



The New Zealand Ecolabelling Trust

Licence Criteria for Paints

EC-07-13

The New Zealand Ecolabelling Trust
PO Box 56533
Dominion Road
Mt Eden
Auckland
New Zealand

Ph: +64 9 845 3330
Fax: +64 9 845 3331
Email: info@enviro-choice.org.nz
Website: www.enviro-choice.org.nz

These criteria have been prepared specifically for the New Zealand Ecolabelling Trust as part of the Environmental Choice New Zealand programme's life cycle approach and its principles and procedures for developing licence criteria for specific product categories. The New Zealand Ecolabelling Trust accepts no responsibility for any use by any party of information in the document in any other context or for any other purpose.

Specification change history

Minor clarifications, corrections or technical changes made since the specification was last reviewed and issued in June 2013.

Date	Version	Change
05/08/15	EC-07-15 August 2015	Update of Clause 5.6b (cardboard packaging) The requirement has been updated to align with the revised criteria in EC-10-14 Packaging and Paperboard Products and is consistent with cardboard packaging requirements across all relevant ECNZ specifications.

These criteria have been prepared specifically for the New Zealand Ecolabelling Trust as part of the Environmental Choice New Zealand programme's life cycle approach and its principles and procedures for developing licence criteria for specific product categories. The New Zealand Ecolabelling Trust accepts no responsibility for any use by any party of information in the document in any other context or for any other purpose.

Table of contents

1	Introduction	4
2	Background	5
3	Interpretation	7
4	Category definition	8
5	Environmental criteria	9
5.1	Legal requirements	9
5.2	Raw materials	10
5.2.1	Hazardous substances	10
5.2.2	Metals and metal compounds	11
5.2.3	Solvents	11
5.2.4	Crystalline silica	12
5.2.5	Titanium dioxide (TiO ₂)	12
5.2.6	Nanotechnology	13
5.3	Formulated paint	14
5.3.1	Volatile organic compounds	14
5.3.2	Hazard classification	15
5.4	Waste management	15
5.5	Energy management	16
5.6	Packaging requirements	16
5.7	User information	18
5.8	Product stewardship	18
6	Product characteristics	19
7	Requirements and notes for Licence Holders	20
Appendix A	Hazardous Substances Classifications	
Appendix B	Explanatory notes for types of claims that can be used to demonstrate compliance with the criteria set in 5.6b).	

These criteria have been prepared specifically for the New Zealand Ecolabelling Trust as part of the Environmental Choice New Zealand programme's life cycle approach and its principles and procedures for developing licence criteria for specific product categories. The New Zealand Ecolabelling Trust accepts no responsibility for any use by any party of information in the document in any other context or for any other purpose.

1 Introduction

Environmental Choice New Zealand (ECNZ) is an environmental labelling programme which has been created to help businesses and consumers find products and services that ease the burden on the environment. The programme results from a New Zealand Government initiative and has been established to improve the quality of the environment by minimising the adverse and maximising the beneficial environmental impacts generated by the production, distribution, use and disposal of products, and the delivery of services. The programme is managed by the New Zealand Ecolabelling Trust (The Trust).

ECNZ operates to the ISO 14024:1999 standard "Environmental labels and declarations – Type I environmental labelling – Principles and procedures" and The Trust is a member of the Global Ecolabelling Network (GEN) an international network of national programmes also operating to the ISO 14024 standard.

ISO 14024 requires environmental labelling specifications to include criteria that are objective, attainable and verifiable. It requires that interested parties have an opportunity to participate and have their comments considered. It also requires that environmental criteria be set, based on an evaluation of the environmental impacts during the actual product or service life cycle, to differentiate product and services on the basis of preferable environmental performance.

The life cycle approach is used to identify and understand environmental issues (adverse or beneficial impacts) across the whole life of a product or service (within a defined product or service category). This information is evaluated to identify the most significant issues and from those to identify the issues on which it is possible to differentiate environmentally preferable products or services from others available in the New Zealand market. Criteria are then set on these significant and differentiating issues. These must be set in a form and at a level that does differentiate environmentally preferable products or services, is attainable by potential ECNZ licence applicants and is able to be measured and verified. As a result of this approach, criteria may not be included in an ECNZ specification on all aspects of the life cycle of a product or service. If stages of a product or service life cycle are found not to differentiate environmentally preferable products or services, or to have insufficient data available to allow objective benchmarking in New Zealand, those stages will not generally be included in criteria in the specification. For some issues, however, (such as energy and waste) criteria may be set to require monitoring and reporting. These criteria are designed to generate information for future reviews of specifications.

The Trust is pleased to publish this revised specification for Paints. The specification has been published to take account of substances and processes harmful to the environment, energy management and waste management.

This specification sets out the requirements that Paint products will be required to meet in order to be licensed to use the ECNZ Label. The requirements include environmental criteria and product characteristics. The specification also defines the testing and other means to be used to demonstrate and verify conformance with the environmental criteria and product characteristics.

This specification has been prepared based on an overview level life cycle assessment, information from specifications for similar products from other GEN-member labelling programmes, relevant information from other ECNZ specifications, publicly available information, and information provided by current licensees.

This specification is valid for a period of five years. Twelve months before the expiry date (or at an earlier date if required), the Trust will initiate a further review process for the specification.

These criteria have been prepared specifically for the New Zealand Ecolabelling Trust as part of the Environmental Choice New Zealand programme's life cycle approach and its principles and procedures for developing licence criteria for specific product categories. The New Zealand Ecolabelling Trust accepts no responsibility for any use by any party of information in the document in any other context or for any other purpose.

2 Background

Some 25 million litres of decorative paint is sold each year in New Zealand¹. Almost all is manufactured in New Zealand by three main manufacturers. Approximately 80% is water-based pigmented paint, 10% is solvent-based pigmented paint, with stains and clear paint (which may be either water or solvent-based) making up the remaining 10%.

Paints provide protective and decorative coatings for a wide range of surfaces. As protective coatings, paints can significantly prolong the useful life of structures and claddings. This generates environmental benefits by reducing resource use for repair and replacement.

Paint products can have significant impacts on the environment throughout their lifecycle, including the release of environmentally harmful substances:

- during production of raw materials;
- during manufacture of the paint product itself;
- when paints are being applied;
- from painted surfaces; and
- when unused paint is disposed or paint is removed.

A range of environmentally harmful substances are used in paint products. Many of these present specific concerns for human health and the environment, for example:

- pigments containing metals that are human toxicity hazards or have ecotoxic effects in the environment;
- solvents, such as hydrocarbons, aromatic hydrocarbons, halogenated solvents, ethylene glycols and glycol ethers, which can have toxicity effects on human reproduction and development and can affect air quality (including ozone depletion or ozone formation);
- additives (e.g., biocides, surfactants, defoamers) that bring specific properties to the paint, which may include substances that are human carcinogens or mutagens or have other significant toxic hazards for humans or ecotoxic effects in aquatic environments; and
- volatile organic compounds which can react with nitrogen oxides in the air to form ozone, which is an oxidiser that irritates the human respiratory system and can affect sensitive vegetation and ecosystems.

Restricting and minimising the content of the environmentally harmful substances in paint products reduces the nature and level of hazard and releases of environmentally harmful substances during manufacturing, use and disposal.

To reduce environmental and health impacts, chemicals should be non-toxic or environmentally innocuous / readily biodegradable, and the degradation products should not pose an unacceptable risk to human health or the environment. The principle of substituting hazardous substances with less hazardous ones is widely used in ecolabelling specification criteria, which restrict the use of chemicals according to their hazard classifications. It is an approach set out in the European discussion paper “The Path to Sustainable Use of Chemicals in Products: The European Ecolabel as a Signpost” (December 2008). The Trust has adopted this approach widely in other ECNZ specifications. Controlled hazard classifications include carcinogens, mutagens, chemicals toxic to reproduction, ecotoxic and bioaccumulative substances.

¹ MfE. 2006. Product Stewardship Study, Unused/Unwanted Paint and Paint Packaging in New Zealand, prepared by 3R Ltd. These criteria have been prepared specifically for the New Zealand Ecolabelling Trust as part of the Environmental Choice New Zealand programme's life cycle approach and its principles and procedures for developing licence criteria for specific product categories. The New Zealand Ecolabelling Trust accepts no responsibility for any use by any party of information in the document in any other context or for any other purpose.

Manufacturing processes, including those for raw materials used in paints, can involve significant use of energy (with associated discharge of carbon dioxide contributing to global warming) and may produce significant volumes of hazardous wastes and discharges². Measures to reduce energy use, increase energy efficiency, and minimise use of energy intensive raw materials will help to reduce impacts on the environment from production processes. Life cycle work to support the European Ecolabel³ has identified production processes for white pigments (in particular titanium dioxide) as one of the main impacts of paint products across their life cycle, where paint contains more than 10% titanium dioxide. Understanding the availability of information on the discharges from TiO₂ production will help inform possible future revisions of this specification to differentiate environmentally preferable production processes.

Nanotechnology is already used in paint products and has potential to provide further improvements in product performance. However, there are significant uncertainties about the behaviour of manufactured nanoparticles in organisms and in the environment. Identifying manufactured nanomaterials in products and following the growing body of research in toxicology and environmental behaviour of the specific nanomaterials used will help reduce these uncertainties.

Responsible use and disposal of chemicals will also reduce health and environmental risks. Safety Data Sheets (SDS) contain much of the information necessary for responsible chemical use and the provision of accurate, up-to-date and complete SDS to chemical users is a responsibility of each chemical supplier.

Packaging for paint products is a potentially significant use of resources. Measures to ensure packaging materials are able to be recycled and to encourage recycled content to be included in the packaging will help to reduce demand on raw materials and divert waste from landfills. Packaging also has environmental impacts, depending upon the type of packaging used and disposal options. Reducing, reusing and/or recycling packaging will conserve valuable resources and reduce the volume of packaging entering the waste stream.

Inappropriate and ineffective management of paint products and disposal of unwanted paints has been identified as a significant environmental concern in New Zealand. Measures to encourage reuse, recycling and correct disposal of unwanted paint will help to divert waste from landfills and reduce the adverse effects at the disposal stage of the product's life cycle. Product stewardship requirements help ensure that appropriate disposal methods are available for unwanted or expired chemicals.

Consumer behaviour is an important aspect that can affect the environmental impacts of paint products. Selecting the correct products and applying these correctly helps to ensure efficient use of resources. Following appropriate processes to clean equipment will reduce the impacts of discharges during paint application stages of the life cycle. Correctly storing and disposing of unwanted paint will help to reduce impacts by facilitating reuse, recycling and diversion of wastes (including packaging) from landfills.

² National Center for Manufacturing Sciences (NCMS). 2011. Life Cycle Assessment of Volatile Organic Compounds (LCA-VOC) in Paints & Coatings Final Report. November. (Supported by USEPA Cooperative Agreement EM-83325701-1).

³ European Commission Joint Research Centre. 2012. Revision of EU European Ecolabel and Development of EU Green Public Procurement Criteria for Indoor and Outdoor Paints and Varnishes, Ecolabel Background Report. June.

These criteria have been prepared specifically for the New Zealand Ecolabelling Trust as part of the Environmental Choice New Zealand programme's life cycle approach and its principles and procedures for developing licence criteria for specific product categories. The New Zealand Ecolabelling Trust accepts no responsibility for any use by any party of information in the document in any other context or for any other purpose.

Based on a review of currently available information, this specification sets requirements that will provide an environmental benefit by:

- reducing the use and subsequent release of environmentally harmful substances to the environment at all stages of the paint product's life cycle;
- reducing impacts from energy use in production processes;
- encouraging more efficient and effective use of products by consumers; and
- encouraging recovery, reuse, recycling and responsible disposal of unwanted paint and packaging.

3 Interpretation

APAS means the Australian Paints Approval Scheme

Aromatic Solvent means any organic solvent that has a benzene ring in its molecular structure.

ASTM means American Society for Testing and Materials.

Component means an intermediate product used in the manufacture of paint.

Conventional emulsion polymer binder means an emulsion polymer binder that is not specifically manufactured to be a nanomaterial. Nano-sized particles within the binder are part of a continuous size distribution, and not manufactured to be discrete or distinct from the bulk polymer.

Energy Management Programme means a programme to achieve and sustain efficient and effective use of energy including policies, practices, planning activities, responsibilities and resources that affect the organisation's performance for achieving the objectives and targets of the Energy Policy.

EPA means the New Zealand Environmental Protection Agency

Formulated or manufactured with refers to the preparation of the paint and not to the preparation of the components of the paint unless the components are specifically mentioned in the product specific requirements.

GEN means the Global Ecolabelling Network.

Halogenated solvent means any volatile organic compound incorporating halogens including fluorine, chlorine, bromine and iodine.

HSNO means the New Zealand Hazardous Substances and New Organisms Act 1996.

Integral part means a necessary component which is intentionally included in the paint formulation.

ISO means International Organisation for Standardisation.

Label means the Environmental Choice New Zealand Label.

Manufactured nanomaterial is a material manufactured to have at least one dimension between 1 and 100 nm which exhibits functionality different from the bulk form of the material, is a new form of an existing material, and is specifically manufactured to impart particular properties to the material.

Paint means a liquid (generally pigmented) that is designed for application in single or multiple layers and forms a continuous film after application to decorate or protect surfaces, as well as to conceal surface irregularities. It also includes varnishes and stains, where

These criteria have been prepared specifically for the New Zealand Ecolabelling Trust as part of the Environmental Choice New Zealand programme's life cycle approach and its principles and procedures for developing licence criteria for specific product categories. The New Zealand Ecolabelling Trust accepts no responsibility for any use by any party of information in the document in any other context or for any other purpose.

- **varnish** means a liquid composition that is converted to a transparent or translucent, continuous film after application; and
- **stain** means a transparent, semitransparent or opaque mixture of colouring matter (dyes and/or pigments) in a vehicle designed to colour and/or protect a surface by penetration, leaving practically no surface film.

Paint does not include wood preservatives or antifouling paints.

Raw material means a material used in the manufacture of paint.

Recycled or Recovered Content includes:

- **Post-Consumer:** Material generated by households, or by commercial, industrial and institutional facilities in their role as end-users of the product, which can no longer be used for its intended purpose. This includes returns of material from the distribution chain.
- **Pre-Consumer:** Material diverted from the waste stream during a manufacturing process. Excluded is re-utilisation of materials such as rework, generated in a process and capable of being reclaimed within the same process that generated it.

Safety Data Sheet (SDS) means a document that describes the properties and uses of a substance, that is, identity, chemical and physical properties, health hazard information, precautions for use and safe handling information. These may also be called Material Safety Data Sheets (MSDS).

Volatile organic compound (VOC) means any organic compound which has a vapour pressure more than 0.1 mm Hg at 25 oC. Organic compounds with a boiling point greater than 250 oC, measured at a standard pressure of 101.3 kPa, will not be considered to be a VOC.

Waste Management Programme means a programme to achieve and sustain efficient and effective minimisation and disposal of waste including policies, practices, planning activities, responsibilities and resources that affect the organisation's performance for achieving the objectives and targets of the Waste Policy.

Where references are made in this document to published lists, standards, or documents, the reference should be read as referring to the most recent edition of these lists, standards or documents.

4 Category definition

This category includes:

- Water-based coatings – paints which have water as the primary solvent/diluent component;
- Recycled paint – paints where the recycled or recovered content constitutes more than 20% by weight of the final product.

To be licensed to use the Label, the paint must meet all of the environmental criteria set out in clause 5 and product characteristics set out in clause 6.

These criteria have been prepared specifically for the New Zealand Ecolabelling Trust as part of the Environmental Choice New Zealand programme's life cycle approach and its principles and procedures for developing licence criteria for specific product categories. The New Zealand Ecolabelling Trust accepts no responsibility for any use by any party of information in the document in any other context or for any other purpose.

5 Environmental criteria

5.1 Legal requirements

Criteria

The product must comply with the provisions of all relevant environmental laws and regulations that are applicable during the product's life cycle.

Verification required

Conformance with this requirement shall be demonstrated by providing a written statement on regulatory compliance, signed by the Chief Executive Officer or other authorised representative of the applicant company. This statement shall be supported by documentation identifying the applicable regulatory requirements and demonstrating how compliance is monitored and maintained.

Explanatory notes

Relevant laws and regulations could, for example, include those that relate to:

- producing, sourcing, transporting, handling and storing raw materials and components for manufacture;
- manufacturing processes;
- handling, transporting and disposing of waste products arising from manufacturing;
- transporting product or raw materials within and between countries; and
- using and disposing of the product.

It is not intended to require licence holders to accept increased legal responsibility or liability for actions that are outside their control. The Trust's intention is to ensure any potential for environmental regulatory non-compliance associated with an ECNZ labelled product is managed to a level that minimises risk of reputation damage to the ECNZ label and programme.

Within New Zealand, authorisation is required under the Hazardous Substances and New Organisms Act (HSNO) to import or to manufacture hazardous substances. Authorisation may involve a specific approval for a hazardous substance or approval under a Group Standard. The authorisation, Group Standards and regulations under HSNO set requirements for managing the hazardous substance (for example, storage, labelling and emergency preparedness). Information about requirements under HSNO is available from the Environment Protection Agency (EPA) and at <http://www.epa.govt.nz/Pages/default.aspx>. Regulatory requirements on hazardous substances may also apply under the Resource Management Act (RMA), in particular in regional and district plans prepared under the RMA, and in Council bylaws.

These criteria have been prepared specifically for the New Zealand Ecolabelling Trust as part of the Environmental Choice New Zealand programme's life cycle approach and its principles and procedures for developing licence criteria for specific product categories. The New Zealand Ecolabelling Trust accepts no responsibility for any use by any party of information in the document in any other context or for any other purpose.

5.2 Raw materials

5.2.1 Hazardous substances

Criteria

The paint or any tinter to be added to the paint shall not be formulated or manufactured with:

- a substances that are classified as carcinogenic, mutagenic or toxic to reproduction/development;
- b more than 0.1% by weight of the formulated paint, of substances that are classified as acutely toxic or toxic/very toxic;
- c more than 2.5% by weight of the formulated paint, of any single substance classified as ecotoxic;
- d more than a total of 5% by weight of the formulated paint, of substances classified as ecotoxic;
- e formaldehyde and substances that have the potential to release formaldehyde during use.

The requirements in (a) and (e) do not apply to trace levels (<0.1 % by weight) of substances reported in SDS to potentially be present as contaminants or impurities in raw materials or component substances.

The use of raw materials containing crystalline silica is exempt from the requirements in (a).

Verification required

Conformance with these requirements shall be demonstrated by providing a written statement on compliance, signed by the Chief Executive Officer or other authorised representative of the applicant company. The statement shall be supported by documentation that:

- identifies all hazardous substances used in formulations (including CAS numbers and SDS);
- identifies the classifications that apply to these substances; and
- includes sufficient formulation information to confirm the limits set in the criteria are met for each paint product.

Compliance with the requirements in (a) to (d) may be demonstrated by providing data that the substance does not have any of the classifications (or combinations thereof) listed in Table 1 (Appendix A).

5.2.2 Metals and metal compounds

Criteria

- a The paint shall not be formulated or manufactured with the following metals or their compounds: mercury, arsenic, selenium.
- b The paint shall not be tinted (including at the point of sale) with pigments of lead, cadmium, chromium VI, or antimony.

Exempted from these requirements are impurities of the elements listed above which are contained in raw materials or components in trace levels (0.1%) for each element.

Verification required

Conformance with this requirement shall be demonstrated by providing a written statement on compliance, signed by the Chief Executive Officer or other authorised representative of the applicant company. This statement shall be supported by either:

- Documentation on raw materials (including Safety Data Sheets), formulation documentation, and documentation of procedures and standards for selecting pre- and post-consumer recovered paints that are to be incorporated in a recycled paint that will effectively exclude paints suspected of having more than trace levels of the banned heavy metals; or
- Test reports from laboratories competent to carry out the relevant tests on components and/or finished products.
 - Testing methods: ASTM D2348 (or equivalent) for arsenic. Atomic absorption spectroscopy procedures ASTM D3717, D3718, D3335, and D3624 (or equivalents) for other elements. If an equivalent test is used, ECNZ may require details of the test method and its validation.

5.2.3 Solvents

Criteria

The paint or any tinter to be added to the paint shall not be formulated or manufactured with:

- a more than 20% by weight of hydrocarbon solvents;
- b aromatic hydrocarbon solvents;
- c halogenated solvents; or
- d ethylene glycol.

Exempt from these requirements are trace amounts (<0.1%) that may be present in raw materials or components.

Verification required

Conformance with these requirements shall be stated in writing and signed by the Chief Executive Officer or other authorised representative of the applicant company. This statement shall be supported by formulation documentation, including SDS for raw materials.

These criteria have been prepared specifically for the New Zealand Ecolabelling Trust as part of the Environmental Choice New Zealand programme's life cycle approach and its principles and procedures for developing licence criteria for specific product categories. The New Zealand Ecolabelling Trust accepts no responsibility for any use by any party of information in the document in any other context or for any other purpose.

5.2.4 Crystalline silica

Criteria

- a The licence applicant/holder must have and effectively implement a purchasing policy to minimise content of crystalline silica in raw materials. The policy must include actions to:
 - obtain and maintain information from suppliers about the levels of crystalline silica present in raw materials being used in Environmental Choice labelled paint products;
 - to preferentially source and use raw materials with lower levels of crystalline silica for Environmental Choice labelled products.
- b The licence holder must report annually to the Trust on the implementation of their purchasing policy on raw materials containing crystalline silica. These reports must include:
 - tabulated information recording all raw materials being used that contain crystalline silica, the level of crystalline silica in each material, the supplier of the raw material and reference to the supporting data source (MSDS or other technical information provided by the supplier);
 - records of research and correspondence carried out during the previous 12 months with suppliers regarding sourcing and purchasing raw materials with the lower crystalline silica levels.

Verification required

Conformance with these requirements shall be demonstrated by providing a written statement on compliance, signed by the Chief Executive Officer or other authorised representative of the applicant company. The statement shall be supported by documentation that:

- describes or contains the purchasing policy;
- details raw materials containing crystalline silica and the level of crystalline silica present in each; and
- includes annual reports to the Trust on implementation of the purchasing policy.

5.2.5 Titanium dioxide (TiO₂)

Criteria

- a The licence applicant/holder must have and implement a purchasing policy for TiO₂ that includes actions to:
 - request and maintain information from suppliers about the process used to manufacture the TiO₂ used in Environmental Choice labelled products.
 - request and maintain information on the discharges from the manufacturing process:
 - o sulphate process: emissions of SO_x to air, emissions of sulphate waste.
 - o chloride process: emissions of chloride waste.
- b The licence holder must report annually to the Trust on the implementation of their purchasing policy on TiO₂. These reports must include:
 - tabulated information recording all suppliers and manufacturers of TiO₂ used in Environmental Choice labelled products, and the manufacturing process used;

These criteria have been prepared specifically for the New Zealand Ecolabelling Trust as part of the Environmental Choice New Zealand programme's life cycle approach and its principles and procedures for developing licence criteria for specific product categories. The New Zealand Ecolabelling Trust accepts no responsibility for any use by any party of information in the document in any other context or for any other purpose.

- records of research and correspondence with suppliers regarding discharges of sulphate and chloride wastes.

Verification required

Conformance with these requirements shall be demonstrated by providing a written statement on compliance, signed by the Chief Executive Offer or other authorised representative of the applicant company. The statement shall be supported by documentation that:

- describes or contains the purchasing policy; and
- includes annual reports to the Trust on implementation of the purchasing policy.

5.2.6 Nanotechnology

Criteria

If the paint product is formulated with manufactured nanomaterials to impart particular properties to the product, the licence applicant/holder must:

- a Clearly identify the presence of manufactured nanomaterials on the product Safety Data Sheet.
- b Report annually to the Trust on the use of manufactured nanomaterials. The report must include:
 - A list of licensed products formulated with manufactured nanomaterials.
 - The specific property imparted to the product by the manufactured nanomaterial.
 - An update on any relevant research on the toxicology or environmental behaviour of the particular manufactured nanomaterial used.

The requirements in (a) and (b) do not apply to zinc oxide or titanium dioxide or conventional emulsion polymer binders.

Verification required

Conformance with these requirements shall be demonstrated by providing a written statement on compliance, signed by the Chief Executive Offer or other authorised representative of the applicant company. The statement shall be supported by documentation that:

- details products containing manufactured nanomaterials with examples of product Safety Data Sheets identifying the presence of manufactured nanoparticles; and
- includes annual reports to the Trust on use of nanotechnology.

These criteria have been prepared specifically for the New Zealand Ecolabelling Trust as part of the Environmental Choice New Zealand programme's life cycle approach and its principles and procedures for developing licence criteria for specific product categories. The New Zealand Ecolabelling Trust accepts no responsibility for any use by any party of information in the document in any other context or for any other purpose.

5.3 Formulated paint

5.3.1 Volatile organic compounds

Criteria

- a Paint products shall not exceed the following Volatile Organic Compound (VOC) levels, expressed as g/litre wet paint.

Paint type	VOC limit (g/L wet paint)
Low sheen (interior; exterior)	50
Flat (washable interior; exterior)	50
Flat (ceiling)	50
Semi-gloss (interior; exterior)	60
Gloss (interior; exterior)	65
Stains and varnishes	85
Exterior timber primer	50
Interior sealer	50
Latex primer for galvanised iron and zincalume	45
Latex undercoat (interior; exterior)	50

- b The VOC level in tinters shall not exceed 5 g/L.

Verification required

Conformance with these requirements shall be demonstrated by providing a written statement on compliance, signed by the Chief Executive Officer or other authorised representative of the applicant company. The statement shall be supported by calculations determining the VOC content as outlined below.

Calculate the total VOC content based on the formula and information provided by the suppliers of raw materials that meet the VOC definition.

Constituents added in quantities less than 0.5 % (by volume) of the total volume of the batch need not be taken into account in calculating the VOC content of the paint unless they are known to be essentially volatile materials.

Explanatory notes

The Trust recognises that there is market pressure to identify paints as “low VOC”, “low odour”, “VOC-free” or “zero VOC”. The criteria for VOC levels set in this specification have been developed as part of a life-cycle approach to differentiate environmentally preferable paint and support an overall environmental “seal of approval” for the paint product. The Trust is cautious about, and does not want to encourage, approaches to labelling or marketing that may place emphasis on a single environmental issue, and potentially undermine the overall life-cycle-based approval of an environmentally preferable paint.

The criteria in this specification include significant reductions in VOC levels from those required in the previous revision of this specification. Paints that meet the criteria in this specification for VOC levels and which are licensed by ECNZ can be considered to contain low concentrations of VOC, compared with other paints available in the market.

These criteria have been prepared specifically for the New Zealand Ecolabelling Trust as part of the Environmental Choice New Zealand programme's life cycle approach and its principles and procedures for developing licence criteria for specific product categories. The New Zealand Ecolabelling Trust accepts no responsibility for any use by any party of information in the document in any other context or for any other purpose.

The ECNZ label on a paint product is an assurance that the paint has met the requirements of this Environmental Choice specification. It does not provide any assurance about any other claim about VOC levels in the paint. The ECNZ label must not be positioned on any paint label in a manner that suggests that any specific claim about VOC levels is endorsed by the Trust. Similarly, promotional or marketing material must not suggest any such assurance or endorsement.

The Trust intends to monitor developments in this area and may re-assess the issue of VOC limits and VOC-related claims in future reviews of the specification.

5.3.2 Hazard classification

Criteria

The paint product must meet all requirements to be classified as non-hazardous or approved under the Surface Coatings and Colourants (Subsidiary Hazard) Group Standard 2006 issued by ERMA under HSNO (or equivalent standard in force at the time of assessment).

Verification required

Conformance with this requirement shall be demonstrated by providing a written statement on compliance, signed by the Chief Executive Officer or other authorised representative of the applicant company. The statement shall be supported by documentation that demonstrates the paint hazard has been assessed and has been shown to be non-hazardous or within the scope of the Subsidiary Hazard Group Standard.

5.4 Waste management

Criteria

- a The licence applicant/holder and/or paint manufacturer or supplier must have effective waste management policies and procedures and/or a waste management programme covering manufacturing operations.
- b Licence holders must report annually to the Trust on waste management including:
 - quantities and types of waste recovered for reuse internally and externally;
 - quantities and types of waste recycled internally and externally;
 - quantities and types of waste disposed of to landfill;
 - quantities and types of waste burned internally for energy recovery;
 - waste generation related to production;
 - initiatives taken to reduce waste generation and improve recovery/recycling of waste; and
 - initiatives or requirements for suppliers or contract manufacturers.

These criteria have been prepared specifically for the New Zealand Ecolabelling Trust as part of the Environmental Choice New Zealand programme's life cycle approach and its principles and procedures for developing licence criteria for specific product categories. The New Zealand Ecolabelling Trust accepts no responsibility for any use by any party of information in the document in any other context or for any other purpose.

Verification required

Conformance with this requirement shall be stated in writing, signed by the Chief Executive Officer or other authorised representative of the applicant company. This statement shall be supported by documentation that:

- describes the waste management policies, procedures and programmes; and
- includes annual reports to the Trust on waste generation and management.

5.5 Energy management

Criteria

- a The licence applicant/holder and paint manufacturer must have effective energy management policies and procedures and/or an energy management programme.
- b Licence holders must report annually to the Trust on energy management, including:
 - total energy use;
 - breakdown of total energy use to types of energy used;
 - energy use related to production;
 - initiatives taken to reduce energy use and improve energy efficiency;
 - initiatives taken to calculate and reduce CO₂ emissions associated with energy use; and
 - initiatives or requirements for suppliers or contract manufacturers.

Verification required

Conformance with this requirement shall be stated in writing, signed by the Chief Executive Officer or other authorised representative of the applicant company. This statement shall be supported by documentation that:

- describes the energy management policies, procedures and programmes; and
- includes annual reports on energy use and management.

5.6 Packaging requirements

Criteria

- a All paint containers must be made of materials that are able to be recycled in New Zealand (or the country to which the product is exported and sold).
- b Cardboard packaging shall consist of any combination of:
 - Packaging approved under EC-10
OR
 - recycled content.
AND/OR
 - waste wood or virgin fibre from native forests provided the forests are certified under the Forest Stewardship Council (FSC) or the Programme for the Endorsement of Forest Certification (PEFC) as sustainably managed (or equivalent certification)
AND/OR

These criteria have been prepared specifically for the New Zealand Ecolabelling Trust as part of the Environmental Choice New Zealand programme's life cycle approach and its principles and procedures for developing licence criteria for specific product categories. The New Zealand Ecolabelling Trust accepts no responsibility for any use by any party of information in the document in any other context or for any other purpose.

- waste wood or virgin fibre from plantations (including from farm forests or wood lots), provided the plantations are legally harvested..

NOTE: Please see Appendix B for details of acceptable certifications for certified sustainable forest management and legally harvested wood.

- c Packaging must not be impregnated, labelled, coated or otherwise treated in a manner, which would prevent recycling (i.e. PVC sleeves, metallic labels on plastic containers).
- d All plastic packaging containers must be marked with the appropriate plastics resin identification code promulgated by Plastics New Zealand, or be marked in accordance with ISO 11496:2000(E) “Plastics – General identification and marking of plastic products” and ISO 1043-1 “Symbols and abbreviated terms: Basic polymers and their special characteristics”.
- e Information shall be provided to ECNZ at application and thereafter reported annually on PVC and/or phthalates used in the packaging. This should include information from production records and/or suppliers on:
 - i the percentages by weight of recycled and virgin PVC;
 - ii the particular production processes (membrane cells, non-asbestos diaphragms, modified diaphragms, graphite anodes, mercury cells, closed-lid production etc) used to produce chlorine and VCM for the PVC being used in the packaging for ECNZ-licensed products (including the locations of the production);
 - iii information, where available, on waste disposal, wastewater treatment and emissions to air (occupational exposure, emissions from the factory and emissions from the final PVC resin);
 - iv information on any Environmental Management System (EMS) for the production process, including requirements for waste, water, air and product-related requirements;
 - v the types of stabilisers used;
 - vi the types and amounts of any phthalate plasticisers present in recycled content of the PVC (if that information is available) and/or added when manufacturing PVC;
 - vii research and initiatives implemented on substitutes for phthalates identified as of concern by regulators; and
 - viii any product stewardship arrangements for the packaging.

Note: Regulators have identified the following phthalates to be of concern – dibutyl phthalate (DBP), diisobutyl phthalate (DIBP), butyl benzyl phthalate (BBP), di-n-pentyl phthalate (DnPP), di(2-ethylhexyl) phthalate (DEHP), di-n-octyl phthalate (DnOP), diisononyl phthalate (DINP) and diisodecyl phthalate (DIDP).

- f Licence holders must:
 - be actively pursuing initiatives to include recycled content in packaging materials; and
 - report annually to the Trust on the recycled content of packaging used and initiatives to increase the percentage of recycled content in packaging.

Verification required

Conformance with these criteria shall be stated in writing and signed by the Chief Executive Officer or other authorised representative of the applicant company. This statement shall be supported with the following documentation and evidence.

- Conformance with criteria (a) shall be supported by documentation from the verifying the packaging is recyclable.

These criteria have been prepared specifically for the New Zealand Ecolabelling Trust as part of the Environmental Choice New Zealand programme's life cycle approach and its principles and procedures for developing licence criteria for specific product categories. The New Zealand Ecolabelling Trust accepts no responsibility for any use by any party of information in the document in any other context or for any other purpose.

- Conformance with criteria (b) shall be supported by documentation from the packaging manufacturer verifying the recycled content of the cardboard packaging and documentation from the packaging manufacturer verifying the source of all fibre in the cardboard packaging.
- Conformance with criteria (c) and (d) shall be demonstrated by providing samples of all plastic containers and components.
- Conformance with criteria (e) shall be demonstrated by providing initial and ongoing annual reports to ECNZ on PVC and plasticisers used. This should include as much of the available information required in (e) as possible.

5.7 User information

Criteria

- An SDS must be readily available to consumers for each paint product.
- Information on environmentally sound use of paints (including cleaning methods for equipment and empty containers) and disposal of paints and containers (including information on paint recovery/product stewardship schemes) must be readily available to all consumers. This must include summary information on paint labels.
- Information must be readily available to assist consumers to select the most appropriate product type for their needs and to advise consumers on appropriate surface preparation and application methods.

Verification required

Conformance with these criteria shall be stated in writing and signed by the Chief Executive Officer or other authorised representative of the applicant company. This statement shall be supported by:

- Copies of SDS for each paint product
- Copies of labels and other consumer information
- Information on how consumer information is maintained and made available to consumers (for example on websites, point of sale and/or query “free phone” numbers).

5.8 Product stewardship

Criteria

- The licence applicant/holder and/or the manufacturer or supplier of paints must be actively participating in a product stewardship scheme that involves:
 - recovery of unwanted or unused paints from pre- and post-consumer sources;
 - reuse and/or recycling of recovered paint and paint containers; and
 - promotion of the product stewardship scheme to customers.
- Licence holders must report annually to ECNZ on the performance of the product stewardship scheme, including:
 - volume of pre-consumer and volume of post-consumer paint recovered;
 - the % of recovered paint that was re-used and the means by which it was reused;
 - the % of recovered paint that was recycled (either the paint and its pigments or by solvent recovery);

These criteria have been prepared specifically for the New Zealand Ecolabelling Trust as part of the Environmental Choice New Zealand programme's life cycle approach and its principles and procedures for developing licence criteria for specific product categories. The New Zealand Ecolabelling Trust accepts no responsibility for any use by any party of information in the document in any other context or for any other purpose.

- the % of chemical disposed to landfill;
- the percentages (by weight) of recovered paint containers that were reused, recycled or sent to landfill; and
- initiatives taken as part of the programme to increase the volume of recovered paint and reduce the % of paint and containers that are unable to be reused or recycled and that are therefore sent to landfill.

Verification required

Conformance with these criteria shall be stated in writing and signed by the Chief Executive Officer or other authorised representative of the applicant company. This statement shall be supported by:

- documentation that describes the product stewardship scheme; and
- annual reports on the performance of the product stewardship scheme.

6 Product characteristics

Criteria

The product shall be fit for its intended purpose and conform, as appropriate, to relevant product performance standards.

Verification required

Conformance with this requirement shall be demonstrated by providing a written statement of compliance, signed by the Chief Executive Officer or other authorised representative of the applicant company. This statement shall be supported by:

- Documentation identifying the applicable standards and or consumer/customer requirements;
- Documentation demonstrating how compliance is monitored and maintained;
- Records of customer feedback and complaints.

Note: published international and national standards are available from:

- Standards New Zealand www.standards.co.nz
- Standards Association of Australia www.standards.com.au
- Australian Paint Approvals Scheme (APAS) www.apas.govt.au

These criteria have been prepared specifically for the New Zealand Ecolabelling Trust as part of the Environmental Choice New Zealand programme's life cycle approach and its principles and procedures for developing licence criteria for specific product categories. The New Zealand Ecolabelling Trust accepts no responsibility for any use by any party of information in the document in any other context or for any other purpose.

7 Requirements and notes for Licence Holders

Monitoring compliance

Prior to granting a licence, the Trust will prepare a plan for monitoring ongoing compliance with these requirements. This plan will reflect the number and type of products covered by the licence and the level of sampling appropriate to provide confidence in ongoing compliance with criteria. This plan will be discussed with the licence applicant and when agreed will be a condition of the licence.

As part of the plan, the Trust will require access to relevant quality control and service delivery records and the right of access to service facilities. Relevant records may include formal quality management or environmental management system documentation (for example, ISO 9001 or ISO 14001 or similar).

The monitoring plan will require the licence holder to advise The Trust immediately of any non-compliance with any requirements of this specification which may occur during the term of the licence. If non-compliance occurs, the licence may be suspended or terminated as stipulated in the Licence Conditions. The licensee may appeal any such suspension.

The Trust will maintain the confidentiality of identified confidential information provided and accessed during verification and monitoring of licences.

Using the ECNZ Label

The Label may appear on marketing materials for the paint, provided that the paint meets the requirements in this specification and in the Licence Conditions.

Wherever it appears, the Label must be accompanied by the words “paint” and by the Licence Number e.g. ‘licence No1234’.

The Label must be reproduced in accordance with the ECNZ programmes keyline art for reproduction of the Label and the Licence Conditions.

Any advertising must conform to the relevant requirements in this specification, in the Licence Conditions and in the keyline art.

Failure to meet these requirements for using the ECNZ Label and advertising could result in the Licence being withdrawn.

Appendix A Hazardous Substances Classifications

• **Table 1 – Hazardous Substance Classifications**

European Risk Phrases	New Zealand HSNO Classes	Globally Harmonised System
Toxins		
R23 toxic by inhalation	6.1B or 6.1C	Acute Tox. 2 and 3, H330, H331
R24 toxic in contact with skin	6.1B	Acute Tox. 3, H311
R25 toxic if swallowed	6.1B	Acute Tox. 3, H301
R26 very toxic by inhalation	6.1A	Acute Tox. 2 and 3, H330
R27 very toxic in contact with skin	6.1A	Acute Tox. 1, H310
R28 very toxic if swallowed	6.1A	Acute Tox. 2, H300
Ecotoxins		
R50 very toxic to aquatic organisms	9.1A	Aquatic Acute 1, H400
R51 toxic to aquatic organisms	9.1D or 9.1B	
R52 harmful to aquatic organisms	9.1D or 9.1C	
R53 may cause long-term adverse effects in the aquatic environment	9.1D	Aquatic Acute 4, H413
R50/53 very toxic to aquatic life with long lasting effects	9.1A	H410
R51/53 toxic to aquatic life with long lasting effects	9.1B	H411
R52/53 toxic to aquatic life with long lasting effects	9.1C	H412
Carcinogens, Mutagens and Reproductive Toxins		
R45 may cause cancer	6.7A	Carc. 1A and 1B, H350
R46 may cause heritable genetic damage	6.6A	Muta. 1B, H340
R49 may cause cancer by inhalation	6.7A	Carc. 1A and 1B, H350
R60 may impair fertility	6.8A	Repr. 1A and 1B, H360
R61 may cause harm to the unborn child	6.8A	Repr. 1A and 1B, H360

NOTE: There are different classification systems for hazardous substances that are used internationally. As the ECNZ specifications need to consider products that are manufactured in New Zealand and overseas, it is necessary to consider the equivalence of hazardous property classification systems in different jurisdictions. The table above shows the (broadly) equivalent European Risk Phrases, New Zealand HSNO Classifications and the United Nations' Globally Harmonised System of Classification and Labelling of Chemicals (GHS) classifications. The EU has implemented the GHS into EU law, replacing the Risk Phrases, and all “substances” (single compounds) have now been transferred to the new classification system. Mixtures must be classified under the GHS by 31 May 2015.

It is important to note that the Risk Phrases, HSNO Classifications and GHS are classification frameworks and the particular classifications applied to a substance may vary between jurisdictions (for example Europe, the United States and New Zealand each have their own agency with responsibility for assessing and classifying hazardous substances). Differences between classifications can be due to the weight placed on particular toxicity studies (i.e. a jurisdiction may consider that a study is flawed) or in the event that new information becomes available (i.e. differences in the timing of the classification or re-classification of a substance). Where there is a discrepancy between the classifications applied to specific substances in the different schemes, The Trust’s appointed technical advisors will review supporting information regarding the classifications on a case-by-case basis to determine and recommend to The Trust how these discrepancies should be managed within the life cycle context of the relevant product category. Where appropriate, technical clarifications and changes, with accompanying explanation, will be included in the relevant specification.

These criteria have been prepared specifically for the New Zealand Ecolabelling Trust as part of the Environmental Choice New Zealand programme's life cycle approach and its principles and procedures for developing licence criteria for specific product categories. The New Zealand Ecolabelling Trust accepts no responsibility for any use by any party of information in the document in any other context or for any other purpose.

Appendix B

Explanatory notes for types of claims that can be used to demonstrate compliance with the criteria set in 5.6b).

Part A:

Sustainable Forest Management (SFM):

The FSC and PEFC certification schemes each have a range of certificates/labels. Some of these allow for wood/fibre from certified sustainably managed plantations or forests to be mixed with non-certified wood/fibre. Under FSC Mixed Credit or PEFC Volume Credit methods, wood/fibre or products associated with the certification claim or label may or may not actually contain wood/fibre from the certified sustainably managed source. Certifications accepted by The Trust are those which will ensure that wood from sustainably managed forests, as required in criteria 5.2.1 and 5.2.2, will be actually present in the final ECNZ-licensed product. These are set out below.

Types of FSC claims which can be used to demonstrate compliance with the above requirements:

- FSC 100 %
- FSC Mix X % - provided the % meets the requirements
- FSC Mix Credit – only if the manufacturer can demonstrate that actual FSC material is used for the ECNZ products.
- FSC Recycled provided it contains 100% recycled material
- FSC Controlled Wood cannot be used to meet the FSC certified requirements

Types of PEFC claims which can be used to demonstrate compliance with the above requirements:

- PEFC Certified – Physical Separation method.
- X % PEFC Certified – Average Percentage method, provided the % meets the requirements
- X % PEFC Certified – Volume Credit method – only if the manufacturer can demonstrate that actual PEFC certified material is used for the ECNZ products.

PEFC Controlled Sources material cannot be used to meet the PEFC certified requirements

The following certification schemes will be accepted as equivalent to FSC or PEFC certification of SFM:

- Pengelolaan Hutan Produksi Lestari – Sustainable Production Forest Management certified (PHPL) (<http://liu.dephut.go.id/>).
- Sustainable Forest Management Plans, supported with Annual Logging Plans that have been prepared and approved under the New Zealand Forests Act 1949 (amended in 1993). These Plans must be prepared in accordance with Standards and Guidelines for the Sustainable Management of Indigenous Forests and guidance for preparing Sustainable Management Plans and Annual Logging Plans. Wood sourced from New Zealand indigenous forests covered by approved plans will be accepted as equivalent to FSC sustainably managed forest certification provided compliance with the approved plans is demonstrated through independent on-site assessment.
- For any other schemes to be considered, the applicant will be required to provide detailed information that demonstrates the certification scheme is credible and equivalent. For examples of the type of information required, refer to the UK Central Point of Expertise on

These criteria have been prepared specifically for the New Zealand Ecolabelling Trust as part of the Environmental Choice New Zealand programme's life cycle approach and its principles and procedures for developing licence criteria for specific product categories. The New Zealand Ecolabelling Trust accepts no responsibility for any use by any party of information in the document in any other context or for any other purpose.

Timber Procurement (CPET) assessments of certification schemes available on www.CPET.org.uk.

Part B:

Legal harvesting:

The following certification schemes will be accepted as sources of information to demonstrate legal harvesting, where certificates and chain of custody evidence is available for virgin fibre sources:

- Forest Stewardship Council – “Certified” or “Controlled Wood” (www.fsc.org).
- Programme for the Endorsement of Forest Certification (PEFC) - “Certified” or “Controlled Sources” (www.pefc.org).
- SGS Timber Legality & Traceability Verifications service (TLTV) Verification of Legal Compliance certification (TVTL-VLC) (<http://www.sgs.com/en/Public-Sector/Monitoring-Services/Timber-Traceability-and-Legality.aspx>).
- Rainforest Alliance SmartWood Verification of Legal Compliance (VLC) certification (<http://www.rainforest-alliance.org/forestry/verification/legal>).
- System Verifikasi Legalitas Kayu - Timber Legality Verification System (SVLK) certified, or SVLK/PHPL (Pengelolaan Hutan Produksi Lestari – Sustainable Production Forest Management) certified (<http://liu.dephut.go.id/>).
- Sustainable Forest Management Plans (supported with Annual Logging Plans) that have been prepared and approved under the New Zealand Forests Act 1949 (amended in 1993).

These criteria have been prepared specifically for the New Zealand Ecolabelling Trust as part of the Environmental Choice New Zealand programme's life cycle approach and its principles and procedures for developing licence criteria for specific product categories. The New Zealand Ecolabelling Trust accepts no responsibility for any use by any party of information in the document in any other context or for any other purpose.