
EUH059 Hazardous to the ozone layer	R59
EUH029 Contact with water liberates toxic gas	R29
EUH031 Contact with acids liberates toxic gas	R31
EUH032 Contact with acids liberates very toxic gas	R32
EUH070 Toxic by eye contact	R39-41
Sensitising substances	
H334: May cause allergy or asthma symptoms or breathing difficulties if inhaled	R42
H317: May cause allergic skin reaction	R43

[1]Regulation (EC) no 1272/2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) no 1907/2006

[2]Directive 67/548/EEC with adjustment to REACH according to Directive 2006/12/EC and Directive 1999/45/EC as amended.

Derogations: Following substances are exempt from this criterion

Derogation number a/a	USE	Chemical Composition Ingredient	CAS nr/ EINECS Nr / REACH registration Nr *	Classification	Requirement	Maximum allowed concentration % w/w	Only for a transition period of 2 years	Type of paint
1	In can preservative	2-Methyl-2H-isothizol-3-one	2682-20-4	R 22-23-34-43-50	1, 5, 8, 9	0,1%	X	
2		1,2 Benzisothiazol-3(2H)-one	2634-33-5	R 22-38-41-43-50	1, 5, 8, 9	0,1%	X	
3		Tetrahydro-1,3,4,6-tetrakis(hydroxymethyl) imidazo[4,5-d]imidazol-2,5(1H,3H)-dion	5395-50-6	R43	2, 8, 9	0.080%	X	
4		bronopol (INN) 2-bromo-2-nitropropane-1,3-diol	52-51-7	R21/22 R37/38-41, R50	2, 5, 8, 9	0.100%	X	
5		mixture of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-2H -isothiazol-3-one [EC no. 220-239-6] (3:1)	55965-84-9	R23/24/25-34-43-50-53	2,3, 5, 8, 9	0.002%		
6		Sodium N-(hydroxymethyl)glucinate	70161-44-3	Xi; R36, R43	8 9	0.050%		
7		3-iodo-2-propinyl-butylcarbamate (IPBC)	55406-53-6 EINECS: 259-627-5	R 20/22-41-50	8, , 9	0,3%		
8		Pyrithione zinc	13463-41-7	R 22-23-38-41-50	2, 5, 8, , 9	.0,1%		Outdoor paint – façade coatings
						0,020%		All paints in film
9	Dry film preservative	terbutryn	886-50-0	Xn, Xi, N; R 22-43-50/53 Or Xn R22; Xn R48/22; Xi R43; R52/53 Or only R 50/53	2, 5, 8, 9	0.100%		
10		4,5-Dichloro-2-octyl-3(2H)-isothiazolone	64359-81-5	C;R34, Xi;R37, Xi;R43, N;R50	5, 8, 9	0.700%		
11		Pyrithione zinc	13463-41-7	R 22-23-38-41-50	2, 5, 8, 9	0,1%		Outdoor paint – façade coatings
						0,020%		All paints in film
12		Cobalt, complexes de neodecanoate et de borate	68457-13-6	Xn, N, R38, R43, R50/53, R22	5, 8, 9	0.025%	X	
13		3-iodo-2-propinyl-butylcarbamate (IPBC)	55406-53-6 EINECS: 259-627-5	R 20/22-41-50	2, 8, 5, 9	0,3%		
14		2-Octyl-2H-isothiazol-3-one	26530-20-1	R 22, 23/24-34-43-50/53	1, 2, 5, 8, 9	0.040%	X	

15		zinc oxide	1314-13-2	R 50/53	2, 5, 8, 9	2%	X	
16		Sodium polynaphthalene sulphonate	9084-06-4	R 52/53	2, 5, 8, 9	0.1%	X	
17	Neutralising agent-pH corrector	triethylamine	121-44-8	R11 - R22 - R23/24 - R35 - R41	2, 9	0.200%	X	
18		Alkanolamine	102-79-4	Xi: R41	9	2.000%		
19		Ammoniaque	1336-21-6	C, N, R34, R50	5, 9	0.200%		
20		2-amino-2-methylpropanol	124-68-5	Xi: R36/38; R52/53	5, 9	0.200%		
21		Ammonia RTECS #: BO0875000	7664-41-7	R10; R23; R34; R50	2,5, 9	0.065%	X	
22		2,2'-iminodiethanol (DEA)	111-42-2	R22-48/22; R38-41	2, 9	2.000%	X	
23	Cobalt dryer	Cobalt bis(2-ethylhexanoate)	136-52-7	Xi; R43 N; R50/53	2,4,5, 9	1%;	X	
24		Fatty acids, tall-oil, cobalt salts	61789-52-4	Xn; R22 Xi; R43 , N; R51/53	4,5, 9	0.500%	X	
25		Neodecanoic acid	26896-20-8	R52/53	4,5, 9	1.000%	X	
26	Zinc dryer	Hexanoic acid, 2-ethyl-, zinc salt,BASIC	85203-81-2	R38, R51/53	5, 9		X	
27	Anti-skinning agent	2-butanone oxime ethyl methyl ketoxime / ethyl methyl ketone oxime	96-29-7	R40; R21; R41, R43	6, 9	0.400%	X	
28		Acideoctanoique, sel de zirconium	18312-04-4	Xi, R38	9	1.300%	X	
29		lithium neodecanoate	27253-30-1	Xi, R38 Or Xi R38 ; R52/53	5	0.200%	X	
30		Manganese salts	CAS 15956-58-8 or CAS 27253-32-3	Xi;R38.	9	4%		
31		Zirconium salt of 2-ethylhexanoic acid	22464-99-9	Xn, R20	9	0.600%	X	
32	Other driers	Iron(1+), chloro[dimethyl-9,9-dihydroxy-3-methyl-2,4-di-(2-pyridyl-kN)-7-[(2-pyridinyl-kN)methyl]-3,7-diazabicyclo[3.3.1]nonane-1,5-dicarboxylate-kN3, kN7]-, chloride(1-)	478945-46-9	Xn; R22 Xn; R48/22 Xi; R43 R52/53	2, 5	0.050%	X	
33	UV protection filtre (Light stabilizer)	Melange de : bis(2,2,6-tetramethyl-1-octyloxypiperidin-4-yl)-1,10-decanedioate; 1,8-bis((2,2,6,6-tetramethyl-4-((2,2,6,6-tetramethyl-1-octyloxypiperidin-4-yl)-decan-1,10-dioxyl)piperidin-1-yl)oxy)octane	406-750-9	R53	5, 9	0.60%	X	Outdoor paints
34		Bumetrizole	3896-11-5	R53	5, 9	1.00%	X	Outdoor paints
35		reaction mass of α-3-(3-(2H-benzotriazol-2-yl)-5-tert-butyl-4-hydroxyphenyl)propionyl-ω-	EC: 400-830-7	R43 R51-53	5, 9	0.990%	X	Outdoor paints

		hydroxypoly(oxyethylene) and α-3-(3-(2H-benzotriazol-2-yl)-5-tert-butyl-4-hydroxyphenyl)propionyl-ω-3-(3-(2H-benzotriazol-2-yl)-5-tert-butyl-4-hydroxyphenyl)propionyloxypoly(oxyethylene)						
36		bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate 70 - 80 % Xi - N R43 - R50/53	41556-26-7	R43 R50/53	5, 9	0.600%	X	Outdoor paints
37		methyl 1,2,2,6,6-pentamethyl-4-piperidylsebacate	82919-37-7	R43-R50/53	5, 9	0.200%	X	Outdoor paints
38		de 3-(3-(2h-benzotriazol-2-yl)5-(1,1-dimethylethyl)-4-hydroxypenyl)propionates de c7-c9 alkyleramifie et lineaire	127519-17-9	R51/53	5, 9	0.500%	X	Outdoor paints
39	Anticorrosive pigment (solid corrosive inhibitor).	zinc phosphate (2,5% ZnPO4)	ZnPO4: 7779-90-0	R50/53	5, 9	8-10%	X	
40		Zinc oxide	1314-13-2	R50/53	5, 9	2%	X	
41	Substrate Wetting agent / surface tension modifier	Polypropylene glycol alkylphenyl ether	9064-13-5	R43	9	3.000%	X	
42		Polyoxyethyleneisodecyl ether	61827-42-7	Xi· R41 & Xn· R22	9	2.000%	X	
43		Alcohols, C9-C11, ethoxylated	68439-46-3	Xi; R41	9	2.000%	X	
44		Secondary Alcohols, C11-C15, ethoxylated	68131-40-8	Xi; R38, R41	9	2.000%	X	
45		Secondary Alcohols, C12-C14, ethoxylated	84133-50-6	Xi; R41	9	2.000%	X	
46		Alcohols, C16-C18, ethoxylated	68439-49-6	Xi, N, R50, R41 or Xn R22 ; Xi; R41	5, 9	2.000%	X	
47		Fatty alcohol ethoxylated	None	Xi; R41	9	2.000%	X	
48		Alcohols, tallow,ethoxylated	61791-28-4	Xn; R22 ; Xi; R41	9	2.000%	X	
49		Alcohols, C12-14,ethoxylated	68439-50-9	Xi; R41; N; R50	5, 9	2.000%	X	
50		Polyoxyethylenetridecyl ether phosphate	9046-01-9	Xi; R38 ; R41	9	2.000%	X	
51		Poly(oxy-1,2-ethandediyl),a-isotridecyl-w-hydroxy-,phosphate	73038-25-2	Xi; R38 ; R41; R52/53	5, 9	2.000%	X	
52		Polyoxyethylenestearyl ether	9005-00-9	Xi; R41	9	2.000%	X	
53		Isotridecanol, ethoxylated	9043-30-5 69011-36-5	Xn; R22 ; Xi; R41	9	2.000%	X	
54		Alkyl polyglucoside	500-220-1	Xi; R41	9	2.000%	X	
55		Tridecyl(polyethyleneoxy)ethanol	78330-21-9	Xn; R22 ; Xi; R41	9	2.000%	X	
56		Sodium di-(2-ethylhexylic) sulfosuccinate	577-11-7	Xi; R38 ; R41	9	0.200%	X	
57		2,4,7,9-tetramethyldec-5-yne-4,7-diol	126-86-3 / EINECS: 204-809-1	R 36, R 52/53	5, 9	0.25%	X	
58		Alkoxylated Alcohol	None	R52/53	5, 9	2.000%	X	
59	Silicon Resin Emulsion	triethoxy(2,4,4-trimethylpentyl)silane	35435-21-3	R10 ; R52/53	5, 9	3.000%	X	
60	Solvent (in composition of some ingredients)	Hydrocarbures, C10-C13, n-alcanes, isoalcanes, cycliques, < 2% aromatiques	01-2119457273-39-XXXX	Xn; R65, R66	9	2.000%	X	

61		2-methylpropan-1-ol	78-83-1	R10 Xi; R37/38-R41 R67	9	2.000%	X	
62		Petroleum distillates, solvent dewaxed heavy paraffinic (DMSO extract <3%)	64742-65-0	CAS N°64742-65-0 ; 72623-87-1 : These CAS N° stands for a Toxic R45 substance except the DMSO extract is below 3% (Note H,L)	9	2.000%	X	
63		Hydrocarbures en c12-18	93924-45-9	Xn, R65, R66	9	0.060%	X	
64		Ethylene glycol monobutyl ether	111-76-2	Xn; R20/21/22 - Xi; R36/38	9	1%	X	
65		Lubricating oils (petroleum), C20-50, hydrotreated neutral oil-based	72623-87-1	CAS N°64742-65-0 ; 72623-87-1 : These CAS N° stands for a Toxic R45 substance except the DMSO extract is below 3% (Note H,L)	9	2.000%	X	
66	Pigment	Nickel Titanium Yellow	8007-18-9	Heavy metal	9	2.000%	X	
67		leucophyllite minerals containing crystalline silica classified STOT RE 1 and STOT RE 2		R48/25/24/23 or R48/20/21/22	9, 10	0.500%		All paints
68		crystalline silica classified STOT RE 1 or STOT RE 2 contained in fillers		R48/25/24/23 or R48/20/21/23	9, 10	0.500%		All paints
69		Heptanes (Naphtha),	092045-53-9	R11, 38, 51/53, 65, 67	5, 9	0.020%	X	
70		Complex alkanolamine	068784-47-4	R36/38	9	1.000%	X	
71		Diethylene glycol (EC No. 2038722)	000111-46-6	R22	9	0.500%	X	
72		iso-Propanol	000067-63-0	R11, 36, 67	9	0.020%	X	
73	Unreacted impurity	Volatile Aromatic Hydrocarbons	Various	Various	7			

Notes:

1. The sum of the total allowable concentration of these compounds is 0.05 % (w/w) before or after tinting (if applicable). For outdoor wood coatings the total allowable concentration shall not exceed 0.2 % (w/w).
2. The sum of the total allowable concentration of these compounds is 0.1% w/w).
3. The sum of the total allowable concentration of these compounds is 0.0015 % (w/w).
4. These compounds can only be used in alkyd paints and varnishes and up to a concentration not exceeding 0,05 % (w/w), measured as % of cobalt metal in the end product.
5. Substances or mixtures can have an allowable maximum concentration of 2% (w/ww/w) in the final paint formulation.
6. May be used in alkyd paints up to a limit of 0.3 % (w/w) in the final paint formulation.
7. Ingredients containing VAH may be added up to such a limit that the VAH content in the end product will not exceed 0,1 % (w/w). In this context volatile aromatic hydrocarbon (VAH) means any organic compound, as defined in Directive 2004/42/EC, having an initial boiling point less than or equal to 250 °C measured at a standard pressure of 101,3 kPa and having at least one aromatic nucleus in its developed structural formula.
8. The product may include biocides in order to preserve the product, and in the appropriate dosage for this purpose alone. These biocides shall be registered in the Biocide Product Regulation (BPD) scheme. Further, in accordance with Directive 67/548/EEC, Directive 1999/45/EC of the European Parliament and of the Council or Regulation (EC) No 1272/2008 substances or mixtures used as preservatives, that are classified as: H400, H410, H411, H412 and H413 are permitted but only if their bioaccumulation potentials are characterised by log Kow (log octanol/water partition coefficient) < 3,0 or an experimentally determined bioconcentration factor (BCF) ≤ 100.
9. After a transition period of two years the paint formulation shall not contain any hazardous substances, or combinations thereof, that result in the formulation being greater than 0.7 of the limits defined within PART A of directive 1999/45/EC and as required by the CLP regulation for marking dangerous substances.
10. Derogation is granted provided that the user before and during the paint use cannot come in contact with the substance in a dry form (e.g. the substance is within the liquid paint).

Hazardous substances (continue.)

The final product must not be labelled according to the hazard statements above.
Concentration limits for substances or mixtures which may be or have been assigned the hazard statements or risk phrase listed above, or which meet the criteria for classification in the hazard classes or categories listed in the table above, and concentration limits for substances meeting the criteria set out in Article 57(a), (b) or (c) of Regulation (EC) No 1907/2006, shall not exceed the generic or specific concentration limits determined in accordance with the Article 10 of Regulation (EC) No 1272/2008. Where specific concentration limits are determined, they shall prevail over the generic ones.
Concentration limits for substances meeting the criteria set out in Article 57(d), (e) or (f) of Regulation (EC) No 1907/2006 shall not exceed 0.1% weight by weight.

Assessment and verification: The applicant shall provide a declaration of compliance with this criterion, together with a product material safety data sheet meeting the requirements of Annex II to the REACH Regulation and the quantity, in % (w/w), for all chemicals where derogations are sought. The applicant shall provide copies of the material safety data sheets of any preservatives added, 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

Formaldehyde
Free formaldehydes shall not be added. Formaldehyde donators may only be added in such quantities as will ensure that the resulting total content after tinting (if applicable) of free formaldehyde will not exceed 0,001% (m/m).

Assessment and verification: The applicant shall provide a declaration of compliance with this criterion. In addition, the in-can concentration shall be determined using a standard based on High-Performance Liquid Chromatography using a testing laboratory certified to ISO 17025:2005. The applicant shall provide test results on the concentration of in-can formaldehyde on each paint colour, or where a tinting system is used, on the base paint, each colour tint, and the theoretical maximum on a tinted paint (i.e. a paint that contains the maximum amount of tint with the most amount of formaldehyde donor).

Phthalates

Intentional addition of phthalates is not permitted.

Assessment and verification: The applicant shall provide a declaration of compliance with this criterion.

END OF LIFE

Unused Paint

Applicants shall encourage paint reuse/recycling equivalent to at least 2%, by volume, of all their Ecolabelled paint sold per annum. This can be achieved by one or with combination of the following options:

a) supporting reuse collection systems through third parties
b) accepting unwanted paint for recycling or reuse
c) supporting retailers with take-back systems.

The user should be respectively advised on the available options on how to deal with the unused paint.

Verification and assessment: The applicant shall either provide direct evidence of having a reuse scheme in place that reuses at least 2% by volume of paint per annum or provide evidence of substantial financial, logistical or physical support to a third party scheme that reuses 2%. It is not a requirement that the paint reused has obtained the EU Ecolabel. In addition, the applicant shall provide evidence through literature and packaging that instructs the end user where unused paint can be taken for reuse/recycling. These instructions should also be made available via the manufacturer website.

Recycled content

Plastic paint pots shall be made of a minimum 25% (m/m) post-consumer recycled material, be made of one polymer or be of compatible polymers for recycling and have the relevant ISO11469 marking.

This criterion does not apply to paint systems that deliver greater than 25 litres.

Verification and assessment: The applicant shall provide a declaration of compliance with this criterion along with evidence of marking.

GENERAL

Consumer information

The following information shall appear on the packaging or attached to the packaging:

- The use, substrate and conditions of use for which the product is intended. This shall include advice on preparatory work, etc., such as correct substrate preparation, advice on indoor use (where appropriate), or temperature
- Recommendations for cleaning tools and appropriate waste management (in order to limit water pollution). These recommendations shall be adapted to the type of product in question and field of application in question and may make use of pictograms if appropriate
- Recommendations concerning product storage conditions after opening (in order to limit solid waste), including safety advice if appropriate
- For darker coatings for which criterion 7(a) does not apply, advice is given concerning the use of the correct primer or base paint (if possible bearing the Community Eco-label)
- **(Indoor only)** — for thick decorative coatings a text informing that these are paints specially designed to give a three-dimensional decorative effect
- Text advising that unused paint requires specialist handling for safe environmental disposal and therefore it should not be thrown away with household refuse. The consumer should be informed on the provided and/or supported by the manufacture option for dealing the unused paint as given in criterion "unused paint".
- Recommendations on preventive protection measures for the painter. The following text (or equivalent text) shall appear on the packaging or attached to the packaging:
    - ‘For more information as to why this product has been awarded the Flower please visit the web-site: http://ec.europa.eu/environment/ecolabel.’

Assessment and verification: A sample of the product packaging shall be provided when submitting the application, together with a corresponding declaration of compliance with this criterion as appropriate. The information in which is given advice on how to deal with the "unused paint" should also be available via the manufacturer website.

Information appearing on the Ecolabel

Box 2 of the Ecolabel shall contain the following text:

- Good performance for indoor use (where indoor criteria has been met)
- Good performance for outdoor use (where outdoor criteria has been met)
- Good performance for both indoor and outdoor use (where both indoor and outdoor criteria have been met)
- Minimised use of hazardous substances
- Low volatile organic compounds (VOCs).

Assessment and verification: The applicant shall provide a sample of the product packaging showing the label, together with a declaration of compliance with this criterion.