



Revision of European Ecolabel and Development of Green Public Procurement Criteria for Indoor and Outdoor Paints and Varnishes

**CONSULTATION DOCUMENT TO ANALYSE THE SCOPE
AND EXISTING CRITERIA FOR PAINTS AND
VARNISHES**

October 2011



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1 Introduction

1.1 Background

This document forms the initial stages of the revision of EU Ecolabel criteria and development of Green Public Procurement Criteria (GPP) for paints & varnishes. This document is intended to be circulated to stakeholders in order to raise awareness of this revision, explain the revision process, and to obtain feedback on existing criteria and proposed changes.

We request that this document is read in full, and that responses are provided to the questions in the associated form.

1.2 EU Ecolabel & GPP

Within the EU, the EU Ecolabel and Green Public Procurement (GPP) are mechanisms which have been introduced to encourage the production and use of more environmentally friendly products and services. These schemes help purchasers and consumers to make more informed decisions through certification of the environmental credentials of a product or service.

The EU Ecolabel is a voluntary scheme regulated by the European Commission¹ which is used to distinguish environmentally beneficial products and services. The EU Ecolabel is awarded through an application process which demonstrates that the specified Ecolabel criteria for a particular product group are met. Successful applicants are then allowed to use the EU Ecolabel logo and advertise their product as having been awarded the EU Ecolabel. The criteria for a particular product group are designed to apply to the best 10-20% of products based on environmental performance. Therefore, over time as product performance, markets and legislation change these criteria need to be updated to ensure they remain relevant, as well as strict enough to only capture the top 10-20% of products. Using this process the overall environmental impact of a product group will be improved.

GPP is a voluntary instrument which European public authorities can utilise in the procurement of goods, services and works. By using the extensive purchasing power of public authorities GPP can make important contributions to sustainable consumption and production by motivating manufacturers to adopt more sustainable environmentally friendly practices. This in turn will help stimulate a critical mass of demand these goods and services, which otherwise may be difficult to get on the market. Strong but realistic criteria are required to ensure that this has maximum impact over the relevant product categories, whilst allowing producers to meet the performance guidelines.

The approach under GPP is to propose two types of criteria for each sector covered:

- **The core criteria** are those suitable for use by any contracting authority across the Member States and address the key environmental impacts. They are designed to be used with minimum additional verification effort or cost increases.
- **The comprehensive criteria** are for those who wish to purchase the best environmental products available on the market. These may require additional verification effort or a slight increase in cost compared to other products with the same functionality.

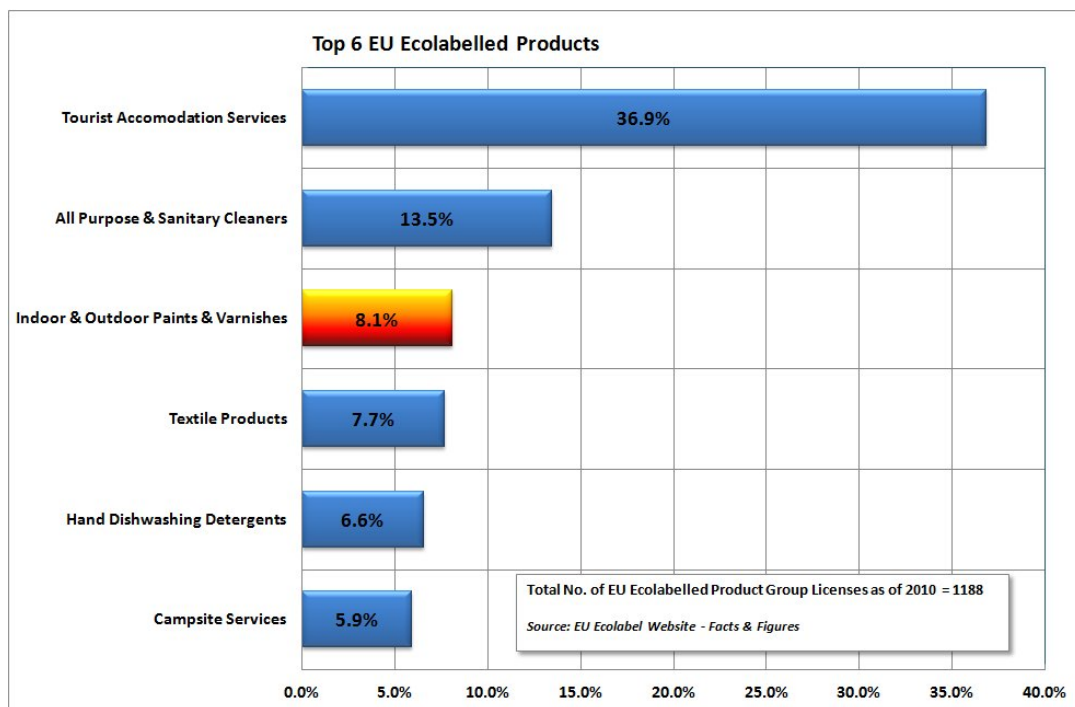
¹ Regulation (EC) No 66/2010

Several GPP and Ecolabel product group criteria are in the process of development and revision. The revision of the EU Ecolabel criteria for Paints & Varnishes (Indoor and Outdoor) as well as the development of Green Public Procurement criteria for the same product group is undertaken by Joint Research Centre/Institute for Prospective Technological Studies with the support on technical specifications by Oakdene Hollins.

1.3 Paints & Varnishes and the EU Ecolabel

The EU Ecolabel criteria for ‘Outdoor Paints and Varnishes’ and ‘Indoor Paints and Varnishes’ were adopted in August 2008 (2009/543/EC2 and 2009/544/EC3: Commission Decision of 13 August 2008), with the aim of promoting products that correspond to the best 10-20% of the products available on the Community market in terms of environmental performance.

1.4 Indoor & Outdoor Paints & Varnishes



The EU Ecolabel has been awarded (as of the end of 2010) to 83 companies manufacturing 1157 distinct products.

² [EU Ecolabel Criteria for Outdoor Paints & Varnishes - Aug 2008](#)

³ [EU Ecolabel Criteria for Indoor Paints & Varnishes - Aug 2008](#)

Companies holding THE ecolabel FOR indoor & outdoor paints & varnishes

| Single product | | Between 2 AND 5 products | | Between 6 AND 20 products | | Greater THAN 20 products | |
|----------------|--------------------------------|--------------------------|--------------------------------|---------------------------|--------------------------------|--------------------------|-----------------------------|
| No. Products | Company | No. Products | Company | No. Products | Company | No. Products | Company |
| 1 | Allios | 2 | Amonn fire srl | 6 | Colorex AB | 20 | Soficor mader |
| 1 | Caparol sweden AB | 2 | Benjamin moore mediterranean s | 6 | Tikkurila OY | 23 | Ici paints |
| 1 | Chromodomi Ltd. | 2 | Eurocolori s.r.l. | 6 | Yannidis group s.a. - vitex | 24 | Renaulac (b.b. Fabrication) |
| 1 | Coverline srl | 2 | Ipv chemicals srl | 8 | Marmolux paint factory | 28 | Bbi peintures |
| 1 | Derivery | 2 | J.w. Ostendorf GMBH &co hb | 8 | Martin mathys N.V. | 31 | Ppg ac france |
| 1 | Druckfarben hellas S.A. | 2 | Landecolor SA | 8 | Peintures et chimie production | 31 | Sa dpe |
| 1 | Duraziv color srl | 2 | Leroy merlin | 9 | Brunel chimie derives | 31 | Theolaur peinture |
| 1 | Eskaro AS | 2 | Sipc | 9 | Groupement action distribution | 35 | Initiatives decoration |
| 1 | Flugger AB | 3 | Arboritec AB | 9 | Materis paints S.L. | 36 | Jotun as |
| 1 | Hamberger flooring GMBH | 3 | Artilin | 9 | Produits mauler | 38 | Alcro-beckers ab |
| 1 | Iliochrom S.A. | 3 | Cdp kerlys | 10 | Earthborn paints | 40 | Materis peintures |
| 1 | Innu-science canada inc | 3 | Erla underwear aps | 10 | Er-lac g.d. Koutlis S.A. | 40 | Peintures reca sas |
| 1 | Iso paint nordic AS | 3 | Pinturas monto | 10 | Vivechrom | 41 | Akzo nobel |
| 1 | Johannes kiehl kg | 4 | Bona | 12 | Onip | 43 | Pinturas macy S.A. |
| 1 | Liberon | 4 | Brifa maling AS | 12 | Société DES COLORANTS DU s-o | 44 | Peintures maestia |
| 1 | Pinturas dyrup | 4 | Carmyco S.A.. | 12 | Tintas dyrup S.A. | 46 | Dyrup sas |
| 1 | Pinturas lepanto S.A. | 4 | Durieu | 13 | Beck & jorgensen A/S | 63 | Somefor |
| 1 | Pinturas y recubrimientos ursa | 4 | Gjoco as | 13 | Celliose | 67 | Vechro S.A. |
| 1 | Pintures m. Vich S.A. | 4 | Liwa faerg ab | 14 | Cipir srl | 100 | Blanchon |
| 1 | Pnz-produkte GMBH | 4 | Ppg architectural coatings UK | 14 | Industrias titan S.A. | 162 | V 33 |
| 1 | Productos jafep SL | 5 | Berling S.A. | 16 | Daw france | | |
| 1 | Productos ralpe SL | 5 | Chrotex | 18 | Meffert ag | | |
| 1 | Teknos AB | 5 | Materis paints Italia | | | | |
| 1 | Tintas hempel (portugal) Lda. | 5 | Sterma | | | | |
| 1 | | | Tintas Robbialac S.A. | | | | |

Source:www.eco-label.com

This would imply a high level of interest in the market.

1.5 Project plan

In order to revise the existing EU Ecolabel criteria and develop GPP criteria the following tasks are being undertaken:

The following five tasks are foreseen:

- Task 1: Product definition and categorization of Indoor Paints and Varnishes and Outdoor Paints and Varnishes product group**
- Task 2: Economic and market analysis**
- Task 3: Technical analysis**
- Task 4: Improvement potential**
- Task 5: Elaboration of draft criteria and technical background reports**

This activity falls within the first step of this process, by gathering information from stakeholders.

1.6 Purpose of this document

This document forms part of the first task in the process of criteria revision and development. It has been designed to provide a mechanism for stakeholders to comment on existing criteria and provide feedback on proposed changes. There is also scope for further comments or suggestions not specifically outlined within this document.

Amendments and issues are described in section 2, these were identified through;

- Examination of existing criteria and comparison with others,
- Examination of Ad-hoc working group meetings and issues raised by Ecolabel Competent Bodies,
- Issues raised by companies.

Each proposal is discussed with related comments. For each, specific questions of stakeholders are asked to help aid the development process. Further feedback, related to each issue is also encouraged to ensure that this process is as comprehensive as possible, and provides challenging but realistic targets for manufacturers to meet.

2 Preliminary analysis to the revision of scope

2.1 Analysis methodology

As is described in the rules set down in Regulation (EC) No 66/2010, a consultation process must be held to gain expert opinion and industry buy-in to the proposed changes. This document constitutes the consultation document for review by stakeholders. It describes the themes and issues with the current EU Ecolabel Criteria for both indoor and outdoor paints and varnishes and possible new criteria for inclusion within the GPP criteria. As a basis for revision the following sources were reviewed:

- The original EU Ecolabel documents;
- Existing and new EU policy documents relating to the EU Ecolabel;
- Data from the competent body forum;
- Alternative ecolabels in force.

2.1.1 Analysis structure and consultation

This report identifies where there is scope for strengthening the EU Ecolabel and which criteria should be used to develop GPP criteria for paints and varnishes. It is being used as a consultation document to gain feedback, evidence and opinion from stakeholders and experts on proposed changes and issues. To achieve this, the document contains a series of questions for stakeholders to answer together with an analysis of problems that have been identified. The analysis is set out as follows:

- **An examination of the current criteria and where changes may be needed.**
Each criterion is assessed individually, problems identified with the criteria are then described (using the data sources described below) and questions based on these problems are then posed for responses from stakeholders. Due to the similarities between the indoor and outdoor criteria, the criteria have been merged, with differences highlighted throughout the text.
- **An investigation into where additional criteria may be needed.**
Additional environmental issues and possible new criteria that have been identified but do not fit within the scope of any of the initial criteria text are discussed. A series of questions are then posed on their suitability for inclusion.

Each question within this document has a unique identifier that enables stakeholders to respond directly to the questions posed.

Responses to questions should be sent to:

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2.1.2 Available EU Ecolabel criteria documents

The current criteria will be used as the basis for the development of the new criteria. The wide use of the ecolabel in the market suggests that the current criteria are achievable by a reasonable portion of the marketplace and that any amendments to the current criteria should tighten restrictions rather than relax the criteria. Where possible, the documents and analysis used in the development of the original EU Ecolabel documents will be consulted.

2.1.3 Other relevant policy documents

There have been several documents developed since the introduction of the paints and varnishes criteria that set out additional requirements or harmonise criteria between EU Ecolabels for different products. These include the updated rules governing the Ecolabel, Regulation (EC) No 66/2010, the new biocides directive and REACH Regulation 1907/2006.

2.1.4 Data from the Competent Body Forum

With the success of both indoor and outdoor EU Ecolabels, the national Competent Bodies have accumulated data, queries and clarifications on the criteria documents. This information provides valuable insight into the problems and required amendments to the current criteria and also where there is a need for additional research.

2.1.5 Alternative criteria

Several ecolabelling schemes have developed criteria for paints & varnishes – a number are shown in Table 1.

Table 1: Summary of other ecolabels applicable to paints & varnishes

| Ecolabel Name | Region | Product Group | Date adopted |
|-------------------|---|---|--|
| EU Ecolabel | EU 27 plus EEA | Indoor Paints & Varnishes | August 2008 |
| EU Ecolabel | EU 27 plus EEA | Outdoor Paints & Varnishes | August 2008 |
| Blue Angel | Germany | Low emission Wall Paints. RAL-UZ 102 | April 2010 |
| Blue Angel | Germany | Low Emission and Low Pollutant Paints & Varnishes. RAL-UZ 12a | July 2010 |
| Austrian Ecolabel | Austria | Paints, Varnishes & wood sealants. UZ 01 | July 2010 |
| Austrian Ecolabel | Austria | Wall paints – UZ17 | 2010 |
| Nordic Swan | Denmark, Finland, Iceland, Norway, Sweden | Indoor Paints & Varnishes | November 2008 (Date validity commenced) |
| Eco Mark | Japan | Paint version 2.3 | 2011 |
| Green Seal | USA | GS-11, Paints & | January |

| | | | |
|-------------------|-----|--------------------------|----------------|
| | | Coatings | 2010 |
| Green Seal | USA | GS-47, Stains & Finishes | September 2009 |

A comparison between these alternative ecolabels and the EU Ecolabel was performed.

A summary table of the differences between these labels can be found in Appendix A. The analysis highlights where alternative ecolabels offer tougher or further criteria beyond that in the current EU Ecolabel.

2.1.6 GPP Criteria

An additional objective is the development of GPP criteria. It is intended that the EU Ecolabel provides a more comprehensive and tougher set of criteria than that described within a GPP criteria document (a result of which is that more of the market will be able to meet the GPP criteria compared to the EU Ecolabel). Therefore, the criteria described within the EU Ecolabel will at least match and usually exceed the requirements set out in GPP. In this initial consultation document, by focusing on the EU Ecolabel, all possible criteria for the GPP will also be identified. To tailor appropriate criteria for GPP, it will then be necessary to assess if the criteria proposed for the Ecolabel is suitable for inclusion, either unmodified or in a less stringent recast. To gain feedback and evidence on the current criteria and any issues that may affect the adoption of the criteria as GPP specifications, each section request information on the inclusion or exclusion of the criteria within GPP specifications along with evidence to support the proposed viewpoints.

2.2 Current criteria, issues and questions

This section contains an analysis of each EU Ecolabel criteria for paints and varnishes and describes where problems have been identified with questions for stakeholders to answer.

Stakeholders are kindly asked to send their feedback to the following address

Jiannis-Stefan Kougoulis Jiannis-Stefan.Kougoulis@ec.europa.eu

Renata Kaps Renata.Kaps@ec.europa.eu

Emma Bisley at: emma.bisley@oakdenehollins.co.uk

2.2.1 Article 1 (indoor and outdoor)

Current Criteria

1. The product group 'indoor paints and varnishes' shall comprise indoor decorative paints and varnishes, woodstains and related products, as defined in paragraph 2, intended for use by do-it-yourself and professional users and primarily developed for indoor use and marketed as such.

This includes, inter alia, floor coatings and floor paints; products which are tinted by distributors at the request of amateur or professional decorators; tinting systems; decorative paints in liquid or paste formulas which may have been pre-conditioned, tinted or prepared by the manufacturer to meet consumer's needs, including primers and undercoats of such product systems.

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

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

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

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

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

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

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

3. The product group shall not comprise:

- (a) anti-corrosion coatings;
- (b) anti-fouling coatings;
- (c) wood preservation products;
- (d) coatings for particular industrial and professional uses, including heavy-duty coatings;
- (e) facade coatings;
- (f) any product primarily developed for outdoor use and marketed as such.

Problem A1-1

There has been confusion over the scope of the Ecolabel. In particular, the inclusion of:

- Undercoats for metals: These are mentioned under the VOC criteria (No 3) but are specifically excluded under Article 1.
- Wood oils: These treatments for wood but penetrate the wood's surface and can be possibly argued as different to varnishes.
- UV curable paints: these require specialist equipment but are widely used in industry.
- Powder coatings: They are currently specified within the scope

Question for stakeholders A1-1

Should the scope of the document be changed to reflect the various additional paints? Including:

- Wood oils
- Anti corrosive paints
- UV curable paints
- Powder coatings

Problem A1-2

There is confusion over the term transparent and semi-transparent.

Question for stakeholders A1-2

What terminology should be used here? Is the definition "Transparent" is colourless see-through products and "Semi-transparent" see-through product with a colour acceptable?

Problem A1-3

There is confusion over the terminology primers and undercoats which are commonly misused as synonyms.

Question for stakeholders A1-3

Should the inclusion of the clarifications provided by Annex I of Directive 2004/42/CE: on the limitation of emissions of volatile organic compounds due to the use of organic solvents in certain paints and varnishes and vehicle refinishing products, be used? These state:

1.1.d:

d) 'interior/exterior trim and cladding paints for wood, metal or plastic' means coatings designed for application to trim and cladding which produce an opaque film. These coatings are designed for either a wood, metal or a plastic substrate. This subcategory includes undercoats and intermediate coatings;

1.1.g:

'primers' means coatings with sealing and/or blocking properties designed for use on wood or walls and ceilings;

Question for stakeholders A1-4

Should this criterion be used as-is within, be modified or excluded from the GPP criteria and what is the evidence for this?

2.2.2 Criteria number: 1 White pigments (indoor and outdoor)

Current Criteria

White pigment content (white inorganic pigments with a refractive index higher than 1,8): Paints shall have a white pigment content lower or equal to (36 g – indoor and 38g- outdoor) per m² of dry film, with 98 % opacity.

This requirement does not apply to varnishes and woodstains.

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

Question for stakeholders 1-1

No major issues identified, what is the evidence that the limits of the requirement cannot be lowered?

Question for stakeholders 1-2

Should this criterion be used as-is within, be modified or excluded from the GPP criteria and what is the evidence for this?

2.2.3 Criteria number: 2 Titanium dioxide (indoor and outdoor)

Current Criteria

The emissions and discharges of wastes from the production of any titanium dioxide pigment used shall not exceed the following (as derived from the Reference Document on Best Available Technology for the Manufacture of Large Volume Inorganic Chemicals (BREF) (August 2007)):

Indoor:

- SO_x emissions (expressed as SO₂): 252 mg per m² of dry film (98 % opacity),
- sulphate wastes: 18 g per m² of dry film (98 % opacity),
- chloride wastes: 3,7, 6,4 and 11,9 g per m² of dry film (98 % opacity) respectively, for natural rutile, synthetic rutile and slag ores.

Outdoor

- SO_x emissions (expressed as SO₂): 266 mg per m² of dry film (98 % opacity),
- sulphate wastes: 19 g per m² of dry film (98 % opacity),
- chloride wastes: 3.9, 6.8 and 12.5 g per m² of dry film (98 % opacity) respectively, for natural rutile, synthetic rutile and slag ores.

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

Problem 2-1

Titanium Dioxide can be produced through two processes viz. sulphate and chloride. There is some dispute as to whether the intention in this criterion was to set limits on SO_x emissions and sulphate wastes from the chloride as the Titanium Dioxide Harmonisation Directive⁴ does not stipulate limits for SO_x emissions or sulphate wastes in respect of the chloride process.

Question for stakeholders 2-1

Do the SO_x emission limits and the Sulphate waste limits for both indoor and outdoor paints apply to the chloride process? Should they?

Question for stakeholders 2-2

Should this criterion be used as-is within, be modified or excluded from the GPP criteria and what is the evidence for this?

Question for stakeholders 2-3

Should we adopt the BREF environmental limits for TiO₂ production?

2.2.4 Criteria number: 3: Volatile organic compounds (indoor and outdoor)

⁴ 92/112/EEC

Current Criteria

VOC content shall not exceed:

| Outdoor paints | | Indoor paints | |
|--|----------------------------------|--|----------------------------------|
| Product Classification | VOC limits (g/l including water) | Product Classification | VOC limits (g/l including water) |
| Coatings for exterior walls of mineral substrate | 40 | Interior Matt (walls/ceiling) (Gloss < 25@60 °) | 15 |
| Exterior trim and cladding paints for wood and metal including undercoats | 90 | Interior glossy (walls/ceiling) (Gloss > 25@60 °) | 60 |
| Exterior trim varnishes and wood-stains, including opaque woodstains | 90 | Interior trim and cladding paints for wood and metal including undercoats | 90 |
| Exterior minimum build woodstains | 75 | Interior trim varnishes and wood-stains, including opaque woodstains | 75 |
| Primers (for exterior use) | 15 | Interior minimum build woodstains | 75 |
| Binding Primers (for exterior use) | 15 | Primers | 15 |
| 1 Pack performance coatings | 100 | Binding Primers | 15 |
| Two-pack reactive performance coatings for specific end use such as floors | 100 | 1 Pack performance coatings | 100 |
| | | Two-pack reactive performance coatings for specific end use such as floors | 100 |
| | | Decorative effect coatings | 90 |

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

Assessment and verification: The applicant shall provide a declaration of compliance with this criterion. For all products the applicant shall indicate the VOC content.

Problem 3-1

Directive 2004/42/CE on the limitations of emissions of VOC from paints specifies lower emission limits from 01.01.2010 onwards. As a consequence, it may be expected that the average VOC emissions from paints has been reduced. The EU Ecolabel criteria, which aim at the best 10-20% of available products, need to reflect this overall change and a revision of the limit values is required.

Question for stakeholders 3-1

Can a reduction in the amount of VOCs be realised to ensure that the Ecolabel continues to meet the top 10% - 20% of products on the market?

Problem 3-2

The compounds: 2 butoxyethyl acetate, diethylene glycol methyl ether, ethylene glycol, triethylene glycol are prohibited from Austrian Ecolabel - Paints, Varnishes and wood sealant lacquers UZ01 (2010) and diethylene glycol methyl ether, ethylene glycol, triethylene glycol are prohibited under the Austrian Ecolabel - Wall paints UZ17 (2010)

Question for Stakeholders 3-2

What is the evidence for their exclusion and should the mentioned chemicals be excluded from the EU Ecolabel?

Question for stakeholders 3-3

Should this criterion be used as-is within, be modified or excluded from the GPP criteria and what is the evidence for this?

2.2.5 Criteria number: 4: Volatile aromatic hydrocarbons (indoor and outdoor)

Current Criteria

Volatile aromatic hydrocarbons shall not be directly added to the product before or during tinting (where applicable); however ingredients containing VAH may be added up to such a limit that the VAH content in the end product will not exceed 0,1 % (m/m).

In this context volatile aromatic hydrocarbon (VAH) means any organic compound, as defined in Directive 2004/42/EC, having an initial boiling point less than or equal to 250 °C measured at a standard pressure of 101,3 kPa and having at least one aromatic nucleus in its developed structural formula.

Assessment and verification: The applicant shall provide a declaration of compliance with this criterion stating that VAH has not been added other than in prefabricated ingredients and where applicable declarations from the suppliers of the ingredient confirming their VAH content.

Problem 4-1

The Austrian Ecolabel only permits 100ppm (0.01%) inclusion of VAHs.

Question for stakeholders 4-1

What is the evidence that this limit is environmentally justified and can the level of inclusion of VAHs be reduced by a factor of 10 for the EU Ecolabel?

Question for stakeholders 4-2

Should this criterion be used as-is within, be modified or excluded from the GPP criteria and what is the evidence for this?

2.2.6 Criteria number: 5: Heavy metals

Current Criteria

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

Cobalt shall also not be added as an ingredient with the exception of cobalt salts used as a siccative in alkyd paints. These may be used up to a concentration not exceeding 0,05 % (m/m) in the end product, measured as cobalt metal. Cobalt in pigments is also exempted from this requirement.

It is accepted that ingredients may contain traces of these metals up to 0,01 % (m/m) deriving from impurities in the raw materials.

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

Problem 5-1

It is not clear if the 0.01% is the sum total allowable or represents individual component amounts.

Question for stakeholders 5-1

Should the criteria be changes to clarify if it is the sum total or individual?

Question for stakeholders 5-2

Should this criterion be used as-is within, be modified or excluded from the GPP criteria and what is the evidence for this?

2.2.7 Criteria number: 6(a) Dangerous substances: the products (indoor and outdoor)

Current Criteria

The product shall not be classified as very toxic, toxic, dangerous to the environment, carcinogenic, toxic for reproduction, harmful, corrosive, mutagenic or irritant (only where this is caused by the presence of ingredients labelled with R43) in accordance with Directive 1999/45/EC of the European Parliament and of the Council before or after tinting (where applicable).

Assessment and verification: The applicant shall provide a declaration of compliance with this criterion, together with a product material safety data sheet meeting the requirements of Annex II to the REACH Regulation.

Problem 6(a)-1

This criterion will need to be updated to reflect the more recent revision to the EU Ecolabel rules (Article 6.6), as described in Problem 6(b)-3.

Question for stakeholders 6(a)-1

What substances, which are nominally excluded by the new criterion, need derogations to ensure that the performance of the paints is not disproportionately affected and what is the evidence for this?

Question for stakeholders 6(a)-2

Should this criterion be used as-is within, be modified or excluded from the GPP criteria and what is the evidence for this?

2.2.8 Criteria number: 6(b) Ingredients (very toxic, toxic, carcinogenic, mutagenic, toxic for reproduction):

Current Criteria

No ingredient including those used in tinting (if applicable) shall be used that is assigned or may be assigned at the time of application any of the following risk phrases (or combinations thereof):

- R23 (toxic by inhalation),
- R24 (toxic in contact with skin),
- R25 (toxic if swallowed),
- R26 (very toxic by inhalation),
- R27 (very toxic in contact with skin),
- R28 (very toxic if swallowed),
- R33 (danger of cumulative effects),
- R39 (danger of very serious irreversible effects),
- R40 (limited evidence of carcinogenic effect),
- R42 (may cause sensitisation by inhalation),
- R45 (may cause cancer),
- R46 (may cause heritable genetic damage),
- R48 (danger of serious damage to health by prolonged exposure),
- R49 (may cause cancer by inhalation),
- R60 (may impair fertility),
- R61 (may cause harm to the unborn child),
- R62 (possible risk of impaired fertility),
- R63 (possible risk of harm to the unborn child),
- R68 (possible risk of irreversible effects),

as laid down in Council Directive 67/548/EEC or in Directive 1999/45/EC. Active ingredients used as preservatives in the formula and that are assigned any of the risk phrases R23, R24, R25, R26, R27, R28, R39 R40 or R48 (or combinations thereof) may nevertheless be used up to a limit of 0,1 % (m/m) of the total paint formulation.

Alternatively, the Globally Harmonised System (GHS) of classification may be considered. In this case the ingredients, including those used in tinting (if applicable), classified as the following (or combinations thereof) shall not be used:

- Acute Toxicity (oral) – Category I, II, III,
- Acute Toxicity (dermal) – Category I, II, III,
- Acute Toxicity (inhalation) – Category I, II, III,
- Respiratory Sensitisation – Category I,
- Mutagenic Substances – Category I, II,
- Carcinogenic Substances – Category I, II,
- Substances Toxic for Reproduction – Category I, II,
- Specific Target Organ Systemic Toxicity (single exposure) – Category I, II,
- Specific Target Organ Systemic Toxicity (repeated exposure) – Category I, II,

as laid down in ST/SG/AC.10/30 and revised in ST/SG/AC.10/34/Add.3 on the Globally Harmonized

System of Classification and Labelling of Chemicals. Active ingredients used as preservers in the formula and that are assigned any of the following GHS categories may nevertheless be used up to a limit of 0,1 % (m/m) of the total paint formulation:

- Acute Toxicity (oral, dermal, inhalation) – I, II, III (only oral and dermal),
- Specific Target Organ Systemic Toxicity (single and/or repeated exposure) – I, II (or combinations thereof) and,
- Carcinogenicity category II,

Methyl Ethyl Ketoxime may be used in alkyd paints up to a limit of 0,3 % (m/m).

Assessment and verification: The applicant shall provide a declaration of compliance with this criterion, together with a product material safety data sheet meeting the requirements of Annex II to the REACH Regulation.

Problem 6(b)-1

R 48 always in a combination with other risk phrases. It is unclear if these combinations are permitted.

Question for stakeholders 6(b)-1

How should the criteria be changed to prevent this confusion?

Problem 6(b)-2

There is some confusion over the origin of 'ingredient', which could apply to the ingredient of the formulation or the individual substances of the ingredient.

Question for stakeholders 6(b)-2

How can the criteria clarify this and what should the Ecolabel assess?

Problem 6(b)-3

Since the drafting of the original EU Ecolabel paints and varnishes criteria, new Ecolabel Regulations ((EC) No 66/2010) have moved to prevent the use of all chemicals that are classified as toxic, hazardous to the environment, carcinogenic, mutagenic or toxic for reproduction and substances that are restricted under REACH regulations (Table 2).

Table 2: Prohibited risk phrases under the new EU Ecolabel regulations (EC) no66/2010

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

| | |
|---|--|
| H360FD May damage fertility. May damage the unborn child | R60-61 |
| H360Fd May damage fertility. Suspected of damaging the unborn child | R60-63 |
| H360Df May damage the unborn child. Suspected of damaging fertility | R61-62 |
| H361f Suspected of damaging fertility | R62 |
| H361d Suspected of damaging the unborn child | R63 |
| H361fd Suspected of damaging fertility. Suspected of damaging the unborn child | R62-63 |
| H362 May cause harm to breast fed children | R64 |
| H370 Causes damage to organs | R39/23; R39/24; R39/25; R39/26; R39/27; R39/28 |
| H371 May cause damage to organs | R68/20; R68/21; R68/22 |
| H372 Causes damage to organs through prolonged or repeated exposure | R48/25; R48/24; R48/23 |
| H373 May cause damage to organs through prolonged or repeated exposure | R48/20; R48/21; R48/22 |
| H400 Very toxic to aquatic life | R50 |
| H410 Very toxic to aquatic life with long-lasting effects | R50-53 |
| H411 Toxic to aquatic life with long-lasting effects | R51-53 |
| H412 Harmful to aquatic life with long-lasting effects | R52-53 |
| H413 May cause long-lasting harmful effects to aquatic life | R53 |
| EUH059 Hazardous to the ozone layer | R59 |
| EUH029 Contact with water liberates toxic gas | R29 |
| EUH031 Contact with acids liberates toxic gas | R31 |
| EUH032 Contact with acids liberates very toxic gas | R32 |
| EUH070 Toxic by eye contact | R39-41 |
| Sensitising substances | |
| H334: May cause allergy or asthma symptoms or breathing difficulties if inhaled | R42 |
| H317: May cause allergic skin reaction | R43 |

Derogations for particular Hazard Statements are permitted but there must be evidence that there is no reasonable technical method of delivering the performance without incurring hazard.

Question for Stakeholders 6(b)-3

Which Substances, which are nominally excluded by the new criterion, need derogations to ensure that the performance of the paints is not disproportionately affected and what is the evidence for this?

Problem 6(b)-4

US Green Seal prohibits ozone depleting substances.

Question for Stakeholders 6(b)-4

Is it necessary/appropriate to include a clause on ozone depleting substances and what is the evidence to support this?

Problem 6(b)-5

(outdoor only)

Risk phrase R48 is missing from exclusion criteria.

Question 6(b)-5

Should compounds that have the assigned risk phrase R48 (danger of serious damage to health by prolonged exposure) be excluded?

Question for stakeholders 6(b)-6

Should this criterion be used as-is within, be modified or excluded from the GPP criteria and what is the evidence for this?

2.2.9 Criteria number: 6(c): Dangerous to the environment (indoor and outdoor)**Current Criteria**

No ingredient shall exceed 2 % (m/m), including those used in tinting (if applicable), that at the time of application fulfil the classification criteria of any of the following risk phrases (or combinations thereof):

- N R50 (very toxic to aquatic organisms),
- N R50/53 (very toxic to aquatic organisms, may cause long term adverse effects in the aquatic environment),
- N R51/53 (toxic to aquatic organisms, may cause long term adverse effects in the aquatic environment),
- N R52/53 (harmful to aquatic organisms, may cause long term adverse effects in the aquatic environment),
- R51 (toxic to aquatic organisms),
- R52 (harmful to aquatic organisms),
- R53 (may cause long-term adverse effects in the aquatic environment),

as laid down in Directive 67/548/EEC or Directive 1999/45/EC.

Alternatively, the Globally Harmonised System (GHS) of classification may be considered. In this case no ingredient shall exceed 2 % (m/m), including those used in tinting (if applicable), that is assigned or may be assigned at the time of application any of the following classifications:

Aquatic Toxicity categories (and combinations thereof):

- Acute I, II, III,
- Chronic I, II, III, IV,

as laid down in ST/SG/AC.10/30 and revised in ST/SG/AC.10/34/Add.3 on the Globally Harmonized System of Classification and Labelling of Chemicals.

In either case, the sum total of all ingredients that are assigned or may be assigned at the time of application any of these risk phrases (or combinations thereof) or GHS classifications shall not exceed 4 % (m/m).

This requirement does not apply to ammonia or alkyl ammonia.

This requirement does not affect the obligation to fulfil the requirement set out in criterion 6(a) above.

Assessment and verification: The applicant shall provide a declaration of compliance with this criterion, together with a list of ingredients and material safety data sheets of each ingredient meeting the requirements of Annex II to the REACH Regulation.

Problem 6(c)-1

The problem described within problem 6(b)-3 also applies to this criterion.

Question for Stakeholders 6(c)-1

What substances, which are nominally excluded by the new criterion, need derogations to ensure that the performance of the paints is not disproportionately affected and what is the evidence for this?

Question for stakeholders 6(c)-2

Should this criterion be used as-is within, be modified or excluded from the GPP criteria and what is the evidence for this?

2.2.10 Criteria number: 6(d) Alkylphenoethoxylates (APEOs)

Current Criteria

APEOS shall not be used in the product before or during tinting (if applicable).

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

Question for stakeholders 6(d)-1

These products were prohibited from the original EU Ecolabel, is there any evidence to suggest that this should be revised?

Question for stakeholders 6(d)-2

Should this criterion be used as-is within, be modified or excluded from the GPP criteria and what is the evidence for this?

2.2.11 Criteria number: 6(e) Isothiazolinone compounds

Current Criteria

The content of isothiazolinone compounds in the product shall not exceed 0,05 % (m/m) before or after tinting (if applicable). Likewise the content of the mixture of 5-chloro-2-methyl-2H-isothiazol-3-one (EC No 247-500-7) and 2-methyl-2H-isothiazol-3-one (EC No 220-239-6) (3:1) shall not exceed 0,0015 % (m/m).

(outdoor): For wood coatings isothiazolinone compounds shall not exceed 0,2 % (m/m).

Assessment and verification: The applicant shall provide a declaration of compliance with this criterion, indicating the amounts (if used).

Problem 6(e)-1

A more nuanced approach regarding the allowable level of isothiazolinone compounds in wood coatings may reduce the levels of the chemical used.

Question for stakeholders 6(e)-1

Is a reduction in the level of isothiazolinone compounds in wood coatings justified and by how much can it be changed?

Question for stakeholders 6(e)-1

Should this criterion be used as-is within, be modified or excluded from the GPP criteria and what is the evidence for this?

2.2.12 Criteria number: 6(f) PFAS

Current Criteria

Perfluorinated alkyl sulfonates (PFAS), perfluorinated carboxylic acids (PFCA) including Perfluorooctanoic Acid (PFOA) and related substances listed in the OECD 'Preliminary lists of PFOS, PFAS, PFOA, PFCA, related compounds and chemicals that may degrade to PFCA (as revised in 2007)' are not permitted in the product. The OECD list is provided in the Annex to this criteria document.

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

Question for stakeholders 6(d)-1

These products were prohibited from the original EU Ecolabel, is there any evidence to suggest that this should be revised?

Question for stakeholders 6(f)-2

Should this criterion be used as-is within, be modified or excluded from the GPP criteria and what is the evidence for this?

2.2.13 Criteria number: 6(g) Formaldehyde (indoor and outdoor)

Current Criteria

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

Assessment and verification: The applicant shall provide a declaration of compliance with this criterion. In addition the applicant shall provide test results from raw materials suppliers using the VdL-RL 03 test method (VdL Guide-line03) 'In-can concentration of formaldehyde determined by the acetyl-acetone method' and calculations relating the data from these tests to the final product in order to indicate that the final maximum possible concentration of formaldehyde released by formaldehyde releasing substances is not higher than 0,001 % (m/m). Alternatively formaldehyde resulting from formaldehyde donors can be measured in the end product by using a standard based on High-performance liquid chromatography.

Problem 6(g)-1

Formaldehyde is used for preserving organic chemicals, however, it may not be appropriate for inorganic raw materials (e.g. TiO₂) or those compounds with high pH, where it is usually never added.

Question for stakeholders 6(g)-1

Is there evidence that would prevent the exemption of formaldehyde testing of inorganic materials and those with a high pH?

Problem 6(g)-2

Formaldehyde is used as a reagent in certain paints. It is not present in the ingredient or the paint, other than in trace concentrations. There is current ambiguity over if these products are permitted. (source = Competent body forum)

Question for stakeholders 6(g)-2

Should the testing be changed to examine the final paints to account for chemical reactions between ingredients which may lead to higher or lower formaldehyde concentrations than would be expected from simply mixing the raw materials?

Problem 6(g)-3

Formaldehyde and formaldehyde donors are prohibited from US Green Seal Paints.

Question for Stakeholders 6(g)-3

Is there evidence that lowering the formaldehyde threshold further would be beneficial and can formaldehyde and formaldehyde donors be prohibited from the criteria without adversely affecting the quality of the paint?

Question for stakeholders 6(g)-4

Should this criterion be used as-is within, be modified or excluded from the GPP criteria and what is the evidence for this?

2.2.14 Criteria number: 6(h) Halogenated Organic Solvents (indoor and outdoor)**Current Criteria**

Notwithstanding criteria 6a, 6b and 6c, only halogenated compounds that at the time of application have been risk assessed and have not been classified with the risk phrases (or combinations thereof): R26/27, R45, R48/20/22, R50, R51, R52, R53, R50/53, R51/53, R52/53 and R59 in accordance with Directives 67/548/EEC and 1999/45/EC may be used in the product before or during tinting (if applicable).

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

Problem 6(h)-1

US Green seal – Stains & Finishes (2010) criteria prohibits the use of halogenated solvents (US Green Seal Criteria)

Question for stakeholders 6(h)-1

Is there evidence that the total exclusion of halogenated organic compounds can be justified and implemented?

Question for stakeholders 6(h)-2

Should this criterion be used as-is within, be modified or excluded from the GPP criteria and what is the evidence for this?

2.2.15 Criteria number: 6(i) Phthalates (indoor and outdoor)

Current Criteria

Notwithstanding criteria 6a, 6b and 6c, only phthalates that at the time of application have been risk assessed and have not been classified with the phrases (or combinations thereof): R60, R61, R62, R50, R51, R52, R53, R50/53, R51/53, R52/53, in accordance with Directive 67/548/EEC and its amendments, may be used in the product before or during tinting (if applicable). Additionally DNOP (di-n-octyl phthalate), DINP (di-isononyl phthalate), DIDP (di-isodecyl phthalate) are not permitted in the product.

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

Problem 6(i)-1

Phthalates are endocrine inhibitors and are also excluded from several alternative Ecolabels (US Green Seal and Austrian Ecolabel)..

Question for stakeholders 6(i)-1

What is the justification for the prohibition of phthalates from the EU Ecolabel?

Question for stakeholders 6(i)-2

Should this criterion be used as-is within, be modified or excluded from the GPP criteria and what is the evidence for this?

2.2.16 Criteria number: 7(a) Spreading rate (indoor and outdoor)

Current Criteria

White paints and light-coloured paints (including finishes, primers, undercoats and/or intermediates) shall have a spreading rate (at a hiding power of 98 %) of at least 8 m² per litre of product. **(6m² for outdoor)**

For tinting systems, this criterion applies only to the white base (the base containing the most TiO₂). In cases where the white base is unable to achieve the requirement of at least 8 m² per litre **(6m² for outdoor)** at a hiding power of 98 %, the criterion shall be met after tinting the white base to produce the standard colour RAL 9010. For all other bases used to produce tinted products — these are bases which as a rule contain less TiO₂, which are unable to achieve the requirement of at least 8 m² per litre of product at a hiding power of 98 % — the criterion shall not apply. For paints that are a part of a tinting system, the applicant must advise the end-user on the product packaging and/or POS which shade or primer/undercoat (if possible bearing the Community Ecolabel) should be used as a basecoat before applying the darker shade.

Primers with specific blocking/sealing, penetrating/binding properties and primers with special adhesion properties for aluminium and galvanised surfaces shall have a spreading rate (at a hiding power of 98 %) of at least 6 m² per litre of product.

Thick decorative coatings (paints that are specially designed to give a three-dimensional decorative effect and are therefore characterised by a very thick coat) shall alternatively have a spreading power of 1 m² per kg of product. **(indoor only)**

Elastomeric paints shall have a spreading rate (at a hiding power of 98 %) of at least 4 m² per litre of product. **(outdoor only)**

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

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

Problem 7(a)-1

The performance criteria (spreading rate) for thick decorative coatings are missing for outdoor paints although they are mentioned in the scope of the document.

Question for stakeholders 7(a)-1

Can the addition of a similar criterion to that present for indoor paints (7(a)): 1 m²/kg be used for outdoor paints?

Question for Stakeholders 7(a)-2

Are there newly available test protocols that should be incorporated into the new criteria?

Question for stakeholders 7(a)-2

Should this criterion be used as-is within, be modified or excluded from the GPP criteria and what is the evidence for this?

2.2.17 Criteria number: 7(b) Wet scrub resistance (indoor)

Current Criteria

Wall paints (according to EN 13300) for which claims are made (whether on the product or in related marketing material) that they are washable, cleanable or brushable shall have a wet scrub resistance as measured by EN 13300 and EN ISO 11998 of class 2 or better (not exceeding 20 microns after 200 cycles). Due to the large potential range of possible tinting colours, this criterion will be restricted to the testing of tinting bases.

Assessment and verification: The applicant shall provide a test report according to EN 13300 using the method EN ISO 11998 (Test for cleanability and scrub resistance) and evidence (on the product packaging or related marketing material) that the end-user is informed that the product has not been tested for wet scrub resistance in the case of ceiling paints.

Question for Stakeholders 7(b)-1

Should we look at increasing the number of tests so that one is stipulated for each marketing claim made?

Question for stakeholders 7(b)-2

Should this criterion be used as-is within, be modified or excluded from the GPP criteria and what is the evidence for this?

2.2.18 Criteria number: 7b (outdoor) 7c (indoor): Resistance to water

Current Criteria

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

Assessment and verification: The applicant shall provide a test report using the method ISO 2812-3 (Paints and varnishes — determination of resistance to liquids — Part 3: Method using an absorbent medium).

Question for Stakeholders 7(b/c)-1

Are there newly available test protocols that should be incorporated into the new criteria?

Question for stakeholders 7(b/c)-2

Should this criterion be used as-is within, be modified or excluded from the GPP criteria and what is the evidence for this?

2.2.19 Criteria number: 7c (outdoor) Adhesion

Current Criteria

Adhesion: Masonry paints (excluding transparent primers) shall score a pass in the EN 24624 (ISO 4624) pull-off test for adhesion and floor coatings, floor paints and undercoats for concrete, wood and metal coatings shall score at least a 2 in the EN 2409 cross-cut method for adhesion. When carrying out EN 24624 where the cohesive strength of the substrate is less than the adhesive strength of the paint then this is considered a pass, otherwise the adhesion of the paint must be in excess of a pass value of 1,5MPa.

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

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

Question for Stakeholders 7(c)-1

Are there newly available test protocols that should be incorporated into the new criteria?

Question for stakeholders 7(c)-2

Should this criterion be used as-is within, be modified or excluded from the GPP criteria and what is the evidence for this?

2.2.20 Criteria number: 7d (indoor) Adhesion

Current Criteria

Adhesion: Floor coatings, floor paints and floor undercoats, metal and wood undercoats shall score at least 2 in the EN 2409 test for adhesion. Pigmented masonry primers shall score a pass in the EN 24624 (ISO 4624) pull-off test where the cohesive strength of the substrate is less than the adhesive strength of the paint, otherwise the adhesion of the paint must be in excess of a pass value of 1,5MPa. Transparent primers are not included in this requirement
Assessment and verification: The applicant shall provide a test report using the method EN ISO 2409 or EN 24624 (ISO 4624) as applicable

Question for Stakeholders 7(d)-1

Are there newly available test protocols that should be incorporated into the new criteria?

Question for stakeholders 7(d)-1

Should this criterion be used as-is within, be modified or excluded from the GPP criteria and what is the evidence for this?

2.2.21 Criteria number: 7d (outdoor) 7e (indoor) Abrasion

Current Criteria

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

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

Question for Stakeholders 7(d/e)-1

Are there newly available test protocols that should be incorporated into the new criteria?

Question for stakeholders 7(d/e)-2

Should this criterion be used as-is within, be modified or excluded from the GPP criteria and what is the evidence for this?

2.2.22 Criteria number: 7e (outdoor): Weathering

Current Criteria

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

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

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

The colour change of samples exposed to weathering shall not be greater than $\Delta E^* = 4$ and decrease in gloss for varnishes shall not be greater than 30 % of its initial value. The gloss shall be measured using ISO 2813. The criterion for colour change is not applicable to transparent varnishes and bases.

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

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

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

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

Assessment and verification: The applicant shall provide test reports using either ISO11507:2007 according to the specified parameters or EN 927-6, or both (if relevant). Additionally the applicant shall provide test reports using EN ISO 4628-2, 4, 5, 6 where applicable. The applicant shall also provide a declaration that (where applicable) the colour change of the coating is within the parameter set in this document.

Problem 7(e)-1

The current criteria does not recommend a test for colour change measurements.

Question for stakeholders 7(e)-1

Is ISO 7724-2 the most appropriate test for colour change measurement?

Problem 7(e)-2

The current criteria does not account for possible colour changes in transparent, coloured products such as woodstains.

Question for stakeholders 7(e)-2

Is using an inert substrate, such as glass or metal, in order to avoid any semitransparent paint/varnish with colour/pigment staining the wood, an appropriate test for woodstains?

Question for Stakeholders 7(e)-3

Are there newly available test protocols that should be incorporated into the new criteria?

Question for stakeholders 7(e)-4

Should this criterion be used as-is within, be modified or excluded from the GPP criteria and what is the evidence for this?

2.2.23 Criteria number: 7(f) Water vapour permeability (outdoor)**Current Criteria**

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

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

Question for Stakeholders 7(f)-1

Are there newly available test protocols that should be incorporated into the new criteria?

Question for stakeholders 7(f)-1

Should this criterion be used as-is within, be modified or excluded from the GPP criteria and what is the evidence for this?

2.2.24 Criteria number:7(g) Liquid water permeability (outdoor)**Current Criteria**

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

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

Question for Stakeholders 7(g)-1

Are there newly available test protocols that should be incorporated into the new criteria?

Question for stakeholders 7(g)-2

Should this criterion be used as-is within, be modified or excluded from the GPP criteria and what is the evidence for this?

2.2.25 Criteria number:7(h) Fungal resistance (outdoor)

Current Criteria

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

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

Question for Stakeholders 7(h)-1

Are there newly available test protocols that should be incorporated into the new criteria?

Question for stakeholders 7(h)-2

Should this criterion be used as-is within, be modified or excluded from the GPP criteria and what is the evidence for this?

2.2.26 Criteria number:7(i) Crack bridging (outdoor)

Current Criteria

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

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

Question for Stakeholders 7(i)-1

Are there newly available test protocols that should be incorporated into the new criteria?

Question for stakeholders 7(i)-2

Should this criterion be used as-is within, be modified or excluded from the GPP criteria and what is the evidence for this?

2.2.27 Criteria number:7(j) Alkali resistance (outdoor)

Current Criteria

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

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

Question for Stakeholders 7(j)-1

Are there newly available test protocols that should be incorporated into the new criteria?

Question for stakeholders 7(j)-1

Should this criterion be used as-is within, be modified or excluded from the GPP criteria and what is the evidence for this?

2.2.28 Criteria number:8 Consumer information (indoor and outdoor)

Current Criteria

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

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

Assessment and verification: A sample of the product packaging shall be provided when submitting the application, together with a corresponding declaration of compliance with this criterion as appropriate.

Problem 8-1

The current user information does not include a requirement to state the amount of solvent in the paint. Although there is a requirement that the EU Ecolabel should state that the paint has a "low solvent content", the Austrian Ecolabel requires that the amount of solvent (in percentage terms) is included as part of consumer information.

Question for stakeholders 8-1

Is there justification to include the total amount (in percent) of solvents be included in the information for users?

Question for stakeholders 8-2

Should this criterion be used as-is within, be modified or excluded from the GPP criteria and what is the evidence for this?

2.2.29 Criteria number:9 (indoor and outdoor): Information appearing on the eco-label

Current Criteria

Box 2 of the eco-label shall contain the following text:

- good performance for indoor use, **(indoor only)**
- good performance for outdoor use, **(outdoor only)**
- restricted hazardous substances,
- low solvent content.

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

2.3 Additional criteria

The questions and problems described in the previous section relate directly to current EU Ecolabel criteria document. Proposed additional considerations are described below.

2.3.1 Merging indoor and outdoor paints or changing the scope of the documents

Problem N1-1

Through the EU Ecolabel assessment process and discussions with applicants and other stakeholders, it has become clear that some paints have both indoor and outdoor applications and as such require two licences. Applying for two separate licences for a single product adds additional cost and administration burden to the applicant company and can cause confusion to consumers. In particular a paint that passes both sets of criteria could display 2 licence numbers and two EU Ecolabels; this could be interpreted as having two licences is 'better' than one.

Related to this issue, certain products are not included within the current scope of the document and the way the market is segmented does not reflect industry statistics, for example the PRODCOM European database. As an outcome, certain sectors are unable to apply for the EU Ecolabel and analysis of the benefit of the EU Ecolabel is difficult to assess.

Question for stakeholders N1-1

Should the two separate EU Ecolabels be merged into one document?

Is there an alternative classification system that could be used to separate out different types of paints?

Question for stakeholders N1-2

Should this be also considered for use in the GPP criteria?

2.3.2 Inclusion of Biocides

Problem N2-1

The original EU Ecolabel criteria for both indoor and outdoor paints did not adequately control the inclusion and use of biocides in paints. The recent revision to the biocide directive and recently developed EU Ecolabel criteria for other products that contain biocides should be examined within this revision. For example, the draft revision of the Laundry Detergents EU Ecolabel contains the following clause:

Biocides

(i) The product may only include biocides in order to preserve the product, and in the appropriate dosage for this purpose alone. This does not refer to surfactants, which may also have biocidal properties.

Assessment and verification: the applicant shall provide copies of the material safety data sheets of any preservatives added, together with information on their exact concentration in the product. The manufacturer or supplier of the preservatives shall provide information on the dosage necessary to preserve the product.

(ii) It is prohibited to claim or suggest on the packaging or by any other communication that the product has an antimicrobial action.

Assessment and verification: the applicant shall provide the texts and layouts used on each type of packaging and/or an example of each different type of packaging to the competent body.

(iii) Biocides, either as part of the formulation or as part of any mixture included in the formulation, that are used to preserve the product and that are classified H410/R50-53 or H411/R51-53 in accordance with Directive 67/548/EEC, Directive 1999/45/EC of the European Parliament and of the Council or Regulation (EC) No 1272/2008, are permitted but only if their bioaccumulation potentials are characterised by log Pow (log octanol/water partition coefficient) < 3,0 or an experimentally determined bioconcentration factor (BCF) ≤ 100.

Assessment and verification: the applicant shall provide copies of the material safety data sheets for all biocides, together with a documentation of the concentrations of the biocides in the final product.

In addition to these new criteria for other EU Ecolabel products, alternative ecolabels for paints and varnishes have clauses restricting biocides and preservatives. Table 3 describes the criteria developed for restrictions of biocides in paints for different ecolabels.

Table 3: Comparison of alternative ecolabel's criteria to biocides

| Ecolabel | Criteria |
|---|---|
| Austrian Ecolabel - Paints, Varnishes and wood sealant lacquers UZ01 (2010) | Used only for in-can preservation and only Government certified substances with specific limit values between 15 and 200 ppm. |
| German Blue Angel – Low emission paints RAL UZ12a (July 2010) – Varnishes & Glazes | No micro biocides unless on German approved list and only for in-can preservation |
| Japanese Ecomark 126 – Paint Version 2.3 (2011) | Up to 0.5% of product weight |

Examining the Austrian and German-based ecolabels, these clauses mirror the changes that are likely to be enacted within the scheduled update to the Biocide Directive, which is due for release in 2013. The directive will restrict the use and sale of certain biocides within Europe to those that have been registered and authorised by relevant authorities within each country in the EU.⁵

⁵ <http://register.consilium.europa.eu/pdf/en/11/st05/st05032-re02.en11.pdf>

Question N2-1

How should the EU Ecolabel for paints and varnishes control the use of biocides within approved products and what is the evidence that justifies those controls?

Question for stakeholders N2-2

Should this be also considered for use in the GPP criteria?

2.3.3 Regulation of the use of nanoparticles

Problem N3-1

The use of nanoparticles and other nanomaterials within a wide variety of consumer products offers potential performance enhancements to the products. Nanoparticles within the paint sector are beginning to make an impact in several areas including increasing drying rate, dirt resistance and better humidity tolerance.⁶ The use of nanoparticles of silver as a biocide and antibacterial agent is seen as a particular application of interest in paints.

The risk associated with the inclusion of nanoparticles within paints need careful assessment. There is some evidence of an inherent health risk posed by exposure to nanoparticles⁷, however, these possible risks must be balanced against the performance gains from the use of such materials. For example, there have been reports where the inclusion of certain nanomaterials has resulted in the performance of water-based paints to match those of traditionally 'better' solvent-based alternatives, thus reducing the exposure to solvents during application of the paint.⁸ In a second example, the use of silver nanoparticles could reduce the need for using biocides such as isothiazoline compounds, which are shown to be damaging to health and the environment.⁹ An understanding of the benefits of the inclusion of nanomaterials is needed to develop an appropriate view on use within EU Ecolabeled paints and varnishes.

The Austrian Ecolabel on Varnishes and Wood Sealants and Wall Paints has developed criteria for the regulation of the use of nanomaterials within their ecolabeled products. This uses the Swiss categorisation of risk based on a precautionary approach to the application and use of nanomaterials. In particular, the approach examines the risk of exposure, its chemical activity and its human toxicity (where the latter is not known, it is assumed to be hazardous).¹⁰ Where this risk is deemed as high, the nanomaterials are prohibited from the ecolabeled paints.

Question for stakeholders N3-1

How should the EU Ecolabel address the concerns of the use of nanomaterials without stifling innovation and potential positive environmental and human health effects? Also what is the evidence that justifies their exclusion from the EU Ecolabeled paints?

Question for stakeholders N3-2

Should this be also considered for use in the GPP criteria?

⁶ <http://www.docstoc.com/docs/26408859/NANOMATERIALS-FOR-PAINTS-AND-COATINGS-IN>

⁷ SCIENTIFIC COMMITTEE ON EMERGING AND NEWLY IDENTIFIED HEALTH RISKS (SCENIHR), modified Opinion (after public consultation) on "The appropriateness of existing methodologies to assess the potential risks associated with engineered and adventitious products of nanotechnologies", 2006

⁸ http://www.empa.ch/plugin/template/empa/*98022/---/1=2

⁹ SpecialChem (2009) "Preservation of Coatings with Silver"; available at <http://www.specialchem4coatings.com/resources/articles/article.aspx?id=11343&q=nano-silver> (accessed 28.05.2011)

¹⁰ <http://www.nanotechia.org/news/global/swiss-government-publishes-precautionary-matrix-f>

2.3.4 Packaging

Problem N4-1

The current criteria focus on the ingredients and the performance of the paint and varnish products. It is important to consider additional impacts of packaging, the disposal of surplus paint and additional instructions that should be given to the end user to minimise the environmental impact of the paint.

The manufacture, use and disposal of packaging are important when considering both the volume of packaging waste (once the paint has been used) and to reduce the risk spillage to minimise paint waste and environmental damage. For example, being able to deliver the paint in large volume of containers could be considered important for trade customers. The use of reusable or lightweight packaging could also be considered.

Alternative ecolabels include packaging as part of their criteria. These are detailed within Table 4.

Table 4: Comparison of alternative ecolabel's criteria on packaging

| Ecolabel | Criterion |
|--|--|
| Austrian Ecolabel - Paints, Varnishes and wood sealant lacquers and Wall paints | No use of halogenated organic based plastics, re-sealable. No sprays. |
| Japanese Ecomark 126 – Paint Version 2.3 (2011) | Containers shall be returnable. Containers shall be lead-free metal cans of recyclable design. Containers are collected and recycled. No aerosols. |
| US Green seal – Stains & Finishes (2010) (GS-47) | A minimum of 25% recovered material content, except if manufacturer take-back program for recycling in place Heavy metals, phthalates, bisphenol A, and chlorinated compounds are prohibited unless part of recovered material. No aerosols. |

Question for stakeholder N4-1

What is the justifying evidence and what criteria should be included for restrictions on the materials in packaging use?

Question for stakeholders N4-2

Should this be also considered for use in the GPP criteria?

2.3.5 End of life considerations

Problem N5-1

Waste paint can be considered a hazardous material and therefore disposal should be appropriately controlled. The current EU Ecolabel (part 8: consumer information) requires that the user is given information on proper disposal of unwanted paint. However, there is no requirement on an EU Ecolabel paint producer to manage or control that process. Alternative ecolabels, in particular the Austrian ecolabel, specify the development and implementation of a scheme to take-back, recycle and reuse unwanted paint.

Question N5-1

Is the evidence of unused paint is a significant environmental or health risk and should the EU Ecolabel include criteria requiring applicants to have procedures in place for collection, reuse and recycling unwanted paint and paint containers?

Question for stakeholders N5-2

Should this be also considered for use in the GPP criteria?

2.3.6 Consideration of Green House Gas emissions (GHG)

Problem N6-1

The current EU Ecolabel criterion does not directly address reductions in Green House Gas (GHG) emissions. Minimising the impact of climate change by reducing the release of carbon dioxide and other GHG into the atmosphere is an important goal. It is a priority on many countries' environmental agendas and is also used by businesses when conveying the benefits of products to specifiers and consumers.

GHG emissions can be classed as either:

- Direct GHG emissions - emissions from sources that are owned or controlled by the manufacturer e.g. energy used in manufacture.
- Indirect GHG emissions are emissions that are a consequence of the activities of the manufacturer, but occur at sources owned or controlled by another supply chain entity e.g. purchased materials

Question for stakeholders N6-1

Should there be a requirement within the EU Ecolabel and GPP for measuring and limiting GHG emissions in the production of paint and the materials selected?

Question for stakeholders N6-2

Should there be a requirement within the EU Ecolabel and GPP for restricting only direct emissions?

Question for stakeholders N6-3

Could a stringent minimisation of GHG emissions have a negative effect on other impacts, such as restricting choice of materials, or specify manufacturing processes?

2.3.7 Consideration of Water use

Problem N7-1

The current EU Ecolabel criteria do not address minimising water usage in production. This is now an important policy goal for some businesses and national governments.

Question for stakeholders N7-1

Should there be a requirement within the EU Ecolabel for measuring and limiting water usage in the production of paints and varnishes?

2.3.8 Consideration for Life Cycle Assessment

Problem N8-1

Understanding the key stages of the manufacture, use and disposal of paints and varnishes is important in determining where the largest environmental impacts occur and what those impacts are; this is best achieved through a lifecycle assessment (LCA) approach.

This process helps us to understand:

- which stages/components have the largest environmental impact
- where these high impact manufacturing phases take place (both within and beyond the EU27)
- what factors, such as energy and toxicity, need to be considered.

A better understanding will be provided by the environmental information which will be gathered via the LCA technique during the technical analysis. This will be conducted once the initial phase of the revision process is underway. Input from stakeholders is welcome now, however.

Questions for stakeholders N8-1

Is there LCA data or studies available for paints and varnishes?

Questions for stakeholders N8-2

Where is the largest environmental impact from the manufacture, use and disposal of paints and varnishes?

3 Summary and next steps

As stated above this stakeholder consultation forms the first step of the process to revise the EU Ecolabel criteria and define the GPP criteria for paints & varnishes. Gathering the views from relevant stakeholders is important to ensure that these criteria are consistent and applicable to the industry.

We would highly value your input on the points above. Feedback can be provided through the associated form, entitled **Feedback_Form_Questionnaire**, which contains space to answer the questions proposed above. In addition to the responses for specific questions, we would also like you opinion on the current criteria and have included a response questionnaire where each criteria can be assessed against a series of questions.

We would appreciate that this document is returned by the 28th October to ensure that all comments can be fully considered within this process.

Information supplied will remain confidential and anonymous, and will be used by Joint Research Centre/IPTS and Oakdene Hollins in the upcoming process of identifying where changes are required to the scope of the product group and the individual criteria.

The draft criteria will be ready for discussion at the adhoc working group meeting on paints and varnishes in February 2012, which stakeholders will be invited to attend.

The questionnaire summarized in this table is sent to stakeholders with the aim to know their opinion and criteria that need to be changed, withdrawn or prolonged. The stakeholder's opinion is vital to know the main barriers that they find to comply with current criteria.

STAKEHOLDERS ARE KINDLY ASKED TO SEND THEIR FEEDBACK PER E-MAIL BY USING THE RESPECTIVE REPLY FORMAT DIRECTLY TO THE PROJECT TEAM:

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