Revision of the EU Ecolabel criteria for **Indoor and Outdoor Paints and Varnishes**

13 November 2024

WEBEX SESSION

ETIQUETTE FOR VIRTUAL MEETING PARTICIPANTS

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Revision of the EU Ecolabel criteria for Indoor and Outdoor Paints and Varnishes

2nd AHWG Meeting, 13 November 2024

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European Commission

Agenda

Morning session: 08:45-12:45 h CET		
No.	Item	**SCHEDULE**
1	**Opening of virtual room and welcome of participants**	**08:45 – 09:00**
2	**Introduction, political objectives of the EU Ecolabel and process description**	**09:00 – 09:15**
3	**Update of the LCA screening studies**	**09:15 – 09:45**
4	**Scope and Definitions**	**9:45 – 10:30**
Coffee Break – 15 min		
5	**Criterion 1: TiO_2 production (in draft Annexes I, II and III)**	**10:45 – 11:30**
6	**Criterion 2: Efficiency in use (in draft Annexes I, II and III)**	**11:30 – 12:15**
7	**Criterion 3: VOC and SVOC content (in draft Annexes I, II and III)**	**12:15 - 12:45**
Lunch Break - 1h		

Afternoon session: 13:45-17:00 h CET		
No.	Item	**SCHEDULE**
8	**Criterion 4: Restriction of hazardous substances and mixtures (in draft Annexes I, II and III)**	**13:45 – 14:45**
9	**Criterion 5: VOC emissions (in draft Annexes I and II)**	**14:45 – 15:15**
Coffee Break – 15 min		
10	**Criterion 6: Consumer Information & Criterion 7: Information appearing on the EU Ecolabel (in draft Annexes I, II and III)**	**15:30 – 16:00**
11	**Other criteria – not included: CO2 footprint, Biobased content, Microplastic**	**16:00 – 16:45**
12	**Conclusions, next steps and closure of the meeting**	**16:45 – 17:00**

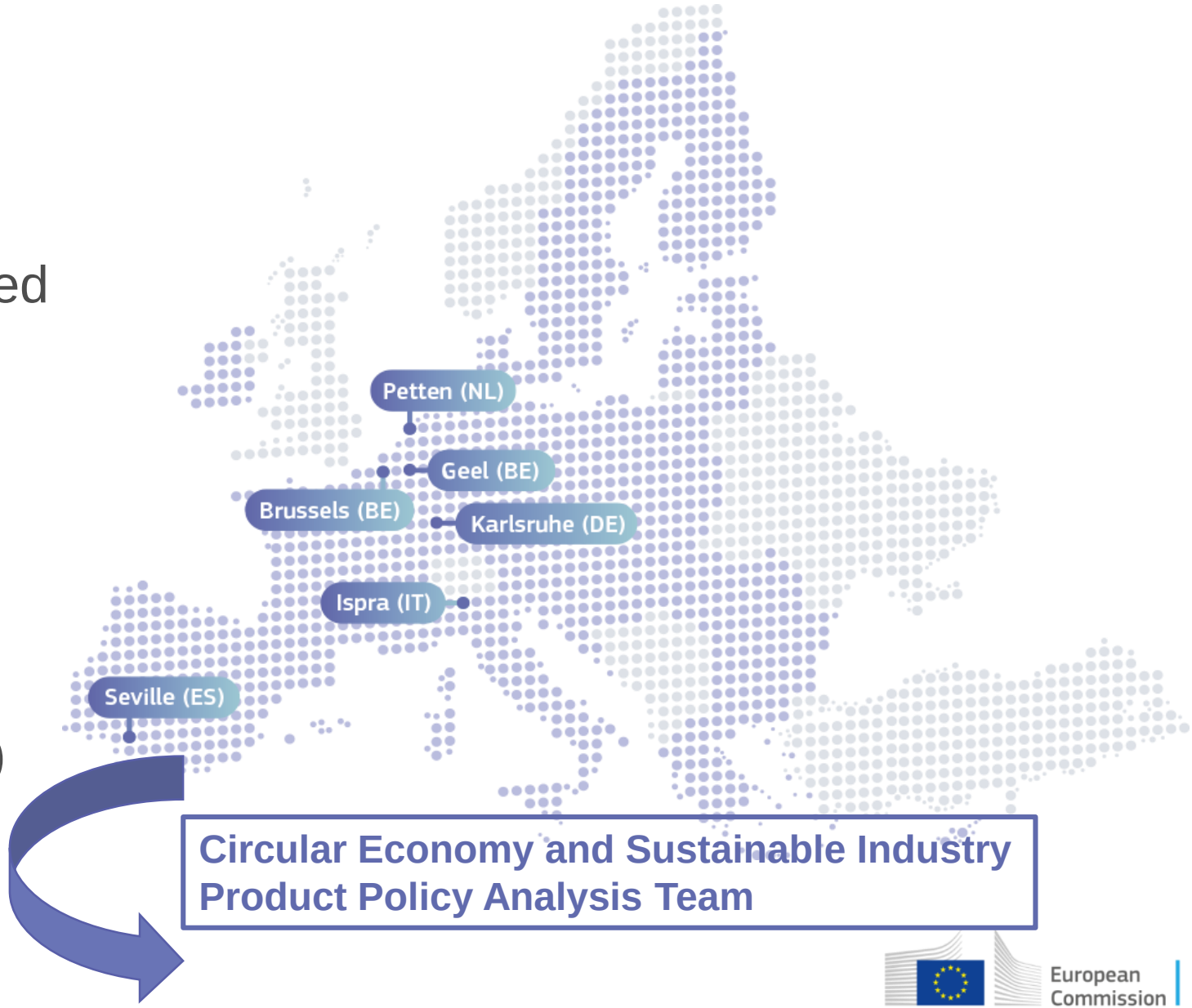
1. The Joint Research Centre (JRC)

The Joint Research Centre provides independent, evidence-based knowledge and science, supporting EU policies to positively impact society.

JRC sites

Headquarters in **Brussels**
and research facilities located
in **5 EU Countries:**

- Belgium (Geel)
- Germany (Karlsruhe)
- Italy (Ispra)
- The Netherlands (Petten)
- Spain (Seville)



Circular Economy and Sustainable Industry
Product Policy Analysis Team

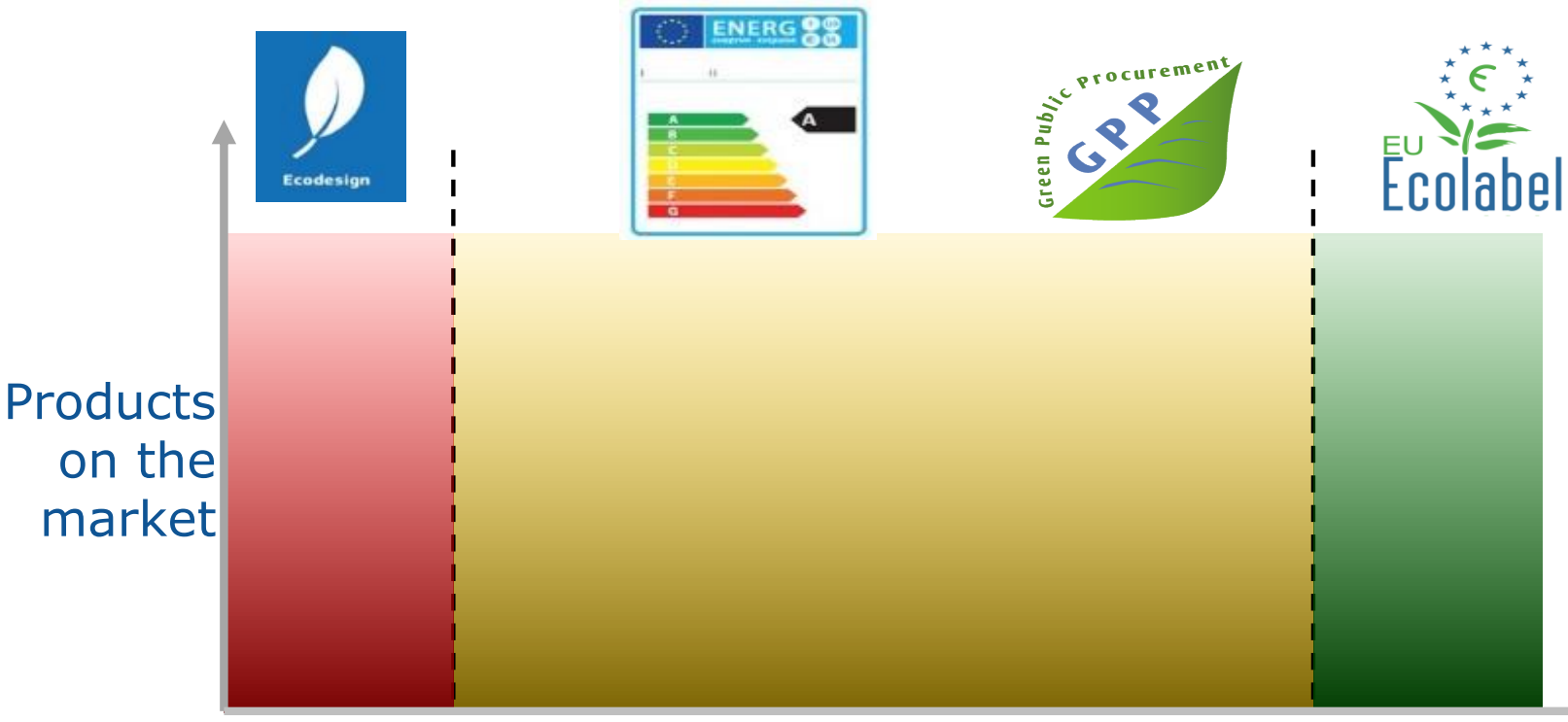
European Commission

1. Circular Economy and Sustainable industry (B5) Policy tools

<u>Cut out</u> least sustainable products

<u>Incentivise</u> choice of higher sustainability products

<u>Encourage</u> development of new, more sustainable products



New instrument

Ecodesign for Sustainable Product Regulation

ESPR WORK PLAN

European Commission

2. Introduction, political objectives of the EU Ecolabel and process description

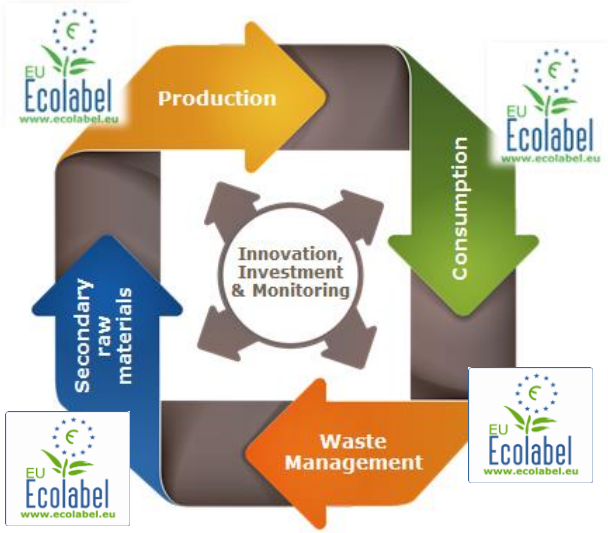
European Commission

The EU Ecolabel (EUEL)

- The **official** European Union **voluntary** label for **environmental excellence**
- **Established in 1992 -** Regulation (EC) 66/2010
- Managed by the **European Commission** and the **Member States**
- The **only EU-wide ISO 14024 Type 1 Ecolabel:** reliable; multi-criteria; life-cycle approach; open-transparent-multi-stakeholder and science-based

Circular Economy Action Plan
For a cleaner and more competitive Europe

The European Green Deal



Raw materials

Minimising emissions

Verified performance

Resources saving

Hazardous substances restriction

Waste reduction

European Commission

Benefits to applicants

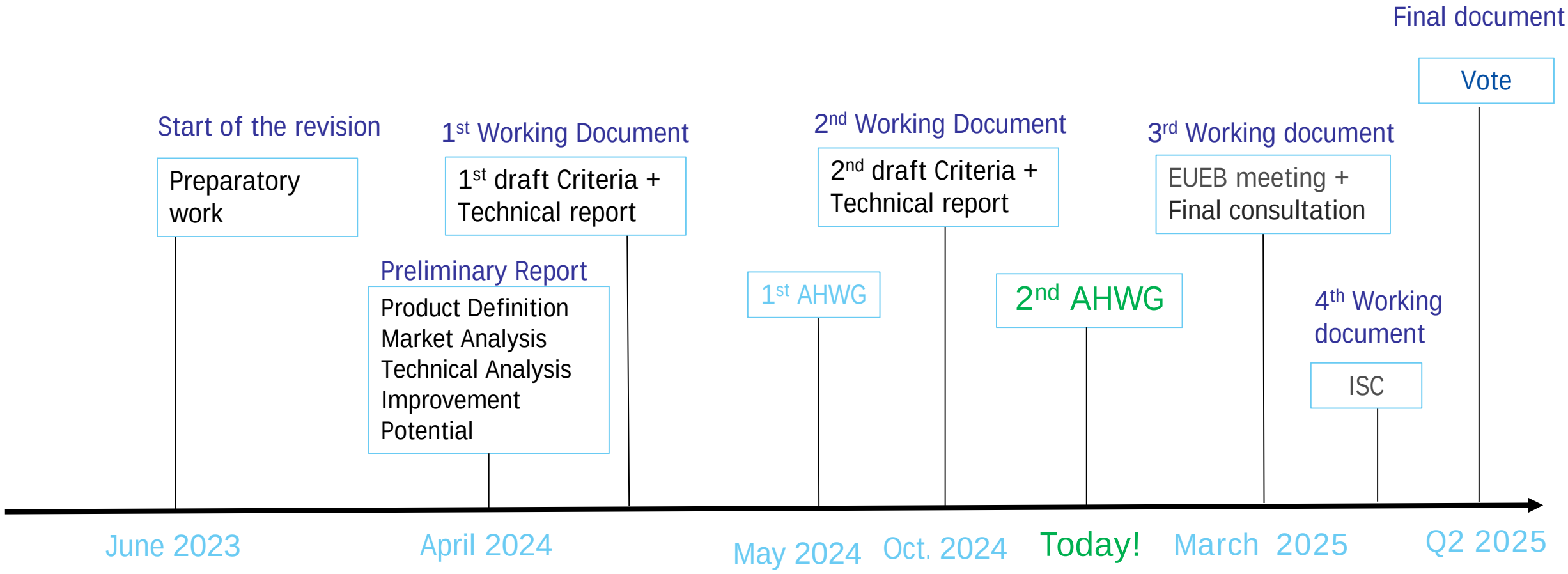
- Certifies that product/service is **among the most environmentally-friendly in its class**
- Increases the **visibility of the product** on the market via/by benefitting from:
  - **EU Ecolabel logo,** which is recognized across Europe by millions of consumers.
  - **EU Ecolabel official catalogue http://ec.europa.eu/ecat/,** featuring products and the company.
  - **Marketing activities,** by the EC and the National Competent Bodies (e.g. online retailers collaboration)

- Contributes to **resource and monetary savings,** whilst improve the **image and growth of the company**
- **Facilitates** compliance and compatibility with Green Deal Legislation (e.g. GCD, ESPR)
- Easier access to Green Public Procurement (GPP)

Further information at https://environment.ec.europa.eu/topics/circular-economy/eu-ecolabel-home/product-groups-and-criteria_en or contacting helpdesk-eu-ecolabel@adelphi.de

Time planning (tentative)

Current criteria valid until December 2025



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2. The EUEL criteria under revision

Commission Decision establishing the EU Ecolabel criteria for indoor and outdoor paints and varnishes:

- Indoor and outdoor paints and varnishes [OJ L 164 3.6.2014, p. 45]

- Amended 6 times already for various reasons:
  - Decision (EU) 2015/886 – wording changes
  - Decision (EU) 2016/397 – ADH and methanol derogations
  - Decision (EU) 2018/666 – prolongation of validity
  - Decision (EU) 2020/503 – extension of ZnO derogation
  - Decision (EU) 2021/1871 – TiO2 and TMP derogations and isothiazoline limit clarifications
  - Decision (EU) 2022/1229 – prolongation of validity

Validity expiry date 31/12/25

3. Update of the LCA screening studies

European Commission

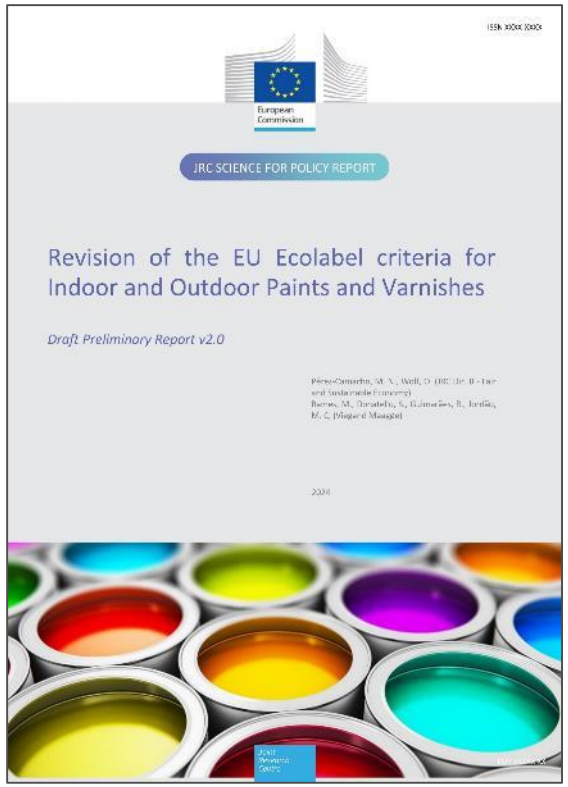
Background information

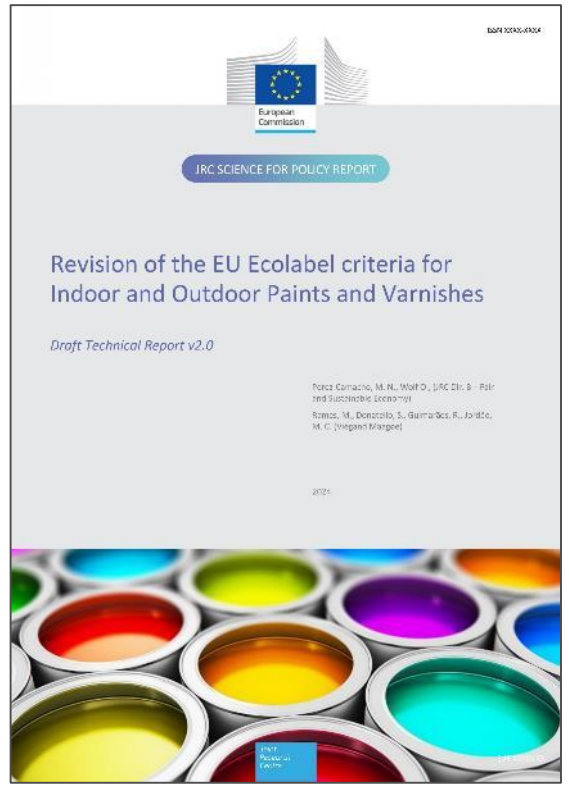
Draft Preliminary Report (PR2)

- Review of paint categories
- Legislative and policy review
- Market analysis
- Technical analysis

Draft Technical Report (TR2)

- Summary of PR
- Proposed scope, definitions and restructuring
- Proposed criteria, supporting rationale and questions.





Documents available in BATIS:
BATIS >Home> Forum >Z_Product Policy: Paints and Varnishes> 2nd AHWG and publication of draft background documents
and Product Policy Analysis Website here:
https://susproc.jrc.ec.europa.eu/product-bureau/product-groups/461/documents

European Commission

LCA impact - Methodology

Goal: identify environmental hotspots and quantify environmental impacts throughout the life cycle of the following products:

1. Indoor wall paint;
2. Outdoor wall paint;
3. Indoor wood varnish;
4. Outdoor wood varnish;
5. Water-based aerosol spray paint;
6. Solvent-based aerosol spray paint.

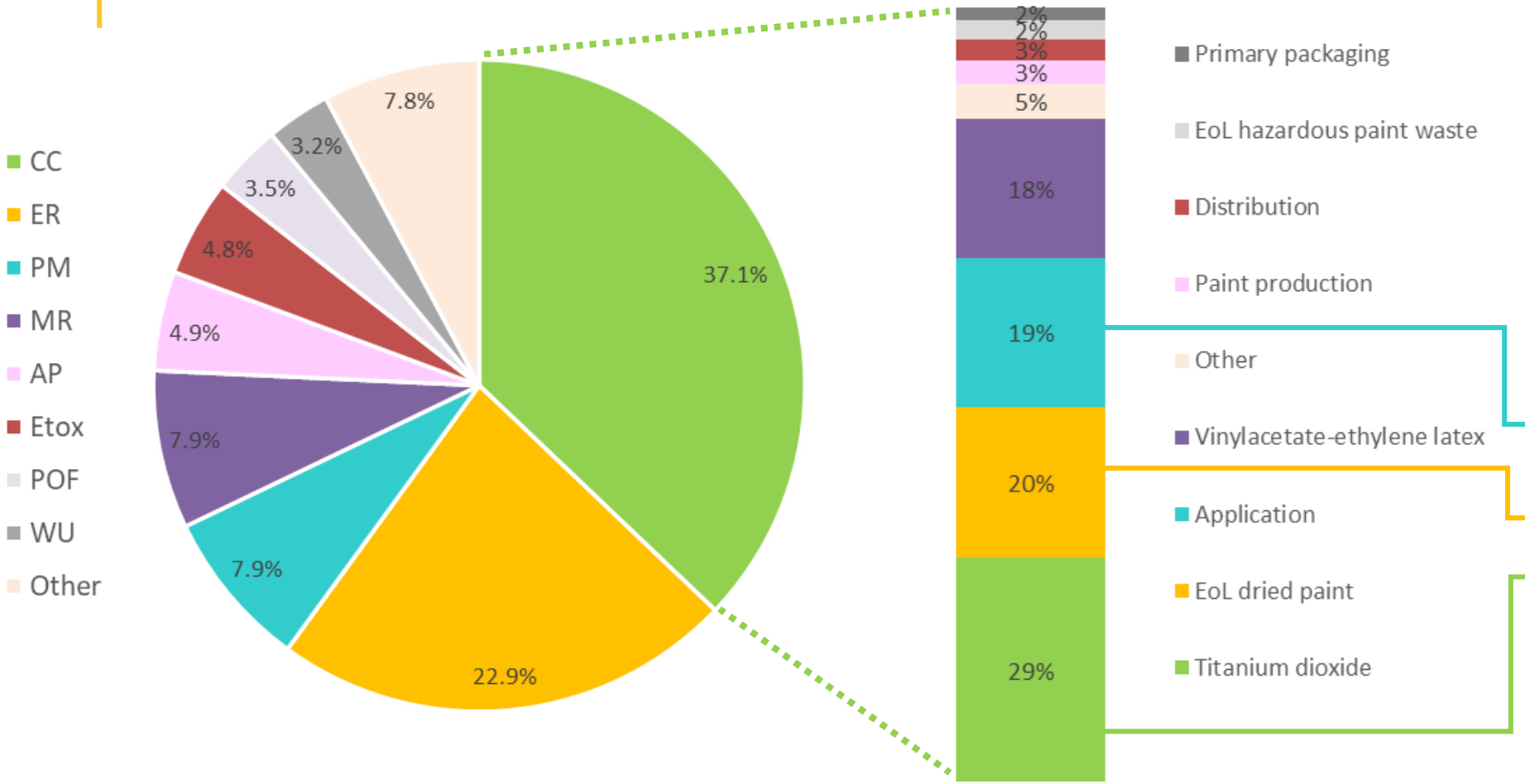
Modelling assumptions

Parameter	Indoor paint	Outdoor paint	Indoor varnish	Outdoor varnish	Water-based aerosol spray paint	Solvent-based aerosol spray paint
Coverage	9.5 m^2/L	7.0 m^2/L	9.8 m^2/L	9.5 m^2/L	2.9 m^2/L	1.0 m^2/L
Applied paint eff. factor	0.89	0.89	0.89	0.89	0.97	0.97
Paint density	1.43 kg/L	1.30 kg/L	1.21 kg/L	1.36 kg/L	0.92 kg/L	0.79 kg/L
Maintenance multiplier	8.33	5	5.81	7.46	10	10
Reference flow (kg/FU)	1.409 kg	1.043 kg	0.806 kg	1.200 kg	3.293 kg	7.944 kg

Functional unit: Protection and decoration of 1 m^2 of indoor/outdoor substrate for 50 years at a specified quality level.

Disclaimer: This LCA screening study represents average groups of decorative paint products in Europe and does not represent individual brands or products.

LCA impact – PEF results by process (updated formulation)



Example of indoor paint

- Climate change the biggest impact category (37%)
- Top 3 contributing processes to CC were:
  - Application (incl. auxiliary materials and losses)
  - EoL dried paint
  - Titanium dioxide

Disclaimer: This LCA screening study represents average groups of decorative paint products in Europe and does not represent individual brands or products.

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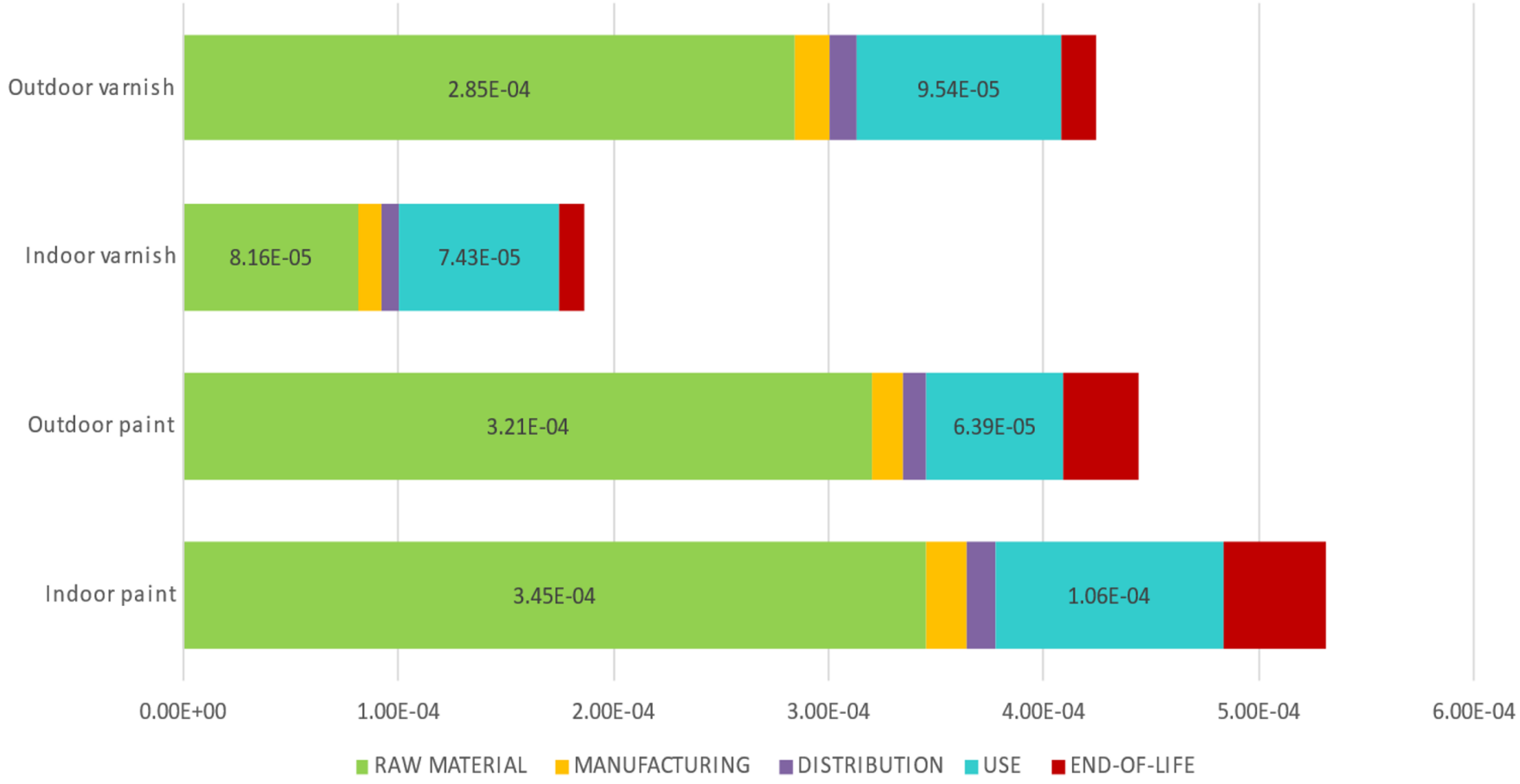
LCA impact for paints and varnishes – PEF scores

- Raw material production is the main hotspot in all 4 products.
- Use phase highly significant in all 4 products (over a 50-year period).



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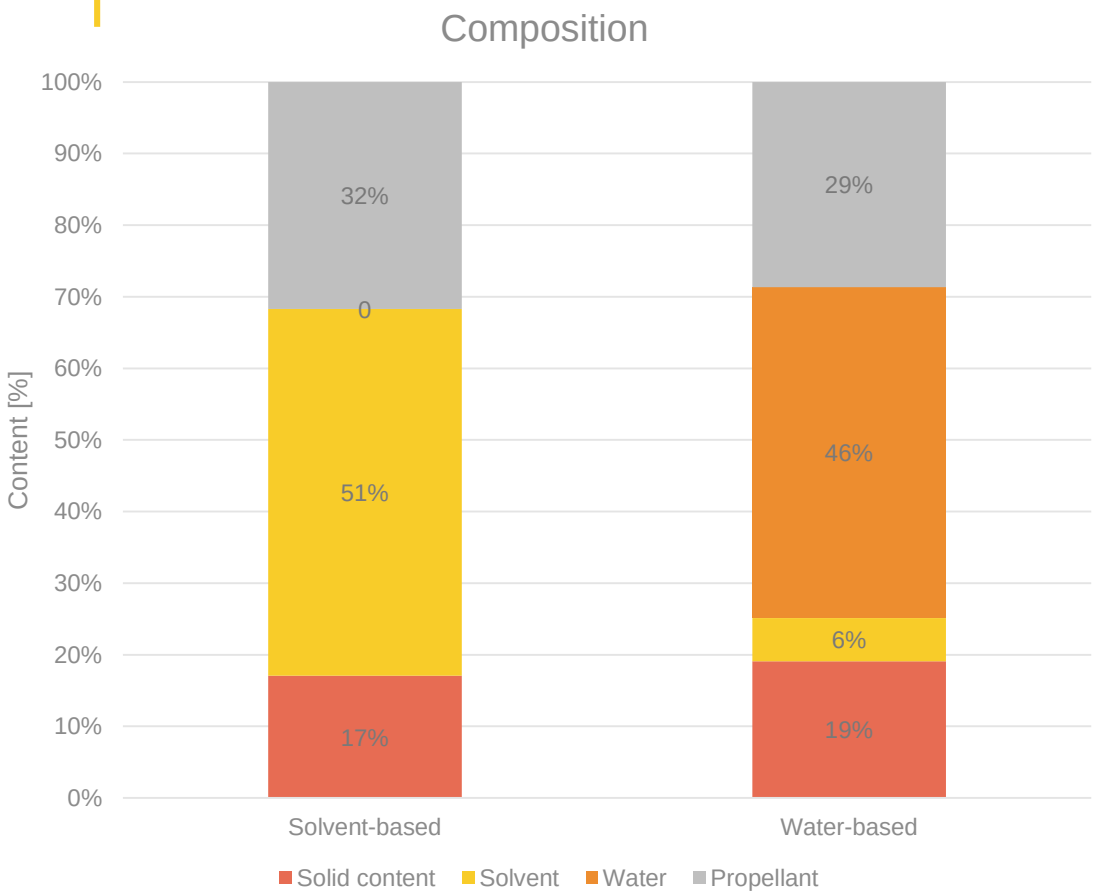
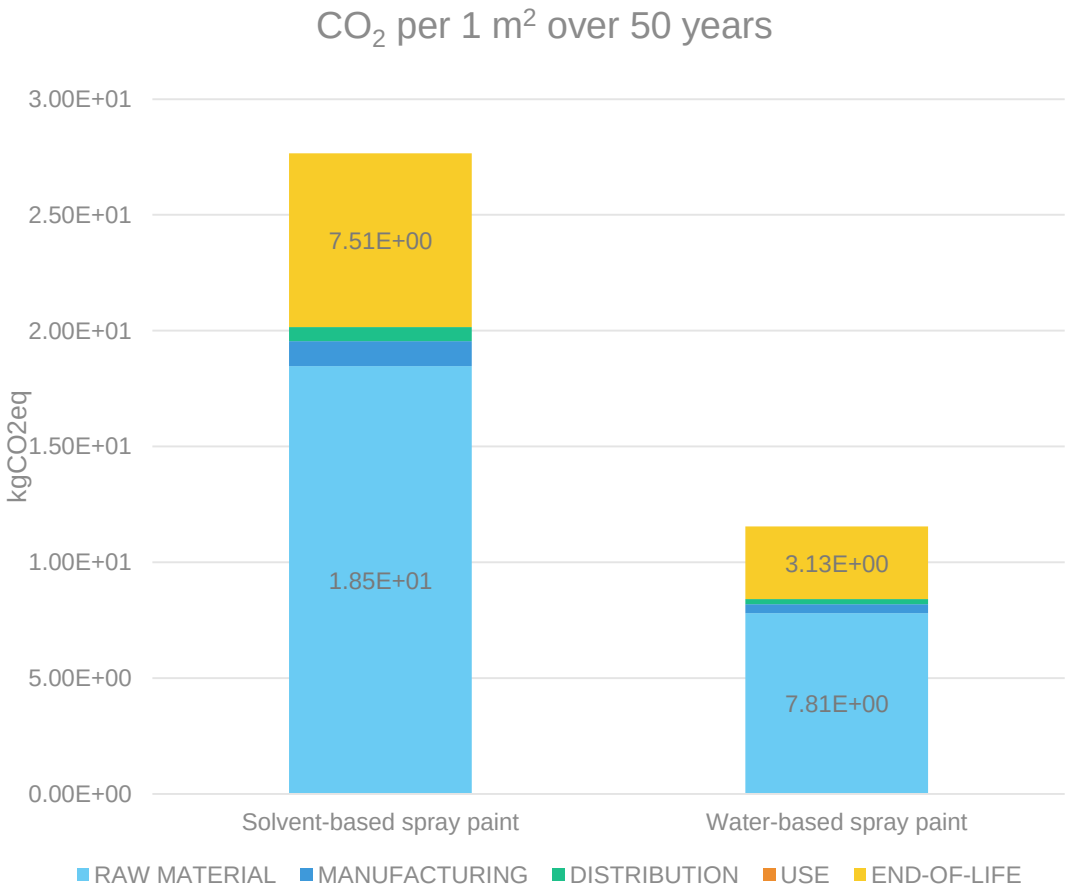
LCA impact – Aerosol spray paints





Disclaimer: This LCA screening study represents average groups of decorative paint products in Europe and does not represent individual brands or products.

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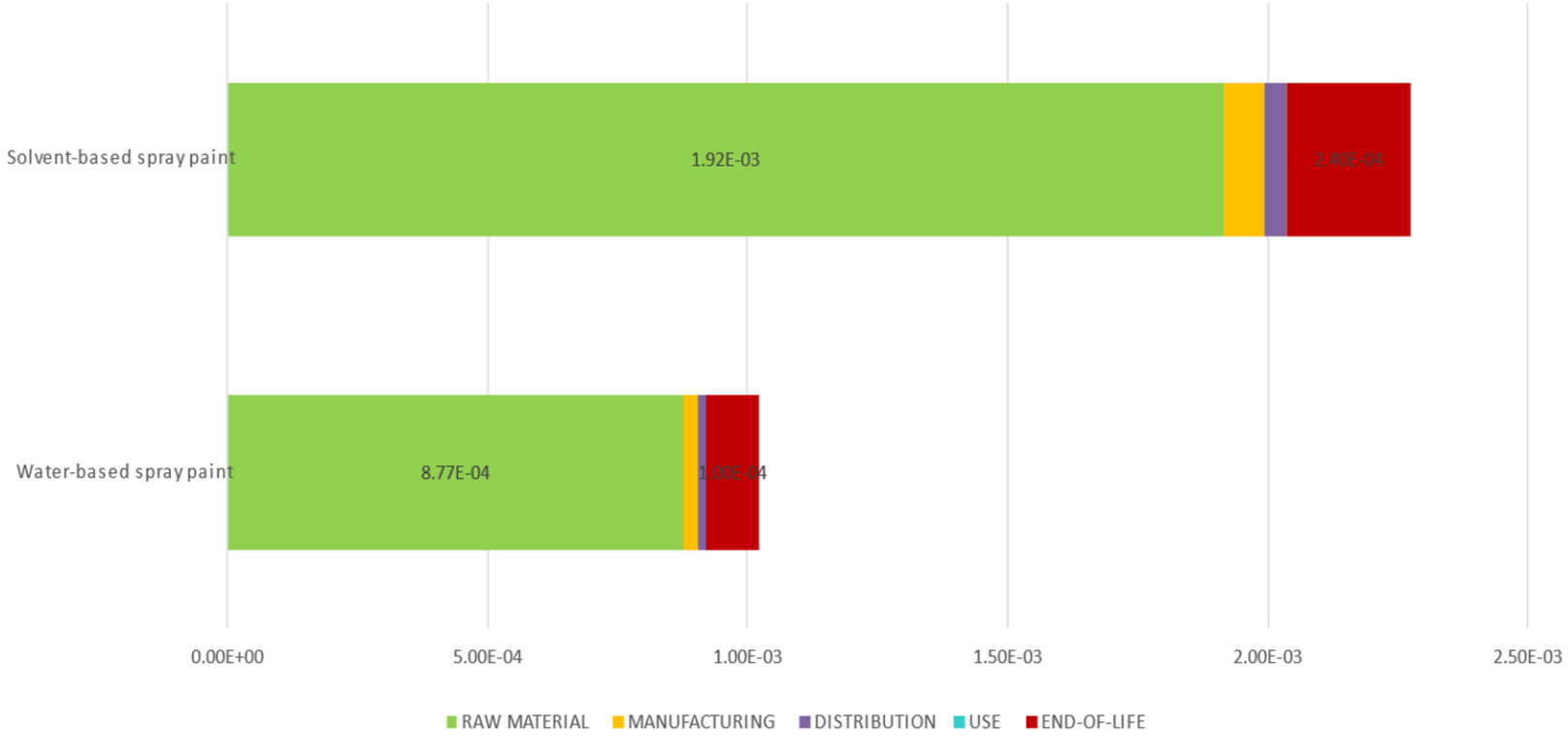
LCA impact for aerosol spray paints – PEF scores

- Raw material production is the main hotspot in both products.
- End-of-life has the second highest impact for both paints.
- Use stage is not relevant, as paints are directly applied from the can to the substrate.



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Questions / Comments?

European Commission

4. Scope with restructuring of criteria and Definitions

European Commission

Restructuring of the EU Ecolabel criteria

Inclusion of aerosol spray paints and waterproofing products. As a result, for readability, the scope has been divided into three separate annexes:

- *Annex I: Decorative paints and varnishes and related products*
- *Annex II: Performance coatings and related products*
- *Annex III: Water-based aerosol spray paints*

Subject/criteria content	Previous criteria from 2014	Proposed criteria		
		Annex I	Annex II	Annex III
White pigment content and WSR	Previous criterion 1. White pigment content	Moved to part (b) of the new criterion 2. Efficiency in Use and White pigment content and WSR requirements		No previous criterion to move.
Titanium dioxide	Previous criterion 2. Titanium dioxide production	Now becomes criterion 1. Titanium dioxide production		
Efficiency in use	Previous criterion 3. Efficiency in use	Now becomes criterion 2. Efficiency in Use and white pigment content and WSR		Criterion 2. Efficiency in use without white pigment limit
VOC and SVOC content	Previous criterion 4. Content of Volatile and Semi-volatile Organic Compounds (VOCs, SVOCs)	Now becomes criterion 3. Content of Volatile and Semi-volatile Organic Compounds (VOCs, SVOCs)		
Derogations, Restriction of hazardous substances and mixtures	Previous criterion 5. Restriction of hazardous substances and mixtures	Now becomes criterion 4. Restriction of hazardous substances and mixtures		
VOC emissions	n/a	Now becomes criterion 5. VOC emissions		No requirement here
Consumer information	Previous criterion 6. Consumer information	Criterion 6. Consumer information		Criterion 5. Consumer information
EU information	Previous criterion 7. Information appearing on the EU Ecolabel	Criterion 7. Information appearing on the EU Ecolabel		Criterion 6. Information appearing on the EU Ecolabel

Scope

Main points about proposed changes:

- Title of Article 1 change to decorative paints and varnishes and related products
- Inclusion of primers whose primary purpose is to impart decorative characteristics
- Directive 2004/42/CE
- Inclusion of untinted base paints and non-professional
- Inclusion of powder or granulate form paint which only need water added, unless excluded in paragraph 2:
  - Performance coatings defined in subcategories 1.1(i) and 1.1(j) of Annex I to Directive 2004/42/CE.
  - Multicoloured coatings defined in subcategory 1.1(k) of Annex I to Directive 2004/42/CE.
  - Decorative effect coatings defined in subcategory 1.1(l) of Annex I to Directive 2004/42/CE.
  - Anti-fouling coatings.
  - Wood preservatives.
  - Industrial coatings, Vehicles paints, road-marking paints,
  - Products, oils and waxes (whose primary function is not to form a continuous film over the substrate
  - Fillers, plasters, grouts, sealants and adhesives.
  - Cement-based paints where cement is used as a binder in the formulation.
  - Aerosol-spray paints

Scope

Second proposed scope – Article 1

TR2: Second proposal for product group scope “Decorative paints and varnishes and related products, performance coatings and related products and water-based aerosol spray paints”

Article 1

1. The product group of ‘decorative paints and varnishes and related products’ shall comprise ~~the following~~ indoor and outdoor ~~decorative~~ paints, varnishes, woodstains and ~~related products~~ primers whose primary purpose is to impart decorative characteristics to buildings, their trim and fittings and associated structures ~~intended for use by consumers and professional users via application to buildings, their trim and fittings, and associated structures~~ and that fall under the scope of subcategory 1.1. in Annex I to Directive 2004/42/CE of the European Parliament and of the Council (1).

~~(a) matt coatings for interior walls and ceilings~~

~~(b) glossy coatings for interior walls and ceilings~~

~~(c) coatings for exterior walls of mineral substrate~~

~~(d) interior/exterior trim and cladding paints for wood, metal or plastic~~

~~(e) interior/exterior trim varnishes and woodstains~~

~~(f) minimal build woodstains~~

~~(g) primers~~

~~(h) binding primers~~

~~(i) one-pack performance coatings~~

~~(j) two-pack performance coatings~~

~~(k) multicoloured coatings~~

~~(l) decorative effect coatings~~

~~(m) anti-rust paints~~

~~(n) floor coatings and floor paints~~

~~(o) wood paints~~

~~(p) wood and decking stains~~

~~(q) tinting pastes?~~

~~The paint categories referred to above~~ Decorative paint products shall include untinted base paints and different colour shades achieved by tinting, either predefined by the manufacturer or at the customised request of consumers ~~or~~ (professional or non-professional) ~~decorators~~ to operators of tinting systems.

Decorative paints or varnishes not covered by Directive 2004/42/CE which are supplied in powder or granule form, and that are to be diluted and mixed with water prior to use for decorative purposes, are also included in the scope of this product group unless explicitly excluded in paragraph 2.

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

a. Performance coatings defined in subcategories 1.1(i) and 1.1(j) of Annex I to Directive 2004/42/CE.

b. Multicoloured coatings defined in subcategory 1.1(k) of Annex I to Directive 2004/42/CE.

c. Decorative effect coatings defined in subcategory 1.1(l) of Annex I to Directive 2004/42/CE.

d. Anti-fouling coatings.

e. ~~Preservation products for wood impregnation~~ Wood preservatives.

~~(d) powder coatings (this does not apply to cement paints or other “just add water” paints, see definition in Article 2(x));~~

~~(e) UV curable paint systems;~~

f. Coatings ~~for particular industrial and professional uses, including heavy-duty 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.

g. ~~Paints~~ Coatings primarily intended for vehicles.

h. Products whose primary function is not to form a continuous film over the substrate, e.g. oils and waxes. ~~(subject to change if scope is expanded)~~

i. Fillers, plasters, grouts, sealants and adhesives.

j. Cement-based paints where cement is used as a binder in the formulation.

k. Aerosol-spray paints

l. Road-marking paints ~~(subject to change if scope is expanded)~~

Scope

Main points about proposed changes:

- Split between decorative and performance coatings
- Change from two-pack performance to multi-pack performance coating
- Directive 2004/42/CE
- Consumer and professional paints
- Includes floor coatings, anti-corrosion coatings, waterproofing coatings, anti-graffiti coatings and radiator paints

TR2: Second proposal for product group scope “Performance coatings”
Article 2
1. The product group of ‘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) in Annex I to Directive 2004/42/CE of the European Parliament and of the Council. The product group shall comprise floor coatings, anti-corrosion coatings, waterproofing coatings, anti-graffiti coatings and radiator paints intended for use by consumers and professional users in buildings, their trim, fittings or associated structures. 2. The product group of ‘performance coatings and related products’ shall not include: a. Anti-fouling coatings. b. Wood preservatives. c. 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. d. Coatings primarily intended for vehicles. e. Products whose primary function is not to form a continuous film over the substrate, e.g. oils and waxes. f. Fillers, plasters, grouts, sealants and adhesives g. Cement-based paints where cement is used as a binder in the formulation. h. Coatings designed to impart flame retardancy. i. Coatings used in relation to hygiene standards in the food or drink industry or health services. j. Road marking paints.

Scope

Main points about proposed changes:

- No prior scope exists for Water-based aerosol spray paint
- Include in a separate annex, as it does not fall under performance coatings due to:
  - Different formulation
  - Distinct use

TR2: Second proposal for product group scope “Water-based aerosol spray paints”
Article 3
1 The product group of ‘water-based aerosol spray paints’ shall comprise integral ready-to-use metal packages 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 of ‘water-based aerosol spray paints’ shall not include aerosol spray paints with an organic solvent-based paint formulation or that would be classified as an extremely flammable aerosol (H222) or a flammable aerosol (H223) accordance with the classification rules for mixtures set out in Regulation (EC) No 1272/2008.

Discussion about scope

Questions to stakeholders about proposed definitions
Q1. Opinions about the proposed scope? Q2. Apart from the "such as" products already listed in subcategory 1.1(i) of Directive 2004/42/CE, what other "performance" coatings can be understood to be covered by this subcategory (and also subcategory 1.1(j))? Q3. How to define waterproofing products? And are they already in the scope of Directive 2004/42/CE or not? Q4. Should the technical term "barrier coating material" be used to describe waterproofing products? And while there are many types of barriers (e.g. water, chemicals, heat, noise etc.) should a nuanced version of "barrier coating" be used in the scope for Annex II?

Additional questions:

Qx. Should anti-algal and anti-fungal coatings continue to be permitted in the EU Ecolabel scope?
Qy. And if so, do they really belong in Annex I (decorative) or should it be Annex II (performance)?

Definitions

Main thinking behind proposed definitions:

If there is a technical term used – it should be defined.

- Technical terms → categories of products
  - Helps to clarify scope (in and out).
  - Decided not to define different binder chemistries in the end.
- Technical terms → categories of ingredients
  - Clarity needed on “additive” definitions when trying to implement hazardous substance restrictions (e.g. ZnO).
  - Clarity needed on certain performance requirements (e.g. in context of a specific standard).

Definition preferences

- **EU legislation** (because translated into all official EU languages)
- **EN/ISO standards** (formal expert input and industry agreement)
- **Tailored definitions** “*for the purposes of this Decision*” (created on a needed basis and only if previous two options are not suitable.
- **No definition** → confusion and room for interpretation

Definitions in Art. 4

Main points about proposed changes:

Inclusion of definition on:

- Aerosol paint
- Anti fouling paint
- Anti-rust paints
- Cement based paint
- Decorative purpose
- Fillers
- Plasters
- Primer
- Road-marking paints
- Waterproofing products
- Waxes
- Wood oils
- Wood preservatives
- Wood stain

- Change of two-pack performance to multi-pack performance
- Exemplification of coating under one-pack performance
- Inclusion of powder under "*Tinting system*"

Definitions in Art. 4

Second Proposed definitions

Second Proposed definitions in TR2 (changes from TR1 highlighted)

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, glass or plastics and containing a gas 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) 'Anti-fouling paint' means, according to ISO 4618:2014, coating material applied to the underwater sections of a ship´s hull or to other underwater structures to discourage biological growth

(3) 'Anti-rust paints' means paints designed to prevent rust (corrosion) in metal substrates in the presence of oxygen and moisture, through the application of a protective coating.

(4) 'Cement-based paints' means powdered paint products containing significant amounts of Portland cement or other cement in the formulation and which need to be carefully mixed with water prior to application.

(5) 'Decorative purpose', means treatments with the primary objective to change or restore the appearance of a substrate;

(6)'Filler' means, according to ISO 4618:2014, 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.

(7) 'Floor coatings and floor paints' means coatings and paints specifically formulated to be applied to flooring, with the purpose of protecting and/or colouring the flooring substrate

(8) 'Multi-pack performance coatings', according to Directive 2004/42/CE, means coatings with the same use as one-performance coatings, but with a second component (e.g. tertiary amines) added prior to application;

Proposed definitions in TR2 (changes from TR1 highlighted)

(9) 'One-pack performance coatings', according to Directive 2004/42/CE, means performance coatings based on film-forming material, which are designed for applications requiring a special performance, such as primer and topcoats for plastics, primer coat for ferrous substrates, primer coat for reactive metals such as zinc and aluminium, anticorrosion finishes, floor coatings, including for wood and cement floors, graffiti resistance, flame retardant, and hygiene standards in the food or drink industry or health services;

(10) '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 and after application dries to a solid, adherent and protective coating;

(11) 'Plasters' shall, for the purpose of this Decision, mean premixed materials designed for plastering of interior or exterior walls and ceilings, including gypsum plasters according to EN 13279, solvent-free pasty plasters according to EN 15824 and masonry mortars according to EN 998-1.

(12) 'Powder coating' means protective or decorative coating formed by the application of a coating powder to a substrate and fusion to give a continuous film;

(13) 'Primers', according to Directive 2004/42/CE, means coatings with sealing and/or blocking properties designed for use on wood or walls and ceilings;

(14) 'Road marking paints' means, in accordance with EN 1436 paint that forms a part of the means for horizontal signalization and require a functional component to provide road safety;

(15) 'Tinting system' means a method for preparing coloured paints by mixing a 'base' with coloured tinting pastes or powders

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

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

(18) 'Waterproofing products' means materials and coatings applied to surfaces to prevent the ingress of water and moisture

(19) 'Waxes' means a group of organic compounds that are typically solid at room temperature and become malleable or liquid upon heating

(20) 'Wood oils' means oils used for the care and protection of wood (e.g. pearling effect) without any cleaning action;

(21) 'Wood preservative', according to ISO 4618:2024, means a product containing a biocide which is intended to inhibit the development of wood-destroying and/or wood-staining organisms in the wood to which it is applied.

(22) 'Wood stain', according to ISO 4618:2024, means a penetrating composition containing a dyestuff that changes the colour of a wood surface, usually transparent and leaving no surface film, the solvent for which may be oil, denatured alcohol or water.

Definitions in Annex preamble

Main points about proposed changes:

Only terms mentioned directly in the Act are to be defined in Article 2. Other definitions that are only relevant in the Annex are to be defined in the Annex preamble.

A split in definitions was necessary.

New definitions that belong in the Annex preamble:

- Impurities (explained later in criterion 4)
- Ingoing substances (explained later in criterion 4)
- Light coloured paint
- Microplastics (now explicitly banned in criterion 4.3)
- PFAS (now explicitly banned in criterion 4.3)

Definitions in Annex preamble

Second Proposed definitions

Second Proposed definitions in TR2 (changes from TR1 highlighted)

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

(_) 'Binding primers', according to Directive 2004/42/CE, means coatings designed to stabilize loose substrate particles or impart hydrophobic properties and/or to protect wood against blue stain.

(_) 'Coatings for exterior walls of mineral substrate' means, according to Directive 2004/42/CE, coatings designed for application to outdoor walls of masonry, brick, or stucco;

(_) 'Dead matt paints' are those which at an angle of incidence of 85° show a reflectance of < 5;

(_) 'Dry-film preservatives' are active substances within the meaning of Article 3(1)(c) of Regulation (EU) No 528/2012 that are for use in product-type 7 as described in Annex V to that Regulation, in particular for the preservation of films or coatings by the control of microbial deterioration or algal growth in order to protect the initial properties of the surface of materials or objects;

(_) 'Gloss paints' are those which at an angle of incidence of 60° show a reflectance of ≥ 60;

(_) 'Impurities' means unintended constituents (residuals, pollutants, contaminants, by-products etc.) that remain in the EU Ecolabelled product in concentrations less than 100 ppm (0,0100 % w/w, 100 mg/kg). Impurities in ingredients means unintended constituents (residuals, pollutants, contaminants, by-products etc.) that remain in the supplied ingredient in concentrations less than 1000 ppm (0,100 % w/w, 1000 mg/kg).

(_) 'In-can preservatives' are active substances within the meaning of Article 3(1)(c) of Regulation (EU) No 528/2012 of the European Parliament and of the Council that are for use in product-type 6 as described in Annex V to that Regulation. They are in particular used for the preservation of manufactured products during storage by the control of microbial deterioration to ensure their shelf life and used for the preservation of tints that will be dispensed from machines;

(_) 'Ingoing substances' means constituents (as pure substances or as part of a mixture, and regardless of amount) that are intentionally added to achieve or influence certain properties of the final product or its ingredients. Substances known to be released from ingoing substances after addition (e.g. formaldehyde from preservatives and arylamine from azodyes and azopigments) shall also be regarded as ingoing substances. Impurities present in the final product or in supplied ingredients in concentrations above the limits permitted for being considered as impurities, shall instead be considered as ingoing substances."

Proposed definitions in TR2 (changes from TR1 highlighted)

(_) 'Interior/exterior trim and cladding paints for wood, metal or plastic', according to Directive 2004/42/CE, means coatings designed for application to trim and cladding which produce an opaque film. These coatings are designed for either a wood, metal, or plastic substrate;

(_) 'Interior/exterior trim varnishes and woodstains', according to Directive 2004/42/CE, means coatings designed for application to trim which produce a transparent or semi-transparent film for decoration and protection of wood, metal, and plastics.;

(_) 'Lasure', according to ISO 4618:2014, means a coating material containing small amounts of a suitable pigment and/or extender and used to form a transparent or semi-transparent film for decoration and/or protection of the substrate;

(_) 'Light-coloured paint', according to ISO 6504-1:2019, means a coating with tristimulus values Y and Y10 greater than 25, measured with a spectrophotometer on a black and white substrate, where tristimulus values are meant, as defined in ISO 11664-2.2007, as amounts of the three reference stimuli, in a given trichromatic system, required to match the colour of the stimulus considered (in CIE standard colorimetric systems, the tristimulus values are represented by the symbols, X, Y, Z, X10, Y10 and Z10).

(_) 'Masonry coating' means a coating that produce a decorative and protective film for use on concrete, paintable brickwork, blockwork, rendering, calcium silicate board or fibre-reinforced cement;

(_) '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;

(_) 'Matt paints' are those which at an angle of incidence of 85° show a reflectance of < 10 and ≥ 5;

(_) 'Microplastics' means small pieces of plastic, usually smaller than 5mm.

(_) 'Mid sheen paints' (also referred to as semi-gloss, satin, semi matt) are those which at an angle of incidence of 60° or at 85° show a reflectance of < 60 and ≥ 10;

(_) 'Minimal build woodstains', according to Directive 2004/42/CE, means woodstains which, in accordance with EN 927-1:1996, have a mean thickness of less than 5 µm when tested according to ISO 2808:1997, method 5A;

(_) 'Opaque' means a film with a contrast ratio of ≥ 98 % at 120µ wet film thickness.

(_) 'PFAS' means per- and polyfluoroalkyl substances (PFASs) defined as: Any substance that contains at least one fully fluorinated methyl (CF3-) or methylene (-CF2-) carbon atom (without any H/Cl/Br/I attached to it)

(_) '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 and which, in a capillary column are eluting with a retention range after n- Tetradecane (C14H30) and up to and including n-Docosane (C22H46);

(_) 'Transparent' and 'semi-transparent' means a film with a contrast ratio of < 98 % at 120µ wet film thickness;

(_) 'Volatile organic compounds' (VOC) means any organic compounds having an initial boiling point less than or equal to 250 °C measured at a standard pressure of 101,3 kPa as defined in Directive 2004/42/EC and which, in a capillary column, are eluting up to and including n-Tetradecane (C14H30);

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

Definitions: technical terms for UM

Main points about proposed changes:

Inclusion of definition in the User Manual on:

- Anti-corrosion
- Anti-foaming
- Rheological modifier
- Water repellent agents
- Abrasion
- Adhesion
- Gloss
- Hiding power
- Sheen
- Spreading rate

Further research on definition of:

- Crosslinking agent
- Neutralising agents

Definitions: technical terms for UM

Further research

Proposed definitions: Ingredient descriptions flagged for the User Manual

Any text in blue or strikethrough indicates changes in the description or an altogether new definition since the drafting of Technical Report 1:

(_) 'Anti-corrosion pigment' means, adapted from ISO 4618:2014, a type of functional pigment which, based on its chemical or physical properties, fulfils the additional function of corrosion protection in addition to its colour.
(_) 'Anti-foaming agents' (also known as defoaming agents) mean, according to ISO 4618:2014, additives that prevent foaming or reduce the foaming tendency of a coating material.
(_) 'Anti-skinning substances' mean additives that are added to the coating materials to prevent skinning during production or storage of the coating material;
(_) 'Binder' means a synthetically produced polymer that is used as the main non-volatile component of the coating, is responsible for the formation of the film and determines its weather, chemical and mechanical resistance,
(_) 'Crosslinking agent' means _____
(_) 'Driers', also referred to as 'siccatives', means additives that accelerate the oxidative cross-linking of drying oils and alkyd resins [can go in UM instead because it is just an ingredient]
(_) 'Mineral raw material' means naturally occurring inorganic substances that are mined and processed for use in the production of paints and coatings, including pigments, fillers, and extenders.
(_) 'Neutralising agent' means _____
(_) 'Optical brightener' means a fluorescent chemical compound used to enhance the appearance of whiteness and brightness by absorbing ultraviolet light and re-emitting it as visible blue light
(_) 'Rheological modifier' means, according to ISO 4618:2014, additives used to adjust the flow properties of a coating material. Examples of rheological modifiers are flow agents, thickening agents and thixotropic agents.
(_) 'Surfactants' means additives that influence the surface tension of phases, which have an interface in common. They are employed as wetting agents, emulsifiers, levelling agents, defoamers, anti-floating agents, etc.
(_) 'UV stabiliser' means an additive that protects the coating film and/or the substrate against the negative effects of UV-beams contained in sunlight
(_) 'Water repellent agents' also referred to as 'hydrophobic agents' mean, according to ISO 4618:2014, additives that confers water-repellent properties on a dry film by increasing the interfacial tension between the dry film and the incident moisture.

Proposed definitions: Technical properties flagged for definition in the User Manual

Any text in blue or strikethrough indicates changes in the description or an altogether new definition since TR1.

(_) 'Abrasion' means, according to ISO 4618:2014, the process of wearing away or deformation of a surface by friction as a result of rubbing.

(_) 'Adhesion' means, according to ISO 4618:2014, the phenomenon of attachment at the interface between a solid surface and another material caused by molecular forces.

(_) 'Gloss' means, according to ISO 4618:2014, an optical property of a surface, characterized by its ability to reflect light specularly.

(_) 'Hiding power' means, according to ISO 4618:2014, the ability of a coating to obliterate the colour or colour differences of the substrate.

(_) 'Sheen' means, according to ISO 4618:2014, gloss observed on an apparently matt surface at glancing angles of incidence.

(_) 'Spreading rate' means, according to ISO 4618:2014, surface area that can be covered by a given quantity of coating material to give a dried film of requisite thickness, expressed in m2/L or m2/kg.

Discussion about definitions

Questions to stakeholders about proposed definitions
Q5. Opinions about definitions proposed here (both in Article 4 and those proposed for the User Manual)? Q6. How to define “crosslinking agents” and “neutralising agents” in the context of paints and varnishes? Q7. Any suggestions for the definition of elastomeric paints?

Any additional questions?

(Questions can be addressed during the meeting or submitted through written comments.)

Break: 15 minutes

European Commission

5. Criterion 1: TiO_2 production

Draft Annexes I, II and III

European Commission

Criterion 1: TiO_2 production

Main points about proposed changes:

• **Inclusion of new Emission Parameters**: New limits were added for dust emissions to air (for both sulphate and chloride processes) and HCl emissions to air (for the chloride process), which were previously not covered.

• **Reduction of SO_2 emissions to air**: Specific emissions to air brought down (from 7.0 to 4.5 kg/t) towards average value from BREF 2007 data. Reduced SO_2 emissions to air aligns with circular economy principles by potential recovery of flue desulphurisation gypsum.

• **Adjustment of SO_4 emissions to water**: The limit for SO_4 emissions from the sulphate process was reduced from 550 kg/t TiO_2 to 300 kg/t TiO_2 to align with average data from the 2007 BREF report. Reduced sulphate emissions to water align with circular economy principles in terms of the optimised recovery of copperas (FeSO4.7H2O).

• **Clarification on Chloride emissions to water**: Emissions of chloride to water remain adjusted based on the level of impurities in the ore after discussion with industry about how metal removal (precipitation) processes from wastewater work.

• **More prescriptive dust control protocols**: More specific measures detailed for what is meant by a “low dust working environment”. Measures selected from EU Ecolabel criteria for Hard Covering Products and compared with TDMA good practice.

If the product contains more than 3,0 % w/w of titanium dioxide (TiO2), the emissions to air and water and discharges of wastes 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
Totally new →	Emissions of dust to air (EN 13284)	0,40 kg/t TiO2 pigment	0,66 kg/t TiO2 pigment
	Emissions of SO_2 to air (EN 14791)	4,5 kg/~~tonne~~ TiO_2 pigment	n/a
Totally new →	Emissions of HCl to air (ISO 15713)	n/a	0,70 kg/t TiO2 pigment
	Emissions of SO_4 to water (ISO 22743)	300 kg SO_4^{2-}/t TiO_2 pigment	n/a
	Emissions of Cl to water (ISO 9279)	n/a	103 kg Cl ~~waste~~/t TiO_2 pigment(1) 179 kg Cl ~~waste~~/t TiO_2 pigment(2) 329 kg Cl ~~waste~~/t TiO_2 pigment(3)
Totally new →	Low dust working environment	To be demonstrated	To be demonstrated
	(1) When ore used is >95% TiO2 content (2) When ore used is 90-95% TiO2 content (3) When ore used is <90% TiO2 content		

In cases where limits are different depending on the purity of the ore used, and when the ore(s) used vary in percentages during the period that data was reported for, the limit values will apply in proportion to the weighted average % TiO_2 content of the different ores used.

Emissions to air shall be counted from point source(s) 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 monitored by sampling of the effluent prior to its entry into any natural watercourse or settling lagoon.

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.
- Storage and handling of dry and powdered raw materials in enclosed areas and/or in closed spaces maintained under a negative air pressure differential and with any suspended dust being collected in cyclones, bag filters or similar dust separation systems.
- Cleaning protocols for regular cleaning of dust from indoor surfaces using either water sprays or vacuum devices for dust removal (sweeping of dry dust should not be carried out). Any vacuum devices should be fitted with HEPA filters, not standard filters.
- Provision of an enclosed storage area for all dewatered sludge or filter cake prior to recovery operations, prior to sale, prior to shipment for reuse, prior to reuse onsite or prior to shipment and disposal to landfill.
- Provision of appropriate training to employees about good practice for dust control.
- Provision of adequate personal protective equipment to employees and visitors.

~~The Waste Framework Directive 2008/98/EC of the European Parliament and of the Council (2), Article 3 shall be used for the definition of waste. If the TiO2 producer can satisfy Article 5 (by-product production) of the Waste Framework Directive for its solid wastes, then, the wastes shall be exempted from being counted as waste.~~

Criterion 1: TiO_2 production

Main points about proposed changes:

• **Clarify that weight threshold applies to TiO2 "pigment"**: This distinction is important because, after discussion with industry, it was clear that inorganic coatings of the TiO2 particles can account for a notable % of the TiO2 mass (e.g. 10-20%). Applicants and CBs should just think in terms of kg TiO2 pigment used without worrying about exact TiO2 content.

• **Specific reference to test standards**: Missing from previous criteria. Standard methods inserted into criteria, but allowance made for equivalent methods in the A+V. In all cases, the methodology used has to be mentioned.

• **Clarity about what data is acceptable**: The A+V specifies two different approaches depending on whether emissions are continuously or periodically monitored.

• **Clarity about how data should be processed**: Separate approaches for emissions to air (at specific O2 content) and emissions to water.

Important to get opinions from TiO2 producers on the workability of these requirements.

Assessment and verification :

The applicant shall declare the content of TiO2 used in each of the product formulations subject to the EU Ecolabel license application. For any products with more than 3,0 % w/w TiO2 pigment content, the applicant shall also declare the supplier or suppliers of the TiO2 used in those products.

The applicant declaration shall be supported by declarations from their TiO2 supplier(s) (and the original TiO2 producer(s), if different) stating the measures in place to ensure a low dust working environment, the type of TiO2 production process used, the applicable TiO2 content range of ore, if necessary, used and a statement of annual average emissions to air and water for the relevant parameters listed in the table above. If test data for emissions has not been collected using the EN or ISO standards defined in the table above, a statement from the testing laboratory must be provided saying which standard method was used instead and why that method can be considered as equivalent or more comprehensive than the methods listed above. ~~SOx emissions, specific sulphate waste generation or specific chloride waste generation, as appropriate~~.

The declaration from the TiO2 producer shall include a basic calculation about how the annual average emissions for the last complete calendar year or rolling 12-month period were obtained. 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 in each 12-month period and the average results shall be considered as representative of the production process. Any periodic sampling must be taken during periods of stable operation that are representative of normal performance for the production of the TiO2 pigments used in the EU Ecolabel paint products.

For emissions to air, concentrations shall be expressed in units of mg/Nm3 at XX% O2 content and multiplied by a specific emission air flow rate in units of Nm3/tonne TiO2 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, measured concentrations in units of g/m3 shall be multiplied by a specific wastewater flow rate in units of m3/tonne TiO2 pigment production for the same time period that the data was collected.

Discussion about criterion 1

Questions to stakeholders about the criterion 1 on TiO_2 Production
Q11. Opinions about the latest proposal on requirements associated with TiO_2 production? Q12. Are the test methods for the different emissions appropriate? Is there any clarity on this coming out of the revision process of BREF for Large Volume Inorganic Chemicals? (which includes TiO_2)

Any additional questions?

(Questions can be addressed during the meeting or submitted through written comments.)

6. Criterion 2: Efficiency in use

Draft Annex I

European Commission

Criterion 2: Efficiency in use

Main Changes in criterion 2

- Thick decorative coatings are removed from the scope, and performance coatings are moved to Annex II, making the efficiency in use criterion simpler.
- The revised Annex I now includes performance requirements for six subcategories of products as per Directive 2004/42/EC,
    - 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), and
    - **NEW** “just add water” decorative paints (for use on buildings, their trim, fittings or associated structures).

- The abrasion requirement was removed from Annex I since it pertains only to floor coatings, which are in Annex II.
- Discussion of potential changes to the method for calculating spreading rate (ISO 6504-3 vs. ISO 6504-1). Both methods have different approaches to determining the spread needed to achieve a 98% hiding power. TR2 proposes keeping both methods and seeking input from license holders on their preferences.

Criterion 2: Efficiency in use

Criteria	Decorative paint and varnish categories (with their subcategories identified according to the Directive 2004/42/EC)						"Just add water" decorative paints 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	Yes
2(b) Wet scrub resistance and white pigment content	Yes	Yes	Yes	No	No	No	Yes
2(c) Resistance to water	No	No	No	Mostly	No	No	No
~~2(d) Abrasion~~	~~No~~	~~No~~	~~No~~	~~No~~	~~No~~	~~No~~	~~No~~
2(d) Adhesion	No	No	Opaque and undercoats only	No	Opaque and for masonry only	Opaque and for masonry only	No
2(e) Weathering	No	Yes	Outdoor only	Outdoor only	No	No	Outdoor only
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	No	If claimed	If claimed	No	No	No	If claimed
2(i) Algal resistance	No	If claimed	If claimed	No	No	No	If claimed
2(j) Crack bridging	No	If claimed	No	No	No	No	If claimed
2(k) Alkali resistance	For masonry	Yes	No	No	For masonry	For masonry	For masonry

Criterion 2: Efficiency in use

Key feedback and proposed changes, based on stakeholder input from the 1st AHWG meeting and Working Sub-Group 3 (WSG3).

- It was proposed to merge the white pigment content and wet scrub resistance (previously Criterion 1) into the efficiency in use criterion (then Criterion 3, now proposed Criterion 2) due to their interconnected nature with spreading rate calculations.
- Stakeholders strongly supported maintaining the existing exception for opaque primers with “special properties” to have a lower spreading rate of 6 m^2/L.
- Errors in chalking score requirements and citations of ISO standards were identified, prompting corrections. For example, ISO 16474-3 should replace 16474-1 for weathering tests.
- There were suggestions to increase the allowed gloss decrease after weathering from 30% to 50% for certain products. Clarification was requested that these requirements apply only to outdoor products.
- A discussion arose about whether to limit spreading rate calculations to the ISO 6504-1 method or to continue allowing both ISO 6504-1 and ISO 6504-3.
- Some stakeholders argued that fungal and algal resistance should not be part of the ecolabel, suggesting that paints with dry film preservatives should be excluded, as they believed these products rarely meet ecolabel criteria.
- Stakeholders noted that claims related to water vapour permeability and elastomeric properties are common, while those about anti-fungal features are less frequent.

Discussion about criterion 2

Questions to stakeholders about the criterion 2 on efficiency in use for decorative paints, varnishes and related products
Q13. Opinions about the new criteria proposals for efficiency in use? Q14. Should only ISO 6504-1 be allowed for spreading rate calculations? Q15. Should the definition of “opaque” (contrast ratio of ≥ 98 % at 120µ wet film thickness) also specify the test method(s) used to measure this? Q16. Should anti-fungal and anti-algal coatings continue to be included in the scope of EU Ecolabel? And are there any specific examples of such products that have been awarded the EU Ecolabel?

Any additional questions?

(Questions can be addressed during the meeting or submitted through written comments.)

Draft Annex II

European Commission

Criterion 2: Efficiency in use

Criteria	Performance coating categories (with their subcategories identified according to the Directive 2004/42/EC)				Waterproofing coatings
	Floor covering paints (i,j)	Floor covering varnishes (i,j)	Anti-corrosion finishing coats (i,j)	Anti-graffiti finishing coats (i,j)	
2(a) Spreading rate	Yes	No	If opaque	If opaque	If opaque
2(b) Wet scrub resistance and white pigment content	Yes	No	If opaque	If opaque	If opaque
2(c) Resistance to water	Yes	Yes	Yes	Yes	Yes
2(d) Adhesion	If opaque	If opaque	If opaque	If opaque	If opaque
2(e) Abrasion	Yes	Yes	If for metal flooring	No	If for floors
2(f) Weathering	If outdoors	If outdoors	If outdoors	If outdoors	If outdoors
2(g) Corrosion resistance	No	No	Yes	If for metal substrate	If for metal substrate

Discussion about criterion 2

Questions to stakeholders about the criterion 2 on performance coating and related products
Q28. Were spreading rate requirements for “primers” and “binding primers” also intended to apply to those for performance coatings as well as for decorative coatings in the original 2014 EU Ecolabel criteria? Q29. Are the white pigment content and wet scrub resistance requirements relevant to performance “paints“? Or at least to floor paints? Q30. Which of the coating property changes after the weathering test should be defined for performance coatings?

Any additional questions?

(Questions can be addressed during the meeting or submitted through written comments.)

Draft Annex III

European Commission

Criterion 2: Efficiency in use

TR2: Annex III: Criterion 2: Efficiency in use requirements
2(a) Spreading rate Aerosol spray paints shall have a spreading rate of at least 2,0 m^2 per litre of product while ensuring a hiding power of at least 98 % according to ISO 6504-1 or ISO 6504-3. **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 license. The declaration shall be supported by test results according to the method ISO 6504-1 or 6504-3. 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, considered as the fraction of contents that can be sprayed from the can under acceptable spray performance, of 97% according to [INSERT TEST STANDARD HERE]. **Assessment and verification:** the applicant shall provide a test report according to [INSERT TEST STANDARD HERE]. In cases of families of products, test data for a worst-case product can be used to cover the entire family of products if a suitable justification can be provided for why that product is the worst-case example.

Criterion 2: Efficiency in use

Key feedback and proposed changes, based on stakeholder input from the 1st AHWG meeting

Purpose of the Criterion:

- Ensure water-based aerosol spray paint products cover a designated area effectively.
- Initial proposal based on data from stakeholders.
- Feedback encouraged for refining the criterion and requirements.

Spreading Rate Assessment:

- Can be evaluated using principles from ISO 6504-1 or ISO 6504-3.
- Confirmed through discussions with aerosol spray paint manufacturers.

Efficiency in Spraying:

- Metric defined as the amount of paint that can be sprayed out effectively from the can.
- Concept agreed upon with manufacturers, but testing methods and standards still need specification.

Potential Performance Criteria:
Include tests for:

- Pencil hardness (EN ISO 15184)
- Adhesion (EN ISO 2409)
- Chemical resistance (EN ISO 2812-3)
- Salt spray resistance (EN ISO 9227)
- Blistering (EN ISO 4628-2)
- Corrosion (EN ISO 4628-3)
- Cracking (EN ISO 4628-4)
- Flaking (EN ISO 4628-5)
- Infiltration (EN ISO 4628-8)
- Color deviation (EN ISO 11664)
- Gloss level deviation (EN ISO 2813)

Discussion about criterion 2

Questions to stakeholders about the criterion 2 on water-based aerosol spray
Q32. Any other efficiency in use requirements that can be applied for aerosol spray paints? Examples that are already applied to decorative and performance coatings include: adhesion, abrasion, water resistance, weathering, alkali resistance and corrosion resistance. Q33. What is the standard method for measuring “efficiency in spraying” for aerosol spray paints?

Any additional questions?

(Questions can be addressed during the meeting or submitted through written comments.)

7. Criterion 3: VOC & SVOC content

Draft Annex I

European Commission

Criterion 3: SVOC and VOC content

Data analysis from EUEL paints

VOC and SVOC content limits		
Product description (with subcategory denotation according to Directive 2004/42/EC)	VOC limits (g/l including water)	SVOC limits (g/l including water)
a. Interior matt walls and ceilings (Gloss < 25@60°)	5	25 (1) / 28 (2)
b. Interior glossy walls and ceilings (Gloss > 25@60°)	20	15 (1) / 24 (2)
c. Exterior walls of mineral substrate	15	30
d. Interior/Exterior trim and cladding paints for wood and metal	40	30 (1) / 20 (2)
e. Interior trim varnishes and woodstains, including opaque woodstains	60	10
e. Exterior trim varnishes and woodstains, including opaque woodstains	35	25
f. Interior and Exterior minimal build woodstains*	35	25
g. Primers	10	24 (1) / 28 (2)
h. Binding primers	9	9 (1) / 12 (2)
(1) SVOC limit applies to indoor white paints and varnishes (2) SVOC limit applies to indoor tinted paints/outdoor paints and varnishes		

* No data were available for category *(f) Interior and Exterior minimal build woodstains*; thus, the assumption for the new limit was based on data from category (e).

- Data from five different CBs were collected and analysed to establish new VOC and SVOC limits for Criterion 3. Emissions from the EU Ecolabel formulations provided by the CBs were used to calculate potential reductions.
- Reductions ranging from 10% to 50% of the existing limit were evaluated to analyse how many products would no longer comply with the EUEL under the proposed limits

Criterion 3: SVOC and VOC content

Data collection exercise:

- Excel file sent out to CBs on 23 February 2024

Products	Licences	Licensed products	Licensed not complying with the new limits
a. Interior matt walls and ceilings (Gloss <25@60˚)	280	213 864	18%
b. Interior glossy walls and ceilings (Gloss >25@60˚)	20	241	24%
c. Exterior walls of mineral substrate	16	93	22%
d. Interior/Exterior trim and cladding paints for wood and metal	103	330 909	8%
e. Interior trim varnishes and woodstains, including opaque woodstains	4	27	4%
e. Exterior trim varnishes and woodstains, including opaque woodstains	3	245	0%
f. Interior and Exterior minimal build woodstains	0	0	no data available*
g. Primers	36	142	12%
h. Binding primers	18	6	17%

* No data were available for category *(f) Interior and Exterior minimal build woodstains*; thus, the assumption for the new limit was based on data from category (e).

Discussion about criterion 3

Questions to stakeholders about the criterion 3 on decorative paint ad varnishes and related products
Q17. Opinions about the new criteria proposals for VOC and SVOC content limits?

Any additional questions?

(Questions can be addressed during the meeting or submitted through written comments.)

Draft Annex II

European Commission

Criterion 3: SVOC and VOC content

Data collection exercise:

- Excel file sent out to CBs on 23 February 2024

VOC and SVOC content limits		
Product description (with subcategory denotation according to Directive 2004/42/EC)	VOC limits (g/l including water)	SVOC limits (g/l including water)
i. One-pack performance coatings	40	44
j. Multi-pack reactive performance coatings for specific end use such as floors	65	45
Anti-rust paints	70	50
Waterproofing coatings	??	??

- Data from five different CBs were collected and analysed to establish new VOC and SVOC limits for Criterion 3. Emissions from the EU Ecolabel formulations provided by the CBs were used to calculate potential reductions.
- Reductions ranging from 10% to 50% were evaluated to determine how many products would no longer comply with the EUEL under the proposed limits

Criterion 3: SVOC and VOC content

Data analysis from EUEL paints

Products	Licences	Licensed products	Licensed not complying with the new limits
i. One-pack performance coatings	20	144	22%
j. Multi-pack reactive performance coatings for specific end use such as floors	2	144	no data available*
Anti-rust paint	0	0	no data available**
Waterproofing coatings	0	0	no data available

* Data received were insufficient to set a new limit, with only two formulations available. To establish new limits for this category, assumptions were made based on the characteristics of the paints and their similarities with other categories.

** For the *Anti-rust paint* category, no data was available, so an assumed reduction of 12% in VOC emissions and 15% in SVOC emissions was applied.

Discussion about criterion 3

Questions to stakeholders about the criterion 3 on performance coatings and related products
Q31. Opinions about the proposals for VOC / SVOC content limits for performance coatings

Any additional questions?

(Questions can be addressed during the meeting or submitted through written comments.)

Draft Annex III

European Commission

Criterion 3: SVOC and VOC content

TR2: Annex III: First proposal for Criterion 3: Content of Volatile Organic Compounds
a) Aerosol spray paints shall not have VOC contents higher than 300 g/L, as determined by either the calculation based on the ingredients and raw materials, or by using the methods given in ISO 11890-2. Aerosol spray paint products with a VOC content ≤ 300 g/L may display the text 'reduced VOC content' and the actual VOC content in g/l next to the Ecolabel. Assessment and verification: The applicant shall provide a declaration of compliance supported by calculations of VOC content based on the ingredients and raw materials used in the ready to use product. Alternatively, the VOC content of the ready to use product shall be communicated via a representative test report or reports using the methods given in ISO 11890-2 and containing results that demonstrate compliance with the relevant limit. b) Aerosol spray paints shall not contain more than 28% (weight by weight) flammable ingredients.

Further discussion:

- VOC content ≤ 300 g/L
- A VOC limit was established based on the data received from stakeholders.
- Further discussions are welcome where additional comments and data will be gathered and analyzed to ensure that the limits are set with consideration of market readiness and environmental parameters.

Discussion about criterion 3

Questions to stakeholders about the criterion 3 on water-based aerosol spray paint
Q34. Opinions about the proposals for VOC / SVOC content limits for aerosol spray paints

Any additional questions?

(Questions can be addressed during the meeting or submitted through written comments.)

Lunch Break: 1 hour

Back at 13:45 h CET

European Commission

Agenda

Afternoon session: 13:45-17:00 h CET		
No.	**Item**	**SCHEDULE**
8	Criterion 4: Restriction of hazardous substances and mixtures (in draft Annexes I, II and III)	**13:45 – 14:45**
9	Criterion 5: VOC emissions (in draft Annexes I and II)	**14:45 – 15:15**
Coffee Break – 15 min		
10	Criterion 6: Consumer Information & Criterion 7: Information appearing on the EU Ecolabel (in draft Annexes I, II and III)	**15:30 – 16:00**
11	Other criteria – not included: CO2 footprint, Biobased content, Microplastic	**16:00 – 16:45**
12	**Conclusions, next steps and closure of the meeting**	**16:45 – 17:00**

8. Criterion 4: Restriction of hazardous substances

Draft Annexes I, II and III

European Commission

A few words on impurities and ingoing substances

Main points about definitions:

• **Definitions were missing from TR1.** The terms were being used in criterion 4, but definition needed to ensure consistent interpretation.

• **No fixed definition yet in other EU Ecolabel criteria.** For example, when comparing EU Ecolabel cosmetics, absorbent hygiene products and the draft criteria proposals for detergents.

• **Need to be very clear about concentrations that apply.** Especially taking care to ensure that no gaps in the concentration thresholds. Visual explanation on next slide.

Key definitions for criterion 4 now added in TR2:

(_) 'Impurities' means unintended constituents (residuals, pollutants, contaminants, by-products etc.) that remain in the EU Ecolabelled product in concentrations less than 100 ppm (0,0100 % w/w, 100 mg/kg). Impurities in ingredients means unintended constituents (residuals, pollutants, contaminants, by-products etc.) that remain in the supplied ingredient in concentrations less than 1000 ppm (0,100 % w/w, 1000 mg/kg).

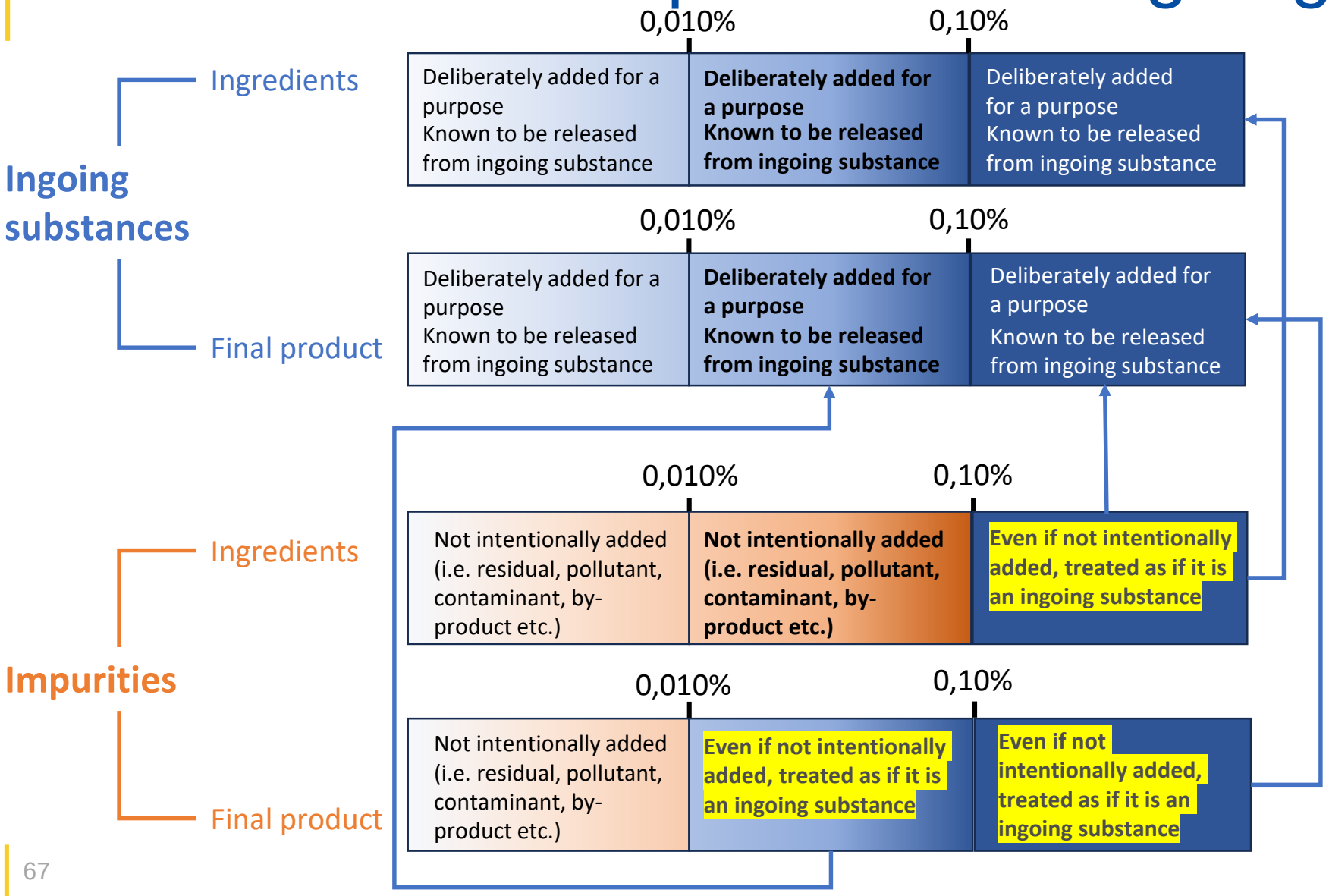
(_) 'Ingoing substances' means constituents (as pure substances or as part of a mixture, and regardless of amount) that are intentionally added to achieve or influence certain properties of the final product or its ingredients. Substances known to be released from ingoing substances after addition (e.g. formaldehyde from preservatives and arylamine from azodyes and azopigments) shall also be regarded as ingoing substances. Impurities present in the final product or in supplied ingredients in concentrations above the limits permitted for being considered as impurities, shall instead be considered as ingoing substances."

Would suggest **one adjustment** to this wording. Namely moving the last sentence from the definition for "ingoing substance" to the definition for "impurities", reads better. So it would be:

(_) 'Impurities' means unintended constituents (residuals, pollutants, contaminants, by-products etc.) that remain in the EU Ecolabelled product in concentrations less than 100 ppm (0,0100 % w/w, 100 mg/kg). Impurities in ingredients means unintended constituents (residuals, pollutants, contaminants, by-products etc.) that remain in the supplied ingredient in concentrations less than 1000 ppm (0,100 % w/w, 1000 mg/kg). Impurities present in the final product or in supplied ingredients in concentrations above the limits permitted for being considered as impurities, shall instead be considered as ingoing substances."

(_) 'Ingoing substances' means constituents (as pure substances or as part of a mixture, and regardless of amount) that are intentionally added to achieve or influence certain properties of the final product or its ingredients. Substances known to be released from ingoing substances after addition (e.g. formaldehyde from preservatives and arylamine from azodyes and azopigments) shall also be regarded as ingoing substances."

A few words on impurities and ingoing substances



Main points:

- **Key distinguishing factor is deliberate addition** (also applies to any substances known to be released).
- **No distinction in concentration limits for ingoing substances**, and it is the same for the final product as it is for ingredients.
- **There is a distinction in concentration limits for impurities though.** There is a factor of ten difference between ingredients and final product – for purposes of practical application and current requirements for REACH in discussions with suppliers.
- A **clear point defined** for when impurities become too much and then are treated as an ingoing substance.

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Criterion 4.1: SVHC restrictions

General points:

- New criterion structure from TR1 was maintained (i.e. Requirements are split into 4.1 on SVHC restrictions, 4.2 on horizontal CLP restrictions and 4.3 on specific exclusions of individual substances.)

- Overall, a total of around 125 comments received on parts 4.1-4.3.

Main points about proposed changes for 4.1. SVHC restrictions:

• **Part in yellow**: The word “components” should be changed to “ingredients” or “ingoing substances” (P&V are not “articles” like AHP…).

• **Easy to interpret now with removal of unsuitable terms**: Terms like “chemicals”, “chemical product”, “materials”, “components” and “unavoidable impurities” have been removed.

• **Reference to specifically defined terms now**: namely “ingoing substances” and “impurities”. The term “ingredient” can be understood to mean an ingoing substance or a combination of ingoing substances, which may include impurities to one extent or another.

• **SVHCs as ingoing substances are banned**: both at final product and at supplied ingredient level.

• **SVHCs as impurities only allowed in limited amounts**: Up to 0,100% in supplied ingredients (in line with REACH legal declarations) and only up to 0,0100% in the final product.

Note: These criteria apply to the final product and any components therein and, unless specified otherwise, applies equally to all paint and varnish products included in the scope.

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

The final product formulation shall not contain any ingoing substances or mixtures 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 and any supplied ingredients ~~components~~ therein do not contain any SVHCs as ingoing substances. The declaration shall be supported by safety data sheets of all supplied ingredients~~chemicals and materials~~ used to produce the final product and declarations from the chemical suppliers ~~and the components therein~~.

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 ~~unavoidable~~ 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. Impurities that are SVHCs cannot be present in the paint or varnish ~~chemical~~ product above~~up to~~ 0,0100% w/w or in any ingredient in concentrations exceeding 0,100% w/w.~~, unless further restricted under criterion 7.3.8. Substances known to be released or to degrade from ingoing substances are considered ingoing substances and not impurities.g. Justifications for~~ Any deviation from a retention factor of 100% for an SVHC impurity (e.g. solvent evaporation~~)~~ or ~~for~~ chemical modification) ~~of a SVHC impurity shall be provided~~ must be supported by adequate justifications.

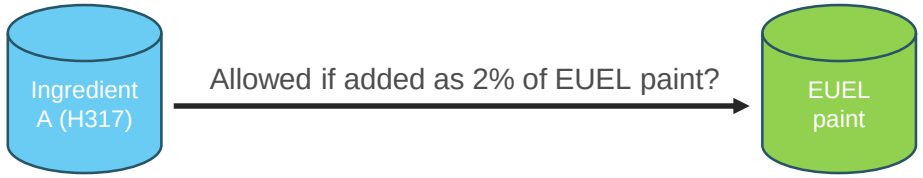
Criterion 4.2: Horizontal CLP restrictions

General point:

- Of the 125 comments received on criterion 4, around 100 were on part 4.2 directly or indirectly. Changes are therefore presented in parts in multiple slides

Main points about proposed changes to CLP intro text:

- **Clear distinction between final product and ingoing substances**.
- **Final product restriction** is all about its classification as an entire mixture.
- **Ingoing substance restriction** is all about the classification of substances from supplied ingredients that are intentionally present in the ingredient. The classification of the whole ingredient mixture is not important so long as the limits on individual substances therein are respected in the final product. **Example:**



It depends on why it was classified as H317 – go to substance level…

- If ingredient A was H317 because it is >50% of a generic H317 Cat.1 or 1B substance, no, not allowed. (because paint would be >1% H317 Cat. 1/1B).
- If ingredient A was H317 because it is >5% of a H317 Cat. 1A substance, no, not allowed (because paint would be >0.1% H317 Cat. 1A).
- If ingredient was H317 because it contained e.g. 0,030% MIT, yes, it would be allowed. Why? Because 0,030% x 0.02 = 0,0006% MIT, so MIT is still within the 0,0015% limit for the final product.
- **But**, in the last case, also necessary to sum up ingoing MIT etc. from ALL ingredients to be sure of compliance with SCL limits for MIT.

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

(a) Final product

The final product shall not be classified as being acutely toxic, a specific target organ toxicant, a respiratory or skin sensitiser, carcinogenic, mutagenic or toxic for reproduction, or hazardous to the aquatic environment and associated with any of the hazard statement codes stated in Table X. The only exception permitted to this rule shall be the H412 and H413 hazards, and only in the case of outdoor paints or varnishes and only due to levels of dry film preservatives needed.

(b) Ingoing substances

Unless derogated in Table Y, ~~the final product and~~ any ingoing substances or mixtures that are present in concentrations exceeding 0,010 % weight bye weight of the final product formulation shall not have been assigned any of the hazard classes, categories and associated hazard statement codes stated in Table X, in accordance with Regulation (EC) No 1272/2008.

Table X. Excluded hazard classes, categories and associated hazard statement codes

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

For ~~unavoidable~~ 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. Impurities that are SVHCs cannot be present in the paint or varnish ~~chemical~~ product aboveup ~~to~~ 0,0100% w/w or in any ingredient in concentrations exceeding 0,100% w/w.~~, unless further restricted under criterion 7.3.8. Substances known to be released or to degrade from ingoing substances are considered ingoing substances and not impurities.g Justifications for~~ Any deviation from a retention factor of 100% for an SVHC impurity (e.g. solvent evaporation~~)~~ or ~~for~~ chemical modification) ~~of a SVHC impurity shall be provided~~ must be supported by adequate justifications.

European Commission

Criterion 4.2: Horizontal CLP restrictions

Main points about proposed changes to "Table Y" parts on preservatives:

- **Sodium pyrithione:** clarity about limit applying to final product, not to supplied ingredients.
- **Formaldehyde releasers:** DBDCB was incorrectly added here, has been removed.
- **Formaldehyde releasers:** EG Form and (benzyloxy)methanol removed for two reasons: (i) not with classifications needing derogation (confusing to be here), and (ii) alternative approach now to formaldehyde (see next point).
- **Return back to original approach on formaldehyde**: in the sense of a non-use or conditional limit on free formaldehyde (now in criterion 4.3). The main difference from the 2014 criteria is that the derogation for bronopol is included. A derogation of 0,030% bronopol should still permit compliance with the free formaldehyde content of 0,0010%.
- **Isothiazoline derogations:** no specific substances listed. So derogation is a collective limit of 0,040% for any potential combination of isothiazolines. The main reason for this is that CLP now places very strict limits on the most sensitising substances. Also avoids need for amendment if new SCLs come in the future.
- **Isothiazoline derogations:** H330 added because of upcoming reclassification of BIT in the 21st ATP.
- **Isothiazoline derogation conditions:** Provisionally we would like to align with the Nordic Swan approach of a theoretical declaration OR a test. But not sure if it is better to stick purely with theoretical (see questions in discussion section).

Table Y. Derogations to restrictions on ingoing substances and mixtures that are classified with one or more of the restricted hazards listed in Table X and are present in concentrations greater than 0,010% (weight by weight) of the final product formulation. [...]

In-can preservative: Sodium pyrithione (CAS No 3811-73-2)	H311, H317, H331, H372, H400, H411, EUH070	*See horizontal derogation condition at foot of table Can only be used up to 0,050 % weight by weight in the final product.
In-can preservative: ~~Formaldehyde-releasing in-can preservatives:~~ Bronopol (CAS No 52-51-7); ~~2-bromo-2-(bromomethyl)pentanedinitrile (DBDCB), CAS No 35691-65-7)~~ ~~EGForm (CAS No 3586-55-8)**~~ ~~(benzyloxy)methanol (CAS No 14548-60-8)**~~	H301, H317, H331, H400, H411	*See horizontal derogation condition at foot of table The use of any formaldehyde releasing preservatives must be declared by the applicant. Bronopol cannot be added in concentrations >0,0320 % weight by weight in the final product. Limits of free formaldehyde, as measured in the final product, shall not exceed the relevant limits defined in criterion 4.3(i). ~~The addition of these substances (and any other ingredients that release formaldehyde) shall not result in the content of free formaldehyde in the final product exceeding 0,010%, as measured by the Merckoquant method, the VdL RL 03 method or HPLC analysis in accordance with UNI 11775 or an equivalent standard.~~ ~~**EGForm and (benzyloxy)methanol do not have any restricted hazard classifications, but their use is also subject to the free formaldehyde content of the final product.~~
In can preservative: Isothiazoline or izothiazoline-releasing substances: ~~2,2-dithiobis(N-methylbenzamide) (DTBMA) (CAS No 2527-58-4)~~ ~~1,2-benzoisothiazol-3(2H)-one (BIT, CAS No 2634-33-5)~~ ~~2-butyl-benzo(d)isothiazol-3-one (BBIT, CAS No 4299-07-4)~~	H317, H330, H400, H410	*See horizontal derogation condition at foot of table The total quantity of all isothiazoline substances added to the final product shall not exceed 0,040 % weight by weight in the final product. In cases where isothiazoline preservatives are actively added by the paint or varnish manufacturer, the final product shall be tested for isothiazoline content to verify compliance with the combined limit.

Criterion 4.2: Horizontal CLP restrictions

Main points about proposed changes to "Table Y" on corrosion inhibitors:

- **Three screenshots are from Annexes I, II and III (top to bottom)**
- **Annex I:** deleted reference to performance coatings – since they are only included in the scope of Annex II. Deleted Verdigris for the same reason.
- **Annex II:** Same as original criterion, but had to delete reference to trim and cladding paints for metal, because they are technically in Annex I.
- **Annex III**: No special treatment for aerosol paints. The derogation is relevant because aerosol paints can easily be used in metal substrates, but they only get the standard 2,0% derogation.

Additional questions:

- Why the 8,0% limit in the first place? Incompatible with some of the derogated hazard codes.
- Does anyone have licensed products that use this derogation? If so, what are the % contents of anti-corrosion pigments used?

Table Y. Derogations to restrictions on ingoing substances and mixtures that are classified with one or more of the restricted hazards listed in Table X and are present in concentrations greater than 0,010% (weight by weight) of the final product formulation. [...]

Corrosion inhibitors		
Anti-corrosion pigments	H410, H411, H412, H413.	*See horizontal derogation condition at foot of table Only allowed in quantities up to 8,0 % weight by weight in interior/exterior trim and cladding paints ~~for metal, one-pack performance coatings, two-pack performance coatings and anti-rust paints~~. Allowed in quantities up to 2,0 % in all other product categories.
~~Verdigris prevention~~	~~H412, H413~~	~~*See horizontal derogation condition at foot of table~~ ~~Only allowed in quantities up to 0,50 % weight by weight.~~

Corrosion inhibitors		
Anti-corrosion pigments	H410, H411, H412, H413.	*See horizontal derogation condition at foot of table Only allowed in quantities up to 8,0 % weight by weight in ~~interior/exterior trim and cladding paints for metal,~~ one-pack performance coatings, two-pack performance coatings and anti-rust paints. Allowed in quantities up to 2,0 % in all other product categories.
Verdigris prevention	H412, H413	*See horizontal derogation condition at foot of table Only allowed in quantities up to 0,50 % weight by weight.

Corrosion inhibitors		
Anti-corrosion pigments	H410, H411, H412, H413.	*See horizontal derogation condition at foot of table Only allowed in quantities up to 2,0 %.

Criterion 4.2: Horizontal CLP restrictions

Main points about proposed changes to "Table Y" on "other, miscellaneous":

- **Adipic acid:** deleted the general reference to binders and cross-linking agents upon request by one stakeholder that the substance limit is for all possible uses, not just as a binder or a cross-linking agent.
- **Adipic acid:** H317 derogation added since some self-classifications are now adding this hazard.
- **Methanol**: extra clarification that the methanol limits apply at the level of the final product.
- **Neutralising agents**: H301 derogation added due to new classification coming in the 21st ATP for triethylamine, a neutralising agent used in EUEL coatings.
- **Neutralising agents**: reference to floor paints and higher allowed limit of 1,0% removed from Annex I because floor coatings are in Annex II.
- **Neutralising agents**: Issue with ZnO being counted as a neutralising agent (see question below).

Additional questions:

- Apparently it is an issue that ZnO (H400, H410) is being considered as a neutralising agent and this allows for concentrations much higher than the 0,040% that is allowed as a preservative stabiliser (i.e. up to 0,50 or 1,0% allowed if considered as a neutralising agent.
- Can industry experts and CBs share opinions on this issue?

Table Y. Derogations to restrictions on ingoing substances and mixtures that are classified with one or more of the restricted hazards listed in Table X and are present in concentrations greater than 0,010% (weight by weight) of the final product formulation. [...]

Other, miscellaneous		
~~Binders and cross-linking 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 and when used as an adhesion promoter or as a crosslinking agent.
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	H373	*See horizontal derogation condition at foot of table Only applies to mineral raw materials and ~~leucophyllite~~ minerals that naturally contain crystalline silica.
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 varnishes ~~and floor paints~~, and up to 0,50 % in all other products.

Criterion 4.2: Horizontal CLP restrictions

Main points about proposed changes to "Table Y" on "other, miscellaneous":

- **Silicon resin:** clarity about limit applying to the final product.
- **Solvents:** reintroduction of a derogation mistakenly removed in TR1 drafting.
- **Surfactants**: correction of a mistake in TR1, where the 3,0% limit was removed in drafting. Now reintroduced and is the same as in 2014 criteria. Perhaps a 2.5% limit would be more pragmatic given the CLP rules for H411.
- **TiO2**: Correction of hazard code and more detail about the form of TiO2 that requires a derogation in the first place.
- **Unreacted monomers**: reintroduction of a derogation mistakenly removed in TR1 drafting.

Additional questions:

- For "solvents", the derogated classification was previously stated (i.e. H304). However, with "**unreacted monomers**", no specific derogated hazards were mentioned, so what should they be?
- For context: Nordic Swan sets a limit of 0.0100% of residual monomers **in binders** used in quantities greater than 1% of the final product and that have any of the following hazards: H334, H340, H341, H350, H350i, H351, H360, H361, H362, H370, H371, H372, H373.
- Should EU Ecolabel align with Nordic Swan on unreacted monomers? Would mean moving restriction to section 4.3.

Table Y. Derogations to restrictions on ingoing substances and mixtures that are classified with one or more of the restricted hazards listed in Table X and are present in concentrations greater than 0,010% (weight by weight) of the final product formulation. [...]

Silicon resin	H412, H413	*See horizontal derogation condition at foot of table Only allowed up to concentrations of 2,0 % weight by weight in the final product.
Solvents	H304	*See horizontal derogation condition at foot of table Only allowed up to concentrations of 1,0 % weight by weight in the final product.
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 products or up to 3,0 % weight by weight in all other colours of products.
Titanium dioxide (in a powder form containing 1% or more of particles with aerodynamic diameter ≤ 10μm)	H351 (inhalation)	*See horizontal derogation condition at foot of table The applicant ~~and the TiO2 supplier(s)~~ shall demonstrate that they have systems in place to minimise worker exposure to dry TiO2 powder in the workplace (e.g. closed dosing systems, ventilated dosing and mixing areas and personal protective equipment).
Trimethylolpropane	H361fd	*See horizontal derogation condition at foot of table Only when used as an additive in supplied pigments and only up to a maximum concentration of 0,50 % weight by weight of the supplied pigment.
Unreacted monomers (in binders)	H400 +???	*See horizontal derogation condition at foot of table Only allowed up to ~~sum~~ total concentrations of 0,050 % weight by weight in the final product.

Criterion 4.2: Horizontal CLP restrictions

Main points about proposed changes to 4.2. "assessment and verification":

• **Extra change:** for consistency, should replace the term "chemicals" with "ingredients".

• **Supplier declarations:** try to be more specific about the declarations from suppliers actually containing useful information for demonstrating compliance. So declarations are on an as-needed basis.

• **Retention factor**: some stakeholders did not understand what this meant. It basically means that the quantity of any hazardous substance is assumed to remain in the final product with 100% efficiency unless it can be justified otherwise. Just two general examples of this are provided in the text here as well (i.e. solvent evaporation, a physical reason, and chemical modification, and chemical reason).

• **4.2**: Renumbering of the criteria.

Additional questions:

- Is the worst-case approach for impurities appropriate for families of products?
- Do you use automatic CLP hazard calculators to apply the CLP rules of mixtures? If so, are these calculators publicly available?

Assessment and verification:

The applicant shall provide a signed declaration of compliance with sub-criterion ~~5~~4.2, a list of all chemicals used, their concentrations in the format supplied, safety data sheets for the chemicals supplied, the quantities added to the final product formulation and any other relevant declarations from suppliers or chemical producers that are necessary in order to demonstrate compliance with the relevant requirements.

Substances known to be released or to degrade from ingoing substances are considered ingoing substances and not impurities.

Any 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% (e.g. solvent evaporation) or for chemical modification of a restricted impurity shall be provided.

For substances exempted from sub-criterion ~~5~~4.2 (see Annexes IV and V to Regulation (EC) No 1907/2006), a declaration to this effect by the applicant shall suffice to demonstrate compliance.

Since multiple products or potential products using the same process chemicals may be covered by one EU Ecolabel license, the calculation only needs to be presented for each impurity for the worst-case product 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.

Criterion 4.3: specific substance restrictions

Main points about proposed changes to 4.3.:

• **Introductory sentence added:** to clarify that this refers to a ban on these substances as “ingoing substances”, and that the restrictions apply equally to ingredients and to the final product.

• **Deletion of references to “final product”**: in parts (a), (b) and (c) because now understood implicitly from the intro sentence (and also to avoid confusion that this restriction might not apply to ingredients).

• **Extension of phthalates ban**: extended from 8 specific phthalates to ALL phthalates. Similar to Nordic Swan approach.

• **New ban on organotin compounds, fragrances and certain bisphenol compounds**: introduced as part of alignment with Nordic Swan.

• **New ban on microplastics**: as per stakeholder requests.

• **Insertion of free-formaldehyde restriction**: a return to the original approach in the 2014 criteria, but this restriction belongs here in section 4.3 more than in section 4.2 on CLP restrictions.

4.3. Specific hazardous substance restrictions for ingoing substances.

The substances indicated below shall not be included as ingoing substances in the product formulation or as ingoing substances to the ingredients used to make the final product:

(a) Akylphenolethoxylates (APEOs) and their derivatives. ~~shall not be used in any paint or varnish preparations or formulations.~~

(b) Perfluorinated and polyfluorinated compounds (PFAS). ~~shall not be used in any paint or varnish preparations or formulations.~~

(c) ~~The following~~ ~~p~~Phthalates. ~~shall not be intentionally added to the final product formulation.~~: DEHP (Bis-(2-ethylhexyl) phthalate, CAS No ~~117-8-7~~); BBP (Butylbenzylphthalate, CAS No ~~85-68-7~~); DBP (Dibutylphthalate, CAS No ~~84-74-2~~); DMEP (bis-2-methoxyethyl phthalate, CAS No ~~117-82-8~~); DIBP (Di-isobutylphthalate, CAS No ~~84-69-5~~); DIHP (Di-C6-8-branched alkylphthalates, CAS No ~~71888-89-6~~); DHNUP (Di-C7-11-branched alkylphthalates, CAS No ~~68515-42-4~~) and DHP (Di-n-hexylphthalate, CAS No ~~84-75-3~~).

(d) Organotin compounds.

(e) Fragrances.

(f) Bisphenols that have been identified by ECHA 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.

(g) Microplastics.

(h~~d~~) The following metals 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, Barium, Selenium, Antimony and Cobalt. The only exceptions shall be when the limits are exceeded due to the use of:

- Cobalt compounds used in driers that comply with the derogation conditions in criterion ~~5~~4.2,
- the Barium-containing mineral nepheline syenite, and
- the use of the following pigments: Barium sulphate; Antimony Nickel within an insoluble TiO2 lattice; Cobalt aluminate blue spinel and Cobalt chromite blue-green spinel.

(i) Free formaldehyde shall not be intentionally added to the final product. The final product shall be tested in order to determine its free formaldehyde content. Worst-case samples for testing shall selected for the white base or transparent tinting base and colour tint predicted to have the highest theoretical amount of formaldehyde content. 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 and where the formaldehyde donor is used in the place of isothiazolinone preservatives.
- 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.

Criterion 4.3: specific substance restrictions

Main points about proposed changes to 4.3. A+V text:

• **Common text for requirements (a) to (g):** because the requirement is effectively the same proof of non-use as ingoing substances, which requires applicant and supplier declarations.

• **Removed the phthalate threshold limit**: because it contradicts the non-use approach and does not specify a test method either.

• **New A+V text for free formaldehyde**: because a reintroduced requirement (and new in this section). Needs to be clear that this is testing for worst case formulations in a family of products.

Additional questions:

- Is the test method for free-formaldehyde clear enough? Exactly when should the sample be taken? And how is it prepared? Are all these details covered in the test methods cited? Are the different methods mentioned suitably equivalent?

Assessment and verification:

(a to g) The applicant shall declare the non-use of APEOs, PFAS, phthalates, organotin compounds, relevant bisphenols, fragrances and microplastics as ~~the~~ingoing substances in their formulation, supported by declarations from their suppliers about the non-use of APEOs/PFAS and listed phthalates as ingoing ~~these~~ substances in the ingredients~~materials~~ supplied and that are used in formulations subject to the EU Ecolabel license application procedure.

~~The absence of intentional addition of the phthalate compounds shall be their absence in concentrations greater than 0,010 % weight by weight in the final product formulation.~~

(h) In the case of the metal restrictions, the product formulation(s) should be tested for metal content via a standard laboratory procedure for digesting powder, liquid or paste samples prior to analysis for metal content via methods such as atomic absorption spectroscopy or inductively coupled plasma spectroscopy.

For demonstrating compliance with exemptions from certain metal content restrictions, the applicant shall declare the content of any metal containing ingredients added to the formulation, supported by a declaration from~~for~~ their supplier(s). In the case of demonstrating that a restricted metal is bonded within a crystal lattice in an insoluble form, compliant results from testing according to DIN 53770-1 or an equivalent standard shall be accepted.

(i) The applicant shall declare which of their products should have the highest theoretical free formaldehyde content. 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 bonders). 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 0,010%, as measured by the Merckoquant method, the VdL RL 03 method or HPLC analysis in accordance with UNI 11775 or an equivalent standard.

Discussion about criterion 4

Questions to stakeholders about the criterion 4 on decorative paint ad varnishes and related products & and performance coatings and related products
Q18. Opinions about criterion 4.1 on SVHC restrictions? Q19. Opinions about criterion 4.2 on CLP restrictions and derogations? Q19b. Opinions about the allowance for real mixture testing to be accepted with encapsulated preservatives? Q20. Opinions about criterion 4.3 on specific substance restrictions? Q21. How robust is the current procedure for identifying substances as potential endocrine disruptors (EUH381 and EUH 431)? Do you think it is ok to restrict them to the same extent as substances classified as EUH380 or EUH 430? How best to demonstrate compliance with restrictions on endocrine disruptor restrictions?

Discussion about criterion 4

Questions to stakeholders about the criterion 4 on decorative paint and varnishes and related products & and performance coatings and related products
Q22. With Zinc Oxide, it is derogated for use as a preservative stabiliser (with BIT) up to 0.040%. However, it can also be used as a neutralising agent. Are manufacturers able to clearly distinguish where the different Zinc Oxides come from? For example, is the BIT supplied already with Zinc Oxide as a mixture, or is it prepared in the paint factory by formulators? Q23. Opinions about the correct/incorrect allocation of % limits to the final product or to specific ingredients? Q24. The derogation for unreacted monomers needs specific hazard codes. H400 has been added for acrylic acid, but what other unreacted monomers are relevant and what restricted hazard codes do they have? Q25. What are the authorised impurity levels of PFAS according to REACH? And is there a standard test method that could be cited for testing for PFAS impurities that is suitable for paints, varnishes and their ingredients? Q26. Any suggested preferences about supplier declaration formats and associated content?

9. Criterion 5: VOC emissions

Draft Annexes I and II

European Commission

Criterion 5. VOC emissions

Why proposed?

- Flagged in Commission Statement.
- Direct links to health and allergy impacts with indoor products.
- Blue Angel and Nordic Swan have requirements already.
- Alignment with future regulatory trends.
- Consumer trust and market leadership.
- Global competitiveness.
- Feedback from 1st AHWG: many stakeholders in favour of including this criterion
- Reasonable limit values.

No changes were made to the first proposal for Criterion 5.

For Annex I and II

from p. 85 of TR2

TR2: Annex I: Second proposal for Criterion 5: VOC emissions

Note: only applicable to indoor paints, ~~and~~ varnishes and related products

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

Table X: VOC emission limits

Parameter	3-day test results	28-day test results
TVOC*	< 3000 µg/m³	< 300 µg/m³
TSVOC*		< 100 µg/m³
R value**		≤ 1.0
Formaldehyde		< 20 µg/m³
Sum of any other Carcinogenic 1A or 1B VOCs apart from formaldehyde	< 10 µg/m³	< 1 µg/m³

** TVOC and TSVOC are as defined in EN 16402 and including quantification of any non-target compounds*

*** R value, as defined in EN 16402*

Assessment and verification:

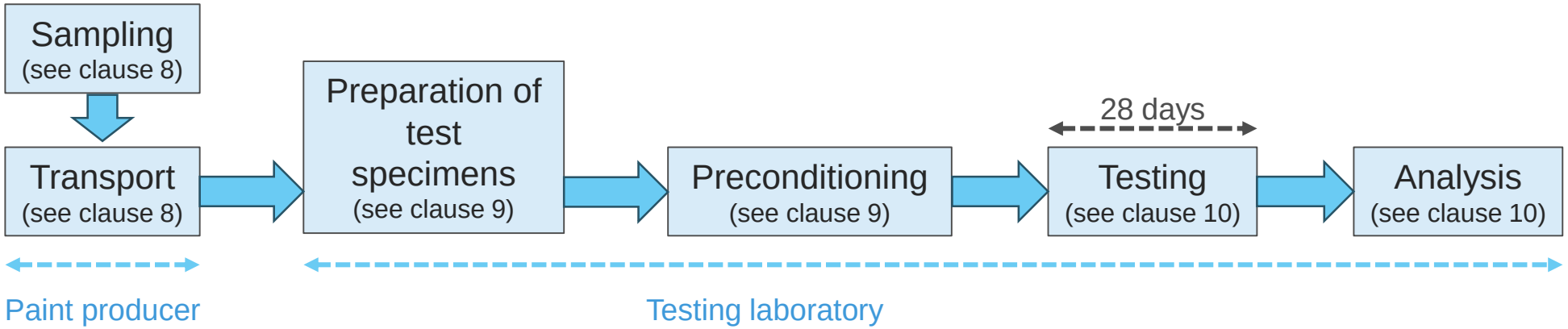
The applicant shall submit a copy of an EN 16402 test report for each of the products being covered by the EU Ecolabel license application. In cases of products with identical formulations but different packaging volumes or types, one test report shall suffice. In cases of products based on the same formulation but with multiple different shades, a test report for the worst-case formulation shall suffice, so long as it is clearly explained why that particular product formulation represents the worst-case.

For the calculation of the R value, reference should be made to the latest set of agreed EU LCI values available at the time of testing. These values can be consulted here on the European Commission website: https://single-market-economy.ec.europa.eu/sectors/construction/eu-lci-subgroup/eu-lci-values_en

Criterion 5. VOC emissions

Principles of test:

- Paint producer is responsible for taking a representative sample.
- Paint producer is responsible for sending sample in appropriate manner. Both parties should keep records to ensure chain of custody is maintained.
- Testing laboratory is responsible for preparing test specimens, but they will be following instructions provided by producer on a technical data sheet. Likewise with preconditioning.
- Chamber loaded at defined rate. Air continually blown through chamber at set rate.
- Air sampled after 3 days, and again after 28 days.



Discussion about criterion 5

Questions to stakeholders about the criterion 5
Q27. Opinions about VOC emission limits for indoor decorative and performance paints and varnishes?

Any additional questions?

(Questions can be addressed during the meeting or submitted through written comments.)

Break: 15 minutes

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10. Criterion 6. Consumer information and Criterion 7. Information appearing on the EU Ecolabel (Criterion 5 and Criterion 6 in Draft Annex III)

Draft Annexes I,II and III

European Commission

Criterion 6. Consumer Information

TR2: Annex I: Proposal for Criterion: Consumer information
(a) The following texts shall appear on or be attached to the packaging: — 'Minimise paint wastage by estimating how much paint you will need before buying' — 'Recover unused paint for re-use'. — 'Reuse of paint can effectively minimise the products' life cycle environmental impact' **(b) The following general information and advice shall be provided on or be attached to the packaging** or be available via a web-link or QR code: — How to estimate the amount of paint needed prior to purchase in order to minimise paint wastage and a recommended amount as a guideline (e.g. for 1 m^2 of wall, X litres of paint is needed). — How to deal with the 'leftover paint' **(c) The following advice and recommendations on how to handle the paint shall be provided on or be attached to the packaging** or be available via a web-link or QR code: — Safety measures for the user. This shall include basic recommendation on personal protective equipment that should be worn. It shall also include additional measures that should be taken when using spray equipment.

TR2: Annex I: Proposal for Criterion: Consumer information
— The use of cleaning equipment and appropriate waste management (in order to limit water and soil pollution). For example, text advising that unused paint requires specialist handling for safe environmental disposal and therefore it should not be thrown away with household or commercial waste (e.g. 'Do not put residual paint down the kitchen sink or toilet, or into a waste bin'). — Storage of the paint in appropriate conditions (before and after opening), including, where appropriate, safety advice. **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.

Main changes in the second proposal:

Based on TR1 and subsequent working group meetings with stakeholders, a proposal for this criterion has been developed, including the option to access consumer information through a website or **QR code.**

Criterion 7. Information appearing on the EU Ecolabel

TR2: Annex I: Proposal for Criterion 8: Information appearing on the EU ecolabel
The optional label with text box shall contain, where relevant, the following texts: — Minimised content of hazardous substances — Reduced content of volatile organic compounds (VOCs): x g/l — Reduced emissions of volatile organic compounds to indoor air (where indoor criteria have been met) — Good performance for indoor use (where indoor criteria have been met) or — Good performance for outdoor use (where outdoor criteria have been met) or — Good performance for both indoor and outdoor use (where both indoor and outdoor criteria have been met) The guidelines for the use of the optional label with text box can be found in the 'Guidelines for use of the Ecolabel logo' on the website: http://ec.europa.eu/environment/ecolabel/documents/logo_guidelines.pdf **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.

Main change in the second proposal:

Inclusion of the **information on VOC emissions** to indoor air following the criteria 5. VOC emission in Annexes I and II

11. Other criteria – not included: CO_2 footprint, Biobased content, Microplastics

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Carbon footprint – not included

from p.67 of TR1

Outcomes from 1st AHWG meeting:

- Many stakeholders support a carbon footprint criterion as long as it was performance based.
- **Concerns:** Lack of supplier-specific data, high costs, and additional personnel needs.

Why not included?

- **Data inconsistencies**: Different databases (e.g., EF, ecoinvent, GaBi) make it difficult to standardize comparisons across products.
- **Industry readiness and market availability**: Insufficient EPDs available for setting reliable benchmarks.
- **High costs and complexity**: Full EPDs are costly and time-consuming.

TR1: First proposal for a criterion on carbon footprinting or PEF

The life cycle carbon footprint of the paint or varnish products shall be assessed according to one of the following methods, with preference being given in the order of the list below.

- A cradle-to-grave analysis using the latest Environmental Footprint datasets and according to relevant Product Environmental Footprint Category Rules (PEFCR) that are valid at the date of the application for the EU Ecolabel license.
- A cradle-to-grave analysis using the latest Environmental Footprint datasets and according to general Product Environmental Footprint methodology set out in Commission Recommendation (EU) 2021/2279.
- A cradle-to-grave analysis reporting on modules A to C of the EN 15804 method and using any combination of specific and generic data for ingredients and reference flows.
- A cradle-to-gate analysis using module A of the EN 15804 method and using any combination of specific and generic data for ingredients and reference flows.

Except in the case where the PEFCR is followed the carbon footprint shall be reported using a functional unit of per m2 per year.

Any datasets and calculation rules used shall be those in force at the date of the application for the EU Ecolabel.

Assessment and verification:

The applicant shall provide the Competent Body with a full formulation of the paint or varnish product(s) and the associated carbon footprints of each ingredient. Reference flows for fuel, electricity, water, wastewater, normal waste and hazardous waste shall also be provided. Transport assumptions (distance and mode) shall be explained for each ingredient coming to the factory as well as an average distribution scenario for sold products. Assumed losses due to spoilage, spillage and misapplication shall be communicated as will an assumed spreading rate in m^2/L, which should be the same as communicated on any packaging, if mentioned there.

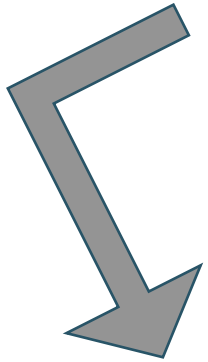
The assumed lifetime before reapplication shall be estimated and explained in terms of the results of durability testing of the paint or varnish product(s).

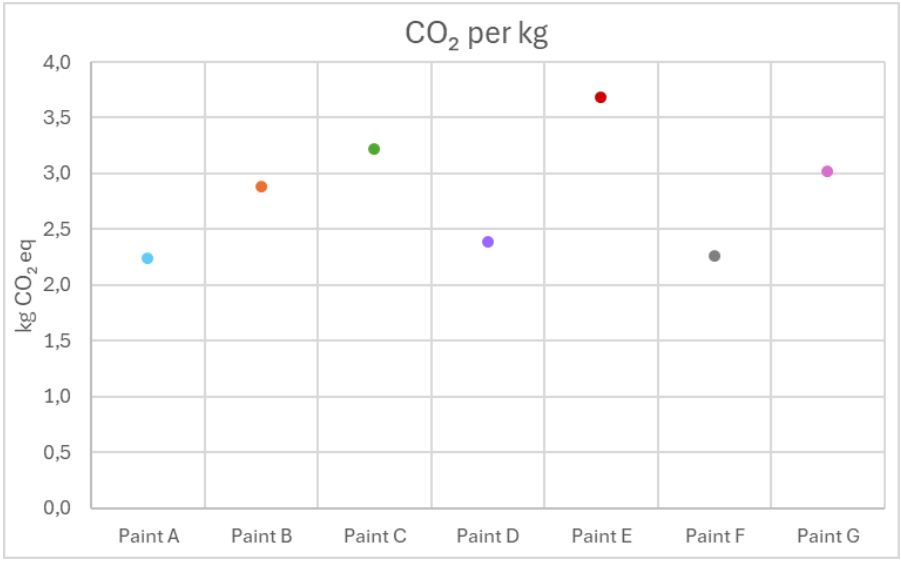
Criteria would lack reliability and scientific validity at this stage.

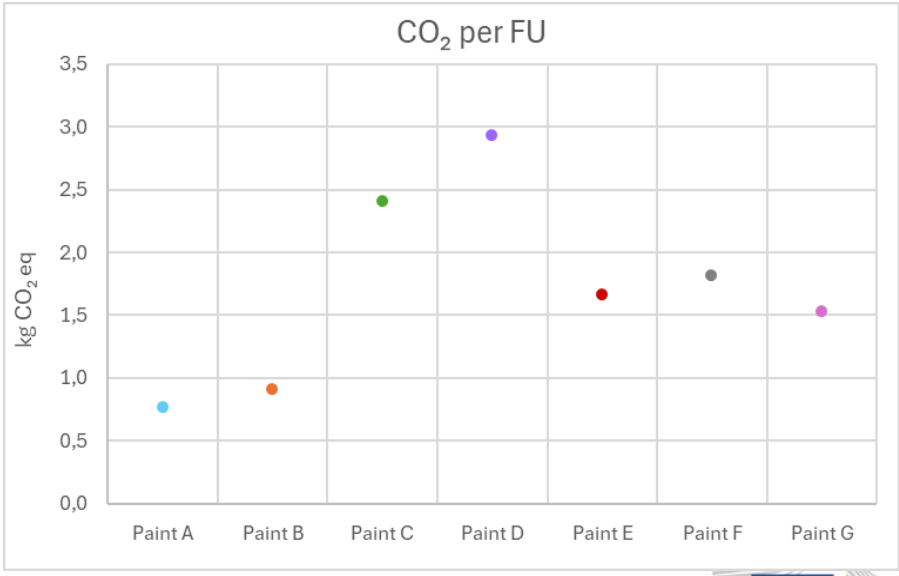
Carbon footprint – further research

Ideally, methodology should follow:

- Functional unit that all paint products must fulfill, and it must be related to performance.
  - **FU**: “protection and decoration of 1 m^2 of indoor/outdoor substrate for 50 years at 98% opacity”.
  - Factors included: spreading rate, durability and reapplication needs.
- Cradle-to-grave analysis.
- Follow relevant standards (e.g., EN 15804).
- Durability of paint must be assessed through a test.







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Carbon footprint – further research

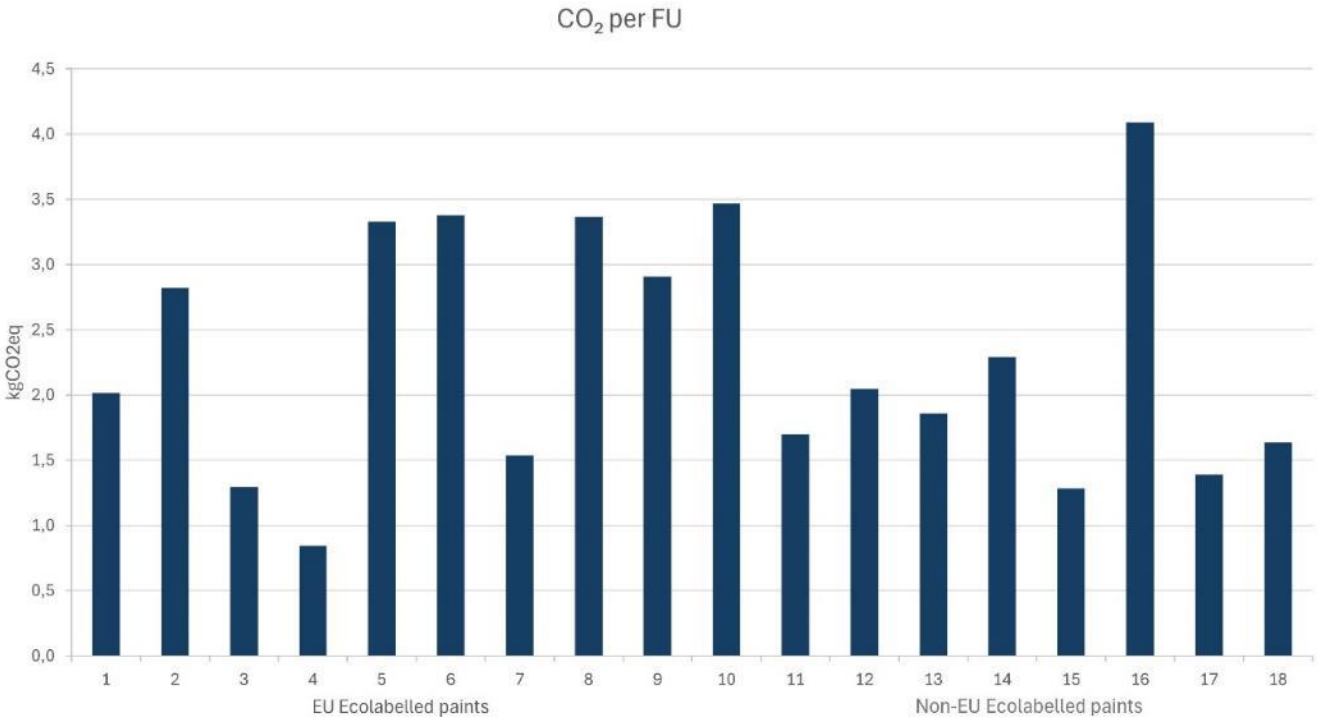
CO_2 limit for indoor paints

Data collection approach:

- Comprehensive EPDs: analysis of 18 publicly available EPDs.
- Inclusion of various paint types.
- Conversion to FU.
- Durability.

Conclusions:

- Inconsistencies in data sources.
- Limited availability of EPDs.
- Overall weak readiness of the market to adopt a comprehensive carbon footprint criteria.



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Biobased content

Outcomes from 1st AHWG meeting:

- Some stakeholders expressed interest in incorporating it as an **optional criterion.**
  - 80% of new certified paints in France feature a biobased claim.

Rationale for exclusion:

- **Lack of proven environmental benefit:** No strong evidence that biobased paints reduce environmental impact over conventional paints.
- **Industry readiness:** Limited availability of biobased materials and supply chain constraints make broad adoption challenging.
- **Risk of superficial compliance:** Adding this criterion could lead to focus on biobased claims without broader environmental benefits.
- **Contextual relevance:** Paints differ from other products with biobased criteria, making a direct criterion transfer inappropriate.

Microplastics

Outcomes from 1st AHWG meeting:

- **Mixed** stakeholder views on adding a criterion for microplastics.
- Majority view: unnecessary due to existing and upcoming regulations.
- Minority view: potential benefits in addressing unintentional microplastic release from weathering.

Rationale for exclusion:

- **Data Uncertainty:** Lack of clear data on intentional microplastic use in paint formulations.
- **Limited Evidence:** Insufficient detailed information, making evidence-based regulation challenging.
- **Industry Readiness:** Industry may not be prepared for strict limits or bans, risking compliance and market issues.
- **Future Flexibility:** Potential for future EU Ecolabel revisions as data and industry practices evolve.

Discussion about other criteria

Questions to stakeholders about other criteria not included
Q37. Opinions about the decision to not set criteria on carbon footprinting? Q38. Any opinions about decision to not set criteria on biobased content?

- Any opinions about the proposed approach to microplastics in criterion 4.3? (i.e. non-use as ingoing substances)

Any additional questions?

(Questions can be addressed during the meeting or submitted through written comments.)

12. Conclusions, next steps and closure of the meeting

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Conclusions, next steps and closure of the meeting

FEEDBACK:

- Comments to TR2 – *via* BATIS, by **20 November 2024**
  - BATIS: *BATIS >Home> Forum >Z_Product Policy: Paints and Varnishes> 2nd AHWG and publication of draft background documents*
  - Further input is welcome
- Should you have any questions, please contact: **JRC-B5-PAINTS@ec.europa.eu**

- Slides will be made available in the Product Bureau website and BATIS tomorrow 14th November
- Minutes will be made available in the Product Bureau website and BATIS in about 2 weeks

NEXT STEPS:

- 3rd draft criteria version – expected Q1 2025 (tbc)

Thank you!

Contact: JRC-B5-PAINTS@ec.europa.eu

EU Science Hub
Joint-research-centre.ec.europa.eu

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