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COMMISSION DECISION 2025/2607

of 17 December 2025

establishing the EU Ecolabel criteria for decorative paints, varnishes, and related products, performance coatings and related products, and water-based aerosol spray paints and repealing Decision 2014/312/EU

(notified under document C(2025) 8879)

(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 ([1]), and in particular Article 8(2) thereof,

After consulting the European Union Ecolabelling Board,

Whereas:

(1) Under Regulation (EC) No 66/2010, the EU Ecolabel may be awarded to those products with 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) Commission Decision 2014/312/EU ([2]) established EU Ecolabel criteria and related assessment and verification requirements for the product group 'indoor and outdoor paints and varnishes'. Those criteria and the related assessment and verification requirements are valid until 31 December 2025.

(4) Two separate sets of criteria for decorative paints, varnishes, and related products, and performance coatings and related products (previously referred to as 'indoor and outdoor paints and varnishes') are needed to better reflect best practice in the market and to take account of policy developments, potential future opportunities for increased uptake and the market's demand for sustainable products. A third set of new criteria for water-based aerosol spray paints, an additional product group with a potential growing market, is also needed.

(5) In line with those conclusions and after consulting the EU Ecolabelling Board, it is appropriate to split the product group 'indoor and outdoor paints and varnishes' into two product groups, 'decorative paints, varnishes, and related products' and 'performance coatings and related products'. The scope of the Decision should also be expanded to cover the new product group 'water-based aerosol spray paints'.

(6) The EU Ecolabel fitness check report ([3]) of 30 June 2017, reviewing the implementation of Regulation (EC) No 66/2010 concluded that a more strategic approach was needed for the EU Ecolabel, including bundling the criteria of closely related product groups together where appropriate.

([1]) OJ L 27, 30.1.2010, p. 1, ELI: http://data.europa.eu/eli/reg/2010/66/oj.

([2]) Commission Decision 2014/312/EU of 28 May 2014 establishing the ecological criteria for the award of the EU Ecolabel for indoor and outdoor paints and varnishes (OJ L 164, 3.6.2014, p. 45, ELI: http://data.europa.eu/eli/dec/2014/312/oj).

([3]) Report from the Commission to the European Parliament and the Council on the review of implementation of Regulation (EC) No 1221/2009 of the European Parliament and of the Council of 25 November 2009 on the voluntary participation by organisations in a Community eco-management and audit scheme (EMAS) and the Regulation (EC) No 66/2010 of the Parliament and of the Council of 25 November 2009 on the EU Ecolabel (COM(2017) 355 final).

(7) The new circular economy action plan for a cleaner and more competitive Europe ([4]) adopted on 11 March 2020 underlines that durability, energy and resource efficiency, and carbon and environmental footprint requirements are to be included more systematically in EU Ecolabel criteria.

(8) The revised EU Ecolabel criteria for decorative paints, varnishes, and related products, performance coatings and related products, and water-based aerosol spray paints should aim to promote products that have limited environmental impact throughout their life cycle, which are produced using material-efficient and energy-efficient processes. In particular, those criteria should promote products that have limited impacts in terms of emissions to water and air during production, emissions of volatile compounds during application, and which contain only a limited amount of hazardous substances. The criteria should also encourage efficient use of the product and recommend how to deal with unused product, thereby contributing to the transition to a more circular economy.

(9) The new criteria and related assessment and verification requirements should be valid until 31 December 2032, taking into account the product groups' innovation cycle.

(10) For reasons of legal certainty, Decision 2014/312/EU should be repealed.

(11) During a transitional period, manufacturers whose products have been awarded the EU Ecolabel for indoor and outdoor paints and varnishes on the basis of the criteria established in Decision 2014/312/EU, have sufficient time to adapt their products to comply with the new criteria and requirements laid down in this Decision. For a limited period after this Decision has entered into application, manufacturers should also be allowed to submit applications based either on the criteria established by Decision 2014/312/EU or on the new criteria established by this Decision. EU Ecolabel licences awarded under the criteria established in Decision 2014/312/EU should remain valid for 18 months from the date this Decision is adopted.

(12) Water-based aerosol spray paints should not be considered suitable substitutes for conventional paints in large-scale applications, for both wall and ceiling surfaces. This is because their typical coverage rate does not exceed 2,0 m^2 per litre, in contrast to conventional paints, which generally achieve a coverage rate of no less than 8,0 m^2 per litre.

(13) 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.

HAS ADOPTED THIS DECISION:

Article 1

1. The product group 'decorative paints, varnishes, and related products' shall comprise indoor and outdoor paints, varnishes, woodstains and primers whose primary purpose is to impart decorative characteristics to buildings, their trim and fittings and associated structures and that fall under the scope of subcategories 1.1(a) to (h) of Annex I to Directive 2004/42/EC of the European Parliament and of the Council ([5]).

Decorative paint products shall include tinting bases and different colour shades achieved by tinting, either predefined by the manufacturer or at the customised request of consumers (professional or non-professional) to operators of tinting systems.

Decorative paints or varnishes not covered by Directive 2004/42/EC which are supplied in powder or granule form, and that are to be diluted and mixed with water prior to use for decorative purposes, shall also be included in the scope of this product group if marketed for use in line with one of subcategories 1.1(a) to (h) of Annex I to Directive 2004/42/EC.

([4]) Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions, A new Circular Economy Action Plan for a cleaner and more competitive Europe (COM(2020) 98 final) (OJ C 364, 28.10.2020, p. 94).

([5]) Directive 2004/42/CE of the European Parliament and of the Council of 21 April 2004 on the limitation of emissions of volatile organic compounds due to the use of organic solvents in certain paints and varnishes and vehicle refinishing products and amending Directive 1999/13/EC (OJ L 143, 30.4.2004, p. 87, ELI: http://data.europa.eu/eli/dir/2004/42/oj).

2. The product group ‘decorative paints, varnishes, and related products’ shall not include the following:

(a) performance coatings as defined in subcategories 1.1(i) and 1.1(j) of Annex I to Directive 2004/42/EC;

(b) multicoloured coatings as defined in subcategory 1.1(k) of Annex I to Directive 2004/42/EC;

(c) decorative effect coatings as defined in subcategory 1.1(l) of Annex I to Directive 2004/42/EC;

(d) anti-fouling coatings;

(e) wood preservatives;

(f) any other coating systems marketed as having anti-microbial, anti-bacterial, anti-viral, disinfectant or other primary biocidal effects for the benefit of human health or related to hygiene standards in the food or drink industry, health services or any other sector, that extend beyond in-can preservation and preservation of the dry film (that is to say, beyond biocidal product types 6 and 7 as defined in Annex V to Regulation (EU) No 528/2012 of the European Parliament and of the Council ([6]));

(g) coatings and coating systems designed for use in industrial processes, such as powder coatings applied as powders to substrates and coatings that are cured by UV radiation;

(h) coatings primarily intended for vehicles;

(i) wood oils and waxes;

(j) fillers, plasters, grouts, sealants and adhesives;

(k) cement-based paints;

(l) aerosol spray paints;

(m) road-marking paints.

Article 2

1. The product group ‘performance coatings and related products’ shall comprise certain one-pack and multi-pack performance coating products whose primary purpose is to impart special performance characteristics to buildings, their trim and fittings and associated structures and that fall under the scope of subcategories 1.1(i) and 1.1(j) of Annex I to Directive 2004/42/EC.

The product group shall comprise floor coatings, anti-corrosion coatings, waterproofing coatings, radiator paints and any associated primers intended for use by consumers and professional users in buildings, their trim, fittings or associated structures.

2. The product group ‘performance coatings and related products’ shall not include the following:

(a) anti-fouling coatings;

(b) wood preservatives;

(c) any other coating systems marketed as having anti-microbial, anti-bacterial, anti-viral, disinfectant or other primary biocidal effects for the benefit of human health or related to hygiene standards in the food or drink industry, health services or any other sector, that extend beyond in-can preservation and preservation of the dry film (that is to say, beyond biocidal product types 6 and 7 as defined in Annex V to Regulation (EU) No 528/2012);

(d) coatings and coating systems designed for use in industrial processes, such as powder coatings applied as powders to substrates and coating systems that are cured by UV radiation;

(e) coatings primarily intended for vehicles;

([6]) 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 (OJ L 167, 27.6.2012, p. 1, ELI: http://data.europa.eu/eli/reg/2012/528/oj).

(f) wood oils and waxes;

(g) fillers, plasters, grouts, sealants and adhesives;

(h) cement-based paints;

(i) coatings designed to impart flame retardancy;

(j) coatings designed to impart graffiti resistance;

(k) road-marking paints.

Article 3

1 The product group 'water-based aerosol spray paints' shall comprise integral ready-to-use metal packages intended to be used by consumers and professional users to impart decorative or special performance characteristics to buildings, their trim or fittings and associated structures.

The metal packages shall be equipped with a valve and a water-based paint formulation which is dispensed by pre-stored pressure in a controlled manner when the valve is operated.

2. The product group 'water-based aerosol spray paints' shall not include the following:

(a) aerosol spray paints with an organic solvent-based paint formulation;

(b) aerosol spray paints that are classified as an extremely flammable aerosol (H222) or a flammable aerosol (H223) under the classification rules for mixtures set out in Regulation (EC) No 1272/2008 of the European Parliament and of the Council ([7]);

(c) aerosol spray paints marketed as having anti-microbial, anti-bacterial, anti-viral, disinfectant or other primary biocidal effects for the benefit of human health or related to hygiene standards in the food or drink industry, health services or any other sector, that extend beyond in-can preservation and preservation of the dry film (that is to say, beyond biocidal product types 6 and 7 as defined in Annex V to Regulation (EU) No 528/2012);

(d) water-based aerosol spray paints marked as substitutes for conventional paints in large-scale applications, for both wall and ceiling surfaces;

(e) water-based aerosol spray paints used for road-marking paints.

Article 4

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

(1) 'aerosol spray paints' means aerosol dispensers which are non-refillable receptacles made of metal and containing a gas that is compressed, liquefied or dissolved under pressure, with a paint formulation, and fitted with a release device allowing the contents to be ejected as solid or liquid particles in suspension in a gas, as a paste or in a liquid state;

(2) 'alkylphenols and alkylphenol ethoxylates' means organic compounds obtained by the alkylation of phenols and the ethoxylation of alkylphenols, including all the compounds listed in entry 43 of Annex XIV or entry 46 of Annex XVII of Regulation (EC) No 1907/2006 of the European Parliament and of the Council ([8]);

(3) 'anti-algal' means coating products to prevent or reduce deterioration of the coating film due to algal growth;

([7]) Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 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 (OJ L 353, 31.12.2008, p. 1, ELI: http://data.europa.eu/eli/reg/2008/1272/oj).

([8]) Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC (OJ L 396, 30.12.2006, p. 1, ELI: http://data.europa.eu/eli/reg/2006/1907/oj).

(4) ‘anti-fouling coating’ means coating materials applied to the underwater sections of a ship´s hull or to other underwater structures to discourage the growth of organisms;

(5) ‘anti-fungal’ means coating products to prevent or reduce the growth of mould or deterioration of the coating film due to fungal growth;

(6) ‘anti-microbial’ or ‘anti-bacterial’ means the property of a coating product to inhibit or prevent the growth and proliferation of microorganisms or bacteria on its surface under conditions conducive to microbial colonisation, encompassing both preservative and disinfectant product types as defined in Annex V to Regulation (EU) No 528/2012;

(7) ‘anti-corrosion coatings’ means coating products designed to prevent corrosion in metal substrates in the presence of oxygen and moisture, through the application of a protective coating;

(8) ‘binding primers’, as defined in subcategory 1.1(h) of Annex I of Directive 2004/42/EC;

(9) ‘cement-based paints’ means powdered paints containing significant amounts of Portland cement or other cement in the formulation and which need to be carefully mixed with water prior to application;

(10) ‘coatings for exterior walls of mineral substrate’ as defined in subcategory 1.1(c) of Annex I of Directive 2004/42/EC;

(11) ‘cross-linking agents’ means substances that facilitate the establishment of covalent or non-covalent (supramolecular) bonds between separate polymer chains or between non-neighbour parts of the same polymer chain and thus change the properties of the coating (for example drying, mechanical resistance, chemical resistance, adhesion);

(12) ‘dead matt paints’ are paints which, at an angle of incidence of 85°, give a reflectance of < 5;

(13) ‘decorative purpose’ means a treatment whose primary objective is to change or restore the appearance of a substrate;

(14) ‘dry-film preservatives’ means biocidal products within the meaning of Article 3(1), point (a), of Regulation (EU) No 528/2012 for use in product type 7 as described in Annex V to that Regulation, used to preserve films or coatings by controlling microbial deterioration or algal growth to protect the initial properties of the surface of materials or objects;

(15) ‘elastomeric paints’ means paints designed to provide a high-quality decorative and protective finish for masonry surfaces by bridging and sealing cracks in the substrate and which, thanks to their elastic properties and the use of thicker applied films, can stretch and shrink with thermally driven building movement, thus improving the durability of the underlying masonry material;

(16) ‘family of products’ means a group of coating products made by the same manufacturer with the same base formulation and product subcategory, but which only differ in terms of the shade and/or packaging format;

(17) ‘filler’ means a coating material with a high proportion of extender, intended primarily to even out irregularities in substrates to be painted and to improve surface appearance;

(18) ‘film-forming synthetic polymer microparticles’ means synthetic polymer microparticles that are added to the paint or varnish formulation, or its ingredients, and the physical properties of which are permanently modified during the application and curing of the paint or varnish formulation to form a film;

(19) ‘final products’ means decorative paints, varnishes, and related products; performance coatings and related products; and water-based aerosol spray paints, that are awarded the EU Ecolabel, in the form in which they are sold to customers;

(20) ‘floor coatings and floor paints’ means coatings and paints specifically formulated to be applied to flooring, for the purpose of protecting or colouring the flooring substrate;

(21) ‘gloss paints’ means paints which, at an angle of incidence of 60°, give a reflectance of ≥ 60;

(22) ‘impurities’ means unintended constituents (residuals, pollutants, contaminants, by-products, etc.) that remain in the EU Ecolabel product in concentrations less than 100 ppm (0,0100 % w/w, 100 mg/kg) or that remain in the supplied ingredient or raw material in concentrations less than 1 000 ppm (0,100 % w/w, 1 000 mg/kg). Any unintended constituents present above these respective limits for the EU Ecolabel product or the supplied ingredient or raw material shall instead be considered as ingoing substances;

(23) ‘in-can preservatives’ means biocidal products within the meaning of Article 3(1), point (a), of Regulation (EU) No 528/2012 for use in product type 6 as described in Annex V to that Regulation, in particular to preserve manufactured products during storage by controlling microbial deterioration to protect their shelf life, and used to preserve tints that will be dispensed from machines;

(24) ‘ingoing substances’ means constituents (as pure substances or as part of a mixture, and regardless of the amount) that are intentionally added to the final product or its ingredients to achieve or influence certain properties of the final product or its ingredients; substances known to be released from ingoing substances after they have been added (for example formaldehyde from preservatives and arylamine from azodyes and azopigments) shall also be regarded as ingoing substances; unintended constituents present in the final product or its ingredients in concentrations which exceed the permitted concentrations for impurities, shall be considered as ingoing substances;

(25) ‘interior/exterior trim and cladding paints for wood, metal or plastic’, as defined in subcategory 1.1(d) of Annex I of Directive 2004/42/EC,

(26) ‘interior/exterior trim varnishes and woodstains’, as defined in subcategory 1.1(e) of Annex I of Directive 2004/42/EC;

(27) ‘just add water decorative paints or varnishes’ means paints or varnishes that are supplied in powder form, which do not use cement binders, and which simply need to be mixed with water before use as any one of the categories defined in subcategories 1.1(a) to 1.1(h) of Annex I of Directive 2004/42/EC;

(28) ‘lasure (woodstain)’ means a coating material containing small amounts of a suitable pigment and/or extender and used to form a transparent or semi-transparent film to decorate and/or protect the substrate;

(29) ‘light-coloured coating’ means a coating with tristimulus values Y and Y10 greater than 25, measured with a spectrophotometer on a black and white substrate;

(30) ‘masonry coating’ means a coating that produces a decorative and protective film for use on concrete, paintable brickwork, blockwork, rendering, calcium silicate board or fibre-reinforced cement;

(31) ‘matt or glossy coatings for interior walls and ceilings’ means coatings designed for application to indoor walls and ceilings, which deliver a dead matt, matt, semi-matt, satin, semi-gloss or gloss finish;

(32) ‘matt paints’ means paints which, at an angle of incidence of 85°, give a reflectance of < 10 and ≥ 5;

(33) ‘mid-sheen paints’ (also referred to as semi-gloss, satin, semi-matt) are paints which, at an angle of incidence of 60° or of 85°, give a reflectance of < 60 and ≥ 10;

(34) ‘minimal build woodstains’, as defined in subcategory 1.1(f) of Annex I of Directive 2004/42/EC;

(35) ‘mixture’, as defined in Article 3(2) of Regulation (EC) No 1907/2006;

(36) ‘multi-pack performance coatings’ means coatings with the same use as one-performance coatings, but with a second component for example tertiary amines) added prior to application;

(37) ‘neutralising agent’ means a chemical substance or material added to coating formulations that acts as a Bronsted base, Bronsted acid, Lewis base or Lewis acid in order to stabilise the pH of the coating formulation and prevent unwanted reactions or degradations during production, storage and application that would adversely affect the properties of the coating product and the resulting dry film;

(38) ‘one-pack performance coatings’, as defined in subcategory 1.1(i) of Annex I of Directive 2004/42/EC;

(39) ‘opaque’ means a film with a contrast ratio of ≥ 98 % at 120 μm wet film thickness;

(40) ‘organotin compounds’ means any organometallic compound with at least one Sn-C covalent bond;

(41) ‘paint’ means a pigmented coating material, supplied in a liquid, paste or powder form, which, when applied to a substrate, forms an opaque film having protective, decorative or specific technical properties, which after application dries to a solid, adherent and protective coating;

(42) ‘PFAS’ means any substance that contains at least one fully fluorinated methyl (CF_3-) or methylene (-CF_2-) carbon atom (without any H/Cl/Br/I attached to it), except a substance that only contains the following structural elements: CF_3-X or X-CF_2-X’, where X = -OR or -NRR’ and X’ = methyl (-CH_3), methylene (-CH_2-), an aromatic group, a carbonyl group (-C(O)-), -OR", -SR" or –NR"R"', and where R/R’/R"/R"' is a hydrogen (-H), methyl (-CH_3), methylene (-CH_2-), an aromatic group or a carbonyl group (-C(O)-);

(43) ‘phthalates’ means esters of phthalic acid / orthophthalic acid / 1,2- benzene dicarboxylic acid;

(44) ‘plasters’ means premixed materials designed for plastering interior or exterior walls and ceilings, including gypsum plasters, solvent-free pasty plasters, masonry mortars and structural wall paints designed for use indoors as internal plaster with a thickness of > 400 μm and/or a minimum coverage of < 2 m^2/l;

(45) ‘powder coating’ means protective or decorative coating formed by the application of a coating powder to a substrate and fusion to create a continuous film;

(46) ‘primers’, as defined in subcategory 1.1(g) of Annex I of Directive 2004/42/EC;

(47) ‘road-marking paints’ means, paints that form part of the means for horizontal signage and require a functional component to provide road safety;

(48) ‘subcategory of products’ means a defined purpose of use for which a coating product has been formulated and which aligns with the subcategories defined in section 1.1 under the scope of Annex I to Directive 2004/42/EC. For clarity, aerosol spray paints shall always be considered as a separate subcategory from conventional paints even if they share the same final purpose of use;

(49) ‘substance’, as defined in Article 3(1) of Regulation (EC) No 1907/2006;

(50) ‘transparent’ and ‘semi-transparent’ means a film with a contrast ratio of < 98 % at 120 μm wet film thickness;

(51) ‘tinting system’ means a method for preparing coloured paints by mixing a ‘tinting base’ with colour tint;

(52) ‘TiO_2 nanoform’ means a form of TiO_2 meeting the requirements of nanoform in accordance with the Regulation (EC) No 1907/2006, irrespective of whether it is actually required to be registered pursuant to that Regulation;

(53) ‘trim and cladding’ are building elements with functional and aesthetic roles. Trim refers to finishing materials around edges or openings, such as doors and windows, that are used to conceal joints, protect surfaces and enhance design. Cladding is the application of one material over another in a building in order to protect the underlying material, improve building envelope insulation and/or contribute to visual appeal;

(54) ‘tristimulus values’ means the amount of reference colour stimuli, in a given trichromatic system, required to match the colour of the stimulus considered. In the CIE standard colorimetric systems (for example CIE 1931 and CIE 1964) the tristimulus values are represented, for example, by the symbols R, G, B; X, Y, Z; R10, G10, B10, or X10, Y10, Z10;

(55) ‘undercoat’ is a preparatory layer applied before the final coat of paint or varnish, designed to improve adhesion, level the surface, seal porosities, enhance colour perception for darker shades and/or provide additional protection to the substrate;

(56) ‘UV curable paint system’ means the hardening of coating materials by exposure to artificial ultra-violet radiation;

(57) ‘varnish’ means a clear coating material which, when applied to a substrate, forms a solid transparent film having protective, decorative or specific technical properties, which after application dries to a solid, adherent and protective coating;

(58) ‘waterproofing coatings’ means coating products and systems (including any primers and undercoats) applied in liquid form to seal roof surfaces (including green roofs), interior or exterior floor surfaces in a building and building elements in contact with soil;

(59) ‘waxes’ means a group of organic compounds that are typically solid at room temperature and become malleable or liquid when heated;

(60) ‘wood oils’ means oils used to care for and protect wood (for example pearling effect) without any cleaning action;

(61) ‘wood preservative’ are biocidal products within the meaning of Article 3(1)(a) of Regulation (EU) No 528/2012 for use in product type 8 as described in Annex V to that Regulation, they are used for the preservation of wood, from and including the saw-mill stage, or wood products by the control of wood-destroying or wood-disfiguring organisms, including insects.

Article 5

1. In order for a product to be awarded the EU Ecolabel under Regulation (EC) No 66/2010 for the product group ‘decorative paints, varnishes, and related products’, it shall fall within the definition of that product group in Article 1 of this Decision, and shall comply with the respective criteria and related assessment and verification requirements established in Annex I to this Decision.

2. In order for a product to be awarded the EU Ecolabel under Regulation (EC) No 66/2010 for the product group ‘performance coatings and related products’, it shall fall within the definition of that product group in Article 2 of this Decision and shall comply with the respective criteria and related assessment and verification requirements established in Annex II to this Decision.

3. In order for a product to be awarded the EU Ecolabel under Regulation (EC) No 66/2010 for the product group ‘water-based aerosol spray paints’, it shall fall within the definition of that product group in Article 3 of this Decision and shall comply with the respective criteria and related assessment and verification requirements established in Annex III to this Decision.

Article 6

The EU Ecolabel criteria for the product groups ‘decorative paints, varnishes, and related products’, ‘performance coatings and related products’, and ‘water-based aerosol spray paints’ and the related assessment and verification requirements shall be valid until 31 December 2032.

Article 7

1. For administrative purposes, the code number assigned to the product group ‘decorative paints, varnishes, and related products’ shall be ‘044’.

2. For administrative purposes, the code number assigned to the product group ‘performance coatings and related products’ shall be ‘056’.

3. For administrative purposes, the code number assigned to the product group ‘water-based aerosol spray paints’ shall be ‘057’.

Article 8

Decision 2014/312/EU is repealed.

Article 9

1. Applications submitted before the date of application of this Decision for the EU Ecolabel for the product group 'indoor and outdoor paints and varnishes', as defined in Decision 2014/312/EU, shall be evaluated in accordance with the conditions established in that Decision.

2. Applications for the EU Ecolabel for products falling within the product group 'indoor and outdoor paints and varnishes' as defined in Decision 2014/312/EU submitted within 2 months following the date of application of this Decision may be based either on the criteria established in this Decision, or on the criteria established in Decision 2014/312/EU. Those applications shall be evaluated in accordance with the criteria on which they are based.

3. EU Ecolabel licences awarded on the basis of an application evaluated in accordance with the criteria established in Decision 2014/312/EU may be used for 18 months from the date of application of this Decision.

Article 10

This Decision is addressed to the Member States.

Done at Brussels, 17 December 2025.

For the Commission
Jessika ROSWALL
Member of the Commission

ANNEX I

EU Ecolabel criteria for awarding the EU Ecolabel to decorative paints, varnishes, and related products

The EU Ecolabel criteria target the best paints, varnishes, and related products on the market, in terms of environmental performance. The criteria focus on the main environmental impacts associated with the life cycle of these products and promote circular economy aspects.

Assessment and verification requirements

For the EU Ecolabel to be awarded to a specific product, the product shall comply with each requirement. The applicant shall provide a written confirmation stating that all the criteria are fulfilled.

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 their supplier(s) as appropriate.

Competent bodies shall preferentially recognise attestations that are issued by bodies accredited in accordance with the relevant harmonised standard for testing and calibration laboratories, and verifications by bodies that are accredited in accordance with the relevant harmonised standard for bodies certifying products, processes, and services.

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 or site inspections to check compliance with these criteria.

Changes in suppliers and production sites pertaining to products to which the EU Ecolabel has been awarded shall be notified to competent bodies, together with supporting information to enable verification of continued compliance with the criteria.

As pre-requisite, the product shall meet all respective legal requirements of the country or countries in which the product is intended to be placed on the market. The applicant shall declare the product's compliance with this requirement.

The following information shall be provided together with the application for the EU Ecolabel:

(a) A list of all individual paint and varnish products covered by the EU Ecolabel application, grouped into product families and indicating any relevant product characteristics that affect which specific requirements from the EU Ecolabel criteria would apply. A family of products will all have the same base formulation and product subcategory, but may differ in terms of shade and/or packaging format.

(b) A description of the product formulation(s), with a % composition of the ingredients used and the specific function of each ingredient (the composition information may be subject to a non-disclosure agreement between the applicant and the competent body or, in some cases, directly between the supplier and the competent body). Ingredient functions shall be either: accelerator; additive; anti-blocking agent; anti-foaming agent; anti-settling agent; anti-skinning agent; binder; coalescing agent; colourant-dyestuff; colourant-pigment; crosslinking agent; curing agent/hardener; diluent; dispersing agent; drier; filler; dry-film preservative; in-can preservative; matting agent; neutralising agent; optical brightener; plasticiser; polymer dispersion; preservative stabiliser; resin; retarder; rheological modifier; silicone resin; solvent; surfactant; UV stabiliser; water; water-repelling agent or, in case none of these apply, 'other'.

(c) Safety data sheets for the ingredients used in the paint and varnish formulations.

(d) Any other information associated with the production of ingredients and materials that is necessary for demonstrating compliance with the EU Ecolabel criteria shall be provided by the suppliers or producers of those ingredients and materials.

(e) In order to help determine the number of products within any given family of products, a description of the packaging format(s) used, the volume(s) of product held and the packaging material(s) used for each of the paint and varnish products covered by the EU Ecolabel application.

(f) In order to reduce the quantity of testing and documentation required for assessment and verification procedures, several criteria explicitly state that compliance of an entire family of products can be assumed if the worst-case product can be shown to comply. Each time data for a worst-case product is submitted, it shall be accompanied by an explanation of why this particular product represents the worst-case within its family of products for the property being tested.

Criterion 1. Titanium dioxide production

If the final product contains more than 3,0 % w/w of titanium dioxide (TiO_2) pigment, the emissions to air and water from the production of any titanium dioxide pigment used shall meet the relevant requirements listed below for the respective production processes:

Table 1

Requirements for Titanium Dioxide production

Parameter and analytical method	Sulphate process	Chloride process
Emissions of dust to air ([1]) (measured with the relevant European or international standards)	≤ 0,40 kg/t TiO_2 pigment	≤ 0,66 kg/t TiO_2 pigment
Emissions of SO_2 to air ([1]) (measured with the relevant European or international standards)	≤ 4,5 kg/t TiO_2 pigment	n/a
Emissions of HCl to air ([1]) (measured with the relevant European or international standards)	n/a	≤ 0,70 kg/t TiO_2 pigment
Emissions of SO_4^{2-} to water (measured with the relevant European or international standards)	≤ 300 kg SO_4^{2-}/t TiO_2 pigment	n/a
Emissions of Cl^- to water (measured using the mass balance method or with the relevant European or international standards)	n/a	≤ 103 kg Cl^-/t TiO_2 pigment ([2]) ≤ 179 kg Cl^-/t TiO_2 pigment ([3]) ≤ 329 kg Cl^-/t TiO_2 pigment ([4])
Low dust working environment	To be demonstrated	To be demonstrated

([1]) Point sources for emissions of dust to air from the chloride process are considered as: milling, chlorination, oxidation and micronisation stages. Point sources for emissions of HCl to air from the chloride process are considered as: chlorination, acid scrubber from solid separation and metal chloride treatment processes. Point sources for emissions of dust to air from the sulphate process are considered as: milling, digestion, calcination and micronisation stages. Point sources for emissions of SO_2 to air from the sulphate process are considered as: digestion and calcination processes.
([2]) When ore used is > 95 % TiO_2 content.
([3]) When ore used is 90-95 % TiO_2 content.
([4]) When ore used is < 90 % TiO_2 content.

Emissions to air shall be counted from the relevant point source(s) stated in point (1) above where emissions can be continuously or periodically monitored from a fixed sampling point after any exhaust gas abatement system(s).

Emissions to water shall be considered as sulphate or chloride present in any treated wastewater effluent that is discharged into any rivers, lakes, transitional waters, coastal waters or seawaters.

The relevant limit for chloride emissions to water shall be based on the weighted average % TiO_2 content of ore(s) used during the calculation period.

A low dust working environment shall, as a minimum, include the follows aspects:

— A risk assessment for the workplace that identifies all the main areas of potential dust emission and worker exposure to dust.

— The need to have in place an occupational hygiene workplace monitoring program.

— Provision of appropriate training to employees about good practice for dust control.

— Provision of adequate personal protective equipment to employees and visitors.

Assessment and verification

The applicant shall declare the content of TiO_2 used in each of the product formulations subject to the EU Ecolabel license application. For any products with more than 3,0 % w/w TiO_2 pigment content, the applicant shall also declare the supplier or suppliers of the TiO_2 used in those products.

The applicant declaration shall be supported by declarations from their TiO_2 supplier(s) (or TiO_2 producer(s), if different) stating:

— The type of TiO_2 production process used (chloride or sulphate).

— The applicable TiO_2 content range of the weighted average ore in case of the chloride process.

— Annual average emissions data of dust to air, SO_2 to air, and SO_4^{2-} to water for TiO_2 produced through the sulphate process. Alternatively, average emission data of dust to air, HCl to air, and Cl^- to water for TiO_2 produced through the chloride process.

— The declarations from TiO_2 supplier(s) (or TiO_2 producer(s), if different) should include the relevant European or international standards used to measure the relevant parameters listed in the Table 1.

— The measures in place to ensure a low dust working environment.

The declaration from the TiO_2 supplier(s) (or TiO_2 producer(s), if different) shall include a basic calculation about how the annual average emissions were obtained. If the production of the supplied TiO_2 pigment is non-continuous, then emission data calculations covering a shorter period than 12 months may be accepted. In cases of continuous monitoring, the annual average emission concentrations shall be derived from daily average concentrations. For periodically monitored emissions, at least 3 samples must be taken to derive the average results. Any periodic sampling must be taken during periods of stable operation that are representative of normal plant conditions for the production of the TiO_2 pigments used in the EU Ecolabel paint products.

The emission calculations shall only be required to be submitted at the date of application for the EU Ecolabel. If the EU Ecolabel is awarded, the applicant can simply request updated declarations each year from their TiO_2 supplier(s) of continuing compliance with the emission limits.

For emissions to air, concentrations shall be expressed in units of mg/Nm^3 and multiplied by a specific emission air flow rate in units of Nm^3/tonne TiO_2 pigment production for the same time period that the data was collected. If there is more than one exhaust gas abatement system for major point sources of emissions to air, emissions from the clean air from each abatement system shall be counted and added.

For emissions to water, either a direct measurement or a mass balance approach shall be used. The mass balance approach shall be based on the balance between inputs of raw sulphate/chloride and outputs of sulphate/chloride in by-products, in emissions to air and in solid waste that is disposed of to landfill or incinerated. The difference in the masses of the inputs and outputs shall be considered as the mass of sulphate/chloride that is emitted to water during the calculation period and shall be divided by the estimated quantity of TiO_2 pigment produced during the same period to calculate specific emissions to water in units of kg sulphate or chloride/t TiO_2 pigment.

With the direct measurement approach for emissions to water, measured concentrations in units of g/m^3 shall be multiplied by a specific treated wastewater effluent flow rate in units of m^3/tonne TiO_2 pigment production for the same time period that the sulphate/chloride data was collected.

Criterion 2. Efficiency in use requirements

In order to demonstrate the efficiency in use of decorative paints, varnishes, and related products, the following tests per type of product, as indicated in Table 2 and detailed in the criterion text later, shall be undertaken.

Table 2

Performance requirements for different kinds of decorative paints, varnishes, and related products

Criteria	Decorative paint and varnish categories (with their subcategories identified according to the Directive 2004/42/EC)						'Just add water' decorative paints or varnishes for use on buildings, their trim, fittings or associated structures
	Indoor wall and ceiling paint (a, b)	Outdoor mineral substrate paint (c)	Trim and cladding paints (d)	Varnishes and woodstains (e, f)	Primers (g)	Binding primers (h)	
2(a) Spreading rate	Yes	Yes	Yes	No	Opaque only	Opaque only	Paints: Yes Varnishes: No
2(b) Wet scrub resistance (WSR) and white pigment content (WPC)	WSR and WPC	WPC only	WPC only	Neither	Opaque only (WPC only)	Opaque only (WPC only)	Paints: WPC (and WSR if marketed as subcategory a or b) Varnishes: Neither
2(c) Resistance to water	No	No	No	Yes, except minimal build wood-stains	No	No	Paints: No Varnishes: Only if marketed as subcategory e or f
2(d) Adhesion	No	No	Opaque under-coats only	No	Opaque and for masonry only	Opaque and for masonry only	No
2(e) Weathering	No	Yes	Outdoor only	Outdoor only	No	No	Only if marketed for outdoor application
2(f) Water vapour permeability	No	If claimed	No	No	No	No	No
2(g) Liquid water permeability	No	Yes	No	No	No	No	No
2(h) Fungal resistance	If claimed	If claimed	If claimed	No	No	No	If claimed
2(i) Algal resistance	No	If claimed	If claimed	No	No	No	If claimed

Criteria		Decorative paint and varnish categories (with their subcategories identified according to the Directive 2004/42/EC)						'Just add water' decorative paints or varnishes for use on buildings, their trim, fittings or associated structures
		Indoor wall and ceiling paint (a, b)	Outdoor mineral substrate paint (c)	Trim and cladding paints (d)	Varnishes and woodstains (e, f)	Primers (g)	Binding primers (h)	
2(j)	Crack bridging	No	If claimed	No	No	No	No	If claimed
2(k)	Alkali resistance	No	Yes	No	No	For outdoor masonry systems	For outdoor masonry systems	Only if marketed as subcategory c

2(a) Spreading rate

Note 1: This requirement does not apply to varnishes, lasures, transparent adhesion primers or any other transparent or semi-transparent coatings.

Note 2. For tinting systems, this criterion applies only to the tinting base containing the most TiO_2 in terms of g/l of tinting base. In cases where this tinting base is unable to achieve this requirement, the criterion shall be met after tinting the base to produce the standard colour RAL 9010.

Note 3. This requirement applies to all white paints. For families of paint products available only in preset shades, the spreading rate shall apply to the lightest colour.

Spreading rates shall be calculated while ensuring a hiding power of at least 98 % according to relevant European or international standards or an equivalent method that can be validated against them. The following minimum spreading rate limits apply:

— Indoor white paints and light-coloured paints, including finishing coats and intermediate coats (subcategories a and b), shall have a spreading rate of at least 8 m^2 per litre of product.

— Outdoor white and light-coloured paints, including finishing coats and intermediate coats (subcategory c), shall have a spreading rate of at least 6 m^2 per litre of product. Products marketed for both indoor and outdoor application shall meet the higher spreading rate requirement of at least 8 m^2 per litre.

— Opaque primers and undercoats (sub-categories g and h) shall have a spreading rate of at least 8 m^2 per litre of product, or of at least 6 m^2 per litre of product in the cases of opaque primers with specific blocking, sealing, penetrating, binding or special adhesion properties.

— Opaque elastomeric paints (subcategory c, but with crack-bridging claims) shall have a spreading rate of at least 4 m^2 per litre of product.

For paints that are a part of a tinting system, the applicant must advise the end-user on the product packaging and at the point of sale (POS) which shade or primer/undercoat (if possible, bearing the EU Ecolabel) should be used as a basecoat before applying the darker shade.

Assessment and verification:

The applicant shall provide a declaration of compliance with the relevant spreading rate limits or a justification of non-applicability of the spreading rate requirement for each of the products covered by the EU Ecolabel application. The declaration shall be supported by test results according to relevant European or international standards or an equivalent method that can be validated against them. It shall be clearly indicated which spreading rate results correspond to which families of products covered by the EU Ecolabel license application.

The highest TiO_2 content tinting base shall be identified by presenting safety data sheets for them or a suitable declaration that covers all tinting bases within a given family of products. For bases used to produce tinted products that have not been evaluated according to the abovementioned requirements, the applicant shall provide evidence of how the end-user will be advised to use a relevant primer and/or grey (or other relevant shade) of undercoat before application of the product.

2(b) Wet scrub resistance and white pigment content

Note: This criterion only applies to paint products and white pigment content shall be calculated with the same products for which spreading rate is measured as per the notes in criterion 2(a). For the purposes of this criterion, the term 'white pigment', shall be considered to refer only to pigments with a refractive index higher than 1,8.

Any indoor wall and ceiling paint products that claim wet scrub resistance must meet the requirements for class 1 or class 2 according to the procedure defined in relevant European or international standards and the classification systems and comply with the respective upper limits for white pigment content defined in the table below. All other relevant products that do not make wet scrub resistance claims must comply with the corresponding white pigment content limit defined in the Table 3.

Table 3

Requirements for wet scrub resistance and white pigment content for paint products

Wet scrub resistance claim? (product subcategory)	Wet scrub resistance	White pigment content
Yes (a), b), or just add water paints marketed as a) or b))	Class 1	≤ 40 g/m² (*)
Yes (a), b), or just add water paints marketed as a) or b))	Class 2	≤ 36 g/m² (*)
No (a), b), or just add water paints marketed as a) or b))	n/a	≤ 25 g/m² (*)
n/a (all other relevant subcategories: c), d), g) or h), or just add water paints marketed as c), d), g) or h))	n/a	≤ 38 g/m² (*)
n/a (varnishes and woodstains: e) or f))	n/a	n/a

(*) The m² refers to 1m² of dry film with an opacity of at least 98 % according to relevant European or international standards.

Assessment and verification:

The applicant shall provide a declaration of compliance with the relevant requirement or a justification of the non-applicability of the requirements for each of the products covered by the EU Ecolabel application. In cases of relevant products, the applicant shall declare the total content of white pigments with a refractive index > 1,8 in the final product, relevant tinting base or light base paint formulations that are subject to the EU Ecolabel license application. This information shall be provided in terms of the chemical name and CAS number of the white pigment, its declared refractive index, its concentration in g/l of paint product and the density of the paint, in g/l. The spreading rate of the paint product, in l/m² for a dry film of at least 98 % opacity according to relevant European or international standards, shall also be stated (as per criterion 2(a)). Multiplying the white pigment concentration (in g/l) by the spreading rate (in l/m²) will produce white pigment levels in units of g/m² that can be compared to the limits in the table above.

Except in cases where the content of white pigments is < 25,0 g/m² and no claims of wet scrub resistance are made, the applicant shall also provide results of wet scrub resistance testing according to the relevant European or international standards that show that the products meet the applicable class 1 or class 2 resistance requirements defined in other relevant European or international standards.

2(c) Resistance to water

Note: In varnish or woodstain coating systems with a primer, either the full coating system or just the finishing layer may be tested.

Cured coatings shall have resistance to water, as determined by relevant European or international standards, such that after 24 hours of exposure and 16 hours of recovery, no change of gloss is observed in transparent or semi-transparent coatings.

No change of gloss in exposed samples shall be considered as a visual rating of 0 when measured for quantity of defects, size of defects and intensity of changes according to the classification system of relevant European or international standards.

Assessment and verification:

The applicant shall provide a declaration of compliance with the requirement or a justification of the non-applicability of the requirement for each of the products covered by the EU Ecolabel application.

For any varnish or woodstain products included in their license application, the applicant declaration shall be supported by copies of test report(s) following relevant European or international standards that cover the licensed product or family of products, including reported results for change of gloss according to relevant European or international standards.

If the exemption for minimal build woodstains is applied, the applicant shall justify the exemption by providing test reports according to relevant European or international standards, that show the thickness of the coating layer to be less than 5µm.

2(d) Adhesion

Note: This criterion applies to opaque primers and binding primers for masonry coatings and to undercoats for wood or metal trim and cladding paints. The adhesion test may be conducted on any opaque primer or undercoat alone, or on the primer/undercoat and finishing coat together, so long as the combination is opaque. In cases of different colour shades within a family of products, only the light-coloured or white base paint or tinting base(s) need to be tested.

Pigmented masonry primers for exterior uses shall score a pass in the pull-off test of relevant European or international standards where the cohesive strength of the substrate is less than the adhesive strength of the primer coating, otherwise the adhesion of the primer coating must be in excess of a pass value of 1,5 MPa.

Interior masonry primers, metal and wood undercoats shall score 2 or less in the test for adhesion of relevant European or international standards.

Assessment and verification:

The applicant shall provide a declaration of compliance with the relevant requirement or a justification of the non-applicability of the requirements for each of the products covered by the EU Ecolabel application. For any opaque masonry primer, binding primer, wood undercoat or metal undercoat products included in their license application, the applicant shall provide copies of test reports following relevant European or international standards, as applicable.

2(e) Weathering

Note: This criterion applies to outdoor paints and varnishes. In the case of different colour shades within a family of products, only the light-coloured or white base paint or tinting base(s) need to be tested.

All outdoor paints or varnishes shall be exposed to artificial weathering in apparatus including fluorescent UV lamps and condensation or water spray according to relevant European or international standards. They shall be exposed to test conditions for 1 000 hours with cycling conditions of: UVA 4 h/60 °C + humidity 4 h/50 °C.

Alternatively, outdoor wood finishes and outdoor wood varnishes may be exposed to weathering for 1 000 hours in the QUV accelerated weathering apparatus with cyclic exposure with UV(A) radiation and spraying according to relevant European or international standards.

After weathering, the exposed films shall comply with the requirements specified in the Table 4.

Table 4

Overview of weathering requirements for decorative paints, varnishes, and related products according to relevant European or international standards

Property	Requirement (after weathering)	Scope of products covered/not covered
Colour change	Colour change, $\Delta E \leq 4$	Not applicable to any varnishes or any transparent or semi-transparent tinting bases
Decrease of gloss	≤ 50 % decrease compared to initial value	Not applicable to mid-sheen or matt finishing coats with initial gloss value of < 60 % at 60° angle of incidence
Chalking	A score of ≤ 2	Only applicable to finishing coats of coating systems used on outdoor masonry, wood and metal substrates
Flaking	Flake density: ≤ 2 Flake size: ≤ 2	
Cracking	Crack quantity: ≤ 2 Crack size: ≤ 3	
Blistering	Blister density: ≤ 3 Blister size: ≤ 3	

Assessment and verification:

The applicant shall provide a declaration of compliance with the relevant requirement or a justification of the non-applicability of the requirements for each of the products covered by the EU Ecolabel application. For any outdoor decorative paints or varnishes included in their license application, the applicant shall provide copies of test reports that detail the weathering test method used (being in compliance with relevant European or international standards) and provide results of changes in properties after weathering, as applicable.

2(f) Water vapour permeability

Note: This criterion only applies to outdoor masonry paints that make 'breathable' or 'water vapour permeable' claims in their marketing material. In cases of different colour shades within a family of products, only the light-coloured or white base paint or tinting base(s) need to be tested.

Relevant paint product(s) shall be tested for water vapour permeability according to relevant European or international standards and generate results that correspond to a medium (class V2) or high (class V1) water vapour permeability as defined in relevant European or international standards.

Assessment and verification:

The applicant shall provide a declaration of compliance with the relevant requirement or a justification of the non-applicability of the requirements for each of the products covered by the EU Ecolabel application. For any outdoor masonry paints included in their license application that make relevant marketing claims, the applicant shall provide copies of test reports according to relevant European or international standards, with results expressed according to the classification system defined in relevant European or international standards.

2(g) Liquid water permeability

Note: This criterion only applies to outdoor masonry paints. In cases of different colour shades within a family of products, only the light-coloured or white base paint or tinting base(s) need to be tested.

The paint product(s) shall be tested for liquid water permeability according to relevant European or international standards and meet the following requirements, as appropriate:

— For outdoor masonry paints that make claims about being water repellent or hydrophobic or similar: Low liquid water permeability (Class W3) according to the classification system of relevant European or international standards.

— For all other outdoor masonry paints: medium liquid water permeability (Class W2) according to the classification system of relevant European or international standards.

Assessment and verification:

The applicant shall provide a declaration of compliance with the relevant requirement or a justification of the non-applicability of the requirements for each of the products covered by the EU Ecolabel application. For any outdoor masonry paints, the applicant shall provide copies of test reports according to relevant European or international standards, with results expressed according to the classification system defined in relevant European or international standards.

2(h) Fungal resistance

Note: This criterion only applies to outdoor masonry paints or wood paints that have anti-fungal marketing claims. In cases of different colour shades within a family of products, only the light-coloured or white base paint or tinting base(s) need to be tested.

In accordance with Product Type 7 (PT7) efficacy requirements of Regulation (EU) No 528/2012, the following requirements shall be met, as appropriate:

— For outdoor masonry paints: A score of class 1 or lower (class 0) for fungal resistance according to relevant European or international standards.

— For wood paints: A score of class 0 for fungal resistance according to relevant European or international standards.

Assessment and verification:

The applicant shall provide a declaration of compliance with the relevant requirement or a justification of the non-applicability of the requirements for each of the products covered by the EU Ecolabel application. For any outdoor masonry paints or wood paints that have relevant marketing claims, the applicant shall provide copies of test reports according to relevant European or international standards.

2(i) Algal resistance

Note: This criterion only applies to outdoor masonry paints or wood paints that have anti-algal marketing claims. In cases of different colour shades within a family of products, only the light-coloured or white base paint or tinting base(s) need to be tested.

In accordance with Product Type 7 (PT7) efficacy requirements of Regulation (EU) No 528/2012, the following requirements shall be met, as appropriate:

— For outdoor masonry paints: A score of class 1 or lower (class 0) for algal resistance according to relevant European or international standards.

— For wood paints: A score of class 0 for algal resistance according to relevant European or international standards.

Assessment and verification:

The applicant shall provide a declaration of compliance with the relevant requirement or a justification of the non-applicability of the requirements for each of the products covered by the EU Ecolabel application. For any outdoor masonry paints or wood paints that have relevant marketing claims, the applicant shall provide copies of test reports according to relevant European or international standards.

2(j) Crack bridging

Note: This criterion only applies to outdoor masonry paints that have elastomeric (i.e. crack-bridging) marketing claims. In cases of different colour shades within a family of products, only the light-coloured or white base paint or tinting base(s) need to be tested.

The coating shall meet the requirements for crack-bridging performance of class A1 or better at 23 °C (i.e. A2, A3 etc.) according to relevant European or international standards.

Assessment and verification:

The applicant shall provide a declaration of compliance with the relevant requirement or a justification of the non-applicability of the requirements for each of the products covered by the EU Ecolabel application. For any outdoor masonry paints that have relevant marketing claims, the applicant shall provide copies of test reports according to relevant European or international standards.

2(k) Alkali resistance

Note: This criterion only applies to masonry coatings, including primers. In cases of different colour shades within a family of products, only the light-coloured or white base paint or tinting base(s) need to be tested.

The coating shall show no noticeable damage when the coating is spotted for 24 hours with 10 % NaOH solution according to relevant European or international standards. The evaluation shall be done after 24 hours drying-recovery. No noticeable damage shall be considered as a rating of 1 or better (i.e. 0 or 1) as defined in relevant European or international standards, following a visual assessment for both the size and quantity of defects for blistering on the surface of the tested coating in accordance with those same international standards.

Assessment and verification:

The applicant shall provide a declaration of compliance with the relevant requirement or a justification of the non-applicability of the requirements for each of the products covered by the EU Ecolabel application. For any outdoor masonry paints or primers, the applicant shall provide copies of test reports according to relevant European or international standards with results expressed in terms of the rating system in other relevant European or international standards.

Criterion 3. Content of 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 5.

The content of VOCs and SVOCs shall be determined for the ready to use product and shall include any recommended additions prior to application such as colourants and/or thinners.

Table 5

VOC and SVOC content limit

VOC and SVOC content limits		
Product description (with subcategory denotation according to Directive 2004/42/EC)	VOC ([3]) limits (g/l of ready to use product)	SVOC ([4]) limits (g/l of ready to use product)
a. Interior matt walls and ceilings (Gloss < 25@60°)	10	25 ([1]) / 30 ([2])
b. Interior glossy walls and ceilings (Gloss > 25@60°)	30	25 ([1]) / 30 ([2])
c. Exterior walls of mineral substrate	20	35
d. Interior/Exterior trim and cladding paints for wood and metal	60	40 ([1]) / 50 ([2])
e. Interior trim varnishes and woodstains, including opaque woodstains	60	30

VOC and SVOC content limits		
Product description (with subcategory denotation according to Directive 2004/42/EC)	VOC ([3]) limits (g/l of ready to use product)	SVOC ([4]) limits (g/l of ready to use product)
e. Exterior trim varnishes and woodstains, including opaque woodstains	60	50
f. Interior and Exterior minimal build woodstains	40	30 ([1]) / 40 ([2])
g. Primers	10	25 ([1]) / 30 ([2])
h. Binding primers	10	25 ([1]) / 30 ([2])

([1]) SVOC limit applies to indoor white paints and varnishes
([2]) SVOC limit applies to indoor tinted paints/outdoor paints and varnishes
([3]) 'Volatile organic compounds (VOCs)' 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
([4]) 'Semi volatile organic compounds (SVOCs)' means any organic compound having a boiling point greater than 250 °C and less than 370 °C measured at a standard pressure of 101,3 kPa

The VOC content shall be determined either by calculation based on the ingredients and raw materials or by using the methods given in relevant European or international standard or, alternatively for products with a VOC content of less than 1,0 g/l, the methods given in other relevant European or international standard. The SVOC content shall be determined using the method given in relevant European or international standard. In the case of products used both indoors and outdoors the strictest SVOC limit value for indoor paints and varnishes shall prevail.

Assessment and verification:

The applicant shall provide a declaration of compliance supported by calculations of VOC and SVOC contents based on the ingredients and raw materials used in the ready to use product. Alternatively, the VOC and SVOC contents of the ready to use product shall be communicated via a representative test report or reports using the methods given in the relevant international standard, as appropriate, and results shall demonstrate compliance with the relevant limits.

Criterion 4. Restriction of hazardous substances and mixtures

Note: These sub-criteria apply to the final product formulation and any supplied ingredients therein.

4.1. **Restrictions on Substances of Very High Concern (SVHCs)**

The final product formulation and any supplied ingredients therein shall not contain any ingoing substances that meet the criteria referred to in Article 57 of Regulation (EC) No 1907/2006 that have been identified according to the procedure described in Article 59 of that Regulation and included in the candidate list for substances of very high concern for authorisation.

Assessment and verification:

The applicant shall provide a signed declaration that the final product formulation and any supplied ingredients therein do not contain any SVHCs as ingoing substances. The applicant declaration shall be supported by safety data sheets of all supplied ingredients used to produce the final product and declarations from the chemical suppliers.

The list of substances identified as SVHCs and included in the candidate list in accordance with Article 59 of Regulation (EC) No 1907/2006 can be found here:

https://www.echa.europa.eu/candidate-list-table

Reference to the list shall be made on the submission date of the EU Ecolabel application.

For any level of known impurities identified as SVHCs in ingredients, the concentration of the impurity and an assumed retention factor of 100 % shall be used to estimate the quantity of the SVHC impurity remaining in the final product formulation. Impurities that are SVHCs cannot be present in the paint or varnish product formulation above 0,0100 % w/w or in any individual ingredient in concentrations exceeding 0,100 % w/w. Any deviation from a retention factor of 100 % for an SVHC impurity (for example due to solvent evaporation) or in case of chemical modification, must be supported by adequate justifications.

4.2. **General restrictions based on classifications according to specific hazard classifications defined in Regulation (EC) No 1272/2008.**

(a) Final product formulation

The final product formulation shall not be classified as being carcinogenic, mutagenic, toxic for reproduction, acutely toxic, an aspiration hazard, a specific target organ toxicant, a respiratory or skin sensitiser, hazardous to the aquatic environment, hazardous to the ozone layer, an endocrine disruptor, persistent, bioaccumulative and toxic (PBT) or persistent, mobile and toxic (PMT) in accordance with Regulation (EC) No 1272/2008 and specifically in terms of the hazard statement codes stated in Table 6. The only exception permitted to this rule shall be the H412 and H413 classification, and only if due to levels of dry-film preservatives in the case of outdoor paints or varnishes.

(b) Ingoing substances

Unless derogated in Table 7, the final product formulation shall not contain any ingoing substances in concentrations at or above 0,010 % weight by weight of the final product formulation that are classified, in accordance with Regulation (EC) No 1272/2008, with any of the hazard classes, categories and associated hazard statement codes stated in Table 6.

Table 6

Restricted hazard classes, categories, codes and associated hazard statements

Carcinogenic, mutagenic or toxic for reproduction (CMR)	
Categories 1A and 1B	Category 2
H340: May cause genetic defects	H341: Suspected of causing genetic defects
H350: May cause cancer	H351: Suspected of causing cancer
H350i: May cause cancer by inhalation	
H360: May damage fertility or the unborn child	H361: Suspected of damaging fertility or the unborn child
H360F: May damage fertility	H361f: Suspected of damaging fertility
H360D: May damage the unborn child	H361d: Suspected of damaging the unborn child
H360FD: May damage fertility. May damage the unborn child	H361fd: Suspected of damaging fertility. Suspected of damaging the unborn child
H360Fd: May damage fertility. Suspected of damaging the unborn child.	H362: May cause harm to breast fed children
H360Df: May damage the unborn child. Suspected of damaging fertility.	
Acute toxicity	
Categories 1 and 2	Category 3
H300: Fatal if swallowed	H301: Toxic if swallowed
H310: Fatal in contact with skin	H311: Toxic in contact with skin
H330: Fatal if inhaled	H331: Toxic if inhaled
	EUH070: Toxic by eye contact
Aspiration hazard	
Category 1	
H304: May be fatal if swallowed and enters airways	

Carcinogenic, mutagenic or toxic for reproduction (CMR)	
Categories 1A and 1B	Category 2
Specific target organ toxicity	
Category 1	Category 2
H370: Causes damage to organs	H371: May cause damage to organs
H372: Causes damage to organs through prolonged or repeated exposure	H373: May cause damage to organs through prolonged or repeated exposure
Respiratory and skin sensitization	
Category 1, 1A and 1B	
H317: May cause an allergic skin reaction	
H334: May cause allergy or asthma symptoms or breathing difficulties if inhaled	
Hazardous to the aquatic environment	
Categories 1 and 2	Categories 3 and 4
H400: Very toxic to aquatic life	H412: Harmful to aquatic life with long-lasting effects
H410: Very toxic to aquatic life with long-lasting effects	H413: May cause long-lasting effects to aquatic life
H411: Toxic to aquatic life with long-lasting effects	
Hazardous to the ozone layer	
H420: Harms public health and the environment by destroying ozone in the upper atmosphere	
Endocrine disruptors (EDs) for human health and the environment	
Category 1	Category 2
EUH380: May cause endocrine disruption in humans	EUH381: Suspected of causing endocrine disruption in humans
EUH430: May cause endocrine disruption in the environment	EUH431: Suspected of causing endocrine disruption in the environment.
Persistent, Bioaccumulative and Toxic (PBT)	
PBT	very Persistent and very Bioaccumulative (vPvB)
EUH440: Accumulates in the environment and living organisms including in humans	EUH441: Strongly accumulates in the environment and living organisms including in humans
Persistent, Mobile and Toxic (PMT)	
PMT	very Persistent and very Mobile (vPvM)
EUH450: Can cause long-lasting and diffuse contamination of water resources	EUH451: Can cause very long-lasting and diffuse contamination of water resources

The use of substances that are chemically modified during the production process, so that any relevant hazard for which the substance has been classified under Regulation (EC) No 1272/2008 no longer applies, shall be exempted from the above requirement.

This criterion shall not apply to ingoing substances covered by points (a) and (b) of Article 2(7) of Regulation (EC) No 1907/2006, which set out criteria for exempting substances within Annexes IV and V to that Regulation from the registration, downstream user and evaluation requirements.

Table 7

Derogations to restrictions on ingoing substances that are classified with one or more of the restricted hazards listed in Table 6 and are present in concentrations at or above 0,010 % (weight by weight) of the final product formulation.

Substance type, substance name and CAS number	Derogated hazard code(s)	Derogation conditions
Preservatives and preservative stabilisers		
Note on preservatives: all preservatives added to ingredients must be declared by suppliers and all preservatives added directly to the final product formulation must be declared by the paint or varnish producer. The only types of preservatives permitted in ingredients and the final product shall be those that are compliant with Regulation (EU) No 528/2012. For final products originating in the Union, it is reminded that it is not sufficient that the active substances contained in the preservative product are approved under Regulation (EU) No 528/2012 for product type 6 (PT6) (in-can preservative) or for product type 7 (PT7) (dry-film preservative), but the preservative product must be authorised under Regulation (EU) No 528/2012 for PT6 or PT7 or made available on the market according to the transitional measures set out in Article 89(2) of that Regulation. The combined total limits for PT6 and PT7 preservatives shall apply to these following product categories: — For indoor products: up to 0,080 % weight by weight of PT6 in the final product. — For colour tints used in tinting systems: up to 0,20 % weight by weight of PT6 in the colour tint. — For indoor products marketed for use in high humidity areas: up to 0,080 % weight by weight of PT6 and up to 0,10 % weight by weight of PT7 in the final product. — For outdoor products: up to 0,080 % weight by weight of PT6 and up to 0,50 % weight by weight of PT7 in the final product. Except for colour tints, all references to concentrations/limits/levels of preservatives in the section 'Preservatives and preservative stabilisers', shall be understood as referring to the preservative active substances contained in the final product formulation. Any preservatives which cannot be present in the final product formulation at concentrations exceeding 0,010 %, due to specific concentration limits (SCLs) lower than 0,010 % that would classify the final product with a restricted CLP hazard, are not mentioned in the derogation table below because they cannot be used in concentrations exceeding 0,010 % in the first place and thus do not need a derogation. This does not imply that they cannot be used as ingoing substances in EU Ecolabel products at any level. If not explicitly excluded in sub-criterion 4.3, such preservatives may be used so long as it is at levels below any SCLs that would trigger a restricted CLP classification of the final product formulation.		
In-can preservatives (PT6) in colour tints or final product:	H301, H311, H317, H330, H331, H372, H373, H400, H410, H411, H412, H413	(*)See horizontal derogation condition at foot of table The sum total of all PT6 in-can preservatives (those derogated for use above 0,010 % plus those that are non-derogated but used in levels < 0,010 %) must be within the relevant limits defined in the note above. When preservatives that are formaldehyde donors are used, the relevant limits for free formaldehyde in the final product formulation set out in sub-criterion 4.3(l) must be respected. Specific concentration limits (% weight by weight in the final product formulation) shall apply for the derogated substances listed below: — Bronopol (CAS No 52-51-7): up to 0,030 %. — DBNPA (CAS No 10222-01-2): up to 0,030 %. — Sodium pyrithione (CAS No 3811-73-2): up to 0,030 %. — BIT (CAS No 2634-33-5): up to 0,036 %. — Combined total isothiazolinones and isothiazolinone releasers (those derogated for use above 0,010 % plus those that are non-derogated but used in levels < 0,010 %): up to 0,040 % in final product formulations — Diamine (CAS No 2372-82-9): up to 0,050 %.

Substance type, substance name and CAS number	Derogated hazard code(s)	Derogation conditions
Dry-film preservatives (PT7):	H311, H317, H330, H331, H372, H373 H400, H410, H411, H412 and H413	(*)See horizontal derogation condition at foot of table Only applies to outdoor products and indoor products for use in high humidity areas. The sum total of all PT7 dry-film preservatives (those derogated for use above 0,010 % plus those that are non-derogated but used in levels < 0,010 %) must be within the relevant limits defined in the note above. In the case of slow release, encapsulated forms of dry-film preservatives, the specific classification of the final product, or read-across formulations, should consider the absolute concentration of the hazardous components (i.e. without capsules). The final product or read-across formulation cannot be classified with any of the hazards listed in Table 6. Any dry-film preservatives classified as H400 or H410 must be non-bioaccumulative, demonstrated by having an octanol-water coefficient (Log Kow) of ≤ 3,2 or a bioconcentration factor (BCF) of ≤ 100.
Preservative stabiliser: Zinc oxide (CAS No 1314-13-2)	H400, H410	(*)See horizontal derogation condition at foot of table Permitted to be used as a preservative stabiliser, up to 0,040 % weight by weight in the final product formulation, when used to stabilise in-can or dry-film preservative combinations that require 1,2-Benzisothiazol-3(2H)-one (BIT).
Drying and anti-skinning agents		
Anti-skinning agents	H317, H412, H413	(*)See horizontal derogation condition at foot of table The sum total anti-skinning agent content shall not exceed 0,40 % weight by weight in the final product formulation.
Driers (siccatives)	H301, H317, H373, H400†, H410†, H412, H413	(*)See horizontal derogation condition at foot of table The sum total drier content shall not exceed 0,10 % weight by weight in the final product formulation. † The derogation for H400 and H410 only applies to cobalt-based drier compounds and such compounds can only be used up to 0,050 % weight by weight in the final product formulation.
Pigments and pigments additives		
Trimethylolpropane (CAS No 77-99-6)	H361fd	(*)See horizontal derogation condition at foot of table Only when used as an additive in supplied pigments and only up to 0,50 % weight by weight in the supplied pigment.
Binders and polymer dispersions		
Binders and crosslinking agents: Adipic acid dihydrazide (CAS No 1071-93-8)	H317, H411	(*)See horizontal derogation condition at foot of table Only allowed up to 1,0 % weight by weight in the binder or polymer dispersion ingredient and when used as an adhesion promoter or as a crosslinking agent.
Unreacted monomers (in binders)	H301, H304, H311, H317, H331, H334, H372, H400, H410, H411, H412	(*)See horizontal derogation condition at foot of table The sum total concentration of unreacted monomers needing this derogation shall not exceed 0,050 % weight by weight in the final product formulation.

Substance type, substance name and CAS number	Derogated hazard code(s)	Derogation conditions
Other, miscellaneous		
Methanol (CAS No 67-56-1)	H301, H311, H331, H370	(*)See horizontal derogation condition at foot of table Only permitted as a residual reaction product of other substances in the product formulation. Allowable residual concentration increases as a function of binder content in the following manner: — Binder content of 10-20 %: allowable residual methanol is 0,020 % weight by weight in the final product formulation. — Binder content of 20-40 %: allowable residual methanol is 0,030 % weight by weight in the final product formulation. — Binder content of > 40 %: allowable residual methanol is 0,050 % weight by weight in the final product formulation.
Mineral raw materials, including fillers, anti-sagging agents and matting agents	H372, H373	(*)See horizontal derogation condition at foot of table Only applies to mineral raw materials and leucophyllite minerals that naturally contain crystalline silica. Only permitted in contents up to 1,0 % weight by weight in the final product formulation for H372 materials or up to 10 % for H373 materials. In cases where the material is supplied in dry powder form, the applicant shall demonstrate that they have systems in place to minimise worker exposure to dry powder in the workplace (for example closed dosing systems, ventilated dosing and mixing areas and personal protective equipment).
Neutralising agents	H301, H311, H331, H400, H410, H411, H412, H413	(*)See horizontal derogation condition at foot of table Only allowed up to 1,0 % weight by weight in varnish formulations, and up to 0,50 % in all other products.
Optical brighteners	H413	(*)See horizontal derogation condition at foot of table Only allowed up to 0,10 % weight by weight in the final product formulation.
Silicone resin	H412, H413	(*)See horizontal derogation condition at foot of table Only allowed up to 2,0 % weight by weight in the final product formulation.
Solvents	H304	(*)See horizontal derogation condition at foot of table Only allowed up to 2,0 % weight by weight in the final product formulation.
Surfactants	H411, H412, H413	(*)See horizontal derogation condition at foot of table Only allowed up to 1,0 % weight by weight in transparent, semi-transparent, white or light-coloured product formulations or up to 3,0 % weight by weight in all other colours.
UV stabilisers	H317, H411, H412, H413	(*)See horizontal derogation condition at foot of table Only applicable to outdoor products and only up to 0,60 % weight by weight in the final product formulation.

(*) Horizontal derogation condition: none of the derogations above, either individually or in combination, shall be permitted if they result in the final product formulation being classified with any of the hazards defined in Table 6, with the notable exception of H412 and H413 for outdoor products due to the presence of dry-film preservatives.

Assessment and verification:

The applicant shall provide a signed declaration of compliance with sub-criterion 4.2, including compliance with any relevant derogation conditions, supported by declarations from suppliers and any other relevant documentation.

A list of all ingoing substances with one or more of the restricted CLP hazards calculated to be present in the final product formulation in concentrations greater than 0,010 % weight by weight shall be presented, together with their CAS numbers, CLP classification status (i.e. harmonised, joint entry or self-entries only) the relevant function of the ingoing substance (for example in-can preservative, drier, pigment, neutralising agents, surfactants, UV stabiliser etc.)., Calculations for ingoing substance concentrations in the final product formulation shall be based on:

— a list of all ingredients, chemicals or raw materials used to make the final product formulation;

— the screening of ingredients, chemicals or raw materials for those ingoing substances and known impurities with any of the EU Ecolabel-restricted CLP hazards;

— the concentrations of any screened ingoing substances and known impurities with EU Ecolabel-restricted CLP hazards in the ingredients, chemicals or raw materials used in the format supplied;

— the weight of each of the ingredients, chemicals or raw materials added to make a known weight of final product formulation.

Known impurities shall be treated as ingoing substances only if the screening exercise reveals that their content in the final product formulation shall exceed 0,010 % weight by weight or their content in an ingredient shall exceed 0,100 % weight by weight. Known impurities below these thresholds shall not be counted in calculations.

Any screened ingoing substances shall be assumed by default to be 100 % retained in the final product. Justifications for any deviation from a retention factor of 100 % during processing (for example solvent evaporation) or for chemical modification of a screened ingoing substance shall be provided. Substances known to be released or to degrade from ingoing substances are considered ingoing substances and not impurities.

For any screened ingoing substances remaining in the final product formulation in concentrations greater than 0,010 % weight by weight, but which are exempted from sub-criterion 4.2 (see Annexes IV and V to Regulation (EC) No 1907/2006), a declaration to this effect by the applicant shall suffice for those substances.

Since multiple products or potential products (for example customised shades from a tinting system) using the same ingredients, chemicals or raw materials may be covered by one EU Ecolabel license, a worst-case calculation may be acceptable for each screened ingoing substance within a common family of products covered by the same license.

Regarding information requested from suppliers that may be commercially sensitive, evidence from suppliers can also be provided directly to competent bodies without necessarily providing certain details to the applicant.

4.3. **Specific hazardous substance restrictions for ingoing substances.**

Unless derogated in sub-criterion 4.2, the substances indicated below shall not be included as ingoing substances in the final product formulation or as ingoing substances to the ingredients used to make the final product formulation:

(a) Preservatives or driers classified as carcinogenic, mutagenic or toxic for reproduction.

(b) Substances classified as category 1 or category 2 endocrine disruption for human health or the environment in accordance with CLP Regulation (EC) 1272/2008, substances included in the candidate list referred to in Article 59(1) of REACH Regulation (EC) 1907/2006 as having endocrine-disrupting properties for human health or the environment, substances identified as having endocrine-disrupting properties in accordance with Regulation (EU) No 528/2012 or Regulation (EC) No 1107/2009, except for DBNPA (CAS No 10222-01-2) when used as an in-can preservative.

(c) Substances classified as Persistent, Bioaccumulative and Toxic (PBT) or very Persistent and very Bioaccumulative (vPvB) for the environment and living organisms including in humans in accordance with CLP Regulation (EC) 1272/2008, substances included in the candidate list referred to in Article 59(1) of REACH Regulation (EC) 1907/2006 as having PBT or vPvB properties for the environment and living organisms including in humans, substances identified as having PBT or vPvB properties for the environment and living organisms including in humans in accordance with Regulation (EU) No 528/2012 or Regulation (EC) No 1107/2009.

(d) Substances classified as Persistent, Mobile and Toxic (PMT) or very Persistent and very Mobile (vPvM) in accordance with CLP Regulation (EC) 1272/2008, substances included in the candidate list referred to in Article 59(1) of REACH Regulation (EC) 1907/2006 as having PMT or vPvM properties.

(e) Alkylphenols, alkylphenol ethoxylates (APEOs) and their derivatives, as referred to in entry 43 to Annex XIV or entry 46 to Annex XVII of the Regulation (EC) 1907/2006.

(f) Perfluorinated and polyfluorinated compounds (PFAS), as defined in Article 4(42).

(g) Phthalates.

(h) Organotin compounds.

(i) Fragrance substances which are prohibited or restricted in cosmetic products and listed in Annexes II or III to Regulation (EC) No 1223/2009.

(j) Bisphenols that have been identified by ECHA in their 2021 'Assessment of Regulatory Needs report on Bisphenols' for further EU regulatory risk management that are known or potential endocrine disruptors for the environment or for human health, or that can be identified as toxic for reproduction.

(k) Pigments used shall not be based on Cadmium, Lead, Chromium (VI), Mercury, Arsenic, Selenium, Antimony or Cobalt. The following impurities from any pigments used shall not be present in the final product formulation in quantities exceeding 0,010 % weight by weight (per metal): Cadmium, Lead, Chromium (VI), Mercury, Arsenic, Selenium, Antimony and Cobalt. The only exceptions to pigment use and to the 0,010 % limit for impurities shall be:

— Cobalt: due to the use of Cobalt aluminate blue spinel (CAS No 1345-16-0) and Cobalt chromite blue-green spinel pigments (CAS No 68187-11-1).

— Antimony: due to the use of pigments based on Antimony Nickel within an insoluble TiO_2 lattice.

(l) Free formaldehyde shall not be intentionally added to the final product formulation. The final product shall be tested in order to determine its free formaldehyde content. Worst-case samples for testing shall be selected for each family of products based on which product is predicted to have the highest theoretical amount of formaldehyde content. Under the conditions defined below, the following sum total limits of free formaldehyde shall be permitted:

— Up to 0,0010 % weight by weight permitted when bronopol or preservatives that are formaldehyde donors are required as an in-can preservative to protect a specific type of paint or varnish

— Up to 0,010 % weight by weight permitted when polymer dispersions (binders) provide, through residual levels of formaldehyde, the function of formaldehyde donors instead of in-can preservatives.

— Up to 0,010 % when both conditions listed above apply in the same product.

(m) Synthetic polymer microparticles (SPMs, commonly known as microplastics) as defined in entry 78 of Annex XVII to Regulation (EC) No 1907/2006 (REACH), shall not be used for non-film forming purposes in any product formulation unless their use and purpose is explicitly declared, together with a justification of why their use improves the overall environmental performance of the paint or varnish product.

Assessment and verification:

(a to j) The applicant shall declare the non-use of the relevant substances indicated in this sub-criterion, namely CMR preservatives, CMR driers, endocrine disruptors (except DBNPA), PBT and vPVB substances, PMT and vPvM substances, alkylphenols and APEOs, PFAS, phthalates, organotin compounds, fragrances and bisphenols as ingoing substances in their formulation, supported by declarations from their suppliers about the non-use of the same hazardous substance groups as ingoing substances in the ingredients supplied and that are used in formulations covered by the EU Ecolabel license application procedure.

(k) In the case of the heavy metal restrictions from pigments, the applicant or pigment supplier shall provide a declaration stating that neither the pigment itself nor any ingoing substances that may be incorporated into the pigment product are based on the listed heavy metals. The applicant or pigment supplier shall also provide a test report with the heavy metal impurity levels of representative samples of the pigment supplied. The applicant shall then use these results, together with the % of pigment(s) used in the final product, to calculate the concentration of heavy metals from pigments remaining in the final product. In the case of exempted pigments, the pigment supplier shall declare which pigment(s) have the exemption (i.e. cobalt aluminate blue spinel, cobalt chromite blue-green spinel or antimony nickel in an insoluble TiO_2 lattice).

(l) The applicant shall declare which of their products should have the highest theoretical free formaldehyde content within each family of products' formulation. This declaration shall be based on the choice of the paint formulator to use formaldehyde donors as in-can preservatives and declarations from suppliers regarding the amounts of formaldehyde donors used to preserve supplied ingredients (especially binders). The addition of these substances (and any other ingredients that release formaldehyde) to the worst-case formulations shall not result in the content of free formaldehyde in the final product exceeding the relevant concentration limit, as measured with relevant European or international standards.

(m) The applicant shall provide either a declaration of the non-use of SPMs for non-film forming purposes or a declaration of their use in the product formulation. In cases where the use of SPMs for non-film forming purposes is declared, the type, quantity (% weight by weight) and purpose shall be stated in the declaration, together with a justification of how the use of SPMs for non-film forming purposes improves the overall environmental performance of the product. Such justifications should normally compare the environmental performance of the same product with and without the SPMs for non-film forming purposes.

Criterion 5. Volatile Organic Compounds (VOCs) emissions

Note: Only applicable to indoor decorative paints, varnishes, and related products

Emissions of VOCs shall not exceed the limits defined in the Table 8 below.

Table 8

VOC emission limits

Parameter	3-day test results	28-day test results
TVOC (*)	≤ 3 000 µg/m³	≤ 300 µg/m³
R value (**)	n/a	≤ 1,0
Formaldehyde	n/a	≤ 10 µg/m³
Any other category 1A or 1B carcinogenic VOCs not covered by EU LCI values (***)	≤ 10 µg/m³ per substance	≤ 1 µg/m³ per substance

(*) TVOC shall be measured as defined in relevant European or international standards and including quantification of any non-target compounds

(**) R value, as defined in relevant European or international standards. Results for the cumulative R value shall be rounded to one decimal place before determining compliance or non-compliance with the limit of 1,0.

(***) Does not apply to formaldehyde, which is a VVOC and is covered by a specific individual limit. Does not apply to any other carcinogenic VVOCs or VOCs that have an EU-LCI value, since these are already covered by the R-value limit.

Assessment and verification:

The applicant shall submit a copy of test report according to relevant European or international standards for the worst-case product formulation within each of the relevant families of products being covered by the EU Ecolabel license application. Any changes to the formulations that would create a higher worst-case VOC content shall trigger the requirement to submit an updated VOC emission test report. When relevant, a clear explanation of the distinctions made between families of products (for example binder chemistry, product category etc.) shall be provided, together with a justification of the worst-case product within each family of products.

In cases where a coating system has multiple layers, the full system should be applied to the test substrate according to manufacturer instructions prior to emission testing.

For the calculation of the R value, reference should be made to the latest set of agreed EU LCI (Lowest Concentration of Interest) values available at the time of testing. These values can be consulted on the European Commission website (1).

If chamber air concentrations can be shown to comply with the 28-day limits before the 28-day period has been completed but after a period of at least 3 days, then those results can be accepted as proof of compliance and the test can be halted at that point.

(1) See: https://single-market-economy.ec.europa.eu/sectors/construction/eu-lci-subgroup/eu-lci-values_en

Criterion 6. Consumer information

6(a) The following information shall appear on or be attached to the packaging:

— Recommendation to minimise paint or varnish wastage by estimating how much paint or varnish is needed before purchase,

— How to recover unused paint or varnish for reuse,

— How reuse of paint or varnish can effectively minimise the products' life cycle environmental impact,

— Information requested in sub-criterion 6(b) or explanation of how to access such information.

6(b) The following information shall appear on or be attached to the packaging or be available via a web-link or QR code:

— How to estimate the amount of paint or varnish needed prior to purchase in order to minimise paint or varnish wastage and a recommended amount as a guideline (for example for 1 m^2 of wall, X litres of paint or varnish is needed),

— Appropriate storage conditions of the product (before and after opening), including, where appropriate, safety advice,

— Safety measures for the user including basic recommendation on personal protective equipment that should be worn and additional measures that should be taken when using the product and if applicable when using spray equipment,

— The use of cleaning equipment and appropriate waste management of the 'leftover paint or varnish' and packaging (in order to limit water and soil pollution). For example, text advising that the unused product requires specialist handling for safe environmental disposal and therefore it should not be thrown away with household or commercial waste.

Assessment and verification:

The applicant shall declare that the product complies with the requirement and provide the competent body with the artwork or samples of the user information and/or a link or QR code to a manufacturer's website containing this information as part of the application. The recommended amount of paint given as a guideline shall be provided.

Criterion 7. Information appearing on the EU Ecolabel

The optional label with text box shall contain three of the following statements, according to their relevance:

— Minimised content of hazardous substances,

— Reduced content of volatile organic compounds (VOCs): x g/l,

— Reduced emissions of volatile organic compounds to indoor air (for indoor products),

— Good performance for indoor use (for indoor products), or

— Good performance for outdoor use, (for outdoor products) or

— Good performance for both indoor and outdoor use (for products suitable for indoor and outdoor use).

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

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.

ANNEX II

EU Ecolabel criteria for awarding the EU Ecolabel to performance coatings and related products

The EU Ecolabel criteria target the best performance coatings and related products on the market, in terms of environmental performance. The criteria focus on the main environmental impacts associated with the life cycle of these products and promote circular economy aspects.

Assessment and verification requirements

For the EU Ecolabel to be awarded to a specific product, the product shall comply with each requirement. The applicant shall provide a written confirmation stating that all the criteria are fulfilled.

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 their supplier(s) as appropriate.

Competent bodies shall preferentially recognise attestations that are issued by bodies accredited in accordance with the relevant harmonised standard for testing and calibration laboratories, and verifications by bodies that are accredited in accordance with the relevant harmonised standard for bodies certifying products, processes, and services.

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 or site inspections to check compliance with these criteria.

Changes in suppliers and production sites pertaining to products to which the EU Ecolabel has been awarded shall be notified to competent bodies, together with supporting information to enable verification of continued compliance with the criteria.

As pre-requisite, the product shall meet all respective legal requirements of the country or countries in which the product is intended to be placed on the market. The applicant shall declare the product's compliance with this requirement.

The following information shall be provided together with the application for the EU Ecolabel:

(a) A list of all individual paint and varnish products covered by the EU Ecolabel application, grouped into product families and indicating any relevant product characteristics that affect which specific requirements from the EU Ecolabel criteria would apply. A family of products will all have the same base formulation and product subcategory, but may differ in terms of shade and/or packaging format.

(b) A description of the product formulation(s), with a % composition of the ingredients used and the specific function of each ingredient (the composition information may be subject to a non-disclosure agreement between the applicant and the competent body or, in some cases, directly between the supplier and the competent body). Ingredient functions shall be either: accelerator; additive; anti-blocking agent; anti-foaming agent; anti-settling agent; anti-skinning agent; binder; coalescing agent; colourant-dyestuff; colourant-pigment; crosslinking agent; curing agent/hardener; diluent; dispersing agent; drier; filler; dry-film preservative; in-can preservative; matting agent; neutralising agent; optical brightener; plasticiser; polymer dispersion; preservative stabiliser; resin; retarder; rheological modifier; silicone resin; solvent; surfactant; UV stabiliser; water; water-repelling agent or, in case none of these apply, 'other'.

(c) Safety data sheets for the ingredients used in the paint and varnish formulations.

(d) Any other information associated with the production of ingredients and materials that is necessary for demonstrating compliance with the EU Ecolabel criteria shall be provided by the suppliers or producers of those ingredients and materials.

(e) In order to help determine the number of products within any given family of products, a description of the packaging format(s) used, the volume(s) of product held and the packaging material(s) used for each of the paint and varnish products covered by the EU Ecolabel application.

(f) In order to reduce the quantity of testing and documentation required for assessment and verification procedures, several criteria explicitly state that compliance of an entire family of products can be assumed if the worst-case product can be shown to comply. Each time data for a worst-case product is submitted, it shall be accompanied by an explanation of why this particular product represents the worst-case within its family of products for the property being tested.

Criterion 1. Titanium dioxide production

If the final product contains more than 3,0 % w/w of titanium dioxide (TiO_2) pigment, the emissions to air and water from the production of any titanium dioxide pigment used shall meet the relevant requirements listed below for the respective production processes:

Table 1

Requirements for Titanium Dioxide production

Parameter and analytical method	Sulphate process	Chloride process
Emissions of dust to air ([1]) (measured with the relevant European or international standards)	≤ 0,40 kg/t TiO_2 pigment	≤ 0,66 kg/t TiO_2 pigment
Emissions of SO_2 to air ([1]) (measured with the relevant European or international standards)	≤ 4,5 kg/t TiO_2 pigment	n/a
Emissions of HCl to air ([1]) (measured with the relevant European or international standards)	n/a	≤ 0,70 kg/t TiO_2 pigment
Emissions of SO_4^{2-} to water (measured with the relevant European or international standards)	≤ 300 kg SO_4^{2-}/t TiO_2 pigment	n/a
Emissions of Cl^- to water (measured using the mass balance method or with the relevant European or international standards)	n/a	≤ 103 kg Cl^-/t TiO_2 pigment ([2]) ≤ 179 kg Cl^-/t TiO_2 pigment ([3]) ≤ 329 kg Cl^-/t TiO_2 pigment ([4])
Low dust working environment	To be demonstrated	To be demonstrated

([1]) Point sources for emissions of dust to air from the chloride process are considered as: milling, chlorination, oxidation and micronisation stages. Point sources for emissions of HCl to air from the chloride process are considered as: chlorination, acid scrubber from solid separation and metal chloride treatment processes. Point sources for emissions of dust to air from the sulphate process are considered as: milling, digestion, calcination and micronisation stages. Point sources for emissions of SO_2 to air from the sulphate process are considered as: digestion and calcination processes.
([2]) When ore used is > 95 % TiO_2 content.
([3]) When ore used is 90-95 % TiO_2 content.
([4]) When ore used is < 90 % TiO_2 content.

Emissions to air shall be counted from the relevant point source(s) stated in point (1) above where emissions can be continuously or periodically monitored from a fixed sampling point after any exhaust gas abatement system(s).

Emissions to water shall be considered as sulphate or chloride present in any treated wastewater effluent that is discharged into any rivers, lakes, transitional waters, coastal waters or seawaters.

The relevant limit for chloride emissions to water shall be based on the weighted average % TiO_2 content of ore(s) used during the calculation period.

A low dust working environment shall, as a minimum, include the follows aspects:

— A risk assessment for the workplace that identifies all the main areas of potential dust emission and worker exposure to dust.

— The need to have in place an occupational hygiene workplace monitoring program.

— Provision of appropriate training to employees about good practice for dust control.

— Provision of adequate personal protective equipment to employees and visitors.

Assessment and verification

The applicant shall declare the content of TiO_2 used in each of the product formulations subject to the EU Ecolabel license application. For any products with more than 3,0 % w/w TiO_2 pigment content, the applicant shall also declare the supplier or suppliers of the TiO_2 used in those products.

The applicant declaration shall be supported by declarations from their TiO_2 supplier(s) (or TiO_2 producer(s), if different) stating:

— The type of TiO_2 production process used (chloride or sulphate).

— The applicable TiO_2 content range of the weighted average ore in case of the chloride process.

— Annual average emissions data of dust to air, SO_2 to air, and SO_4^{2-} to water for TiO_2 produced through the sulphate process. Alternatively, average emission data of dust to air, HCl to air, and Cl^- to water for TiO_2 produced through the chloride process.

— The declarations from TiO_2 supplier(s) (or TiO_2 producer(s), if different) should include the relevant European or international standards used to measure the relevant parameters listed in the Table 1.

— The measures in place to ensure a low dust working environment.

The declaration from the TiO_2 supplier(s) (or TiO_2 producer(s), if different) shall include a basic calculation about how the annual average emissions were obtained. If the production of the supplied TiO_2 pigment is non-continuous, then emission data calculations covering a shorter period than 12 months may be accepted. In cases of continuous monitoring, the annual average emission concentrations shall be derived from daily average concentrations. For periodically monitored emissions, at least 3 samples must be taken to derive the average results. Any periodic sampling must be taken during periods of stable operation that are representative of normal plant conditions for the production of the TiO_2 pigments used in the EU Ecolabel paint products.

The emission calculations shall only be required to be submitted at the date of application for the EU Ecolabel. If the EU Ecolabel is awarded, the applicant can simply request updated declarations each year from their TiO_2 supplier(s) of continuing compliance with the emission limits.

For emissions to air, concentrations shall be expressed in units of mg/Nm^3 and multiplied by a specific emission air flow rate in units of Nm^3/tonne TiO_2 pigment production for the same time period that the data was collected. If there is more than one exhaust gas abatement system for major point sources of emissions to air, emissions from the clean air from each abatement system shall be counted and added.

For emissions to water, either a direct measurement or a mass balance approach shall be used. The mass balance approach shall be based on the balance between inputs of raw sulphate/chloride and outputs of sulphate/chloride in by-products, in emissions to air and in solid waste that is disposed of to landfill or incinerated. The difference in the masses of the inputs and outputs shall be considered as the mass of sulphate/chloride that is emitted to water during the calculation period and shall be divided by the estimated quantity of TiO_2 pigment produced during the same period to calculate specific emissions to water in units of kg sulphate or chloride/t TiO_2 pigment.

With the direct measurement approach for emissions to water, measured concentrations in units of g/m^3 shall be multiplied by a specific treated wastewater effluent flow rate in units of m^3/tonne TiO_2 pigment production for the same time period that the sulphate/chloride data was collected.

Criterion 2. Efficiency in use requirements

In order to demonstrate the efficiency in use of performance coatings and related products, the following tests per type of product, as indicated in Table 2 and detailed in the criterion text later, shall be undertaken.

Table 2

Performance requirements for different kinds of performance coatings and related products

Criteria	Performance coating categories (with their subcategories identified according to the Directive 2004/42/EC)					
	Floor covering paints (i, j)	Floor covering varnishes (i, j)	Anti-corrosion products (i, j)	Primers (within i) and j) systems)	Binding primers (within i) and j) systems)	Waterproofing coatings (i, j)
2(a) Spreading rate	Yes	No	If opaque	If opaque	If opaque	If opaque, report only
2(b) White pigment content	Yes	No	If opaque	No	No	If opaque, report only
2(c) Resistance to water	Yes	Yes	Yes	No	No	Yes + ETA
2(d) Adhesion	If opaque and no undercoat or primer	If opaque and no undercoat or primer	If opaque and no undercoat or primer	If opaque	If opaque	If opaque and no undercoat or primer
2(e) Abrasion	Yes	Yes	If for metal flooring	No	No	If for trafficked floors
2(f) Weathering	If outdoors	If outdoors	If outdoors	No	No	If outdoors
2(g) Corrosion resistance	If claimed	No	Yes	If claimed	If claimed	If claimed
2(h) Ecotoxicity	No	No	Yes	No	No	If outdoors

2(a) Spreading rate

Note 1: This requirement does not apply to transparent or semi-transparent coatings.

Note 2. For tinting systems, this criterion applies only to the tinting base containing the most TiO_2. In cases where this tinting base is unable to achieve this requirement, the criterion shall be met after tinting the base to produce the standard colour RAL 9010.

Note 3. This requirement applies to all white paints. For families of paint products available only in preset shades, the spreading rate shall apply to the lightest colour.

Spreading rates shall be calculated while ensuring a hiding power of at least 98 % according to relevant European or international standards or an equivalent method that can be validated against them. The following minimum spreading rate limits apply:

— Indoor performance coatings shall have a spreading rate of at least 8 m^2 per litre of product.

— Outdoor performance coatings shall have a spreading rate of at least 6 m^2 per litre of product.

— Performance coatings marketed for both indoor and outdoor application shall meet the higher spreading rate requirement of at least 8 m^2 per litre.

— Any opaque primers used in performance coating systems shall have a spreading rate of at least 8 m^2 per litre of product. A lower spreading rate of 6 m^2 per litre of product applies to opaque primers with specific blocking, sealing, penetrating, binding or special adhesion properties.

Assessment and verification:

The applicant shall provide a declaration of compliance with the relevant spreading rate limits or a justification of non-applicability of the spreading rate requirement for each of the products covered by the EU Ecolabel application. The declaration shall be supported by test results according to relevant European or international standards or an equivalent method that can be validated against them. It shall be clearly indicated which spreading rate results correspond to which families of products covered by the EU Ecolabel license application.

2(b) White pigment content

Note: This criterion only applies to paint products and white pigment content shall be calculated with the same products for which spreading rate is measured as per the notes in criterion 2(a). For the purposes of this criterion, the term 'white pigment', shall be considered to refer only to pigments with a refractive index higher than 1,8.

The white pigment content shall not exceed:

— 36 g/m^2 for performance coatings marketed for indoor use only.

— 38 g/m^2 for performance coatings marketed for outdoor use only.

— 36 g/m^2 for performance coatings marketed for both indoor and outdoor use. Any EU Ecolabel paint products that claim wet scrub resistance must meet the requirements for class 1 or class 2 according to the procedure defined in relevant European or international standards and classification systems and comply with the respective upper limits for white pigment content.

Assessment and verification:

The applicant shall provide a declaration of compliance with the relevant requirement or a justification of the non-applicability of the requirements for each of the products covered by the EU Ecolabel application. In cases of relevant products, the applicant shall declare the total content of white pigments with a refractive index > 1,8 in the final product, relevant tinting base or white base paint formulations that are subject to the EU Ecolabel license application. This information shall be provided in terms of the chemical name and CAS number of the white pigment, its declared refractive index, its concentration in g/l of paint product and the density of the paint, in g/l

2(c) Resistance to water

Note: This requirement applies to all performance coatings. In coating systems with a primer or undercoat(s), either the full coating system or just the finishing layer may be tested.

All performance coatings shall have resistance to water, as determined by relevant European or international standards, such that after 24 hours of exposure and 16 hours of recovery, no change of gloss is observed in transparent or semi-transparent coatings and no change of colour occurs in any opaque coatings.

No change of gloss or colour in exposed samples shall be considered as a visual rating of 0 when measured for quantity of defects, size of defects and intensity of changes according to the classification system of relevant European or international standards.

Additionally for waterproofing coatings, compliance with any relevant European Assessment Document (EAD) stipulations shall also be demonstrated.

Assessment and verification:

The applicant shall provide a declaration of compliance with the requirement or a justification of the non-applicability of the requirement for each of the products covered by the EU Ecolabel license application.

For any applicable products included in their license application, the applicant declaration shall be supported by copies of test report(s) following relevant European or international standards that cover the licensed product or family of products, including reported results for change of gloss according to relevant European or international standards.

For waterproofing coatings, the applicant shall additionally provide a European Technical Approval (ETA) certificate that has been issued by an approved Technical Assessment Body (for example a certificate according to EAD when the product is a liquid applied roof waterproofing kit). In cases where there is no relevant EAD to follow, the applicant shall declare this and provide a technical description of the product, including compliance with any relevant European or international standards and a description of the intended uses of the product and how it should be used correctly.

2(d) Adhesion

Note: This criterion applies to opaque primers or undercoats for performance coatings. The adhesion test may be conducted on any opaque primer or undercoat alone, or on the primer/undercoat and finishing coat together, so long as the combination is opaque. In cases of different colour shades within a family of products, only the light-coloured or white base paint or tinting base(s), need to be tested.

Primers for exterior masonry uses shall score a pass in the pull-off test of relevant European or international standards where the cohesive strength of the substrate is less than the adhesive strength of the primer coating, otherwise the adhesion of the primer coating must be in excess of a pass value of 1,5 MPa.

Floor primers or floor undercoats shall score 2 or less in the test for adhesion of relevant European or international standards.

Assessment and verification:

The applicant shall provide a declaration of compliance with the relevant requirement or a justification of the non-applicability of the requirements for each of the products covered by the EU Ecolabel application. For any opaque masonry primer, binding primer or undercoat products included in their license application, the applicant shall provide copies of test reports following relevant European or international standards, as applicable.

2(e) Abrasion

Note: This criterion applies to floor coatings. In cases of different colour shades within a family of products, only the light-coloured or white base paint or tinting base(s),need to be tested.

A weight loss of ≤ 70 mg shall be observed when floor coatings are exposed to 1 000 test cycles with a 1 000 g load and a CS10 wheel according to relevant European or international standards.

Assessment and verification:

The applicant shall provide a declaration of compliance with the requirement for floor coating products included in their license application. The declaration shall be supported by copies of test reports following relevant European or international standards.

2(f) Weathering

Note: This criterion applies to outdoor performance coatings. In the case of different colour shades within a family of products, only the light-coloured or white base paint or tinting base(s)need to be tested.

All outdoor performance coatings shall be exposed to artificial weathering in apparatus including fluorescent UV lamps and condensation or water spray according to relevant European or international standards. They shall be exposed to test conditions for 1 000 hours with cycling conditions of: UVA 4 h/60 °C + humidity 4 h/50 °C.

Alternatively, outdoor performance coatings for wooden substrates may be exposed to weathering for 1 000 hours in the QUV accelerated weathering apparatus with cyclic exposure with UV(A) radiation and spraying according to relevant European or international standards.

After weathering, the exposed films shall comply with the requirements specified in Table 3 below.

Table 3

Overview of weathering requirements for performance coatings and related products according to relevant European or international standards

Property	Requirement (after weathering)	Scope of products covered/not covered
Colour change	Colour change, $\Delta E \leq 4$	Not applicable to primers or intermediate coats in performance coating systems nor to transparent or semi-transparent performance coating systems
Decrease of gloss	≤ 30 % decrease compared to initial value	Not applicable to performance coatings with initial gloss value of < 60 % at 60° angle of incidence
Chalking	A score of ≤ 2	Only applicable to finishing coats or the full performance coating system used on outdoor masonry, wood and metal substrates.
Flaking	Flake density: ≤ 2 Flake size: ≤ 2	
Cracking	Crack quantity: ≤ 2 Crack size: ≤ 3	
Blistering	Blister density: ≤ 3 Blister size: ≤ 3	

Assessment and verification:

The applicant shall provide a declaration of compliance with the relevant requirement or a justification of the non-applicability of the requirements for each of the products covered by the EU Ecolabel application. For any outdoor performance coatings included in their license application, the applicant shall provide copies of test reports that detail the weathering test method used (being in compliance with relevant European or international standards) and provide results of changes in properties after weathering, as applicable.

2(g) Corrosion resistance

Note: This criterion only applies to anti-corrosion performance coatings and related products.

Anti-corrosion primers or coating systems shall be exposed to simulated corrosion stresses on the metallic substrates and use environments (for example C2, C3, C4 or C5 as per relevant European or international standards) for which their use is recommended. Corrosion stresses applied in testing shall correspond to the 'high' level for each category, which is as follows:

Table 4

Requirements for corrosion resistance testing for anti-corrosion primers and performance coating systems according to relevant European or international standards

Corrosivity category	Test regime 1		Test regime 2
	Water condensation, hours	Neutral salt spray, hours	Annex B (cyclic ageing test, hours)
C2 (high)	120	-	-
C3 (high)	240	480	-
C4 (high)	480	720	-
C5 (high)	720	1 440	1 680

After exposure, the coated surfaces shall be examined and be found to comply with the following requirements:

— A rating of 3 or better (i.e. 0, 1 or 2) for size of blisters according to relevant European or international standards.

— A rating of 3 or better (i.e. 0, 1 or 2) for quantity of blisters according to relevant European or international standards.

— A rating of Ri2 or better (i.e. Ri0 or Ri1) for degree of rusting according to relevant European or international standards.

Assessment and verification:

The applicant shall provide a declaration of compliance with the relevant requirement or a justification of the non-applicability of the requirements for each of the products covered by the EU Ecolabel application. Any declaration of compliance shall be supported by copies of test reports according to relevant European or international standards.

2(h) Ecotoxicity

Note, this criterion only applies to anti-corrosion or waterproofing performance coating systems that are marketed for use in outdoor environments. In the case of a family of products, only the worst-case product needs to be tested. The worst-case product should be chosen based on the total estimated quantity of H400 and H410/H411/H412 classified ingredients present.

Ecotoxicity shall be measured by testing the ecotoxicity of the eluate obtained from the contact with water of the two glass plates that have been coated with the complete coating system, including any primer coats, undercoats, intermediate coats and finishing coat. The test procedure is:

— Prepare two glass plates with roughened surfaces and apply the coating to the plates in accordance with manufacturer instructions. Each plate shall present a coated surface area of between 250 and 500 cm^2. Make sure that the primer layer does not protrude from beyond the finishing layer.

— In parallel, prepare a blind test where the roughened glass plates are not coated at all but are treated and then tested in an identical way exact for the coating procedure.

— Allow the coating to cure and be pre-conditioned for a period of 72 hours at a temperature of 19 to 25 °C and a relative humidity of 40 to 60 %.

— Elute the coating on the glass plates (and blind control samples) in accordance with relevant European or international standards for 24 hours (if the primer does not stick to the surface or the coating becomes detached from the surface during the leaching test, the manufacturer and the testing institution should agree on another environmentally safe surface instead of glass plates with a roughened surface).

— The ratio of water volume to coated surface area of the test specimen shall be between 25 and 30 l/m². A suitable vessel shall be used that the water level can always remain at least 20 mm above the upper surface of the test specimen.

— Measure the pH, conductivity and, optionally, dissolved organic carbon prior to starting the ecotoxicity tests, which are defined in the Table 5 below together with their pass requirements.

Table 5

Ecotoxicity testing and requirements

Test species	Endpoint	Requirement
Luminescent bacteria (Vibrio fischeri)	Light	$G_L \leq 8$
Algae (Raphidocelis subcapitata /Desmodesmus subspicatus)	Growth	$G_A \leq 4$
umu test	Genotoxicity	$G_{EU} \leq 1,5$

Assessment and verification:

The applicant shall provide a declaration of compliance with the relevant requirement or a justification of the non-applicability of the requirements for each of the products covered by the EU Ecolabel application. Any declaration of compliance shall be supported by copies of test reports according to relevant European or international standards.

Criterion 3. Content of 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 6.

The content of VOCs and SVOCs shall be determined for the ready to use product and shall include any recommended additions prior to application such as colourants and/or thinners.

Table 6

VOC and SVOC content limit

VOC and SVOC content limits		
Product description (with subcategory denotation according to Directive 2004/42/EC)	VOC limits (g/l of ready to use product)	SVOC limits (g/l of ready to use product)
i. One-pack performance coating products mentioned in Article 2(1), including waterproofing coatings but excluding anti-corrosion coatings	65	45 ([1]) / 55 ([2])
j. Multi-pack reactive performance coating products mentioned in Article 2(1), including waterproofing coatings but excluding anti-corrosion coatings	65	45
(part of i or j) Anti-corrosion coating products and primers	65	50

([1]) SVOC limit applies to indoor white paints and varnishes
([2]) SVOC limit applies to indoor tinted paints/outdoor paints and varnishes
([3]) '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
([4]) 'Semi volatile organic compounds' (SVOCs) means any organic compound having a boiling point greater than 250 °C and less than 370 °C measured at a standard pressure of 101,3 kPa

The VOC content shall be determined either by calculation based on the ingredients and raw materials or by using the methods given in relevant European or international standards. The SVOC content shall be determined using the method given in relevant European or international standards. In the case of products used both indoors and outdoors the strictest SVOC limit value for indoor paints and varnishes shall prevail.

Assessment and verification:

The applicant shall provide a declaration of compliance supported by calculations of VOC and SVOC contents based on the ingredients and raw materials used in the ready to use product. Alternatively, the VOC and SVOC contents of the ready to use product shall be communicated via a representative test report or reports using the methods given in relevant European or international standards and results shall demonstrate compliance with the relevant limits.

Criterion 4. Restriction of hazardous substances and mixtures

Note: These sub-criteria apply to the final product formulation and any supplied ingredients therein.

4.1. **Restrictions on Substances of Very High Concern (SVHCs)**

The final product formulation and any supplied ingredients therein shall not contain any ingoing substances that meet the criteria referred to in Article 57 of Regulation (EC) No 1907/2006 that have been identified according to the procedure described in Article 59 of that Regulation and included in the candidate list for substances of very high concern for authorisation.

Assessment and verification:

The applicant shall provide a signed declaration that the final product formulation and any supplied ingredients therein do not contain any SVHCs as ingoing substances. The applicant declaration shall be supported by safety data sheets of all supplied ingredients used to produce the final product and declarations from the chemical suppliers.

The list of substances identified as SVHCs and included in the candidate list in accordance with Article 59 of Regulation (EC) No 1907/2006 can be found here:

https://www.echa.europa.eu/candidate-list-table

Reference to the list shall be made on the submission date of the EU Ecolabel application.

For any level of known impurities identified as SVHCs in ingredients, the concentration of the impurity and an assumed retention factor of 100 % shall be used to estimate the quantity of the SVHC impurity remaining in the final product formulation. Impurities that are SVHCs cannot be present in the paint or varnish product formulation above 0,0100 % w/w or in any individual ingredient in concentrations exceeding 0,100 % w/w. Any deviation from a retention factor of 100 % for an SVHC impurity (for example due to solvent evaporation) or in case of chemical modification, must be supported by adequate justifications.

4.2. **General restrictions based on classifications according to specific hazard classifications defined in Regulation (EC) No 1272/2008.**

(a) Final product formulation

The final product formulation shall not be classified as being carcinogenic, mutagenic, toxic for reproduction, acutely toxic, an aspiration hazard, a specific target organ toxicant, a respiratory or skin sensitiser, hazardous to the aquatic environment, hazardous to the ozone layer, an endocrine disruptor, persistent, bioaccumulative and toxic (PBT) or persistent, mobile and toxic (PMT) in accordance with Regulation (EC) No 1272/2008 and specifically in terms of the hazard statement codes stated in Table 7. The only exception permitted to this rule shall be the H412 and H413 classification, and only if due to levels of dry-film preservatives in the case of outdoor paints or varnishes.

(b) Ingoing substances

Unless derogated in Table 8, the final product formulation shall not contain any ingoing substances in concentrations at or above 0,010 % weight by weight of the final product formulation that are classified, in accordance with Regulation (EC) No 1272/2008, with any of the hazard classes, categories and associated hazard statement codes stated in Table 7.

Table 7

Restricted hazard classes, categories, codes and associated hazard statements

Carcinogenic, mutagenic or toxic for reproduction (CMR)	
Categories 1A and 1B	Category 2
H340: May cause genetic defects	H341: Suspected of causing genetic defects
H350: May cause cancer	H351: Suspected of causing cancer
H350i: May cause cancer by inhalation	
H360: May damage fertility or the unborn child	H361: Suspected of damaging fertility or the unborn child
H360F: May damage fertility	H361f: Suspected of damaging fertility
H360D: May damage the unborn child	H361d: Suspected of damaging the unborn child
H360FD: May damage fertility. May damage the unborn child	H361fd: Suspected of damaging fertility. Suspected of damaging the unborn child
H360Fd: May damage fertility. Suspected of damaging the unborn child.	H362: May cause harm to breast fed children
H360Df: May damage the unborn child. Suspected of damaging fertility.	
Acute toxicity	
Categories 1 and 2	Category 3
H300: Fatal if swallowed	H301: Toxic if swallowed
H310: Fatal in contact with skin	H311: Toxic in contact with skin
H330: Fatal if inhaled	H331: Toxic if inhaled
	EUH070: Toxic by eye contact
Aspiration hazard	
Category 1	
H304: May be fatal if swallowed and enters airways	
Specific target organ toxicity	
Category 1	Category 2
H370: Causes damage to organs	H371: May cause damage to organs
H372: Causes damage to organs through prolonged or repeated exposure	H373: May cause damage to organs through prolonged or repeated exposure
Respiratory and skin sensitization	
Category 1, 1A and 1B	
H317: May cause an allergic skin reaction	
H334: May cause allergy or asthma symptoms or breathing difficulties if inhaled	
Hazardous to the aquatic environment	
Categories 1 and 2	Categories 3 and 4
H400: Very toxic to aquatic life	H412: Harmful to aquatic life with long-lasting effects

Carcinogenic, mutagenic or toxic for reproduction (CMR)	
Categories 1A and 1B	Category 2
H410: Very toxic to aquatic life with long-lasting effects	H413: May cause long-lasting effects to aquatic life
H411: Toxic to aquatic life with long-lasting effects	
Hazardous to the ozone layer	
H420: Harms public health and the environment by destroying ozone in the upper atmosphere	
Endocrine disruptors (EDs) for human health and the environment	
Category 1	Category 2
EUH380: May cause endocrine disruption in humans	EUH381: Suspected of causing endocrine disruption in humans
EUH430: May cause endocrine disruption in the environment	EUH431: Suspected of causing endocrine disruption in the environment.
Persistent, Bioaccumulative and Toxic (PBT)	
PBT	very Persistent and very Bioaccumulative (vPvB)
EUH440: Accumulates in the environment and living organisms including in humans	EUH441: Strongly accumulates in the environment and living organisms including in humans
Persistent, Mobile and Toxic (PMT)	
PMT	very Persistent and very Mobile (vPvM)
EUH450: Can cause long-lasting and diffuse contamination of water resources	EUH451: Can cause very long-lasting and diffuse contamination of water resources

The use of substances that are chemically modified during the production process, so that any relevant hazard for which the substance has been classified under Regulation (EC) No 1272/2008 no longer applies, shall be exempted from the above requirement.

This criterion shall not apply to ingoing substances covered by points (a) and (b) of Article 2(7) of Regulation (EC) No 1907/2006, which set out criteria for exempting substances within Annexes IV and V to that Regulation from the registration, downstream user and evaluation requirements.

Table 8

Derogations to restrictions on ingoing substances that are classified with one or more of the restricted hazards listed in Table 7 and are present in concentrations at or above 0,010 % (weight by weight) of the final product formulation.

Substance type, substance name and CAS number	Derogated hazard code(s)	Derogation conditions
Preservatives and preservative stabilisers		
Note on preservatives: all preservatives added to ingredients must be declared by suppliers and all preservatives added directly to the final product formulation must be declared by the paint or varnish producer. The only types of preservatives permitted in ingredients and the final product shall be those that are compliant with Regulation (EU) No 528/2012. For final products originating in the Union, it is reminded that it is not sufficient that the active substances contained in the preservative product are approved under Regulation (EU) No 528/2012 for product type 6 (PT6) (in-can		

Substance type, substance name and CAS number	Derogated hazard code(s)	Derogation conditions
preservative) or for product type 7 (PT7) (dry-film preservative), but the preservative product must be authorised under Regulation (EU) No 528/2012 for PT6 or PT7 or made available on the market according to the transitional measures set out in Article 89(2) of that Regulation. The combined total limits for PT6 and PT7 preservatives shall apply to these following product categories: — For indoor products: up to 0,080 % weight by weight of PT6 in the final product. — For colour tints used in tinting systems: up to 0,20 % weight by weight of PT6 in the colour tint. — For indoor products marketed for use in high humidity areas: up to 0,080 % weight by weight of PT6 and up to 0,10 % weight by weight of PT7 in the final product. — For outdoor products: up to 0,080 % weight by weight of PT6 and up to 0,50 % weight by weight of PT7 in the final product. Except for colour tints, all references to concentrations/limits/levels of preservatives in the section 'Preservatives and preservative stabilisers', shall be understood as referring to the preservative active substances contained in the final product formulation. Any preservatives which cannot be present in the final product formulation at concentrations exceeding 0,010 %, due to specific concentration limits (SCLs) lower than 0,010 % that would classify the final product with a restricted CLP hazard, are not mentioned in the derogation table below because they cannot be used in concentrations exceeding 0,010 % in the first place and thus do not need a derogation. This does not imply that they cannot be used as ingoing substances in EU Ecolabel products at any level. If not explicitly excluded in sub-criterion 4.3, such preservatives may be used so long as it is at levels below any SCLs that would trigger a restricted CLP classification of the final product formulation.		
In-can preservatives (PT6) in colour tints or final product:	H301, H311, H317, H330, H331, H372, H373, H400, H410, H411, H412, H413	(*)See horizontal derogation condition at foot of table The sum total of all PT6 in-can preservatives (those derogated for use above 0,010 % plus those that are non-derogated but used in levels < 0,010 %) must be within the relevant limits defined in the note above. When preservatives that are formaldehyde donors are used, the relevant limits for free formaldehyde in the final product formulation set out in sub-criterion 4.3(l) must be respected. Specific concentration limits (% weight by weight in the final product formulation) shall apply for the derogated substances listed below: — Bronopol (CAS No 52-51-7): up to 0,030 %. — DBNPA (CAS No 10222-01-2): up to 0,030 %. — Sodium pyrithione (CAS No 3811-73-2): up to 0,030 %. — BIT (CAS No 2634-33-5): up to 0,036 %. — Combined total isothiazolinones and isothiazolinone releasers (those derogated for use above 0,010 % plus those that are non-derogated but used in levels < 0,010 %): up to 0,040 % in final product formulations. — Diamine (CAS No 2372-82-9): up to 0,050 %.
Dry-film preservatives (PT7):	H311, H317, H330, H331, H372, H373 H400, H410, H411, H412 and H413	(*)See horizontal derogation condition at foot of table Only applies to outdoor products and indoor products for use in high humidity areas. The sum total of all PT7 dry-film preservatives (those derogated for use above 0,010 % plus those that are non-derogated but used in levels < 0,010 %) must be within the relevant limits defined in the note above.

Substance type, substance name and CAS number	Derogated hazard code(s)	Derogation conditions
		In the case of slow release, encapsulated forms of dry-film preservatives, the specific classification of the final product, or read-across formulations, should consider the absolute concentration of the hazardous components (i.e. without capsules). The final product or read-across formulation cannot be classified with any of the hazards listed in Table 7. Any dry-film preservatives classified as H400 or H410 must be non-bioaccumulative, demonstrated by having an octanol-water coefficient (Log Kow) of ≤ 3,2 or a bioconcentration factor (BCF) of ≤ 100.
Preservative stabiliser: Zinc oxide (CAS No 1314-13-2)	H400, H410	(*)See horizontal derogation condition at foot of table Permitted to be used as a preservative stabiliser, up to 0,040 % weight by weight in the final product formulation, when used to stabilise in-can or dry-film preservative combinations that require 1,2-Benzisothiazol-3(2H)-one (BIT).
Drying and anti-skinning agents		
Anti-skinning agents	H317, H412, H413	(*)See horizontal derogation condition at foot of table The sum total anti-skinning agent content shall not exceed 0,40 % weight by weight in the final product formulation.
Driers (siccatives)	H301, H317, H373, H400†, H410†, H412, H413	(*)See horizontal derogation condition at foot of table The sum total drier content shall not exceed 0,10 % weight by weight in the final product formulation. † The derogation for H400 and H410 only applies to cobalt-based drier compounds and such compounds can only be used up to 0,050 % weight by weight in the final product formulation.
Pigments and pigments additives		
Trimethylolpropane (CAS No 77-99-6)	H361fd	(*)See horizontal derogation condition at foot of table Only when used as an additive in supplied pigments and only up to 0,50 % weight by weight in the supplied pigment.
Binders and polymer dispersions		
Binders and crosslinking agents: Adipic acid dihydrazide (CAS No 1071-93-8)	H317, H411	(*)See horizontal derogation condition at foot of table Only allowed up to 1,0 % weight by weight in the binder or polymer dispersion ingredient and when used as an adhesion promoter or as a crosslinking agent.
Unreacted monomers (in binders)	H301, H304, H311, H317, H331, H334, H372, H400, H410, H411, H412	(*)See horizontal derogation condition at foot of table The sum total concentration of unreacted monomers needing this derogation shall not exceed 0,050 % weight by weight in the final product formulation.

Substance type, substance name and CAS number	Derogated hazard code(s)	Derogation conditions
Other, miscellaneous		
Methanol (CAS No 67-56-1)	H301, H311, H331, H370	(*)See horizontal derogation condition at foot of table Only permitted as a residual reaction product of other substances in the product formulation. Allowable residual concentration increases as a function of binder content in the following manner: — Binder content of 10-20 %: allowable residual methanol is 0,020 % weight by weight in the final product formulation. — Binder content of 20-40 %: allowable residual methanol is 0,030 % weight by weight in the final product formulation. — Binder content of > 40 %: allowable residual methanol is 0,050 % weight by weight in the final product formulation.
Mineral raw materials, including fillers, anti-sagging agents and matting agents	H372, H373	(*)See horizontal derogation condition at foot of table Only applies to mineral raw materials and leucophyllite minerals that naturally contain crystalline silica. Only permitted in contents up to 1,0 % weight by weight in the final product formulation for H372 materials or up to 10 % for H373 materials. In cases where the material is supplied in dry powder form, the applicant shall demonstrate that they have systems in place to minimise worker exposure to dry powder in the workplace (for example closed dosing systems, ventilated dosing and mixing areas and personal protective equipment).
Neutralising agents	H301, H311, H331, H400, H410, H411, H412, H413	(*)See horizontal derogation condition at foot of table Only allowed up to 1,0 % weight by weight in varnish formulations, and up to 0,50 % in all other products.
Optical brighteners	H413	(*)See horizontal derogation condition at foot of table Only allowed up to 0,10 % weight by weight in the final product formulation.
Silicone resin	H412, H413	(*)See horizontal derogation condition at foot of table Only allowed up to 2,0 % weight by weight in the final product formulation.
Solvents	H304	(*)See horizontal derogation condition at foot of table Only allowed up to 2,0 % weight by weight in the final product formulation.
Surfactants	H411, H412, H413	(*)See horizontal derogation condition at foot of table Only allowed up to 1,0 % weight by weight in transparent, semi-transparent, white or light-coloured product formulations or up to 3,0 % weight by weight in all other colours.
UV stabilisers	H317, H411, H412, H413	(*)See horizontal derogation condition at foot of table Only applicable to outdoor products and only up to 0,60 % weight by weight in the final product formulation.

(*) Horizontal derogation condition: none of the derogations above, either individually or in combination, shall be permitted if they result in the final product formulation being classified with any of the hazards defined in Table 7, with the notable exception of H412 and H413 for outdoor products due to the presence of dry-film preservatives.

Assessment and verification:

The applicant shall provide a signed declaration of compliance with sub-criterion 4.2, including compliance with any relevant derogation conditions, supported by declarations from suppliers and any other relevant documentation.

A list of all ingoing substances with one or more of the restricted CLP hazards calculated to be present in the final product formulation in concentrations greater than 0,010 % weight by weight shall be presented, together with their CAS numbers, CLP classification status (i.e. harmonised, joint entry or self-entries only) the relevant function of the ingoing substance (for example in-can preservative, drier, pigment, neutralising agents, surfactants, UV stabiliser etc.)., Calculations for ingoing substance concentrations in the final product formulation shall be based on:

— a list of all ingredients, chemicals or raw materials used to make the final product formulation;

— the screening of ingredients, chemicals or raw materials for those ingoing substances and known impurities with any of the EU Ecolabel-restricted CLP hazards;

— the concentrations of any screened ingoing substances and known impurities with EU Ecolabel-restricted CLP hazards in the ingredients, chemicals or raw materials used in the format supplied;

— the weight of each of the ingredients, chemicals or raw materials added to make a known weight of final product formulation.

Known impurities shall be treated as ingoing substances only if the screening exercise reveals that their content in the final product formulation shall exceed 0,010 % weight by weight or their content in an ingredient shall exceed 0,100 % weight by weight. Known impurities below these thresholds shall not be counted in calculations.

Any screened ingoing substances shall be assumed by default to be 100 % retained in the final product. Justifications for any deviation from a retention factor of 100 % during processing (for example solvent evaporation) or for chemical modification of a screened ingoing substance shall be provided. Substances known to be released or to degrade from ingoing substances are considered ingoing substances and not impurities.

For any screened ingoing substances remaining in the final product formulation in concentrations greater than 0,010 % weight by weight, but which are exempted from sub-criterion 4.2 (see Annexes IV and V to Regulation (EC) No 1907/2006), a declaration to this effect by the applicant shall suffice for those substances.

Since multiple products or potential products (for example customised shades from a tinting system) using the same ingredients, chemicals or raw materials may be covered by one EU Ecolabel license, a worst-case calculation may be acceptable for each screened ingoing substance within a common family of products covered by the same license.

Regarding information requested from suppliers that may be commercially sensitive, evidence from suppliers can also be provided directly to competent bodies without necessarily providing certain details to the applicant.

4.3. **Specific hazardous substance restrictions for ingoing substances.**

Unless derogated in sub-criterion 4.2, the substances indicated below shall not be included as ingoing substances in the final product formulation or as ingoing substances to the ingredients used to make the final product formulation:

(a) Preservatives or driers classified as carcinogenic, mutagenic or toxic for reproduction.

(b) Substances classified as category 1 or category 2 endocrine disruption for human health or the environment in accordance with CLP Regulation (EC) 1272/2008, substances included in the candidate list referred to in Article 59(1) of REACH Regulation (EC) 1907/2006 as having endocrine-disrupting properties for human health or the environment, substances identified as having endocrine-disrupting properties in accordance with Regulation (EU) No 528/2012 or Regulation (EC) No 1107/2009, except for DBNPA (CAS No 10222-01-2) when used as an in-can preservative.

(c) Substances classified as Persistent, Bioaccumulative and Toxic (PBT) or very Persistent and very Bioaccumulative (vPvB) for the environment and living organisms including in humans in accordance with CLP Regulation (EC) 1272/2008, substances included in the candidate list referred to in Article 59(1) of REACH Regulation (EC) 1907/2006 as having PBT or vPvB properties for the environment and living organisms including in humans, substances identified as having PBT or vPvB properties for the environment and living organisms including in humans in accordance with Regulation (EU) No 528/2012 or Regulation (EC) No 1107/2009.

(d) Substances classified as Persistent, Mobile and Toxic (PMT) or very Persistent and very Mobile (vPvM) in accordance with CLP Regulation (EC) 1272/2008, substances included in the candidate list referred to in Article 59(1) of REACH Regulation (EC) 1907/2006 as having PMT or vPvM properties.

(e) Alkylphenols, alkylphenol ethoxylates (APEOs) and their derivatives, as referred to in entry 43 to Annex XIV or entry 46 to Annex XVII of the Regulation (EC) 1907/2006.

(f) Perfluorinated and polyfluorinated compounds (PFAS), as defined in Article 4(42).

(g) Phthalates.

(h) Organotin compounds.

(i) Fragrance substances which are prohibited or restricted in cosmetic products and listed in Annexes II or III to Regulation (EC) No 1223/2009.

(j) Bisphenols that have been identified by ECHA in their 2021 'Assessment of Regulatory Needs report on Bisphenols' for further EU regulatory risk management that are known or potential endocrine disruptors for the environment or for human health, or that can be identified as toxic for reproduction.

(k) Pigments used shall not be based on Cadmium, Lead, Chromium (VI), Mercury, Arsenic, Selenium, Antimony or Cobalt. The following impurities from any pigments used shall not be present in the final product formulation in quantities exceeding 0,010 % weight by weight (per metal): Cadmium, Lead, Chromium (VI), Mercury, Arsenic, Selenium, Antimony and Cobalt. The only exceptions to pigment use and to the 0,010 % limit for impurities shall be:

— Cobalt: due to the use of Cobalt aluminate blue spinel (CAS No 1345-16-0) and Cobalt chromite blue-green spinel pigments (CAS No 68187-11-1).

— Antimony: due to the use of pigments based on Antimony Nickel within an insoluble TiO_2 lattice.

(l) Free formaldehyde shall not be intentionally added to the final product formulation. The final product shall be tested in order to determine its free formaldehyde content. Worst-case samples for testing shall be selected for each family of products based on which product is predicted to have the highest theoretical amount of formaldehyde content. Under the conditions defined below, the following sum total limits of free formaldehyde shall be permitted:

— Up to 0,0010 % weight by weight permitted when bronopol or preservatives that are formaldehyde donors are required as an in-can preservative to protect a specific type of paint or varnish

— Up to 0,010 % weight by weight permitted when polymer dispersions (binders) provide, through residual levels of formaldehyde, the function of formaldehyde donors instead of in-can preservatives.

— Up to 0,010 % when both conditions listed above apply in the same product.

(m) Synthetic polymer microparticles (SPMs, commonly known as microplastics) as defined in entry 78 of Annex XVII to Regulation (EC) No 1907/2006 (REACH), shall not be used for non-film forming purposes in any product formulation unless their use and purpose is explicitly declared, together with a justification of why their use improves the overall environmental performance of the paint or varnish product.

Assessment and verification:

(a to j) The applicant shall declare the non-use of the relevant substances indicated in this sub-criterion, namely CMR preservatives, CMR driers, endocrine disruptors (except DBNPA), PBT and vPVB substances, PMT and vPvM substances, alkylphenols and APEOs, PFAS, phthalates, organotin compounds, fragrances and bisphenols as ingoing substances in their formulation, supported by declarations from their suppliers about the non-use of the same hazardous substance groups as ingoing substances in the ingredients supplied and that are used in formulations covered by the EU Ecolabel license application procedure.

(k) In the case of the heavy metal restrictions from pigments, the applicant or pigment supplier shall provide a declaration stating that neither the pigment itself nor any ingoing substances that may be incorporated into the pigment product are based on the listed heavy metals. The applicant or pigment supplier shall also provide a test report with the heavy metal impurity levels of representative samples of the pigment supplied. The applicant shall then use these results, together with the % of pigment(s) used in the final product, to calculate the concentration of heavy metals from pigments remaining in the final product. In the case of exempted pigments, the pigment supplier shall declare which pigment(s) have the exemption (i.e. cobalt aluminate blue spinel, cobalt chromite blue-green spinel or antimony nickel in an insoluble TiO_2 lattice).

(l) The applicant shall declare which of their products should have the highest theoretical free formaldehyde content within each family of products' formulation. This declaration shall be based on the choice of the paint formulator to use formaldehyde donors as in-can preservatives and declarations from suppliers regarding the amounts of formaldehyde donors used to preserve supplied ingredients (especially binders). The addition of these substances (and any other ingredients that release formaldehyde) to the worst-case formulations shall not result in the content of free formaldehyde in the final product exceeding the relevant concentration limit, as measured with relevant European or international standards.

(m) The applicant shall provide either a declaration of the non-use of SPMs for non-film forming purposes or a declaration of their use in their product formulation. In cases where the use of SPMs for non-film forming purposes is declared, the type, quantity (% weight by weight) and purpose shall be stated in the declaration, together with a justification of how the use of SPMs for non-film forming purposes improves the overall environmental performance of the product. Such justifications should normally compare the environmental performance of the same product with and without the SPMs for non-film forming purposes.

Criterion 5. Volatile Organic Compounds (VOCs) emissions

Note: Only applicable to indoor performance coatings and related products.

Emissions of VOCs shall not exceed the limits defined in the table below.

Table 9

VOC emission limits

Parameter	3-day test results	28-day test results
TVOC (*)	≤ 3 000 µg/m³	≤ 300 µg/m³
R value (**)	n/a	≤ 1,0
Formaldehyde	n/a	≤ 10 µg/m³
Any other category 1A or 1B carcinogenic VOCs not covered by EU LCI values (***)	≤ 10 µg/m³ per substance	≤ 1 µg/m³ per substance

(*) TVOC shall be measured as defined in relevant European or international standards and including quantification of any non-target compounds

(**) R value, as defined in relevant European or international standards. Results for the cumulative R value shall be rounded to one decimal place before determining compliance or non-compliance with the limit of 1,0.

(***) Does not apply to formaldehyde, which is a VVOC and is covered by a specific individual limit. Does not apply to any other carcinogenic VVOCs or VOCs that have an EU-LCI value, since these are already covered by the R-value limit.

Assessment and verification:

The applicant shall submit a copy of test report according to relevant European or international standards for the worst-case product formulation within each of the relevant families of products being covered by the EU Ecolabel license application. Any changes to the formulations that would create a higher worst-case VOC content shall trigger the requirement to submit an updated VOC emission test report. When relevant, a clear explanation of the distinctions made between families of products (for example binder chemistry, product category etc.) shall be provided, together with a justification of the worst-case product within each family of products.

In cases where a coating system has multiple layers, the full system should be applied to the test substrate according to manufacturer instructions prior to emission testing.

For the calculation of the R value, reference should be made to the latest set of agreed EU LCI (Lowest Concentration of Interest) values available at the time of testing. These values can be consulted on the European Commission website (1).

If chamber air concentrations can be shown to comply with the 28-day limits before the 28-day period has been completed but after a period of at least 3 days, then those results can be accepted as proof of compliance and the test can be halted at that point.

(1) See https://single-market-economy.ec.europa.eu/sectors/construction/eu-lci-subgroup/eu-lci-values_en

Criterion 6. Consumer information

6(a) The following information shall appear on or be attached to the packaging:

— Recommendation to minimise coating product wastage by estimating how much coating product is needed before purchase,

— How to recover unused coating product for reuse,

— How reuse of coating product can effectively minimise the products' life cycle environmental impact,

— Information requested in sub-criterion 6(b) or explanation of how to access such information.

6(b) The following information shall appear on or be attached to the packaging or be available via a web-link or QR code:

— How to estimate the amount of coating product needed prior to purchase in order to minimise coating product wastage and a recommended amount as a guideline (for example for 1 m^2 of wall, X litres of coating product is needed),

— Appropriate storage conditions of the product (before and after opening), including, where appropriate, safety advice,

— Safety measures for the user including basic recommendation on personal protective equipment that should be worn and additional measures that should be taken when using the product and if applicable when using spray equipment,

— The use of cleaning equipment and appropriate waste management of the 'leftover coating product' and packaging (in order to limit water and soil pollution). For example, text advising that the unused product requires specialist handling for safe environmental disposal and therefore it should not be thrown away with household or commercial waste.

Assessment and verification:

The applicant shall declare that the product complies with the requirement and provide the competent body with the artwork or samples of the user information and/or a link or QR code to a manufacturer's website containing this information as part of the application. The recommended amount of paint given as a guideline shall be provided.

Criterion 7. Information appearing on the EU Ecolabel

The optional label with text box shall contain three of the following statements, according to their relevance:

— Minimised content of hazardous substances,

— Reduced content of volatile organic compounds (VOCs): x g/l,

— Reduced emissions of volatile organic compounds to indoor air (for indoor products),

— Good performance for indoor use (for indoor products), or

— Good performance for outdoor use (for outdoor products), or

— Good performance for both indoor and outdoor use (for products suitable for indoor and outdoor use).

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

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.

ANNEX III

EU Ecolabel criteria for awarding the EU Ecolabel to water-based aerosol spray paints

The EU Ecolabel criteria target the best water-based aerosol spray paints on the market, in terms of environmental performance. The criteria focus on the main environmental impacts associated with the life cycle of these products and promote circular economy aspects.

Assessment and verification requirements

For the EU Ecolabel to be awarded to a specific product, the product shall comply with each requirement. The applicant shall provide a written confirmation stating that all the criteria are fulfilled.

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 their supplier(s) as appropriate.

Competent bodies shall preferentially recognise attestations that are issued by bodies accredited in accordance with the relevant harmonised standard for testing and calibration laboratories, and verifications by bodies that are accredited in accordance with the relevant harmonised standard for bodies certifying products, processes, and services.

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 or site inspections to check compliance with these criteria.

Changes in suppliers and production sites pertaining to products to which the EU Ecolabel has been awarded shall be notified to competent bodies, together with supporting information to enable verification of continued compliance with the criteria.

As pre-requisite, the product shall meet all respective legal requirements of the country or countries in which the product is intended to be placed on the market. The applicant shall declare the product's compliance with this requirement.

The following information shall be provided together with the application for the EU Ecolabel:

(a) A list of all individual paint and varnish products covered by the EU Ecolabel application, grouped into product families and indicating any relevant product characteristics that affect which specific requirements from the EU Ecolabel criteria would apply. A family of products will all have the same base formulation and product subcategory, but may differ in terms of shade and/or packaging format.

(b) A description of the product formulation(s), with a % composition of the ingredients used and the specific function of each ingredient (the composition information may be subject to a non-disclosure agreement between the applicant and the competent body or, in some cases, directly between the supplier and the competent body). Ingredient functions shall be either: accelerator; additive; anti-blocking agent; anti-foaming agent; anti-settling agent; anti-skinning agent; binder; coalescing agent; colourant-dyestuff; colourant-pigment; crosslinking agent; curing agent/hardener; diluent; dispersing agent; drier; filler; dry-film preservative; in-can preservative; matting agent; neutralising agent; optical brightener; plasticiser; polymer dispersion; preservative stabiliser; resin; retarder; rheological modifier; silicone resin; solvent; surfactant; UV stabiliser; water; water-repelling agent or, in case none of these apply, 'other'.

(c) Safety data sheets for the ingredients used in the paint and varnish formulations.

(d) Any other information associated with the production of ingredients and materials that is necessary for demonstrating compliance with the EU Ecolabel criteria shall be provided by the suppliers or producers of those ingredients and materials.

(e) In order to help determine the number of products within any given family of products, a description of the packaging format(s) used, the volume(s) of product held and the packaging material(s) used for each of the paint and varnish products covered by the EU Ecolabel application.

(f) In order to reduce the quantity of testing and documentation required for assessment and verification procedures, several criteria explicitly state that compliance of an entire family of products can be assumed if the worst-case product can be shown to comply. Each time data for a worst-case product is submitted, it shall be accompanied by an explanation of why this particular product represents the worst-case within its family of products for the property being tested.

Criterion 1. Titanium dioxide production

If the final product contains more than 3,0 % w/w of titanium dioxide (TiO_2) pigment, the emissions to air and water from the production of any titanium dioxide pigment used shall meet the relevant requirements listed below for the respective production processes:

Table 1

Requirements for Titanium Dioxide production

Parameter and analytical method	Sulphate process	Chloride process
Emissions of dust to air ([1]) (measured with the relevant European or international standards)	≤ 0,40 kg/t TiO_2 pigment	≤ 0,66 kg/t TiO_2 pigment
Emissions of SO_2 to air ([1]) (measured with the relevant European or international standards)	≤ 4,5 kg/t TiO_2 pigment	n/a
Emissions of HCl to air ([1]) (measured with the relevant European or international standards)	n/a	≤ 0,70 kg/t TiO_2 pigment
Emissions of SO_4^{2-} to water (measured with the relevant European or international standards)	≤ 300 kg SO_4^{2-}/t TiO_2 pigment	n/a
Emissions of Cl^- to water (measured using the mass balance method or with the relevant European or international standards)	n/a	≤ 103 kg Cl^-/t TiO_2 pigment ([2]) ≤ 179 kg Cl^-/t TiO_2 pigment ([3]) ≤ 329 kg Cl^-/t TiO_2 pigment ([4])
Low dust working environment	To be demonstrated	To be demonstrated

([1]) Point sources for emissions of dust to air from the chloride process are considered as: milling, chlorination, oxidation and micronisation stages. Point sources for emissions of HCl to air from the chloride process are considered as: chlorination, acid scrubber from solid separation and metal chloride treatment processes. Point sources for emissions of dust to air from the sulphate process are considered as: milling, digestion, calcination and micronisation stages. Point sources for emissions of SO_2 to air from the sulphate process are considered as: digestion and calcination processes.
([2]) When ore used is > 95 % TiO_2 content.
([3]) When ore used is 90-95 % TiO_2 content.
([4]) When ore used is < 90 % TiO_2 content.

Emissions to air shall be counted from the relevant point source(s) stated in point (1) above where emissions can be continuously or periodically monitored from a fixed sampling point after any exhaust gas abatement system(s).

Emissions to water shall be considered as sulphate or chloride present in any treated wastewater effluent that is discharged into any rivers, lakes, transitional waters, coastal waters or seawaters.

The relevant limit for chloride emissions to water shall be based on the weighted average % TiO_2 content of ore(s) used during the calculation period.

A low dust working environment shall, as a minimum, include the follows aspects:

— A risk assessment for the workplace that identifies all the main areas of potential dust emission and worker exposure to dust.

— The need to have in place an occupational hygiene workplace monitoring program.

— Provision of appropriate training to employees about good practice for dust control.

— Provision of adequate personal protective equipment to employees and visitors.

Assessment and verification

The applicant shall declare the content of TiO_2 used in each of the product formulations subject to the EU Ecolabel license application. For any products with more than 3,0 % w/w TiO_2 pigment content, the applicant shall also declare the supplier or suppliers of the TiO_2 used in those products.

The applicant declaration shall be supported by declarations from their TiO_2 supplier(s) (or TiO_2 producer(s), if different) stating:

— The type of TiO_2 production process used (chloride or sulphate).

— The applicable TiO_2 content range of the weighted average ore in case of the chloride process.

— Annual average emissions data of dust to air, SO_2 to air, and SO_4^{2-} to water for TiO_2 produced through the sulphate process. Alternatively, average emission data of dust to air, HCl to air, and Cl^- to water for TiO_2 produced through the chloride process.

— The declarations from TiO_2 supplier(s) (or TiO_2 producer(s), if different) should include the relevant European or international standards used to measure the relevant parameters listed in the Table 1.

— The measures in place to ensure a low dust working environment.

The declaration from the TiO_2 supplier(s) (or TiO_2 producer(s), if different) shall include a basic calculation about how the annual average emissions were obtained. If the production of the supplied TiO_2 pigment is non-continuous, then emission data calculations covering a shorter period than 12 months may be accepted. In cases of continuous monitoring, the annual average emission concentrations shall be derived from daily average concentrations. For periodically monitored emissions, at least 3 samples must be taken to derive the average results. Any periodic sampling must be taken during periods of stable operation that are representative of normal plant conditions for the production of the TiO_2 pigments used in the EU Ecolabel paint products.

The emission calculations shall only be required to be submitted at the date of application for the EU Ecolabel. If the EU Ecolabel is awarded, the applicant can simply request updated declarations each year from their TiO_2 supplier(s) of continuing compliance with the emission limits.

For emissions to air, concentrations shall be expressed in units of mg/Nm^3 and multiplied by a specific emission air flow rate in units of Nm^3/tonne TiO_2 pigment production for the same time period that the data was collected. If there is more than one exhaust gas abatement system for major point sources of emissions to air, emissions from the clean air from each abatement system shall be counted and added.

For emissions to water, either a direct measurement or a mass balance approach shall be used. The mass balance approach shall be based on the balance between inputs of raw sulphate/chloride and outputs of sulphate/chloride in by-products, in emissions to air and in solid waste that is disposed of to landfill or incinerated. The difference in the masses of the inputs and outputs shall be considered as the mass of sulphate/chloride that is emitted to water during the calculation period and shall be divided by the estimated quantity of TiO_2 pigment produced during the same period to calculate specific emissions to water in units of kg sulphate or chloride/t TiO_2 pigment.

With the direct measurement approach for emissions to water, measured concentrations in units of g/m^3 shall be multiplied by a specific treated wastewater effluent flow rate in units of m^3/tonne TiO_2 pigment production for the same time period that the sulphate/chloride data was collected.

Criterion 2. Efficiency in use requirements

In order to demonstrate the efficiency in use of aerosol spray paints the following tests and requirements shall be undertaken:

2(a) Spreading rate

Note 1: This requirement does not apply to any aerosol products that are designed to apply transparent or semi-transparent coatings.

Note 2: If tinting systems are used to make different aerosol paint shades, only to the tinting base containing the most TiO_2 needs to be tested. In cases where this tinting base is unable to achieve this requirement, the criterion shall be met after tinting the base to produce the standard colour RAL 9010.

Note 3: This requirement applies to white aerosol spray paints. For families of aerosol spray paints available only in preset shades, the spreading rate shall apply to the lightest colour.

Aerosol spray paints shall have a spreading rate of at least 2,0 m^2 per litre while ensuring a hiding power of at least 98 % according to relevant European or international standards. The volume unit in the spreading rate calculation shall refer to the declared volume of the ready to use spray can.

Assessment and verification:

The applicant shall provide a declaration of compliance with the spreading rate limits or a justification of non-applicability of the spreading rate requirement for each of the products covered by the EU Ecolabel application. The declaration shall be supported by test results according to the method in relevant European or international standards. In cases where a result covers multiple products, it shall be clearly indicated which results correspond to which products covered by the EU Ecolabel license application.

2(b) Efficiency in spraying

Aerosol spray paints shall have an efficiency in spraying of at least 97 %, considered as the fraction of product in the ready to use spray can that is discharged from the can.

The test method shall consist of a calculation of the total content of product contained in the ready to use spray can that has not yet been operated. Prior to the test, the ready to use spray can shall be weighed. During the test, the contents of the can shall be continuously discharged onto a weighed surface at a steady rate in order to monitor the discharge rate. After the test, the spray can shall be weighed again to determine the total content of product discharged. The efficiency in spraying rate shall be calculated as

$$Efficiency\ in\ spraying\ (\%) = \frac{total\ weight\ of\ product\ discharged\ during\ test(g)}{total\ weight\ of\ product\ in\ can\ at\ beginning\ of\ test\ (g)} x100\%$$

Assessment and verification:

The applicant shall provide a test report demonstrating the calculation of the efficiency in spraying rate. The report shall include the initial aerosol spray can weight, a plot of discharge rate versus time and the weight of the spray can at the end of the test. The total weight of product discharged shall be considered as the difference between the initial weight and the final weight of the can.

2(c) Adhesion

Note 1: This requirement does not apply to any aerosol products that are designed to apply transparent or semi-transparent coatings.

Aerosol spray paint shall achieve an adhesion score of 2 or less in the test for adhesion in relevant European or international standards.

Assessment and verification:

The applicant shall provide a declaration of compliance with the relevant requirement or a justification of the non-applicability of the requirements for each of the products covered by the EU Ecolabel application. The declaration shall be supported by test results according to the method in relevant European or international standards, as applicable.

2(d) Corrosion resistance

Aerosol spray paint, when applied to blasted steel panels with a dry film thickness of at least 60µm, shall ensure adequate corrosion resistance after being subjected to a salt spray test of 240 hours duration according to relevant European or international standards.

After exposure, the coating shall meet the following criteria:

— A rating of 3 or better (i.e. 0, 1 or 2) for size of blisters according to relevant European or international standards.

— A rating of 3 or better (i.e. 0, 1 or 2) for quantity of blisters according to relevant European or international standards.

— A rating of Ri2 or better (i.e. Ri0 or Ri1) for degree of rusting according to relevant European or international standards.

— A delamination result of 4mm or less according to relevant European or international standards.

— An adhesion score of 2 or less according to relevant European or international standards.

Assessment and verification:

The applicant shall provide a declaration of compliance supported by test results according to relevant European or international standards for salt spray test, for rust, for blistering, for delamination and adhesion

2(e) Weathering

Aerosol spray paint, when applied to blasted steel panels with a dry film thickness of at least 60µm, shall ensure adequate weathering resistance after being subjected to 500 hours of weathering cycles according to relevant European or international standards.

After exposure, the coating shall meet the following criteria according to relevant European or international standards:

— Colour change of $\Delta E \leq 4$.

— Decrease of gloss of ≤ 30 %.

— Degree of flaking of ≤ 2 in terms of flake density and ≤ 2 in terms of flake size.

— Degree of blistering of ≤ 3 in terms of blister density and ≤ 3 in terms of blister size.

— Degree of cracking of ≤ 2 in terms of crack size.

Assessment and verification:

The applicant shall provide a declaration of compliance supported by test results of coated substrates before and after the weathering exposure according to relevant European or international standards: for colour deviation; for gloss level deviation; for degree of flaking; for degree of cracking, and for degree of blistering.

Criterion 3. Content of Volatile and Semi-volatile Organic Compounds (VOCs, SVOCs)

The maximum VOC content permitted in aerosol spray paints shall not exceed the limits defined in Table 2. The VOC content shall be determined separately for each component and then added together.

The VOC content for the liquid paint component shall first be determined either by calculation based on the ingredients and raw materials or by using the methods given in relevant European or international standards. Then the VOC content for the paint component (in g/l liquid paint) shall be converted to units of g/l of ready to use product by multiplying by the aerosol spray paint volume ratio, defined as:

$$Aerosol\ spray\ paint\ volume\ ratio = \frac{X\ Litres\ of\ liquid\ paint}{Y\ Litres\ of\ declared\ aerosol\ spray\ can\ volume}$$

Unless otherwise demonstrated, the propellant, whether it is an individual substance or mixture, shall be assumed to be 100 % VOC. The amount of propellant VOC in the ready to use product shall be calculated based on a declared propellant content (in units of g propellant/l volume of the aerosol can). The mass of propellant added per litre of aerosol shall be calculated by the manufacturer.

Table 2

VOC content limit

VOC content limits ([1])		
Liquid paint component	Propellant	Final product
VOC limits (expressed in terms of g/l of aerosol)		
60 g/l	290 g/l	350 g/l

([1]) 'Volatile organic compounds (VOCs)' 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

Assessment and verification:

The applicant shall provide a declaration of compliance supported by calculations of VOC content.

For the liquid paint component, the declaration of compliance shall be supported by calculations of VOC content based on the ingredients and raw materials used in the liquid paint component. Alternatively, the VOC content of the liquid paint component shall be communicated via a representative test report or reports using the methods given in relevant European or international standards and results, when corrected for the water-based aerosol spray paint volume ratio, shall demonstrate compliance with the limit.

For the propellant component, the applicant shall declare the propellant(s) used and provide details of the calculation.

Criterion 4. Restriction of hazardous substances and mixtures

Note: These sub-criteria apply to the final product formulation and any supplied ingredients therein.

4.1. **Restrictions on Substances of Very High Concern (SVHCs)**

The final product formulation and any supplied ingredients therein shall not contain any ingoing substances that meet the criteria referred to in Article 57 of Regulation (EC) No 1907/2006 that have been identified according to the procedure described in Article 59 of that Regulation and included in the candidate list for substances of very high concern for authorisation.

Assessment and verification:

The applicant shall provide a signed declaration that the final product formulation and any supplied ingredients therein do not contain any SVHCs as ingoing substances. The applicant declaration shall be supported by safety data sheets of all supplied ingredients used to produce the final product and declarations from the chemical suppliers.

The list of substances identified as SVHCs and included in the candidate list in accordance with Article 59 of Regulation (EC) No 1907/2006 can be found here:

https://www.echa.europa.eu/candidate-list-table

Reference to the list shall be made on the submission date of the EU Ecolabel application.

For any level of known impurities identified as SVHCs in ingredients, the concentration of the impurity and an assumed retention factor of 100 % shall be used to estimate the quantity of the SVHC impurity remaining in the final product formulation. Impurities that are SVHCs cannot be present in the paint or varnish product formulation above 0,0100 % w/w or in any individual ingredient in concentrations exceeding 0,100 % w/w. Any deviation from a retention factor of 100 % for an SVHC impurity (for example due to solvent evaporation) or in case of chemical modification, must be supported by adequate justifications.

4.2. **General restrictions based on classifications according to specific hazard classifications defined in Regulation (EC) No 1272/2008.**

(a) Final product formulation

The final product formulation shall not be classified as being carcinogenic, mutagenic, toxic for reproduction, acutely toxic, an aspiration hazard, a specific target organ toxicant, a respiratory or skin sensitiser, hazardous to the aquatic environment, hazardous to the ozone layer, an endocrine disruptor, persistent, bioaccumulative and toxic (PBT) or persistent, mobile and toxic (PMT) in accordance with Regulation (EC) No 1272/2008 and specifically in terms of the hazard statement codes stated in Table 3. The only exception permitted to this rule shall be the H412 and H413 classification, and only if due to levels of dry-film preservatives in the case of outdoor paints or varnishes.

(b) Ingoing substances

Unless derogated in Table 4, the final product formulation shall not contain any ingoing substances in concentrations at or above 0,010 % weight by weight of the final product formulation that are classified, in accordance with Regulation (EC) No 1272/2008, with any of the hazard classes, categories and associated hazard statement codes stated in Table 3.

Table 3

Restricted hazard classes, categories and associated hazard statement codes

Carcinogenic, mutagenic or toxic for reproduction (CMR)	
Categories 1A and 1B	Category 2
H340: May cause genetic defects	H341: Suspected of causing genetic defects
H350: May cause cancer	H351: Suspected of causing cancer
H350i: May cause cancer by inhalation	
H360: May damage fertility or the unborn child	H361: Suspected of damaging fertility or the unborn child
H360F: May damage fertility	H361f: Suspected of damaging fertility
H360D: May damage the unborn child	H361d: Suspected of damaging the unborn child
H360FD: May damage fertility. May damage the unborn child	H361fd: Suspected of damaging fertility. Suspected of damaging the unborn child
H360Fd: May damage fertility. Suspected of damaging the unborn child.	H362: May cause harm to breast fed children
H360Df: May damage the unborn child. Suspected of damaging fertility.	
Acute toxicity	
Categories 1 and 2	Category 3
H300: Fatal if swallowed	H301: Toxic if swallowed
H310: Fatal in contact with skin	H311: Toxic in contact with skin

Carcinogenic, mutagenic or toxic for reproduction (CMR)	
Categories 1A and 1B	Category 2
H330: Fatal if inhaled	H331: Toxic if inhaled
	EUH070: Toxic by eye contact
Aspiration hazard	
Category 1	
H304: May be fatal if swallowed and enters airways	
Specific target organ toxicity	
Category 1	Category 2
H370: Causes damage to organs	H371: May cause damage to organs
H372: Causes damage to organs through prolonged or repeated exposure	H373: May cause damage to organs through prolonged or repeated exposure
Respiratory and skin sensitization	
Category 1, 1A and 1B	
H317: May cause an allergic skin reaction	
H334: May cause allergy or asthma symptoms or breathing difficulties if inhaled	
Hazardous to the aquatic environment	
Categories 1 and 2	Categories 3 and 4
H400: Very toxic to aquatic life	H412: Harmful to aquatic life with long-lasting effects
H410: Very toxic to aquatic life with long-lasting effects	H413: May cause long-lasting effects to aquatic life
H411: Toxic to aquatic life with long-lasting effects	
Hazardous to the ozone layer	
H420: Harms public health and the environment by destroying ozone in the upper atmosphere	
Endocrine disruptors (EDs) for human health and the environment	
Category 1	Category 2
EUH380: May cause endocrine disruption in humans	EUH381: Suspected of causing endocrine disruption in humans
EUH430: May cause endocrine disruption in the environment	EUH431: Suspected of causing endocrine disruption in the environment.
Persistent, Bioaccumulative and Toxic (PBT)	
PBT	very Persistent and very Bioaccumulative (vPvB)
EUH440: Accumulates in the environment and living organisms including in humans	EUH441: Strongly accumulates in the environment and living organisms including in humans
Persistent, Mobile and Toxic (PMT)	
PMT	very Persistent and very Mobile (vPvM)
EUH450: Can cause long-lasting and diffuse contamination of water resources	EUH451: Can cause very long-lasting and diffuse contamination of water resources

The use of substances that are chemically modified during the production process, so that any relevant hazard for which the substance has been classified under Regulation (EC) No 1272/2008 no longer applies, shall be exempted from the above requirement.

This criterion shall not apply to ingoing substances covered by points (a) and (b) of Article 2(7) of Regulation (EC) No 1907/2006, which set out criteria for exempting substances within Annexes IV and V to that Regulation from the registration, downstream user and evaluation requirements.

Table 4

Derogations to restrictions on ingoing substances that are classified with one or more of the restricted hazards listed in Table 3 and are present in concentrations at or above 0,010 % (weight by weight) of the final product formulation

Substance type, substance name and CAS number	Derogated hazard code(s)	Derogation conditions
Preservatives and preservative stabilisers		
Note on preservatives: all preservatives: added to ingredients must be declared by suppliers and all preservatives added directly to the final product formulation must be declared by the paint or varnish producer. The only types of preservatives permitted in ingredients and the final product shall be those that are compliant with Regulation (EU) No 528/2012. For final products originating in the Union, it is reminded that it is not sufficient that the active substances contained in the preservative product are approved under Regulation (EU) No 528/2012 for product type 6 (PT6) (in-can preservative) or for product type 7 (PT7) (dry-film preservative), but the preservative product must be authorised under Regulation (EU) No 528/2012 for PT6 or PT7 or made available on the market according to the transitional measures set out in Article 89(2) of that Regulation. The combined total limits for PT6 and PT7 preservatives shall apply to these following product categories: — For indoor products: up to 0,080 % weight by weight of PT6 in the final product. — For colour tints used in tinting systems: up to 0,20 % weight by weight of PT6 in the colour tint. — For indoor products marketed for use in high humidity areas: up to 0,080 % weight by weight of PT6 and up to 0,10 % weight by weight of PT7 in the final product. — For outdoor products: up to 0,080 % weight by weight of PT6 and up to 0,50 % weight by weight of PT7 in the final product. Except for colour tints, all references to concentrations/limits/levels of preservatives in the section 'Preservatives and preservative stabilisers', shall be understood as referring to the preservative active substances contained in the final product formulation. Any preservatives which cannot be present in the final product formulation at concentrations exceeding 0,010 %, due to specific concentration limits (SCLs) lower than 0,010 % that would classify the final product with a restricted CLP hazard, are not mentioned in the derogation table below because they cannot be used in concentrations exceeding 0,010 % in the first place and thus do not need a derogation. This does not imply that they cannot be used as ingoing substances in EU Ecolabel products at any level. If not explicitly excluded in sub-criterion 4.3, such preservatives may be used so long as it is at levels below any SCLs that would trigger a restricted CLP classification of the final product formulation.		
In-can preservatives (PT6) in colour tints or final product:	H301, H311, H317, H330, H331, H372, H373, H400, H410, H411, H412, H413	(*)See horizontal derogation condition at foot of table The sum total of all PT6 in-can preservatives (those derogated for use above 0,010 % and those that are non-derogated but allowed in levels < 0,010 %) must be within the relevant limits defined in the note above. When preservatives that are formaldehyde donors are used, the relevant limits for free formaldehyde in the final product set out in sub-criterion 4.3(l) must be respected.

Substance type, substance name and CAS number	Derogated hazard code(s)	Derogation conditions
		Specific concentration limits (% weight by weight in the final product) shall apply for the derogated substances listed below: — Bronopol (CAS No 52-51-7): up to 0,030 %. — DBNPA (CAS No 10222-01-2): up to 0,030 % — Sodium pyrithione (CAS No 3811-73-2): up to 0,030 %. — BIT (CAS No 2634-33-5): up to 0,036 %. — Combined total isothiazolinones and isothiazolinone releasers (those derogated for use above 0,010 % and those that are non-derogated but allowed in levels < 0,010 %): up to 0,040 % in final product formulations. — Diamine (CAS No 2372-82-9): up to 0,050 %.
Dry-film preservatives (PT7):	H311, H317, H330, H331, H372, H373 H400, H410, H411, H412 and H413	(*)See horizontal derogation condition at foot of table Only applies to outdoor products and indoor products for use in high humidity areas. The sum total of all PT7 dry-film preservatives (those derogated for use above 0,010 % and those that are non-derogated but allowed in levels < 0,010 %) must be within the relevant limits defined in the note above. In the case of slow release, encapsulated forms of dry-film preservatives, the specific classification of the final product, or read-across formulations, should consider the absolute concentration of the hazardous components (i.e. without capsules). The final product or read-across formulation cannot be classified with any of the hazards listed in Table 3. Any dry-film preservatives classified as H400 or H410 must be non-bioaccumulative, demonstrated by having an octanol-water coefficient (Log Kow) of ≤ 3,2 or a bioconcentration factor (BCF) of ≤ 100.
Preservative stabiliser: Zinc oxide (CAS No 1314-13-2)	H400, H410	(*)See horizontal derogation condition at foot of table Permitted to be used as a preservative stabiliser, up to 0,040 % weight by weight of the final product, when used to stabilise in-can or dry-film preservative combinations that require 1,2-Benzisothiazol-3(2H)-one (BIT).
Drying and anti-skinning agents		
Anti-skinning agents	H317, H411, H412, H413	(*)See horizontal derogation condition at foot of table The sum total anti-skinning agent content shall not exceed 0,40 % weight by weight in the final product.
Driers (siccatives)	H301, H317, H373, H400†, H410†, H411, H412, H413	(*)See horizontal derogation condition at foot of table The sum total drier content shall not exceed 0,10 % weight by weight in the final product. † The derogation for H400, H410 and H411 only applies to cobalt-based drier compounds or neodecanoic acids and such compounds can only be used up to 0,050 % weight by weight in the final product.
Pigments and anti-corrosion additives		
Anti-corrosion pigments/ additives	H400, H410	(*)See horizontal derogation condition at foot of table Only permitted up to 0,050 % weight by weight in the final product and only for tri-zinc bis(orthophosphate (CAS No 7779-90-0).

Substance type, substance name and CAS number	Derogated hazard code(s)	Derogation conditions
Trimethylolpropane	H361fd	(*)See horizontal derogation condition at foot of table Only when used as an additive in supplied pigments and only up to 0,50 % weight by weight in the supplied pigment.
Binders and polymer dispersions		
Binders and crosslinking agents: Adipic acid dihydrazide (CAS No 1071-93-8)	H317, H411	(*)See horizontal derogation condition at foot of table Only allowed up to 1,0 % weight by weight in the binder or polymer dispersion ingredient and when used as an adhesion promoter or as a crosslinking agent.
Unreacted monomers (in binders)	H301, H304, H311, H317, H331, H334, H372, H400, H410, H411, H412	(*)See horizontal derogation condition at foot of table The sum total concentration of unreacted monomers needing this derogation shall not exceed 0,050 % weight by weight in the final product.
Other, miscellaneous		
Methanol (CAS No 67-56-1)	H301, H311, H331, H370	(*)See horizontal derogation condition at foot of table Only permitted as a residual reaction product of other substances in the product formulation. Allowable residual concentration increases as a function of binder content in the following manner: — Binder content of 10-20 %: allowable residual methanol is 0,020 % weight by weight in the final product. — Binder content of 20-40 %: allowable residual methanol is 0,030 % weight by weight in the final product. — Binder content of > 40 %: allowable residual methanol is 0,050 % weight by weight in the final product.
Mineral raw materials, including fillers, anti-sagging agents and matting agents	H372, H373	(*)See horizontal derogation condition at foot of table Only applies to mineral raw materials and leucophyllite minerals that naturally contain crystalline silica. Only permitted in contents up to 1,0 % weight by weight in the final product formulation for H372 materials or up to 10 % for H373 materials. In cases where the material is supplied in dry powder form, the applicant shall demonstrate that they have systems in place to minimise worker exposure to dry powder in the workplace (for example closed dosing systems, ventilated dosing and mixing areas and personal protective equipment).
Neutralising agents	H301, H311, H331, H400, H410, H411, H412, H413	(*)See horizontal derogation condition at foot of table Only allowed up to 1,0 % weight by weight in varnish formulations, and up to 0,50 % in all other products.
Optical brighteners	H413	(*)See horizontal derogation condition at foot of table Only allowed up to 0,10 % weight by weight in the final product formulation.
Silicon resin	H412, H413	(*)See horizontal derogation condition at foot of table Only allowed up to 2,0 % weight by weight in the final product formulation.

Substance type, substance name and CAS number	Derogated hazard code(s)	Derogation conditions
Solvents	H304	(*)See horizontal derogation condition at foot of table Only allowed up to 2,0 % weight by weight in the final product formulation.
Surfactants	H304, H400, H411, H412, H413	(*)See horizontal derogation condition at foot of table Only allowed up to 1,0 % weight by weight in transparent, semi-transparent, white or light-coloured product formulations or up to 3,0 % weight by weight in all other colours
UV stabilisers	H317, H411, H412, H413	(*)See horizontal derogation condition at foot of table Only applicable to outdoor products and only up to 0,60 % weight by weight in the final product formulation.

(*) Horizontal derogation condition: none of the derogations above, either individually or in combination, shall be permitted if they result in the final product being classified with any of the hazards defined in Table 3, with the notable exception of H412 and H413 for outdoor products due to the presence of dry-film preservatives.

Assessment and verification:

The applicant shall provide a signed declaration of compliance with sub-criterion 4.2, including compliance with any relevant derogation conditions, supported by declarations from suppliers and any other relevant documentation.

A list of all ingoing substances with one or more of the restricted CLP hazards calculated to be present in the final product formulation in concentrations greater than 0,010 % weight by weight shall be presented, together with their CAS numbers, CLP classification status (i.e. harmonised, joint entry or self-entries only) the relevant function of the ingoing substance (for example in-can preservative, drier, pigment, neutralising agents, surfactants, UV stabiliser etc.)., Calculations for ingoing substance concentrations in the final product formulation shall be based on:

— a list of all ingredients, chemicals or raw materials used to make the final product formulation,

— the screening of ingredients, chemicals or raw materials for those ingoing substances and known impurities with any of the EU Ecolabel-restricted CLP hazards,

— the concentrations of any screened ingoing substances and known impurities with EU Ecolabel-restricted CLP hazards in the ingredients, chemicals or raw materials used, in the format supplied.

— the weight of each of the ingredients, chemicals or raw materials added to make a known weight of final product formulation.

Known impurities shall be treated as ingoing substances only if the screening exercise reveals that their content in the final product formulation shall exceed 0,010 % weight by weight or their content in an ingredient shall exceed 0,100 % weight by weight. Known impurities below these thresholds shall not be counted in calculations.

Any screened ingoing substances shall be assumed by default to be 100 % retained in the final product. Justifications for any deviation from a retention factor of 100 % during processing (for example solvent evaporation) or for chemical modification of a screened ingoing substance shall be provided. Substances known to be released or to degrade from ingoing substances are considered ingoing substances and not impurities.

For any screened ingoing substances remaining in the final product formulation in concentrations greater than 0,010 % weight by weight, but which are exempted from sub-criterion 4.2 (see Annexes IV and V to Regulation (EC) No 1907/2006), a declaration to this effect by the applicant shall suffice for those substances.

Since multiple products or potential products (for example customised shades from a tinting system) using the same ingredients, chemicals or raw materials may be covered by one EU Ecolabel license, a worst-case calculation may be acceptable for each screened ingoing substance within a common family of products covered by the same license.

Regarding information requested from suppliers that may be commercially sensitive, evidence from suppliers can also be provided directly to competent bodies without necessarily providing certain details to the applicant.

4.3. **Specific hazardous substance restrictions for ingoing substances.**

Unless derogated in sub-criterion 4.2, the substances indicated below shall not be included as ingoing substances in the final product formulation or as ingoing substances to the ingredients used to make the final product formulation:

(a) Preservatives or driers classified as carcinogenic, mutagenic or toxic for reproduction.

(b) Substances classified as category 1 or category 2 endocrine disruption for human health or the environment in accordance with CLP Regulation (EC) 1272/2008, substances included in the candidate list referred to in Article 59(1) of REACH Regulation (EC) 1907/2006 as having endocrine-disrupting properties for human health or the environment, substances identified as having endocrine-disrupting properties in accordance with Regulation (EU) No 528/2012 or Regulation (EC) No 1107/2009, except for DBNPA (CAS No 10222-01-2) when used as an in-can preservative.

(c) Substances classified as Persistent, Bioaccumulative and Toxic (PBT) or very Persistent and very Bioaccumulative (vPvB) for the environment and living organisms including in humans in accordance with CLP Regulation (EC) 1272/2008, substances included in the candidate list referred to in Article 59(1) of REACH Regulation (EC) 1907/2006 as having PBT or vPvB properties for the environment and living organisms including in humans, substances identified as having PBT or vPvB properties for the environment and living organisms including in humans in accordance with Regulation (EU) No 528/2012 or Regulation (EC) No 1107/2009.

(d) Substances classified as Persistent, Mobile and Toxic (PMT) or very Persistent and very Mobile (vPvM) in accordance with CLP Regulation (EC) 1272/2008, substances included in the candidate list referred to in Article 59(1) of REACH Regulation (EC) 1907/2006 as having PMT or vPvM properties.

(e) Alkylphenols, alkylphenol ethoxylates (APEOs) and their derivatives, as referred to in entry 43 to Annex XIV or entry 46 to Annex XVII of the Regulation (EC) 1907/2006.

(f) Perfluorinated and polyfluorinated compounds (PFAS), as defined in Article 4(42).

(g) Phthalates.

(h) Organotin compounds.

(i) Fragrance substances which are prohibited or restricted in cosmetic products and listed in Annexes II or III to Regulation (EC) No 1223/2009.

(j) Bisphenols that have been identified by ECHA in their 2021 'Assessment of Regulatory Needs report on Bisphenols' for further EU regulatory risk management that are known or potential endocrine disruptors for the environment or for human health, or that can be identified as toxic for reproduction.

(k) Pigments used shall not be based on Cadmium, Lead, Chromium (VI), Mercury, Arsenic, Selenium, Antimony or Cobalt. The following impurities from any pigments used shall not be present in the final product formulation in quantities exceeding 0,010 % weight by weight (per metal): Cadmium, Lead, Chromium (VI), Mercury, Arsenic, Selenium, Antimony and Cobalt. The only exceptions to pigment use and to the 0,010 % limit for impurities shall be:

— Cobalt: due to the use of Cobalt aluminate blue spinel (CAS No 1345-16-0) and Cobalt chromite blue-green spinel (CAS No 68187-11-1) pigments.

— Antimony: due to the use of pigments based on Antimony Nickel within an insoluble TiO_2 lattice.

(l) Free formaldehyde shall not be intentionally added to the final product formulation. The final product shall be tested in order to determine its free formaldehyde content. Worst-case samples for testing shall be selected for each family of products based on which product is predicted to have the highest theoretical amount of formaldehyde content. Under the conditions defined below, the following sum total limits of free formaldehyde shall be permitted:

— Up to 0,0010 % weight by weight permitted when bronopol or preservatives that are formaldehyde donors are required as an in-can preservative to protect a specific type of paint or varnish

— Up to 0,010 % weight by weight permitted when polymer dispersions (binders) provide, through residual levels of formaldehyde, the function of formaldehyde donors instead of in-can preservatives.

— Up to 0,010 % when both conditions listed above apply in the same product.

(m) Synthetic polymer microparticles (SPMs, commonly known as microplastics) as defined in entry 78 of Annex XVII to Regulation (EC) No 1907/2006 (REACH), shall not be used for non-film forming purposes in any product formulation unless their use and purpose is explicitly declared, together with a justification of why their use improves the overall environmental performance of the paint or varnish product.

(n) TiO_2 nanoform, as defined in Article 4(52), shall not be used as an ingredient for any purpose in aerosol products.

Assessment and verification:

(a to j) The applicant shall declare the non-use of the relevant substances indicated in this sub-criterion, namely CMR preservatives, CMR driers, endocrine disruptors (except DBNPA), PBT and vPVB substances, PMT and vPvM substances, alkylphenols and APEOs, PFAS, phthalates, organotin compounds, fragrances and bisphenols as ingoing substances in their formulation, supported by declarations from their suppliers about the non-use of the same hazardous substance groups as ingoing substances in the ingredients supplied and that are used in formulations covered by the EU Ecolabel license application procedure.

(k) In the case of the heavy metal restrictions from pigments, the applicant or pigment supplier shall provide a declaration stating that neither the pigment itself nor any ingoing substances that may be incorporated into the pigment product are based on the listed heavy metals. The applicant or pigment supplier shall also provide a test report with the heavy metal impurity levels of representative samples of the pigment supplied. The applicant shall then use these results, together with the % of pigment(s) used in the final product, to calculate the concentration of heavy metals from pigments remaining in the final product. In the case of exempted pigments, the pigment supplier shall declare which pigment(s) have the exemption (i.e. cobalt aluminate blue spinel, cobalt chromite blue-green spinel or antimony nickel in an insoluble TiO_2 lattice).

(l) The applicant shall declare which of their products should have the highest theoretical free formaldehyde content within each family of products' formulation. This declaration shall be based on the choice of the paint formulator to use formaldehyde donors as in-can preservatives and declarations from suppliers regarding the amounts of formaldehyde donors used to preserve supplied ingredients (especially binders). The addition of these substances (and any other ingredients that release formaldehyde) to the worst-case formulations shall not result in the content of free formaldehyde in the final product exceeding the relevant concentration limit, as measured with relevant European or international standards.

(m) The applicant shall provide either a declaration of the non-use of SPMs for non-film forming purposes or a declaration of their use in the product formulation. In cases where the use of SPMs for non-film forming purposes is declared, the type, quantity (% weight by weight) and purpose shall be stated in the declaration, together with a justification of how the use of SPMs for non-film forming purposes improves the overall environmental performance of the product. Such justifications should normally compare the environmental performance of the same product with and without the SPMs for non-film forming purposes.

(n) The applicant shall provide a declaration of the non-use of TiO_2 nanoform pigments, supported by declarations from their pigment supplier(s).

Criterion 5. Consumer information

5(a) The following information shall appear on or be attached to the packaging:

— Recommendation to minimise paint wastage by estimating how much paint is needed before purchase,

— How to estimate the amount of paint needed prior to purchase in order to minimise paint wastage and a recommended amount as a guideline (for example for 1 m^2 of wall, X litres of paint is needed),

— Safety measures for the user including basic recommendation on personal protective equipment that should be worn and additional measures that should be taken when using the product,

— Recommendation to use the product outdoors or in a ventilated environment,

— Information requested in sub-criterion 5(b) or explanation of how to access such information.

5(b) The following information shall appear on or be attached to the packaging or be available via a web-link or QR code:

— Appropriate storage conditions of the product (before and after opening), including, where appropriate, safety advice,

— Appropriate waste management of the 'leftover paint' and packaging (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.

Assessment and verification:

The applicant shall declare that the product complies with the requirement and provide the competent body with the artwork or samples of the user information and/or a link or QR code to a manufacturer's website containing this information as part of the application. The recommended amount of paint given as a guideline shall be provided.

Criterion 6. Information appearing on the EU Ecolabel

The optional label with text box shall contain three of the following statements, according to their relevance:

— Minimised content of hazardous substances,

— Reduced content of volatile organic compounds (VOCs): x g/l,

— Good performance for indoor use (for indoor products), or

— Good performance for outdoor use (for outdoor products), or

— Good performance for both indoor and outdoor use (for products suitable for indoor and outdoor use).

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

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.