Reference No: PCv2.2ii-2012 Issued: 09 July 2014

# **Good Environmental Choice Australia** Environmental Performance Standard

# **Paints and Coatings**

Issued by Good Environmental Choice Australia Ltd Suite G01, 15-17 Belvoir St, Surry Hills, NSW 2010 Phone: +61 (02) 9699 2850 Fax: +61 (02) 6287 3800 E-Mail: standards@geca.org.au





# USE OF GECA STANDARDS

This standard identifies environmental, quality, regulatory and social criteria that the top products sold in the Australian marketplace can meet in order to be recognised by GECA as "environmentally preferable".

This standard seeks to set the benchmark for environmentally preferable products. The Australian Ecolabel Program is based on the international standard ISO 14024: "Environmental Labels and Declarations - Guiding Principles" which requires environmental labelling specifications to include criteria that are objective, reasonable and verifiable.

This standard may be used by GECA-approved environmental assessors to verify whether a product fully conforms to the criteria set by this standard. Where a product is certified under the Australian Ecolabel Program, it may display the GECA ecolabel (the "Environmental Choice Australia Mark") to show that the product has been independently audited and demonstrates conformance with the environmental and social criteria detailed in this standard.

The purpose of voluntary environmental labels and declarations is the communication of verifiable and accurate information for the numerous environmental aspects of goods and services. As required by the Trade Practices Act the information cannot be misleading. Such information encourages the demand for, and supply of, those products that cause less harm to the environment, thereby stimulating the potential for market-driven continuous environmental improvement. Where a company has a product certified as conforming to this standard, it may gain a marketing advantage in government and business procurement programs, as well as greater market recognition in general because of its independently verified environmental attributes.

The principles of life cycle management have been used to set criteria to address relevant environmental loads typical in a product category. As such, this standard may also offer guidance for Australian producers to reduce the environmentally harmful impacts of their product(s). Producers may use the environmental criteria in this standard to design and refine the processing, manufacturing and delivery of their product(s). In addition producers may find other environmental issues and more measures along the product's life cycle, which are beyond the content of this standard. Producers are encouraged to include and adapt improvements in their environment programs and designs to aim for even better environmental results where technically possible. GECA welcomes feedback where this has been achieved.

While all GECA ecolabelling standards are voluntary, nevertheless they contain criteria that address compliance with specific laws. In addition, a GECA standard may recognise specific Australian Standards. A prerequisite for certification under the GECA ecolabel is to satisfy the relevant Australian or International Standard, where it is required by law. However, Australian Standards typically define "fit-for-purpose" criteria and usually do not provide assurance of environmental preferability. GECA ecolabelling standards go beyond Australian Standards and define an environmental benchmark for the product category.

For further information please contact:

Good Environmental Choice Australia Ltd Standards Division Phone: +61 (02) 9699 2850 E-mail: standards@geca.org.au

© Good Environmental Choice Australia Ltd 2014

All rights reserved. No part of this publication may be reproduced in any material form or transmitted to any other person without the prior written permission of Good Environmental Choice Australia except as permitted under the Copyright Act 1968 (as amended) or unless expressly permitted in writing by Good Environmental Choice Australia.

Good Environmental Choice Australia Ltd Suite G01, 15-17 Belvoir St, Surry Hills, NSW 2010



# CONTENTS

DOCUMENT HISTORY	5
HOW TO APPLY FOR GECA CERTIFICATION	5
STRUCTURE OF THE STANDARD	5
REQUESTING ADDITIONAL EVIDENCE	5
DEFINITIONS & ACRONYMS	6
BACKGROUND	8
STANDARD CATEGORY SCOPE	9
FITNESS FOR PURPOSE	10
Applicable Standards and Demonstrated Performance	10
MATERIAL REQUIREMENTS	11
Titanium Dioxide, Zinc Oxide and Lithopone Content	11
Glycol Ethers	12
Ozone Depleting Substances	12
Reflective Coatings	13
EMISSIONS	14
EMISSIONS	
	14
Volatile Organic Compounds	14 14
Volatile Organic Compounds Tints and Colorants	14 14 15
Volatile Organic Compounds Tints and Colorants Semi-Volatile Organic Compounds	14 14 15 15
Volatile Organic Compounds Tints and Colorants Semi-Volatile Organic Compounds Water Emissions	14 14 15 15 <b>16</b>
Volatile Organic Compounds Tints and Colorants Semi-Volatile Organic Compounds Water Emissions HAZARDOUS MATERIALS	14 14 15 15 <b>16</b> 16
Volatile Organic Compounds Tints and Colorants Semi-Volatile Organic Compounds Water Emissions HAZARDOUS MATERIALS Dangerous Goods	14 14 15 15 <b>16</b> 16
Volatile Organic Compounds Tints and Colorants Semi-Volatile Organic Compounds Water Emissions HAZARDOUS MATERIALS Dangerous Goods Hazardous Materials	14 14 15 15 16 16 16 17
Volatile Organic Compounds Tints and Colorants Semi-Volatile Organic Compounds Water Emissions HAZARDOUS MATERIALS Dangerous Goods Hazardous Materials Prohibited Substances	14 14 15 15 16 16 16 17 17
Volatile Organic Compounds Tints and Colorants Semi-Volatile Organic Compounds Water Emissions HAZARDOUS MATERIALS Dangerous Goods Hazardous Materials Prohibited Substances Heavy Metals	14 14 15 15 16 16 16 17 17 17 18
Volatile Organic Compounds Tints and Colorants Semi-Volatile Organic Compounds Water Emissions HAZARDOUS MATERIALS Dangerous Goods Hazardous Materials Prohibited Substances Heavy Metals Biocides	
Volatile Organic Compounds Tints and Colorants Semi-Volatile Organic Compounds Water Emissions HAZARDOUS MATERIALS Dangerous Goods Hazardous Materials Prohibited Substances Heavy Metals Biocides Production Safety	14 15 15 15 16 16 16 17 17 17 17 18 18 18



Waste Minimisation	20
Chemical Storage	20
ENVIRONMENTAL CLAIMS	21
SOCIAL AND LEGAL COMPLIANCE	22
Environmental Legislation	22
Fair Pay	22
Workplace Safety	22
Equal Opportunity	23
Lawful Conduct	23
EVIDENCE OF CONFORMANCE	24
Demonstration of Conformance (DoC)	24
APPENDIX A APPLICATION CHECKLIST	25



# **Paints and Coatings**

## **Document History**

Status: Version: Date Published:	Current PCv2.2ii-2012 09 July 2014	
Version	Date Published	Summary of Changes
1.1	January 2005	Summary of Changes
2.0	May 2012	Revision: Change of name from Architectural and Protective Coatings, to Paints and Coatings. Addition of DoCs; use of new pro-forma; new criteria added for dangerous goods, ozone depleting ingredients, waste management, hazardous materials, water emissions, solar reflectance, biocides and semi-volatile organic compounds.
2.1	June 2012	Amendment: Limit on biocides.
2.2	March 2013	Amendment: Wording of Criterion 17.
2.2i	December 2013	Update: Link in Criterion 19 and reference number change.
2.2ii	July 2014	Update: Wording and link(s) in Criterion 19; 'Acronyms and Definitions' section updated.

# How to Apply for GECA Certification

Manufacturers or service suppliers interested in GECA certification using the Environmental Choice Australia Ecolabel are encouraged to read carefully through the entire standard and to evaluate whether their products are likely to conform to the standard and to pass the assessment process.

To launch an application, please contact GECA by phone, email or via the GECA website (<u>www.geca.org.au</u>). The completed application form can be sent to GECA either by mail, fax or email.

After receiving the completed application form and the application fee, GECA refers the verification process to an appointed auditing body. The auditing body contacts the applicant and gives a clear overview of the steps needed to achieve certification for their particular product type.

# Structure of the Standard

Each section within this standard contains criteria and Demonstration of Conformance (DoC). The criteria state the requirements for the product and applicant company with respect to its environmental performance. The DoCs list the information required to verify compliance to the criteria. Selected sections also contain introductory text which outlines the purpose behind the criteria or the reason for its inclusion in the standard.

# **Requesting Additional Evidence**

Demonstration of Conformance items are listed for each criterion. The GECA approved auditor/s will request additional information to ensure conformance on a case by case basis. Hence, the conformance items listed below are considered a guide to the minimum Demonstration of Conformance items that will be required from the applicant company.



# **DEFINITIONS & ACRONYMS**

**ADG:** Australian Dangerous Goods.

**APEO:** Alkylphenol ethoxylate.

AS: Australian Standard.

**ASTM:** American Society for Testing and Materials.

**Benzene ring:** A 6-carbon ring with alternating double and single bonds, or a ring of 6 carbons in a 1.5 electronsharing arrangement.

**CAB:** Conformity Assessment Body as described by GECA's Scheme Rules. CABs are often referred to as 'auditors'.

**CAS:** Chemical Abstract Service. Unique CAS numbers are assigned to chemical compounds as a means of identification.

**COD:** Chemical Oxidation Demand. The equivalent mass of oxygen required to oxidise dissolved and suspended organic matter under defined conditions, typically using dichromate or permanganate as the oxidising agent.

**Dangerous goods:** Any product classifiable as dangerous according to NOHSC criteria or Code of Practice for Managing Risks of Hazardous Chemicals in the Workplace or Australian Dangerous Goods (ADG) Code, including classification as an Environmentally Hazardous Substance.

**Dematerialisation:** The reduction of material inputs to increase efficiency of resource use.

**Demonstration of Conformance (DoC):** Defines sources of evidence acceptable to GECA to demonstrate compliance with each criterion of the standard. An applicant manufacturer must provide documentation to the appointed auditing body in order to demonstrate conformance of its products under assessment. For further information on Demonstration of Conformance requirements see *Appendix A - Evidence of Conformance* at the end of this standard.

EMS: Environmental Management System.

EPA: Environment Protection Agency

GECA: Good Environmental Choice Australia Ltd.

**GECA Mark:** The Environmental Choice Australia Mark, the mark awarded to applicants complying with GECA ecolabelling standards after assessment by a GECA appointed auditing body.

GEN: Global Ecolabelling Network.

Halogen: Any elements in Group 17 on the periodic table (previously Group VIIA). Halogens include fluorine, chlorine, bromine and iodine.

Halogenated organic substances / compounds: A substance containing one or more halogens and one or more carbons.

**IARC:** International Agency for Research on Cancer.

**Ingredient:** Any constituent of a product that is intentionally added (in form of a substance, preparation or mixture) or known to be a contaminant above 0.01%.

ISO: International Organization for Standardization. See http://www.iso.org

Label: the Environmental Choice Australia Mark.

**OECD:** Organisation for Economic Co-operation and Development.

Organic compound: Carbon compounds other than simple salts such as carbonates, oxides and carbides.



**Producer / Manufacturer:** For the purpose of this standard these terms comprise both manufacturers of a product as well as service suppliers. These may not necessary be the companies that apply for GECA certification, since certification can also be awarded to retailers of a product. However, for some criteria it is required that the original manufacturer of the product conforms to particular requirements.

**SDS:** Safety Data Sheet (formally Material Safety Data Sheet – MSDS). To qualify as suitable, the SDS and information therein must not be more than 5-years old.

**Solvent:** A general term for a chemically diverse range of, usually, liquid phase substances which dissolve other materials. For the purposes of this standard, water is not considered a solvent.

**SVOC:** Semi-Volatile Organic Compound. A compound with a boiling point between 250°C to 400°C, measured at 101.3 kPa.

**VAH:** Volatile Aromatic Hydrocarbon. Any hydrocarbon compound containing at least one benzene ring in its molecular structure with a boiling point equal to or less than 250°C measured at 101.3 kPa.

**VOC:** Volatile Organic Compound. Any organic compound (compound which contains carbon) with either a boiling point below 250°C measured at 101.3kPa or a vapour pressure of more than 0.1mm Hg measured at 21°C.



# BACKGROUND

A GECA product standard sets limits for the most material environmental loads attributable to goods and / or services throughout their life cycle. This particular standard seeks to set an environmental benchmark for paints and coatings products. The scope is intended to cover paint and coating products sold in the Australian market. The criteria are used for environmental labelling, implemented by Good Environmental Choice Australia (GECA) as part of the Australian Ecolabelling program. This Standard is voluntary, and after verification, enables certified products to display an environmental label (ecolabel) as implemented by GECA to show it is environmentally preferable.



# STANDARD CATEGORY SCOPE

The scope of this standard is applicable to the following types of paints in the product categories:

- Interior architectural paints;
- Exterior architectural paints;
- Other water based coatings; and
- Student and artists paints.

Other environmentally innovative paints or coatings that do not directly fit into the above types may be considered for certification provided the product fulfils the requirements of relevant sections of this standard. Other types of products may be added to the scope at a later date.

#### **Exclusions and Notes**

Solvent-based coatings are not eligible for application under this standard.

This standard excludes face paint, finger paint, nail polish, body paint and any other product intended to be applied to a person or animal.

#### Demonstration of Conformance

• A brief description of the product(s) or product range as they apply to the scope of this standard.



# **FITNESS FOR PURPOSE**

To be certified, the product(s) must be fit to perform its intended purpose or application. A minimum level of quality and durability is implicit before the GECA ecolabel can be displayed on the product. The producer / manufacturer must ensure that the product is fit for its intended purpose.

## Applicable Standards and Demonstrated Performance

**Criterion 1:** The product must meet the performance requirements of the relevant Australian Standards for its intended application, or be tested to relevant ASTM performance standards.

#### Demonstration of Conformance

**DoC 1.1:** Test reports for all relevant quality and performance tests.



# MATERIAL REQUIREMENTS

The criteria in this section are intended to address impacts that may occur over the life cycle of a product that can be avoided or mitigated during the design phase of product development.

Unless otherwise stated, the requirements in this section apply to each type of material contained in the finished product regardless of weight.

## Titanium Dioxide, Zinc Oxide and Lithopone Content

The production of these chemicals can involve large amounts of energy or produce large quantities of waste. Limiting the use of energy-intensive products reduces the overall environmental load of the product.

**Criterion 2:** The level of titanium dioxide (including CAS 13463-67-7, 1317-70-0, 12065-65-5), zinc oxide (CAS 1314-13-2) or lithopone (CAS 1345 05-7) must not exceed the following limits.

Interior paints and exterior coatings other than long-life	30g/m <sup>2</sup> dry film as applied
Primers, sealers and undercoats	30g/m <sup>2</sup> dry film as applied
Long life exterior coating*	40g/m <sup>2</sup> dry film as applied
Heat reflective long life coating	50g/m <sup>2</sup> dry film as applied
Other coatings	30g/m <sup>2</sup> dry film as applied

\*Long life (durable) exterior coatings are those that are covered by a warranty of at least 10-years.

This criterion applies to architectural coatings including those applied to walls and ceilings. This criterion does not apply to student and artist paints.

#### **Demonstration of Conformance**

**DoC 2.1:** Documentation showing the weight of titanium dioxide, zinc oxide and lithopone per litre of paint. Reporting a range is acceptable; and

**DoC 2.2:** The coverage (m<sup>2</sup>) per litre of paint and application instructions indicating the number of coats. Reporting a range is acceptable.



## **Glycol Ethers**

While some glycol ethers are relatively inert, many have been identified as harmful for human health.

**Criterion 3:** The product must not contain or be manufactured with any harmful or potentially harmful glycol ethers, including but not restricted to those listed below.

CAS	Chemical name
107-21-1	Ethylene glycol
109-59-1	2-isopropoxyethanol
109-86-4	Ethylene glycol methyl ether
110-49-6	2-Methoxyethyl acetate
110-71-4	Ethylene glycol dimethyl ether
110-80-5	Ethylene glycol ethyl ether
111-15-9	Ethylene acetate glycol ethyl ether
111-76-2	Ethylene glycol butyl ether
111-77-3	2-(2-Methoxyethoxy) ethanol
111-96-6	Diethylene glycol dimethyl ether
112-07-2	2-butoxyethyl acetate
112-25-4	2-hexyloxyethanol
112-36-7	Diethylene glycol diethyl ether
112-49-2	Triethylene glycol dimethyl ether
122-99-6	2-phenoxyethanol

Glycol ethers not listed here may still be restricted by the Hazardous Materials section of this standard.

#### Demonstration of Conformance

**DoC 3.1:** A full ingredients list for each product; and

**DoC 3.2:** A signed declaration confirming that the ingredients list is complete and none of the listed glycol ethers or other harmful glycol ethers are used.

#### **Ozone Depleting Substances**

Ozone depletion is a significant environmental concern. Although ozone depleting substances have largely been phased out in most countries, some substances have not yet been banned.

**Criterion 4:** The product must not contain any substances listed in the Montreal Protocol Annexes A, B, C or E including CFCs, HCFCs, hydrobromofluorocarbons, halons, methyl bromide, carbon tetrachloride, 1,1,1-trichloroethane (methyl chloroform) and bromochloromethane.

**Criterion 5:** Substances used to clean production equipment must have an ozone depletion potential of zero, and must not be listed in the Montreal Protocol Annexes A, B, C or E.

#### Demonstration of Conformance (for Criteria 4 and 5)

**DoC 5.1:** List of all ingredients;

DoC 5.2: Signed statement of all substances used in the cleaning of production equipment; and

**DoC 5.3:** SDS, chemical names and/or CAS numbers for each ingredient and cleaning substance.

Substances used will be checked against Annexures A, B, C and E of the Montreal Protocol: http://www.unep.org/ozone/issues.shtml



## **Reflective Coatings**

Reflective coatings help to reduce the external surface temperature of the building, and hence reduce radiant heat transfer. This helps lower the energy consumption associated with cooling and when used en-mass may help mitigate the intensity of urban heat islands.

**Criterion 6:** If the applicant or manufacturer makes claims that the product possesses solar reflectance, solar absorbance or thermal emittance properties, these claims must be supported by an independent test report. Accepted test methods include:

- ASTM C1549 Standard Test Method for Determination of Solar Reflectance Near Ambient Temperature Using a Portable Solar Reflectometer;
- ASTM E1918 Standard Test Method for Measuring Solar Reflectance of Horizontal and Low-Sloped Surfaces in the Field; or
- ASTM C1371 Standard Test Method for Determination of Emittance of Materials Near Room Temperature Using Portable Emissometers.

#### **Demonstration of Conformance**

**DoC 6.1:** Declaration that no solar reflectance, solar absorbance or thermal emittance claims are made, signed by an Executive Officer of the applicant company. This declaration is to be supported by copies of relevant labelling and marketing material;

Or

DoC 6.2: Copies of relevant test results in accordance with accepted test methods.



## **EMISSIONS**

## Volatile Organic Compounds

Volatile organic compounds (VOC) may contribute to air pollution and poor indoor air quality. Paints with low VOC content will help lower VOC emissions, thereby reducing environmental pollution.

**Criterion 7:** The total content of volatile organic compounds in the product must not exceed those stated in the following table. These amounts include water, but not tints or colorants.

#### Maximum VOC content for base or untinted products

Coating Type	VOC limits g/L	
	Interior Coatings	Exterior Coatings
Ceiling	5	N/A
Wall – flat and low sheen	5	10
Wall – gloss, semi-gloss and satin	5	15
Trim	75	75
Fillers and primers	30	30
Sealers and undercoats	30	30
Stains and varnishes	75	75
Durable external topcoats* – flat and low sheen	-	45
Durable external topcoats* – gloss, semi-gloss and satin	-	60
Powder coatings	10	10

\*Durable coatings are those with a warranty of at least 10-years.

Any coating that does not fit into the categories outlined in the table above must not have a VOC content greater than 5 g/L.

Where a coating may fit into more than one category (e.g. sealer-primer) it must comply with the category with the lower VOC limit (e.g. sealer). Exception: durable coatings may comply with only the durable topcoat limits provided they meet warranty criteria as stated above.

Where a coating may be used for interior or exterior use, it must comply with the interior VOC limit.

#### Demonstration of Conformance

**DoC 7.1:** Full formulation details showing the weight of each ingredient in g/L and the physical properties and chemical formula of each ingredient. All ingredients qualifying as VOCs according to the definition in this standard will contribute to this calculation.

## Tints and Colorants

Although not considered in the VOC calculation above, the VOC content of tints and colorants can contribute to overall VOC burden of a product.

Criterion 8: Any tints or colorants to be used with the product must have a VOC limit below 5 g/L.

#### **Demonstration of Conformance**

**DoC 8.1:** A signed declaration from an Executive Officer of the manufacturing company declaring the maximum VOC content of the tints or colorants, supported by technical documentation.



## Semi-Volatile Organic Compounds

Semi-volatile organic compounds (SVOCs) may off-gas for a longer period than VOCs.

**Criterion 9:** The manufacturer must monitor and report on the use of semi-volatile organic compounds used in the product at the time of certification and every 12-months thereafter. Reporting must identify the SVOCs used and the weight of each used per weight of product.

#### Demonstration of Conformance

DoC 9.1: Report on the content of SVOCs contained in the product as a portion of the base paint or final product.

#### Water Emissions

Improperly managed water emissions can have harmful effects to the receiving environment.

Criterion 10: Water emissions from the manufacturing site must not be damaging to the receiving environment.

Manufacturers must report the amount and destination of all water emissions resulting from the manufacturing process.

#### **Demonstration of Conformance**

**DoC 10.1:** Declaration of the destination of effluent (e.g. sewer), the volume discharged and the frequency of discharge.



# HAZARDOUS MATERIALS

The criteria in this section are intended to address some of the main hazardous substances found across this product category which may be added to the final product or to product ingredients during manufacturing. The intention is to reduce the use of hazardous materials and to prevent pollutants entering the environment and to protect human health.

## **Dangerous Goods**

Products classifiable as Dangerous Goods present a risk to anyone handling or using the product.

**Criterion 11:** The product as used must not be classifiable as hazardous according to National Occupational Health and Safety (NOHSC) or Safe Work Australia (SWA) / Workplace Health and Safety (WHS) criteria.

The product as supplied and as used must not be classifiable as dangerous according to NOHSC criteria or Code of Practice for Managing Risks of Hazardous Chemicals in the Workplace or Australian Dangerous Goods (ADG) Code, including classification as an Environmentally Hazardous Substance. This includes substances with a potentially corrosive pH (below 2 and above 11.5) and substances carrying R34 or R35.

#### **Demonstration of Conformance**

**DoC 11.1:** Product SDS showing all hazard identification including dangerous goods classifications and relevant supporting documentation.

**DoC 11.2:** If available, any documentation supporting the product's classification as hazardous / non-hazardous or dangerous / not dangerous according to NOHSC, SWA / WHS or ADG criteria.

#### **Hazardous Materials**

The use of harmful chemicals can affect the health of manufacturing staff and users of the finished product as well as negatively impact the environment.

**Criterion 12:** The products as a whole must not carry any of the following classifications:

- Harmful, toxic or very toxic R20, 21, 22, 23, 24, 25, 26, 27, 28 or 29; or
- Sensitiser R42 or 43.

Criterion 13: Ingredients used in the product must not carry any of the following risk phrases or classifications:

- Dangerous R33, 39 or 48; or
- Carcinogens/Mutagens R40, 45, 46, 49 or substances classified by the International Agency for Research on Cancer in Groups 1\* or 2A.

\*Ethanol is classed by IARC as a Group 1 carcinogen only in the context of alcoholic beverages. This ruling is not considered relevant to the product category covered by this standard. Therefore, ethanol as used in paints and coatings will not be considered carcinogenic based on the IARC classification. This exception will not be extended to other chemicals.

**Criterion 14:** The product must not contain more than 1% by weight of any substances carrying the following risk phrases:

Reproductive toxins/endocrine disruptors – R60, 61, 62 or 63.

**Criterion 15:** The product must not contain more than 5% by weight of any substances carrying the following risk phrases:



Environmental hazards – R50, 51, 52, 53, 54, 55, 56, 57, 58 or 59

To check chemical substances for R phrase or IARC classifications, see:

- http://hsis.ascc.gov.au/risk\_phrases.htm; or
- http://monographs.iarc.fr/ENG/Classification/ClassificationsAlphaOrder.pdf

#### Demonstration of Conformance (for Criteria 12 to 15)

**DoC 15.1:** Full ingredients list and SDS of each ingredient.

## **Prohibited Substances**

Prohibited substances can have detrimental effects to the health of manufacturing staff and users of the finished product as well as the health of the environment.

**Criterion 16:** The product must not contain or be manufactured using:

- Formaldehyde, formaldehyde donors and aldehydes;
- Phthalates;
- Isoaliphates;
- 1,3 butadiene;
- Bisphenol A;
- Toluene and toluene compounds;
- Crystalline quartz silica (CAS 14808-60-7) \*\*; or
- Alkylphenolic compounds including alkylphenol ethoxylates and alkylphenol alkoxylates.

\*\* Crystalline quartz silica is a prohibited compound and shall not be intentionally added to the product as an ingredient. This restriction does not extend to contamination of raw materials such as calcium carbonate.

#### Demonstration of Conformance

DoC 16.1: Full ingredients list for each product and SDS for each ingredient.

**Criterion 17:** Halogens, halogenated compounds and volatile aromatic hydrocarbons must not be used except as preservatives or biocides.

Halogens, halogenated compounds and volatile aromatic compounds may only be used as preservatives or biocides if the substance(s) complies with Criterion 19: Biocides.

#### Demonstration of Conformance

**DoC 17.1:** Full ingredients list for each product and SDS for each ingredient.

#### Heavy Metals

Certain heavy metals are toxic to humans and the environment.

**Criterion 18:** The product must not contain or be manufactured using toxic heavy metals and their compounds, or ingredients containing heavy metals and their compounds, including lead (Pb), cadmium (Cd), mercury (Hg), chromium (Cr), arsenic (As), selenium (Se) and cobalt (Co).

Barium must not be used, except in the form of barium sulphate. Barium sulphate is only permissible at concentrations below 20% by weight.



#### **Demonstration of Conformance**

**DoC 18.1:** Full ingredients list for each product and SDS for each ingredient.

## Biocides

Although valuable, certain biocides are harmful to human and environmental health.

Criterion 19: The product must only contain substances which are:

- authorised under Directive 98/8/EC of the European Parliament and of the Council and Regulation (EC) No 528/2012 of the European Parliament and of the Council for the applicable product type (see http://ec.europa.eu/environment/chemicals/biocides/active-substances/approved-substances\_en.htm); or
- substances for which a dossier has been submitted for evaluation for the applicable product type pending a
  decision on authorisation or non-inclusion (see
  http://echa.europa.eu/documents/10162/17287015/active\_substance\_suppliers\_en.pdf). These substances may
  be used in the interim period up until the adoption of the Decision.

The concentration of isothiazolones must not exceed 500 ppm for interior paints and 750 ppm for exterior paints.

#### **Demonstration of Conformance**

**DoC 19.1:** Full ingredients list for each product and SDS for each ingredient. Note: the product will be assessed against the version of lists/documents mentioned above that are considered current at the time of assessment.

## **Production Safety**

**Criterion 20:** The manufacturer must demonstrate that they have suitable procedures in place to protect staff from exposure to hazardous substances. This may include the elimination or substitution of hazardous substances, the use of engineering controls, or the supply and use of protective equipment.

#### Demonstration of Conformance

**DoC 20.1:** Inspection at site audit; and

**DoC 20.2:** Copies of documentation detailing chemical use, engineering controls, safety manuals, protective equipment maintenance reports and / or evidence of employee training as applicable.



# DESIGN FOR ENVIRONMENT

## **Product Information**

Product information allows customers to use products in a responsible and sustainable manner.

Criterion 21: Suitable information must be supplied with the product or made available to the public.

Information that must be shown on the label includes:

- Instructions for preparation, application and care of the product;
- An instruction for users to read the SDS; and
- Storage and disposal instructions.
- Information that must be available to the public includes:
- Material safety data sheet;
- Technical data sheets or product data sheets;
- Coverage area per litre of paint when applied as directed (e.g. in 2 coats) so that the required volume may be calculated;
- Environmentally responsible use and disposal instructions; and
- Information regarding solar reflectance, solar absorbance and thermal emittance if required by criterion 7.

Information will be considered publicly available if it is supplied with all products or available on the company website and the information provided to customers or the product label directs users to that website.

**Criterion 22:** The manufacturer must not specify or recommend the use of any chemical or cleaning product that would be restricted by any part of this standard. This includes:

- Products used to clean paint from brushes, rollers and other application equipment;
- Products for preparing surfaces; and
- Products for cleaning painted surfaces.

#### Demonstration of Conformance (for Criteria 21 and 22)

**DoC 22.1:** Copy of labels, care instructions and other information provided with the product.

DoC 22.2: A current material safety data sheet for each product, and

DoC 22.3: Technical data sheets, web pages and any other information freely available to customers or the public.

## Packaging

Criterion 23: Packaging must not be halogenated.

#### **Demonstration of Conformance**

**DoC 23.1:** Information regarding composition of packaging materials including chemical names, CAS numbers, technical data sheets or SDS where applicable.



Criterion 24: Plastic packaging over 10g in weight must be marked with a plastics identification code.

#### **Demonstration of Conformance**

**DoC 24.1:** Visual inspection of each plastic component of the packaging. If claiming an exemption for small components, the applicant must provide samples to be weighed or a declaration listing the weights of each individual component.

#### Waste Minimisation

Reducing total waste reduces the generation of hazardous waste, encourages reduced consumption of resources through dematerialisation and increases production efficiency.

Criterion 25: The manufacturer must have effective policies and procedures in place, including:

- Waste minimisation policies and procedures to reduce the amount of waste generated;
- Waste recovery procedures to capture and reuse as much waste as is practical;
- Efficient use of resources through dematerialisation; and
- Energy conservation through minimised energy consumption.

The applicant must demonstrate that at least 97% of material inputs (i.e. ingredients) result in saleable product. This will be calculated by weight of the paint or coating product, excluding packaging. The waste production rate (<3%) does not include any waste material that is reused by the manufacturer to create saleable product. The waste production rate may be calculated as an annual average.

#### Demonstration of Conformance

**DoC 25.1:** Documentation of all material flows including inputs, processes and outputs: including weight of ingredients and weight of resultant product, details of manufacturing processes, and waste recapture methods; and

**DoC 25.2:** Reporting on energy use and sourcing, including electricity bills or consumption reporting and the type or origin of energy used.

#### **Chemical Storage**

Improper storage of chemicals can lead to environmental harm via leaks, spills and emissions to water and air.

**Criterion 26:** The manufacturer must properly store chemicals including ingredients and the finished product, in a manner which minimises risk of harm to the environment through leaks, spills and emissions to water or air.

#### Demonstration of Conformance

**DoC 26.1:** Chemical storage will be inspected at a site visit conducted by a GECA approved CAB (auditor); and

**DoC 26.2:** Copies of storage handling requirements and procedures for control and remediation of chemical spills. This may be included in and EMS whether ISO 14001 certified or not.



# ENVIRONMENTAL CLAIMS

Environmental claims are one of the tools utilised by consumers when attempting to make environmentally preferable choices and therefore it is essential that such claims are true and substantiated.

**Criterion 27:** Any environmental claims beyond the scope of this Standard that have been applied to a product must comply with ISO 14021, and the applicant must be able to verify these claims to GECA.

Any product making greenhouse related claims must comply with ISO 14064-3 "Specification with guidance for the validation and verification of greenhouse gas assertions" and be able to verify these claims to GECA.

For claims outside the scope of ISO 14021 or ISO 14064, clear statement of the test method and the conditions under which the product was tested is required, along with a clear explanation of the relevance of the test method to the environmental claim.

The applicant or manufacturer must not claim that the product is 'odour free', 'low odour', 'no odour' or similar if odour-masking agents are used.

#### **Demonstration of Conformance**

DoC 27.1: A copy of any relevant advertising material currently in use; and

**DoC 27.2:** Relevant documentation confirming the grounds of the claim and its compliance with this criterion.



# SOCIAL AND LEGAL COMPLIANCE

This section addresses compliance with law and the societal attributes of the manufacturer and the applicant company. Criteria for social aspects of the product are required under the international standard on ecolabelling (ISO 14024), and this section is common to all GECA standards. Equivalent sections are included in standards of all other GEN member ecolabelling bodies around the world. The social aspect partially addresses the third dimension of sustainability - Society. This was first understood by manufacturers under the name Corporate Social Responsibility (CSR). In this standard social criteria include laws for equal opportunity, safety and protection of workers. GECA certification cannot be given to any company that illegally exploits workers or their families.

## **Environmental Legislation**

**Criterion 28:** The manufacturer of the product and applicant company are required by law to comply with relevant environmental legislation and government orders at the Local, State and Commonwealth levels (if these have been issued). Where a manufacturer is from an overseas jurisdiction, it is that jurisdiction's environmental regulations that apply. Where the manufacturer has been found guilty of a breach of any environmental legislation or permit(s) within the last 2-years there must be evidence of corrective action.

#### Demonstration of Conformance

**DoC 28.1:** Signed declaration from an Executive Officer of the organisation stating compliance to environmental legislation and government orders; as well as declaration of any breaches of environmental legislation or permits and the date of the breach. Applicants must list all applicable legislation in, or as an attachment to, this declaration;

**DoC 28.2:** Any relevant permits granted by the EPA or an equivalent national body; and

**DoC 28.3:** Evidence of corrective action following a guilty verdict, if applicable.

## Fair Pay

**Criterion 29:** All employees must be covered by a Federal or State award; a certified industrial agreement or a registered agreement as determined by the Australian Government Workplace Authority, or a State or Territory Workplace Relations Agency; or a workplace agreement in compliance with Workplace Relations Act 1996 Part 7 - The Australian Fair Pay and Conditions Standard. Where a manufacturer is from an overseas jurisdiction, it is that jurisdiction's equivalent regulations that apply.

#### Demonstration of Conformance

**DoC 29.1:** Signed declaration of compliance from an Executive Officer of the organisation;

DoC 29.2: Text or template of a typical workplace agreement offered to employees of the company; and

**DoC 29.3:** Sample payslips.

## Workplace Safety

**Criterion 30:** A manufacturer / applicant company must demonstrate general compliance with State or Territory Legislation concerning Occupational and Workplace Health and Safety and / or the Commonwealth Safety, Rehabilitation and Compensation Act 1988, where applicable. Where a manufacturer is from an overseas jurisdiction, it is that jurisdiction's equivalent regulations that apply. Where a manufacturer / applicant company has been found guilty of a breach of relevant legislation within the last 2-years, there must be evidence of corrective action.



#### **Demonstration of Conformance**

**DoC 30.1:** Signed declaration from an Executive Officer of the organisation stating compliance to workplace legislation and government orders, as well as declaration of any breaches of legislation and the date of the breach. Applicants must list all applicable legislation in, or as an attachment to, this declaration;

DoC 30.2: Copy of the company Occupational / Workplace H&S policy and procedures; and

**DoC 30.3:** Evidence of corrective action following a guilty verdict, if applicable.

## **Equal Opportunity**

**Criterion 31:** The manufacturer and / or applicant company must demonstrate general compliance with the requirements of the Racial Discrimination Act 1975, Sex Discrimination Act 1984, Disability Discrimination Act 1992, Equal Opportunity for Women in the Workplace Act 1999 and complementary State Legislation. The manufacturer cannot be in the list of 'named' or non-compliant employers under the Equal Opportunity for Women in the Workplace Act 1999. Where a manufacturer / applicant company is from an overseas jurisdiction, it is that jurisdiction's equivalent regulations that apply. Where a manufacturer has been found guilty of a breach of relevant legislation within the last 2-years, there must be evidence of corrective action.

#### Demonstration of Conformance

**DoC 31.1:** Signed declaration of compliance from an Executive Officer of the organisation;

DoC 31.2: Copy of relevant company policies and procedures;

DoC 31.3: Evidence of corrective action following a guilty verdict, if applicable; and

**DoC 31.4:** The assessor will verify that the company does not appear on the following list: <u>http://www.eowa.gov.au/Reporting\_And\_Compliance/What\_Happens\_if\_my\_Report\_does\_not\_Comply/List\_of\_Non\_Compliant\_Organisations.asp</u>

## Lawful Conduct

**Criterion 32:** The manufacturer / applicant company must not have been convicted of any breach of criminal law, any breach of the Trade Practices Act 1974 or the Corporations Act 2001, including prosecution or de-listing by the Australian Stock Exchange (ASX) or international equivalent. Where a manufacturer is from an overseas jurisdiction, it is that jurisdiction's equivalent regulations that apply. Where a manufacturer has been found guilty of a breach of relevant legislation within the last 2-years, there must be evidence of corrective action.

#### Demonstration of Conformance

**DoC 32.1:** Signed declaration from an Executive Officer of the organisation; and

**DoC 32.2:** Evidence of corrective action following a guilty verdict, if applicable.



# EVIDENCE OF CONFORMANCE

## Demonstration of Conformance (DoC)

This section lists the sources of evidence which may be considered during an audit to establish conformance against GECA's standards. This list is provided in order to guide the applicant manufacturer through the requirements of the standard and to facilitate the preparation of an application.

The DoC requirements as specified, along with each criterion in the standard, define specific sources of evidence acceptable to GECA. In cases where criteria offer several DoC requirements, it is the sole decision of the appointed auditing body to choose the appropriate option in the preliminary stage of the assessment. Where specific standards or test methods are required, it is intended that the most recent version of the applicable standard or method are used. If none of the recommended DoC requirements stipulated for a particular criterion in the standard is applicable for a product under assessment, then the appointed auditing body may choose an alternative but equivalent source of evidence. In cases where alternative sources of evidence are accepted for the verification of the product, the auditing body will inform GECA by providing a report on the details as far as appropriate. GECA will use this information to continuously improve the DoC requirements stipulated by each standard.

The DoC requirements are summarised in Appendix A to assist applicants in preparing documentation for the verification process with a GECA Designated Auditor.



# APPENDIX A APPLICATION CHECKLIST

The Application Checklist is intended to guide the applicant company through the application and verification process. The company may collect all information that is required for the verification of the product and attach the relevant documents to their application. The table below summarises the DoC requirements for each criterion in the standard.

Criterion Number	Criterion Content	Demonstration of Conformance	Evidence Attached	Complies
		See standard body for details	Allacheu	Y/ N or NA
Fitness For P	urpose			
Criterion 1	Applicable standards and demonstrated performance	Test reports for all relevant quality and performance tests.		
Titanium Diox	kide, Zinc Oxide and Lithopone Co	ntent	•	•
Criterion 2	Limits on titanium dioxide, zinc	Documentation showing weight/L paint.		
	oxide and lithopone content	Coverage and application instructions.		
Glycol Ethers				
Criterion 3 Banned glycol ethers	Banned glycol ethers	Statement of conformance signed by CEO.		
		Full ingredients list.		
Ozone Deplet	ing Substances			
Criterion 4	Banned substances	List of all ingredients.		
Criterion 5	Cleaning substances	SDS, chemical names and/or CAS numbers for each ingredient and cleaning substance.		
		Statement of conformance of all cleaning substances signed by CEO.		-
Reflective Coa	atings			
Criterion 6 Solar reflectance claims and testing		Declaration of no solar reflectance claims, signed by CEO, or		
		Copies of relevant test results in accordance with accepted test methods.		
Volatile Organ	nic Compounds			
Criterion 7	VOC limits	Formulation details showing ingredients in g/L, with physical properties and chemical formula.		
Tints and Col	orants	1	<b>I</b>	
Criterion 8	VOC limit	Statement of conformance signed by CEO.		
		Documentation showing VOC content.		
Semi-Volatile	Organic Compounds			



Criterion	Criterion Content	Demonstration of Conformance	Evidence	Complies
Number		See standard body for details	Attached	Y/ N or NA
Criterion 9	Monitoring of SVOCs	Report on content of SVOCs.		
Water Emissio	ons			
Criterion 10	Damaging water emissions	Declaration of effluent destination, volume discharged and frequency.	T	
Hazardous Ma	terials			
Criterion 11	Dangerous goods	SDS and supporting documentation.		
Criterion 12	R phrases restricted for product	Full ingredients list and SDS for each ingredient.	T	
Criterion 13	R phrases restricted for ingredients			
Criterion 14	Endocrine disruptors	1		
Criterion 15	Environmental hazards	1		
Prohibited Su	bstances	•		
Criterion 16	Banned substances	Full ingredients list and SDS for each ingredient.		
Criterion 17	Halogens, halogenated compounds and volatile aromatic hydrocarbons	Full ingredients list and SDS for each ingredient.		
Heavy Metals	·	·		
Criterion 18	Heavy metal restrictions	Full ingredients list and SDS for each ingredient.		
Biocides				
Criterion 19	Biocidal substances	Full ingredients list and SDS for each ingredient.	Τ	
Production Sa	ifety			
Criterion 20	Staff exposure	Site inspection.	Т	
		Copies of safety manual, protective equipment reports and/or training records.	T	
Product Inform	nation		1	
Criterion 21	Information available to public	Copy of labels and care instructions.	Т	
Criterion 22	Cleaning product	Information available to public.	†	
	recommendations	SDS for each product.		
Packaging				

## Good Environmental Choice Australia Standard



Criterion Number	Criterion Content	Demonstration of Conformance See standard body for details	vidence ttached	Complies Y/ N or NA
Criterion 23	Halogenation	Information on packaging, including chemical names, CAS numbers or SDS.		
Criterion 24	Plastic packaging	Visual inspection of packaging.	+	
Waste Minimis	sation	1		
Criterion 25	Waste minimisation policies	Documentation of material flows.	Г	
	and procedures	Reports on energy use and sourcing.		
Chemical Stor	age			
Criterion 26	Chemical storage	Site inspection.	Γ	
		Copies of handling requirements and procedures for control of spills.		
Environmenta	l Claims	·		
Criterion 27	Public claims made by	Copy of relevant advertising material.	T	
	applicant	Documentation confirming claims.		
Environmenta	I Legislation	•		
Criterion 28 Applicable environmental legislation and government orders	legislation and government	Statement of conformance signed by CEO, with declaration of breaches and applicable legislation.	Γ	
		Applicable permits granted by EPA.	† –	
		Evidence of corrective action (if applicable).	† –	
Fair Pay				
Criterion 29	Coverage of employees under certified agreements	Statement of conformance signed by CEO.	Γ	
		Sample workplace agreement.		
		Sample payslips.	Ť	
Workplace Sa	fety			•
Criterion 30	Compliance with state or	Statement of conformance signed by CEO.	Γ	
territory	territory legislation	Copy of Occupational and Workplace H&S policies and procedures.		
		Evidence of corrective action (if applicable).	Ť	



Equal Opport	unity		
	Compliance with Racial	Statement of conformance signed by CEO.	
	Discrimination Act, Sex Discrimination Act, Disability Discrimination Act, Equal Opportunity for Women in the	Copy of relevant policies and procedures.	
		Evidence of corrective action (if applicable).	
Workplace Act and complementary State Legislation and Regulations.	Does not appear on list of non-compliant organisations.		
Lawful Condu	ct		
Criterion 32 No breaches of Trade Practices Act or Corporations Act.		Statement of conformance signed by CEO.	
	Evidence of corrective action (if applicable).		

© Copyright 2012 Good Environmental Choice Ltd ABN 27 118 766 153