



Brussels, **XXX**  
[...] (2012) **XXX** draft

**COMMISSION DECISION**

**of **XXX****

**establishing the ecological criteria for the award of the EU Ecolabel for indoor and outdoor paints and varnishes**

(Text with EEA relevance)

**EN**

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## COMMISSION DECISION

of **XXX**

### **establishing the ecological criteria for the award of the EU Ecolabel for indoor and outdoor paints and varnishes**

(Text with EEA relevance)

THE EUROPEAN COMMISSION,

Having regard to the Treaty on the Functioning of the European Union,

Having regard to Regulation (EC) No 66/2010 of the European Parliament and of the Council of 25 November 2009 on the EU Ecolabel<sup>1</sup>, and in particular Article 8(2) thereof,

After consulting the European Union Eco-labelling Board,

Whereas:

- (1) Under Regulation (EC) No 66/2010, the EU Ecolabel may be awarded to products which have a reduced environmental impact during their entire life cycle.
- (2) Regulation (EC) No 66/2010 provides that specific EU Ecolabel criteria are to be established according to product groups.
- (3) Since **(to be completed)** it is appropriate to establish EU Ecolabel criteria for the product group of 'indor and outdoor paints and varnishes'.
- (4) The measures provided for in this Decision are in accordance with the opinion of the Committee established by Article 16 of Regulation (EC) No 66/2010,

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<sup>1</sup> OJ L 27, 30.1.2010, p. 1.

HAS ADOPTED THIS DECISION:

*Article 1*

1. The product group of ‘indoor and outdoor paints and varnishes’ shall comprise indoor and outdoor decorative paints and varnishes, woodstains and related products intended for use by do-it-yourself and professional users (please note that these are not industrial coatings) falling under the scope of Directive 2004/42/CE.
2. The product group of ‘indoor and outdoor paints and varnishes’ includes inter alia: floor coatings and floor paints; paint 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 Annex I to Directive 2004/42/CE.
3. 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) powder coatings
  - (e) UV curable paint systems
  - (f) paints primarily intended for vehicles
  - (g) product which primary function is not to form a film over the substrate, e.g. oils and waxes.
  - (h) fillers as defined by EN ISO 4618
  - (i) road-marking paints

**Deleted:** as defined in paragraph 2,

**Deleted:** Annex I 1.1.d and 1.1.g

**Deleted:** which putties for holes, cracks (fillers)

*Article 2*

For the purpose of this Decision, the following definitions shall apply:

- (1) ‘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.
- (2) ‘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.
- (3) ‘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.

- (4) ‘Woodstain’ (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.
- (5) ‘Tinting system’ is a method of preparing coloured paints by mixing a ‘base’ with coloured tints.
- (6) ‘Masonry coating’ is a 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.
- (7) ‘Binding primers’ are coatings designed to stabilise loose substrate particles or impact hydrophobic properties.
- (8) ‘UV curing paint system’ refers to hardening of coating materials by exposure to ultra-violet radiation<sup>2</sup>.
- (9) ‘Powder coating’ means protective and/or decorative coating formed by the application of a coating powder to a substrate and fusion (and curing, if necessary) to give a continuous film<sup>3</sup>.
- (10) ‘In-can preservatives’ (i.e. preservatives for products during storage) are products used for the preservation of manufactured products by the control of microbial deterioration to ensure their shelf life<sup>4</sup>.
- (11) ‘Dry-film preservatives’ (i.e. film preservatives) are products used for the preservation of films or coatings by the control of microbial deterioration or algal growth in order to protect the initial properties of the surface of materials or objects<sup>4</sup>.
- (12) ‘Anti-skinning substances’ are additives that are added to the coating materials to prevent skinning during production or storage of the coating material.
- (13) 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.
- (14) Semi volatile organic compounds (SVOCs) are defined as all organic compounds which, in a capillary column<sup>5</sup> are eluting with a retention range between n-hexadecane (excluded) and n-docosane (included).

Deleted: and/or to protect wood against blue stain

Note: Other definitions to be added for substance groups

Furthermore, the following definitions shall be used:

- Transparent and semi-transparent contrast ratio < 98% at 120µ wet film thickness,
- Opaque contrast ratio >98% at 120µ wet film thickness,
- White and light coloured paints are those with a tri-stimulus (Y-value) >70%
- Gloss levels are used based on definition of ISO 13300 as follows:

<sup>2</sup> According to EN ISO 4618:2006 Paints and varnishes - Terms and definitions.

<sup>3</sup> According to EN ISO 8130-14:2004 Coating powders - Part 14: Terminology.

<sup>4</sup> According to Regulation (EU) No 528/2012 of the European Parliament and of the Council of 22 May 2012 concerning the making available on the market and use of biocidal products.

<sup>5</sup> As specified in 8.2.2 of FprCEN/TS 16516.

Designation	Angle of incidence	Reflectance
Gloss	60 <sup>0</sup>	≥60
Mid sheen (semi gloss, satin, semi matt)	60 <sup>0</sup> or 85 <sup>0</sup>	<60 ≥10
Matt	85 <sup>0</sup>	<10
Dead matt	85 <sup>0</sup>	<5

*Gloss levels are measured as described in ISO 28138*

#### *Article 3*

The criteria for awarding the EU Ecolabel under Regulation (EC) No 66/2010, for a product falling within the product group "paints and varnishes" defined in Article 1 of this Decision as well as the related assessment and verification requirements are set out in the Annex to this Decision.

#### *Article 4*

The criteria and the related assessment requirements set out in the Annex, shall be valid for four years from [insert date - the date of adoption of this Decision].

#### *Article 5*

For administrative purposes, the code number assigned to the product group 'indoor and outdoor paints and varnishes' shall be "x".

#### *Article 6*

Decisions 2009/543/EC and 2009/544/EC are repealed.

#### *Article 7*

- (1) By derogation from Article 6, applications for the EU Ecolabel for products falling within the product group 'indoor paints and varnishes' or 'outdoor paints and varnishes' submitted before the date of adoption of this Decision shall be evaluated in accordance with the conditions laid down in Decisions 2009/543/EC or 2009/544/EC.
- (2) Applications for the EU Ecolabel for products falling within the product group 'paints and varnishes' submitted from the date of adoption of this Decision but by xxx at the latest may be based either on the criteria set out in Decision 2009/543/EC or 2009/544/EC, or on the criteria set out in this Decision.
- (3) Those applications shall be evaluated in accordance with the criteria on which they are based.
- (4) Where the Ecolabel is awarded on the basis of an application evaluated in accordance with the criteria set out in Decision 2009/543/EC or 2009/544/EC, that Ecolabel may be used for 12 months from the date of adoption of this Decision.

*Article 8*

This Decision is addressed to the Member States.

Done at Brussels,

*For the Commission*  
*Janez POTOČNIK*  
*Member of the Commission*

## ANNEX

### EU ECOLABEL CRITERIA AND ASSESSMENT AND VERIFICATION REQUIREMENTS

#### The aim of the criteria

The criteria aim, in particular at promoting:

- products that have a lower environmental impact along their life cycle,
- products that have high quality, good performance and long durability,
- products which contain a limited amount of hazardous substances,
- products which **contain a limited** amount of volatile organic compounds.

Deleted: emit

Deleted: reduced

Criteria for awarding the EU Ecolabel to paints and varnishes are set for each of the following aspects:

Deleted: efficient use of the product.¶

#### 1. White pigment and wet scrub resistance

2. Titanium dioxide

3. Efficiency in use

(a) Spreading rate

(b) Resistance to water

(c) Adhesion

(d) Abrasion

(e) Weathering

(f) Water vapour permeability

(g) Liquid water permeability

(h) Fungal resistance

(i) Crack bridging

(j) Alkali resistance

(k) Corrosion resistance

Deleted: <#>Wet scrub resistance¶

#### 4. Volatile and Semi-volatile Organic Compounds (VOCs, SVOCs)

#### 5. Restriction of hazardous substances and mixtures

(a) Overall restrictions that apply to hazard classifications and risk phrases

(b) Restrictions that apply to Substances of Very High Concern

(c) Restrictions that apply to specific hazardous substances

6. Consumer information

7. Information appearing on the EU Ecolabel

Appendix 1 Hazardous substance restriction and derogation list

## 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, these may originate from the applicant and/or his supplier(s) and/or their supplier(s), as appropriate.

Where appropriate, test methods other than those indicated for each criterion may be used if **these are described in the user manual of the Ecolabel criteria application and** the competent body assessing the application accepts their equivalence.

Where possible, the testing shall be performed by laboratories that meet the general requirements of European Standard EN ISO 17025<sup>6</sup> or equivalent.

Where appropriate, competent bodies may require supporting documentation and may carry out independent verifications.

### (b) Measurement thresholds

Unless otherwise indicated compliance with the Eco-label criteria is required for substances and mixtures 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.

(c) The exact formulation of the product, the function and the physical form of all ingredients intentionally used as well the ingoing quantity shall be provided to the competent body. **The trade name, chemical name, CAS number and CLP classification shall be provided for each ingredient.** Any ingredient, including **known** impurities, present in concentrations greater than **0,010 %** shall 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 **or mixtures**. The definitions of 'substances' and 'mixtures' are given in the REACH Regulation (Regulation (EC) No 1907/2006 of the European Parliament and of the Council ( 1 ).

Safety data sheets **and/or CAS numbers and CLP classifications (harmonised or otherwise)** for each ingredient shall be submitted to the competent body in accordance with Regulation (EC) No 1907/2006 of the European Parliament and of the Council.

(d) **For all criteria, apart from Criterion 4 Volatile and Semi-volatile Organic Compounds (VOCs, SVOCs), the limits shall apply to the paint or varnish in its packaging. In line with Directive 2004/42/EC the VOC limits relate to the ready to use product and so the maximum VOC content should be calculated or measured based on any recommended additions such as colorants and/or thinners. For this calculation or measurement, data supplied by the raw material suppliers regarding solids content, VOC content and product density will be required. The above is also applicable in the calculation or measurement of SVOC.**

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<sup>6</sup> ISO/IEC 17025:2005 General requirements for the competence of testing and calibration laboratories



## 1. White pigment and Wet Scrub Resistance

### (a) Minimum requirement for white pigment content:

For paints that have no wet scrub resistances claimed (including outdoor paints) as well as limed paints, silicate paints, primers, anti-rust paints and facade paints the white pigment content (white inorganic pigments with a refractive index higher than 1,8) shall not exceed 36g/m<sup>2</sup> for indoor products and 38g/m<sup>2</sup> for outdoor products. In the case of paints for both indoor and outdoor use the more stringent limit shall apply.

In case the above mentioned products fall under the exemption indicated in part (b) then the white pigment content (white inorganic pigments with a refractive index higher than 1,8) shall not exceed 25 g/m<sup>2</sup> of dry film, with 98 % opacity.

Indoor wall and ceiling paints for which wet scrub resistance claims are made shall have white pigment content (white inorganic pigments with a refractive index higher than 1,8) lower or equal to that described in Table 1 per m<sup>2</sup> of dry film, with 98 % opacity.

Table 1. Wet scrub resistance values for indoor paints

Wet scrub resistance	Indoor limit (g/m <sup>2</sup> )
Class 1	40
Class 2	36

Due to the large potential range of possible tinting colours, this criterion will be restricted to the testing of the white base (the base containing the most TiO<sub>2</sub>).

### (b) Minimum requirement for Wet Scrub Resistance (for indoor paints only)

All indoor wall paints (finishes) shall achieve class 1 or class 2 in wet scrub resistance (WSR) according to EN 13300 and EN ISO 11998.

Exempted from this requirement are ceiling paints and indoor wall paints of class 3, class 4 or class 5 in WSR according to EN 13300 and EN ISO 11998 as well products which are not tested for WSR if their white pigment content (white inorganic pigments with a refractive index higher than 1,8) is equal or lower to 25g/m<sup>2</sup> of dry film, with 98 % opacity. For paints of class 3, 4 and 5 it shall not be allowed to claim wet scrub resistance and no reference shall be presented on the label or other marketing documentation. If the products are not tested for WSR the consumer shall be informed about it on the packaging.

Due to the large potential range of possible tinting colors, this criterion will be restricted to the testing of tinting bases (base paints).

### Assessment and verification:

The applicant shall provide documentation showing that the content of white pigments is compliant with this criterion.

The applicant shall provide a test report according to EN 13300 using the method EN ISO 11998 (Test for cleanability and scrub resistance). For ceiling paints and indoor wall paints of class 3, 4 or 5 and paints which were not tested for WSR the graphics for the packaging shall

be provided as evidence that no claim regarding wet scrub resistance is made and, if applicable, that the consumer was informed that the paint was not tested for wet scrub resistance.

## 2. Titanium Dioxide pigment

If the product contains more than 3.0 w/w % of titanium dioxide, the emissions and discharges of wastes from the production of any titanium dioxide pigment used shall not exceed the following<sup>7</sup>:

For the sulphate process:

- SO<sub>x</sub> calculated as SO<sub>2</sub>: 7.0 kg/ton TiO<sub>2</sub> pigment
- Sulphate waste: 500 kg/ton TiO<sub>2</sub> pigment

For the chloride process:

- If natural rutile ore is used, 103 kg chloride waste/ton TiO<sub>2</sub> pigment
- If synthetic rutile ore is used: 179 kg chloride waste /ton TiO<sub>2</sub> pigment
- If slag ore ore is used: 329 kg chloride waste /ton TiO<sub>2</sub> pigment

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:

SO<sub>x</sub> 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<sub>2</sub> producer can satisfy article 5 (by-product production) of the Waste Framework Directive for its solid wastes then, the wastes shall be exempted.

**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, showing compliance with this criterion.

## 3. Efficiency in use

Regarding the efficiency in use of the paints and varnishes the following tests per type of paint and/or varnish, as indicated in Table 2, shall be undertaken:

**Deleted:** Dependant on the claims made on the properties of the paint or the varnish.

<sup>7</sup> As derived from the Reference Document on Best Available Technology for the Manufacture of Large Volume Inorganic Chemicals (BREF), August 2007.

**Table 2. Performance requirements for different kind of paints and varnishes**

Criteria	Paints and Varnishes (a to j are subcategories of the Directive 2004/CE/42)								
	Indoor paint (a, b)	Masonry paint (c)	Trim and cladding (d)	Outdoor paint (e)	Thick decorative coating indoor and outdoor (c)	Varnish and woodstain (e, f)	Floor covering and paint (i)	Primer (g)	Undercoat and primer (h)
Spreading rate (only on white and not tinting bases) – ISO 6504/1	8 m <sup>2</sup> /L	4 m <sup>2</sup> /L (elastomeric paint) 6 m <sup>2</sup> /L (masonry paint)	6 m <sup>2</sup> /L	6 m <sup>2</sup> /L	1 m <sup>2</sup> /L	-	8 m <sup>2</sup> /L	6 m <sup>2</sup> /L	8 m <sup>2</sup> /L
Resistance to water– ISO 2812-3	-	-	-	-	-	x	x	-	-
Adhesion – EN 24624	-	-	-	-	-	-	Score 2	-	-
Abrasion – EN ISO 7784-2	-	-	-	-	-	-	x	-	-
Weathering – EN 11507 / EN 927-6	-	1 000 h	1000 h	1000 h	1000h (outdoor)	1000 h	-	-	-
Water vapour permeability <sup>1</sup> – EN ISO 7783-2	-	Class II or better	-	Class II or better	Class II or better (outdoor)	-	-	-	-
Liquid water permeability <sup>1</sup> – EN 1062-3	-	Class III (elastomeric paint) Class II (masonry paint)	-	Class II	Class II (outdoor)	-	-	-	-
Fungal resistance <sup>1</sup> – BS 3900:G6	-	Class 2 or lower	-	Class 2 or lower	Class 2 or lower (outdoor)	-	-	-	-
Crack bridging <sup>1</sup> – EN 1062-7	-	A1 (elastomeric paint only)	-	-	-	-	-	-	-
Alkali resistance – ISO 2812-4	-	x	-	-	-	-	-	-	x

Notes:

<sup>1</sup>Only required where marketing claims are made about the paints

### (a) Spreading rate

Spreading rate requirement shall apply to white and light coloured paint products. For colours which are available in more colours the spreading rate shall apply to the lightest colour.

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<sup>2</sup> per litre of product for indoor paints and 6m<sup>2</sup> for outdoor paints. Products marketed for both – indoor and outdoor shall have a spreading rate (at a hiding power of 98 %) of at least 8m<sup>2</sup> per litre. For tinting systems, this criterion applies only to the white base (the base containing the most TiO<sub>2</sub>). 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 (bases which as a rule contain less TiO<sub>2</sub>), which are unable to achieve the requirement of at least 8m<sup>2</sup> 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 shall have a spreading rate (at a hiding power of 98 %) of at least 6m<sup>2</sup> per litre of product.

Deleted: for aluminium and galvanised surfaces

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 rate of 1m<sup>2</sup> per kg of product.

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

This requirement does not apply to varnishes, woodstains, transparent adhesion 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. 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.

Deleted: (or equivalent)

### (b) Resistance to water

All varnishes, floor coatings and floor paints shall have 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<sup>8</sup>.

### (c) 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 and wood undercoats shall score inferior or equal to 2 in the EN 2409 test for adhesion.

Deleted: at least

Transparent primers are not included in this requirement.

The applicant shall evaluate the primer and/or finish alone or both applied together. 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.

### (d) 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.

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

### (e) Weathering (for outdoor paints and varnishes)

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. They shall be exposed to test conditions for 1 000 hours (including varnishes). Test conditions are: UVA 4h/60 °C + humidity 4h/50 °C.

Alternatively, the outdoor wood finishes and wood varnishes shall be exposed to weathering for 1000 hours in the QUV accelerated weathering apparatus with cyclic exposure with UV(A) radiation and spraying according to EN 927-6.

Deleted: 12 weeks

<sup>8</sup> 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.

According to ISO 7724 3, the colour change of samples exposed to weathering shall not be greater than  $\Delta E^* = 4$ . It is not applicable to transparent varnishes and bases.

Decrease of gloss for **gloss paints and varnishes**, exposed to weathering shall not be greater than 30 % of its initial value and shall be measured using ISO 2813. This requirement is not applicable to **mid sheen** and matt-finishes<sup>9</sup> which have an initial gloss value less than 60% at 60° angle of incidence.

**Deleted:** and high-gloss and satin paints

Chalking shall be tested using method EN ISO 4628-6 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; flake density 2 or less, flake size 2 or less
- Cracking according to ISO 4628-4; crack quantity 2 or less, crack size 3 or less
- Blistering according to ISO 4628-2; blister density 3 or less, blister size 3 or less.

Tests should be performed on **base paint used**.

**Deleted:** tinted paints

**Assessment and verification:** the applicant shall provide test reports using either ISO 11507 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<sup>10</sup> (where applicable).

#### (f) 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.

Due to the large number of potential tinting colours, this criterion will be restricted to testing of the base paint.

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

**Deleted:** This requirement is not applicable to transparent primers. ¶

<sup>9</sup> **EN ISO 2813.**

<sup>10</sup> This test procedure is due to be superseded by ISO 11664 during the lifetime of these 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.

### (g) 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.

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.

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

### (h) Fungal resistance

Where claims are made that exterior masonry finish and wood paints have anti-fungal properties, the paint shall have a score of class 2 or lower (1 or 0), i.e. less than 10 % fungal coverage, as determined by method BS 3900:G6.

Deleted: better

Due to the large number of possible tinting colours, this criterion will be restricted to the testing of one tinted paint.

Deleted: base

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

### (i) 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.

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.

### (j) 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. The evaluation is done after 24 hours drying-recovery.

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

**(k) Corrosion resistance**

Simulated corrosion stresses shall be applied to a substrate for the purpose of rating according to the appropriate atmospheric corrosivity category or categories in EN ISO 12944-2 and the accompanying test procedures specified in EN ISO 12944-6. Anti-rust paints for steel and zinc substrates shall be tested after 240h salt spray following ISO 9227. The results shall be rated using ISO 4628-2 for blistering and ISO 4628-3 for rusting. The paint shall achieve result not worse than size 3 and density 3 in blistering and not worse than Ri2 in rusting test.

**Assessment and verification:** the applicant shall provide testing and rating reports to confirm compliance with this criterion.

**4. Volatile and Semi-volatile Organic Compounds (VOCs, SVOCs)**

The maximum content of Volatile Organic Compounds (VOCs) and Semi-Volatile Organic Compounds (SVOCs) shall not exceed the limits given in Table 3.

The maximum total combined content of SVOC and VOC shall not exceed the sum limit values in table 3 [DISCUSSION POINT].

These values both for VOCs and SVOCs shall be calculated at the point of application and must include any additional solvent added to the paint prior to application or shall be measured as defined in Directive 2004/42/EC using the method given in ISO 11890 or CEN/TS 16516. In case of products used indoors and outdoors the strictest limit value for indoor paints shall prevail.

Table 3. VOC and SVOC limits and sum total limits (column to be added)

Description	VOC limits (g/l including water)	SVOC limits (g/l including water)	
Interior matt walls and ceilings (Gloss <25@60°)	12	30 <sup>1</sup> /40 <sup>2</sup>	Deleted: Indoor
Interior glossy walls and ceilings (Gloss >25@60°)	40	30 <sup>1</sup> /40 <sup>2</sup>	
Exterior walls of mineral substrate	25	40	Deleted: Outdoor
Interior/Exterior trim and cladding paints for wood and metal	80	50 <sup>1</sup> /60 <sup>2</sup>	Deleted: Indoor/Outdoor
Interior trim varnishes and woodstains, including opaque woodstains	65	30	Deleted: Indoor
Exterior trim varnishes and woodstains, including opaque woodstains	75	60	Deleted: Outdoor
Interior and Exterior minimal build woodstains	50	30 <sup>1</sup> /40 <sup>2</sup>	Deleted: Indoor
Primers	12	30 <sup>1</sup> /40 <sup>2</sup>	Deleted: Outdoor
Binding primers	12	30 <sup>1</sup> /40 <sup>2</sup>	



One-pack performance coatings	80	50 <sup>1</sup> /60 <sup>2</sup>
Two-pack reactive performance coatings for specific end use such as floors	80	50 <sup>1</sup> /60 <sup>2</sup>
Decorative effect coatings	80	50 <sup>1</sup> /60 <sup>2</sup>
Anti-rust paints	80	60

Deleted: corrosion

Notes:

<sup>1</sup> Indoor white paints and varnishes

<sup>2</sup> Indoor tinted paints / outdoor paints and varnishes

**Assessment and verification:** The applicant shall provide a declaration of compliance with this criterion and, if applicable, the test report of the measurements using the method given in ISO 11890 or CEN/TS 16516. For all products the applicant shall indicate the content of VOC and SVOC in the product.

## 5. Restriction of hazardous substances and mixtures

The final product shall not contain hazardous substances and mixtures in accordance with the rules set out in the following sub-criteria which apply to:

- (a) Hazard classifications and risk phrases
- (b) Substances of Very High Concern
- (c) Specific other listed substances

Applicants are required to evidence that the final product formulation complies with the overall assessment and verification requirements together with any additional requirements contained within Appendix 1 of this Decision.

### (a) Overall restrictions that apply to hazard classifications and risk phrases

The final product formulation, including all intentionally added ingredients present at a concentration of greater than 0.010%, shall not, unless expressly derogated in Appendix 1, contain substances or mixtures classified as toxic, hazardous to the environment, allergenic, carcinogenic, mutagenic or toxic for reproduction (CMR) in accordance with Regulation (EC) No 1272/2008 or Directive 67/548/EC and as interpreted according to the hazard statements and risk phrases listed in table 3 of this criteria.

In accordance with the methodologies for the classification of mixtures contained in Regulation (EC) No 1272/2008 and all amending legislation the final product shall not display the following hazard labelling:

Table 4. Final product classification: CLP versus DSD equivalence

<b>CLP Mixture classification</b>	<b>DSD equivalent</b>
Acutely toxic	T / T+
Specific target organ toxicity	T+ / T / Xn
A respiratory or skin sensitiser	n/a
A carcinogen, mutagen or reproductive toxicant	CMR Cat 1-3
Hazardous to the environment.	N (not inclusive of R53 and R52/53)

The most recent classification rules adopted by the European Union shall take precedence over the listed hazard classifications and risk phrases. Applicants shall therefore ensure that classifications are based on the most recent rules on the classification, labeling and packaging of substances and mixtures.

Table 5. Restricted hazard classifications and their categorisation

<b>Acute toxicity</b>	
<b>Category 1 and 2</b>	<b>Category 3</b>
H300 Fatal if swallowed (R28)	H301 Toxic if swallowed (R25)
H310 Fatal in contact with skin (R27)	H311 Toxic in contact with skin (R24)
H330 Fatal if inhaled (R23/26)	H331 Toxic if inhaled (R23)
H304 May be fatal if swallowed and enters airways (R65)	EUH070 Toxic by eye contact (R39/41)

<b>Specific target organ toxicity</b>	
<b>Category 1</b>	<b>Category 2</b>
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 (R48/25, R48/24, R48/23)	H373 May cause damage to organs (R48/20, R48/21, R48/22)

<b>Respiratory and skin sensitisation</b>	
<b>Category 1A</b>	<b>Category 1B</b>
H317: May cause allergic skin reaction (R43)	H317: May cause allergic skin reaction (R43)
H334: May cause allergy or asthma symptoms or breathing difficulties if inhaled (R42)	H334: May cause allergy or asthma symptoms or breathing difficulties if inhaled (R42)

<b>Carcinogenic, mutagenic or toxic for reproduction</b>	
<b>Category 1A and 1B</b>	<b>Category 2</b>
H340 May cause genetic defects (R46)	H341 Suspected of causing genetic defects (R68)
H350 May cause cancer (R45)	H351 Suspected of causing cancer (R49)
H350i May cause cancer by inhalation (R49)	
H360F May damage fertility (R60)	H361f Suspected of damaging fertility (R62)
H360D May damage the unborn child (R61)	H361d Suspected of damaging the unborn child (R63)
H360FD May damage fertility. May	H361fd Suspected of damaging fertility.

damage the unborn child (R60, R60/61)	Suspected of damaging the unborn child (R62/63)
H360Fd May damage fertility. Suspected of damaging the unborn child (R60/63)	H362 May cause harm to breast fed children (R64)
H360Df May damage the unborn child. Suspected of damaging fertility (R61/62)	

<b>Hazardous to the aquatic environment</b>	
<b>Category 1 and 2</b>	<b>Category 3 and 4</b>
H400 Very toxic to aquatic life (R50)	H411 Toxic to aquatic life with long-lasting effects (R51/53)
H410 Very toxic to aquatic life with long-lasting effects (R50/53)	H412 Harmful to aquatic life with long-lasting effects (R52/53)
H413 May cause long-lasting effects to aquatic life (R53)	EUH059 Hazardous to the ozone layer (R59)

*(i) Derogations applying to substance groups*

For the purpose of this product group only, derogations have been granted for defined groups of substances that may be contained within the final product. These derogations stipulate the hazard classifications that are derogated for each specific substance group and the associated derogation conditions that apply. The derogations are set out in Appendix 1 and apply to the following substance groups:

- In-can preservatives
- Dry film preservatives
- Drying and anti-skinning agents
- UV protectors and stabilisers
- Binders and fillers
- Corrosion inhibitors
- Surfactants
- Silicon resin emulsion in white paints, colourant and tinting bases
- Optical brighteners
- Neutralising agents
- Solvents
- Unreacted monomers

Note: To be cross-checked with Appendix 1

*(ii) Derogation conditions applying to production sites*

Additional conditions relating to production of paints and varnishes shall apply in the case of derogations for acute toxins or specific target organ toxins. In this case applicants shall submit evidence that they have met the following requirements:

- o Substances to which an acute toxic or specific target organ toxins classification applies shall demonstrate compliance with relevant European Occupational Exposure Limit

Values (OELV's) or Member State OELV's for the substance(s), with the strictest applying;

- o Where there is no reference OELV then the applicant shall demonstrate how health and safety procedures for the handling of the ingoing substance(s) at production sites for the final ecolabelled paint product minimise exposure;
- o Substances to which a classification applies as an aerosol or vapour shall demonstrate that workers are not exposed in this form;
- o Substances to which the classification applies to in their dry form shall demonstrate that workers cannot come into contact with the substance in this form during manufacturing.

**Assessment and verification:** The applicant and, where necessary their suppliers, shall demonstrate compliance with this criterion by providing a declaration of the classification and/or non-classification for:

(i) The final paint or varnish product based on the methodologies for the classification of mixtures contained in Regulation (EC) No 1272/2008 and all amending legislation

(ii) Paint or varnish formula ingredients that fall within the groups of substances listed in 5(a)(i) and are present at concentrations of more than 0.010% in the final product

Active ingredients to which specific concentration limits may apply under Regulation (EC) No 1272/2008 and which may fall below the cut-off value of 0.010% shall also be identified.

The following technical information shall be provided to support the declaration of non-classification:

(i) For substances that have not been registered under Regulation (EC) No 1907/2006 and/or which do not yet have a harmonised CLP classification: Information meeting the requirements listed in Annex VII to that Regulation;

(ii) For substances that have been registered under Regulation (EC) No 1907/2006 and which do not meet the requirements for CLP classification: Information based on the REACH registration dossier confirming the non-classified status of the substance;

(iii) For substances that have a harmonised classification or are self-classified: safety data sheets where available. If these are not available or the substance is self-classified then information shall be provided relevant to the substances hazard classification according to Annex II to Regulation (EC) No 1907/2006;

(iv) In the case of mixtures: Safety data sheets where available. If these are not available then calculation of the mixture classification shall be provided according to the rules under Regulation (EC) No 1272/2008 together with information relevant to the mixtures hazard classification according to Annex II to Regulation (EC) No 1907/2006;

Substances and mixtures shall be characterised in accordance with that specified in section 10, 11 and 12 of Annex II of Regulation (EC) 1907/2006 (Requirements for the Compilation of Safety Data Sheets). This shall include the physical form and state of the ingredients and shall include identification of intentionally manufactured ingredients with a particle size of less than 100 nm.

The applicant shall also identify substances and mixtures used in the paint formulation which fall under the specific requirements for derogation as set out in Appendix 1. For each derogated substance or mixture supporting information shall be provided showing how the derogation requirements have been met.

### **(b) Restrictions that apply to Substances of Very High Concern**

In accordance with Article 6(7) of Regulation (EC) No 66/2010 the final product and any ingredients or raw materials, shall not, unless specifically derogated, contain substances that:

- a) Meet the criteria in Article 57 of Regulation (EC) No 1907/2006 and of the Council of 18<sup>th</sup> December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH);
- b) Have been identified according to the procedure described in Article 59(1) which establishes the Candidate List for Substances of Very High Concern.

No derogation shall be given concerning substances that meet one or both of these conditions, and which are present in a paint or varnish product at concentrations higher than 0.10 % (weight by weight).

**Assessment and verification:** The applicant shall provide a declaration of compliance with this criterion, supported by declarations of compliance signed by their suppliers. Applicants shall demonstrate that they have carried out a screening of ingoing substances against the current Candidate List for Substances of Very High Concern and the criteria in Article 57 of Regulation (EC) No 1907/2006.

### **(c) Restrictions that apply to specific hazardous substances**

The final product shall not contain the hazardous substances that are specifically identified in Appendix 1 at or above the specified concentration limits. The restrictions on substances in Appendix 1 apply to the following paint and varnish ingredients and residues:

- (i) Dry film preservatives
- (ii) In-can preservatives
- (iii) Pigments
- (iv) Plasticisers
- (v) Metals and their compounds
- (vi) Alkylphenoethoxylates (APEOs) surfactants
- (vii) Perfluorinated surfactants
- (viii) Free formaldehyde

**Assessment and verification:** Verification and testing requirements are specified in Appendix 1 for substance and as relevant to specific forms of paint and varnish.

### **Criterion 6. Consumer information**

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

- The following text: “Unused paint is not waste”. It shall be recommended to store the paint in appropriate storage conditions (before and after opening), including, where appropriate, safety advice. The following text shall be added “Reuse of paints minimises the product life cycle environmental impact based on LCA studies”. Information shall also be provided on how to estimate the amount of paint needed

Deleted: preserve

prior to purchase in order to minimise the paint wastage (e.g. for 1m<sup>2</sup> of wall x liters of paint is needed) .

- Recommendations for cleaning equipment and appropriate waste management (in order to limit water and soil pollution). For example text advising that unused paint requires specialist handling for safe environmental disposal and therefore it should not be thrown away with household or commercial waste (e.g. “Do not put residual paint down the kitchen sink or toilet, or into a waste bin”). The consumer should be advised on how to deal with the "unused paint" together with a web-link or contact details in which the consumer can find more detailed information.
- Recommendations on safety measures for the painter. This shall include basic recommendation on personal protective equipment that should be worn. It should also include additional measures that should be taken when using spray equipment.

**Deleted:** <#>The use, substrate and conditions of use for which the product is intended on preparatory work, such as correct substrate preparation, advice on indoor use (where appropriate) etc.¶

**Deleted:** 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.

**Deleted:** nformed on the provided and/or supported by the manufacture option for dealing the unused paint

**Deleted:** <#>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 Ecolabel) with recommendation to choose products with lower environmental impacts.¶  
<#>(Indoor only) — for thick decorative coatings a text informing that these are paints specially designed to give a three-dimensional decorative effect.¶

**Assessment and verification:** the applicant shall declare that the product complies with the requirement and provide the competent body with an artwork or samples of the user information and/or a link to a manufacturer's website containing this information as part of the application.

### Criterion 7. Information appearing on the EU Ecolabel

The optional label with text box shall contain the following text:

- Minimised content of hazardous substances
- Low content of volatile organic compounds (VOCs)
- 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)

The guidelines for the use of the optional label with text box can be found in the "Guidelines for use of the Ecolabel logo" on the website:

[http://ec.europa.eu/environment/ecolabel/documents/logo\\_guidelines.pdf](http://ec.europa.eu/environment/ecolabel/documents/logo_guidelines.pdf)

**Assessment and verification:** the applicant shall provide a sample of the product label or an artwork of the packaging where the EU Ecolabel is placed, together with a declaration of compliance with this criterion.

## Appendix 1

### Hazardous substance restriction and derogation list

Substance group	Scope of restriction and/or derogation	Concentration limits (where applicable)	Assessment and verification
<p><b>1. Preservatives added by manufacturers and binder suppliers</b></p> <p>The paint formulation shall only contain preservatives that meet the requirements of this annex and which are authorised under the Biocide Directive 98/8/EC and the Biocide Regulation (EC) No 528/2012. <i>Applicants should consult the most current authorisation list:</i></p> <p><a href="http://ec.europa.eu/environment/biocides/annexi_and_ia.htm">http://ec.europa.eu/environment/biocides/annexi_and_ia.htm</a></p> <p>Preservatives for which a dossier has been submitted for evaluation pending a decision on authorisation or non-inclusion and which are classified with H400 (R50) may not be used for outdoor paints.</p>			
<p>(a) In-can preservatives</p> <p><i>Applicability:</i></p> <p>All products unless specified otherwise</p>	<p><i>Derogated classifications:</i> H331 (R23), H317 (R43), H400 (R50), H410 (R50/53), H411 (R51/53), H412 (R52/53)</p> <p><i>Derogation conditions:</i></p> <ul style="list-style-type: none"> <li>○ Substances classified with H400 (R50) shall be non-bioaccumulative. Non-bioaccumulative substances shall have a Log Kow <math>\leq 3.2</math> or a Bioconcentration Factor (BCF) <math>\leq 100</math>.</li> <li>○ Evidence shall be provided that Authorisation conditions under the Biocide Directive 98/8/EC and the Biocide Regulation (EC) No 528/2012 are being respected.</li> <li>○ Where preservatives that are formaldehyde donors are used then formaldehyde emissions from the final product must meet the requirements in substance restriction 7(a)</li> </ul>	<p><i>Sum total in the final product:</i> 0.060% w/w</p>	<p><i>Verification:</i></p> <p>Declaration by the applicant and their binder supplier supported by CAS numbers and classifications for the active ingredients in the final product and its binder.</p> <p>This shall include calculation by the applicant of the concentration of the active ingredient in the final product.</p> <p>This shall include identification of intentionally manufactured active ingredients with a particle size of less than 100 nm.</p>

	<p>The following in-can preservatives shall only be used at the specified maximum sum total concentrations in the final product at the time of manufacturing for the specified applications:</p> <p>(i) <i>Isothiazolinone compounds</i></p> <p>- All products</p>	<p>Sum total 0.05%</p>	<p><i>Verification:</i></p> <p>Calculation by the applicant of the concentration of the active ingredient in the final product supported by the CAS number and classification.</p>
<p>(b) Dry film preservatives</p> <p><i>Applicability:</i></p> <p>All products unless specified otherwise</p>	<p><i>Derogated classifications:</i> H317 (R43), H400 (R50), H410 (R50/53), H411 (R51/53), H412 (R52/53)</p> <p><i>Derogation conditions:</i></p> <ul style="list-style-type: none"> <li>o Substances classified with H400 (R50) shall be non-bioaccumulative. Non-bioaccumulative substances shall have a Log Kow <math>\leq</math> 3.2 or a Bioconcentration Factor (BCF) <math>\leq</math> 100.</li> <li>o Evidence shall be provided that the conditions set out in the Authorisation conditions for preservatives under the Biocide Directive 98/8/EC and the Biocide Regulation (EC) No 528/2012 are being respected.</li> <li>o Where preservatives that are formaldehyde donors are used then formaldehyde emissions from the final product must meet the requirements in substance restriction 7(a)</li> </ul>	<p><i>Sum total in the product:</i></p> <p>Indoor paints 0.1% w/w</p> <p>Outdoor paints 0.3% w/w</p>	<p><i>Verification:</i></p> <p>Declaration by the applicant and their binder supplier supported by CAS numbers and classifications for the active ingredients in the final product and its binder.</p> <p>This shall include calculation by the applicant of the concentration of the active ingredient in the final product.</p> <p>This shall include identification of intentionally manufactured active ingredients with a particle size of less than 100 nm.</p>
	<p>The following dry film preservatives may be used at specified maximum sum total concentrations in the final product at the time of manufacturing for the specified applications:</p> <p>(i) <i>Isothiazolinone compounds</i></p> <p>- All products</p> <p>(ii) 3-iodo-2-propynyl butylcarbamate (IPBC)</p> <p>- Outdoor wood paints and varnishes</p> <p>- All other applications</p>	<p>Sum total 0.05%</p> <p>0.45%</p> <p>0.3%</p>	<p><i>Verification:</i></p> <p>Calculation by the applicant of the concentration of the active ingredient in the final product supported by the CAS number and classification.</p>



<b>2. Drying and anti-skinning agents</b>			
(a) Driers  <i>Applicability:</i> <b>All paints products</b>	<i>Derogated classifications:</i> H317 (R43), H410 (R50/53), H411 (R51/53), H412 (R52/53), H413 (R53)  <i>Concentration limits that shall apply:</i> (i) Cobalt dryers in alkyd paints (ii) All other dryers	  <b>0.05%</b> 0.1% w/w	<i>Verification:</i> <b>Declaration shall be provided by the applicant and their raw material suppliers supported by CAS numbers and classifications.</b>
(b) Anti-skinning agents  <i>Applicability:</i> <b>All paints products</b>	<i>Derogated classifications:</i> H412 (R52/53), H413 (R53), H317 (R43)	<b>0.40%</b> w/w	<i>Verification:</i> <b>Declaration shall be provided by the applicant and their raw material suppliers supported by CAS numbers and classifications.</b>
<b>3. Corrosion inhibitors</b>			
(a) Anti corrosion pigments  <i>Applicability:</i> <b>Where required</b>	<i>Derogated classifications:</i> H410 (R50/53), H411 (R51/53), H412 (R52/53), H413 (R53)  <i>Concentration limits that shall apply:</i> (i) Paints Directive 2004/42/EC classes d,i, j (ii) All other products	  <b>8.0%</b> w/w <b>2.0%</b> w/w	<i>Verification:</i> <b>Declaration shall be provided by the applicant and their raw material suppliers supported by SDS.</b>
(b) Verdigris prevention  <i>Applicability:</i> <b>Where required</b>	<i>Derogated classifications:</i> H412 (R52/53), H413 (R53)	<b>0.5%</b> w/w	<i>Verification:</i> <b>Declaration shall be provided by the applicant and their raw material suppliers supported by CAS numbers and classifications.</b>

<b>4. Surfactants</b>			
<p>(a) General purpose surfactants</p> <p><i>Applicability:</i> Surfactants in colourant and tinting bases, white finishes, dispersing agents and primers.</p>	<p><i>Derogated classifications:</i> H412 (R52/53), H413 (R53)</p> <p>Specific restrictions apply to Alkylphenoethoxylates (APEOs) and Perfluorinated surfactants.</p>	3.0% w/w	<p><i>Verification:</i></p> <p>Declaration shall be provided by the applicant, raw material suppliers and/or their surfactant supplier supported by CAS No's and classifications for the surfactants used.</p>
<p>(b) Alkylphenoethoxylates (APEOs)</p> <p><i>Applicability:</i> Surfactants in colourant and tinting bases, white finishes, dispersing agents and primers.</p>	<p>Alkylphenoethoxylates (APEOs) and their derivatives shall not be used in any paint or varnish preparations or formulations.</p> <p><i>An indicative list of APEO's and their derivatives is provided in Appendix 2 to this Decision.</i></p>	n/a	<p><i>Verification:</i></p> <p>Declaration shall be provided by the applicant and their surfactant supplier supported by CAS No's and classifications for the surfactants used.</p>
<p>(c) Perfluorinated surfactants</p> <p><i>Applicability:</i> Surfactants in colourant and tinting bases, white finishes, dispersing agents and primers.</p>	<p><i>Long chain perfluorinated surfactants, as specified in the OECD definition below, shall not be used:</i></p> <p>(i) Perfluorocarboxylic acids with carbon chain lengths <math>\geq C8</math>, including perfluorooctanoic acid (PFOA);</p> <p>(ii) Perfluoroalkyl sulfonates with carbon chain lengths <math>\geq C6</math>, including perfluorohexane sulfonic acid (PFHxS) and perfluorooctane sulfonate (PFOS); and</p> <p>(iii) Precursors of these substances that may be produced or present in products</p>	n/a	<p><i>Verification:</i></p> <p>Declaration shall be provided by the applicant, raw material suppliers and their surfactant supplier supported by CAS numbers and identification of chain length for the surfactants used.</p>

<b>5. Miscellaneous functional substances with general application</b>			
<p>(a) Silicon resin emulsion in white paints, colourant and tinting bases</p> <p><i>Applicability:</i> All paints products</p>	<p><i>Derogated classifications:</i> H412 (R52/53), H413 (R53)</p>	<p>2.0% w/w</p>	<p><i>Verification:</i> Declaration shall be provided by the applicant and their raw material suppliers supported by CAS numbers and classifications.</p>
<p>(b) Metals and their compounds</p> <p><i>Applicability:</i> All products</p>	<p><i>The following metals or their compounds shall not be used as an ingredient of the product whether as a substance or as part of any preparation used:</i> Cadmium, lead, chromium VI, mercury, arsenic, barium, selenium, antimony and cobalt.</p> <p><i>The following derogations apply:</i> - Barium, antimony and cobalt in pigments (see restriction 5(f)) - Cobalt in driers (see restriction 2(a))</p>	<p>Trace impurities 0.01% cut-off</p>	<p><i>Verification:</i> Declaration by the applicant and their raw material suppliers.</p>
<p>(c) Binders and fillers</p> <p><i>Applicability:</i> All paints products</p>	<p><i>Derogated classifications:</i> H373 (R48/20)</p> <p>Binders containing metals referred to in restriction 5(b) may be used if laboratory testing shows that the metal is bonded within a crystal lattice and is insoluble (see test method applicable).</p> <p><i>The following binders and fillers are derogated on this basis:</i> - Nepheline syenite, containing barium</p>	<p>1.0% w/w</p>	<p><i>Verification:</i> Declaration shall be provided by the applicant and their raw material suppliers supported by CAS numbers and classifications.</p> <p><i>Test method:</i> DIN 53770-1 or equivalent</p>

<p>(d) Neutralising agents</p> <p><i>Applicability:</i> All paints products unless specified</p>	<p><i>Derogated classifications:</i> H311 (R24), H331 (R23), H400 (R50), H412 (R52/53), H413 (R53)</p> <p><i>The following concentration limits shall apply:</i></p> <ul style="list-style-type: none"> <li>- Varnishes and floor lacquers</li> <li>- All other products</li> </ul>	<p>1.0% w/w 0.50% w/w</p>	<p><i>Verification:</i> Declaration shall be provided by the applicant and their raw material suppliers supported by CAS numbers and classifications.</p>
<p>(e) Optical brighteners</p> <p><i>Applicability:</i> All paints products</p>	<p><i>Derogated classifications:</i> H413 (R53)</p>	<p>0.1% w/w</p>	<p><i>Verification:</i> Declaration shall be provided by the applicant and their raw material suppliers supported by CAS numbers and classifications.</p>
<p>(f) Pigments</p> <p><i>Applicability:</i> All products</p>	<p>Pigments containing metals shall only be used where laboratory testing of the pigment shows that the metal chromophore is bonded within a crystal lattice and is insoluble.</p> <p><i>The following metal containing pigments are derogated for use:</i></p> <ul style="list-style-type: none"> <li>- Barium sulphate</li> <li>- Antimony nickel within an insoluble TiO<sub>2</sub> lattice</li> <li>- Cobalt aluminate blue spinel</li> <li>- Cobalt chromite blue-green spinel</li> </ul>	<p>n/a</p>	<p><i>Verification:</i> Test results demonstrating that the pigment chromophore is bonded within a crystal lattice and is insoluble.</p> <p><i>Test method:</i> DIN 53770-1 or equivalent</p>
<p><b>6. Miscellaneous functional substances with specialist applications</b></p>			
<p>(a) UV protectors and stabilising agents for</p>	<p><i>Derogated classifications:</i> H317 (R43), H411 (R51/53), H412 (R52/53), H413 (R53),</p>	<p>0.60% w/w</p>	<p><i>Verification:</i> Declaration shall be provided by the</p>

<p>outdoor paints</p> <p>Applicability: <i>Outdoor paints</i></p>			<p>applicant and their raw material suppliers supported by CAS numbers and classifications.</p>
<p>(b) Plasticisers in paint and varnish.</p> <p>Applicability: Where included in the formulation</p>	<p><i>The following phthalates shall not be intentionally added as plasticisers:</i></p> <p>DEHP (Bis-(2-ethylhexyl)-phthalate)</p> <p>BBP (Butylbenzylphthalate)</p> <p>DBP (Dibutylphthalate)</p> <p>DMEP (Bis2-methoxyethyl) phthalate</p> <p>DIBP (Diisobutylphthalate)</p> <p>DIHP (Di-C6-8-branched alkylphthalates)</p> <p>DHNUP (Di-C7-11-branched alkylphthalates)</p> <p>DHP (Di-n-hexylphthalate)</p>	<p>Concentration limit for any individual phthalate: 0.10%</p>	<p>Verification:</p> <p>Declaration shall be provided by the applicant and their raw material suppliers supported by CAS numbers and classifications.</p>
<p><b>7. Residual substances that may be present in the final product</b></p>			
<p>(a) Formaldehyde</p> <p>Applicability: <i>All products.</i></p>	<p>Free formaldehyde shall not be intentionally added to the final product. Testing requirements shall reflect the product range.</p> <p><i>The following sum total limit value shall apply</i></p> <p>The following derogations are made from this requirement:</p> <p>(i) Where preservatives that are formaldehyde donors are required to protect a specific type of paint or varnish</p> <p>(ii) Where polymer dispersions (binders) are used as part of the paint formulation</p> <p><i>In these cases the sum total shall not exceed the following limit value:</i></p>	<p>10 ppm</p>	<p>Verification:</p> <p>Laboratory testing results for the white base, each transparent tinting base and the colour tint which has the maximum theoretical amount of formaldehyde.</p> <p>Test method:</p> <p>10 ppm limit value:</p> <p>Determination of the in-can concentration using high-performance liquid chromatography (HPLC)</p>

		100 ppm	<p>100 ppm limit value:</p> <p>(1) Indoor paints and varnishes: Determined by means of analysis according to EN 171-3. Emissions must not exceed 0.25 ppm upon first application and they must be less than 0.05 ppm after 24 hours from the first application.</p> <p>(2) Outdoor paints and varnishes: Determination of the in-can concentration using high-performance liquid chromatography (HPLC) or VdL-RL 03</p>
<p>(b) Solvents</p> <p><i>Applicability:</i> All products.</p>	<p><i>Derogated classifications:</i> H304 (R65)</p>	tbc% w/w	<p><i>Verification:</i></p> <p>Declaration shall be provided by the applicant and their raw material suppliers supported by CAS numbers and classifications.</p>
<p>c) Unreacted monomers</p> <p><i>Applicability:</i> To be specified</p>	<p>Unreacted monomers including Volatile Aromatic Hydrocarbons and acrylic acid may be present in the final product up to a sum total limit.</p>	0.1% w/w	<p><i>Verification:</i></p> <p>Declaration shall be provided by the applicant and their raw material suppliers supported by CAS numbers and classifications.</p>