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The Eco-Choice Ecolabel Programme Product Standard

Architectural Paints and Coatings



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Use of This Standard

This voluntary environmental labelling standard may be used by competent environmental assessors to establish product compliance to the Eco-Choice Africa Ecolabel Program. Products that are certified with the mark of conformity, the “Eco-Choice Label” have been independently tested and demonstrate compliance to the environmental and social performance criteria detailed in this standard. The overall goal of environmental labels and declarations is the communication of verifiable and accurate information, which is not misleading, on environmental aspects of products and services. This encourages the demand for, and supply of, those products and services that cause less stress on the environment, thereby stimulating the potential for market-driven continuous environmental improvement.

This standard identifies environmental, quality, regulatory and social performance criteria that products sold on the Australian market can meet in order to be considered as good “environment practice”. Products that have been certified as complying to this standard may gain greater market recognition and a marketing advantage in government and business procurement programs, as well as broad consumer preference.

This standard can be used by South African producers to guide their designs for environment programs by using the environmental criteria as key performance benchmarks to reduce the environmental loads of their product. The standard is necessarily restricted in its identification of environmental loads from the product life-cycle.

Producers should consider other environmental measures along the product cycle, which are not included in this standard, in their environment program designs for and aim for even higher levels of environmental performance where technically possible.

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Eco-Choice Ecolabel Programme

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ECO-CHOICE AFRICA STANDARD

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ABSTRACT

This Standard specifies environmental performance requirements for a range of paints and wall coating products for the Eco-Choice Africa Ecolabel Program. The Eco-Choice Africa Ecolabel Program complies with ISO 14024: "Environmental labels and declarations - Guiding principles" which requires environmental labelling specifications to include criteria that are objective, reasonable and verifiable.

DEFINITIONS

APEO: Alkylphenol ethoxylate.

Aromatic: A compound that contains at least one benzene ring.

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 electron sharing arrangement.

CAB: Conformity Assessment Body as described by ECA's Programme Rules. CABs are often referred to as 'auditors', however only ECA appointed auditors may be used to obtain ECA certification.

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 NOSA criteria or Code of Practice for Managing Risks of Hazardous Chemicals in the Workplace

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

Demonstration of Conformance (DoC): Defines sources of evidence acceptable to ECA 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.

EMS: Environmental Management System.

EPA: Environment Protection Agency

ECA: Eco-Choice Africa Ltd.

ECA Mark: The Eco-Choice Africa Mark, the mark awarded to applicants complying with ECA Ecolabelling standards after assessment by ECA or its 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.

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

Label: the Eco-Choice Africa 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 the manufacturers of a product.

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.

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

Solvent: A general term for a chemically diverse range of, usually, liquid phase

Sufficiently Biodegradable in this standard means that the substance passes any or all of the following test methods:

- *At least 70 % degradation within 28 days:* OECD 301 A, OECD 301 E, ISO 7827, OECD 302 A, ISO 9887, OECD 302 B or ISO 9888.
- *At least 60 % degradation within 28 days:* OECD 301 B, ISO 9439, OECD 301 C, OECD 302 C, OECD 301 D, ISO 10707, OECD 301 F, ISO 9408, ISO 10708 or ISO 14593.
- *At least 80 % degradation within 28 days:* OECD 303 or ISO 11733

SVOC: Semi-Volatile Organic Compound.

TOC means Total Organic Carbon – A measure of the concentration of organic carbon in water, determined by oxidation of the organic matter into carbon dioxide (CO₂)

TWA (Exposure Standard - Time-Weighted Average): The average airborne concentration of a particular substance when calculated over a normal eight-hour working day, for a five-day working week

VAC: Volatile Aromatic Compound. Any hydrocarbon compound containing at least one benzene ring in its molecular structure with a boiling point below 250°C measured at 101.3 kPa.

VOC (Volatile Organic Compound) as defined by EC Directive 1999/13/EC, is any organic compound having a vapour pressure of 0.01kPa or more, at 20°C (293.15K). For organic solvents this definition corresponds to a boiling point or initial boiling point below 250°C when measured at 101.3kPa.

1 INTRODUCTION

1.1 Purpose

This Standard seeks to define good environmental performance benchmarks for paints and wall coating products. The voluntary environmental labelling standard implemented by Eco-Choice Africa (ECA) as part of the Eco-Choice Africa Ecolabel program specifies environmental performance criteria for a range of products.

Other paints or coatings that do not specifically apply to the listed range of products may be considered provided the product meets the requirements of this standard.

This standard does not include any paint or paint products for use on human or animal skin or nails or products with a solvent base.

1.2 Background

This product standard has been developed to provide guidance and to set limits for the most material environmental loads attributable to the life cycle of architectural paints coating products.

The scope covers paint and coating products manufactured or sold in the South African and African markets and incorporates internationally competitive standards and criteria. Eco-Choice Africa uses these standards and criteria to identify products that are less harmful to the environment in general, and for environmental labelling as eco preferable products under the Eco-Choice Ecolabelling Programme.

This standard is voluntary and is subject to change at the discretion of Eco-Choice Africa and its technical advisors. Once verified as meeting this standard, certified products are permitted to display the Eco-Choice label to show it is environmentally preferable.

In the past, wall coverings and paints have included any number of potentially harmful ingredients and are known to contribute to human health problem and environmental damage. The VOC's (volatile organic compounds) associated with paints and carcinogenic properties of many traditional ingredients have posed challenges for eco-aware consumers. Manufacturers of these products have over time provided the answers to many of these challenges and today eco-friendly paints and coatings have become the preferred choice of the mainstream consumer.

This standard does not apply to any paint products that are intended for use on human or animal skin or nails.

2 STANDARD CATEGORY SCOPE

This standard is applicable to the following range of paint or coating products:

2.1 Interior wall or ceiling paints or coatings

All paints or coatings intended for indoor application for ceilings, walls or other architectural elements.

2.2 External wall or roof paints or coatings

All paints or coatings intended for outdoor application for roofs, walls or other architectural elements.

2.3 Water-based architectural coatings or finishes

All other water-based paints or coatings not listed above excluding those intended for human or animal application.

Other environmentally innovative paint or coating products that do not fit the above categories may be considered for certification provided the product fulfills the requirements of any relevant sections of this Standard.

This standard specifically excludes any solvent-based paint or coating products.

3 ENVIRONMENTAL PERFORMANCE CRITERIA

3.1 Fitness for Purpose

Certified products should be good performers in their intended application. Certain standards of quality and durability are implicit in the Label and the manufacturer must ensure that the product is fit for its intended purpose and:

3.1.1 Applicable Standards

The product meets or exceeds the requirements of the relevant South African Standard, or the product meets the applicable and accepted standard in its target market if it is to be exported. If there is no relevant South African Standard for the product type, the product can demonstrate sufficient quality by providing testing reports from an independent organisation or case studies demonstrating market suitability and quality.

If there is no relevant South African Standard, the product can demonstrate sufficient quality by providing testing reports from an independent organisation or case studies from installations demonstrating market suitability and quality,

3.1.2 Warranty

The manufacturer shall offer a commercial guarantee of five years on the quality of the product – or the prescribed period as defined in the national Consumer Protection Act, provided the product is used according to its intended use. The guarantee shall be valid from the date of delivery to the consumer.

3.2 Material Requirements – All Products

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

3.2.1 Titanium Dioxide, Zinc Oxide and Lithopone Content

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/m² dry film as applied
- Primers, sealers and undercoats 30g/m² dry film as applied
- Long life exterior coating* 40g/m² dry film as applied
- Heat reflective long life coating 50g/m² dry film as applied
- Other coatings 30g/m² dry film as applied

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

Conformance to this standard may be demonstrated by:

- Presentation of documentation that shows the weight of titanium dioxide, zinc oxide and lithopone **per litre** of paint. Reporting a range is acceptable; and/or
- The coverage (m²) **per litre** of paint and application instructions that indicate the number of coats. Reporting a range is acceptable.

3.2.2 Glycol Ethers

The product must not contain or be manufactured with any harmful or potentially harmful glycol ethers, including but not restricted to:

CAS	Common 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

Please Note: Glycol ethers not listed here may be restricted by the Hazardous Materials section of this standard if identified as being harmful to human health.

Conformance to this standard may be demonstrated by:

- a full list of constituent parts (ingredients) for each product for which certification is applied; and
- A declaration confirming that the ingredients list is complete and that none of the listed glycol ethers or other harmful glycol ethers have been used.

3.2.3 Ozone Depleting Substances

The product may 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) or
- bromochloromethane.

In addition to this, 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. (<http://www.unep.org/ozone/issues.shtml>)

Conformance to this standard shall be demonstrated by:

- A full list of constituent parts (ingredients) for each product for which certification is applied;
- A declaration confirming that the substances used in the cleaning of production equipment meet the above standard; and
- Complete SDS, chemical names and/or CAS numbers for each ingredient and cleaning substance associated with the product being certified.

3.3 Material Requirements – Reflective Coatings

Should the manufacturer of a product for which certification is being applied make any claim about the product possessing solar reflectance, solar absorbance or thermal emittance properties, these claims must be supported by a test report from an independent testing laboratory in accordance with any of the following accepted testing methods.

- Standard test method for determination of solar reflectance near ambient temperature using a portable solar reflectometer;
- Standard test method for measuring solar reflectance of horizontal and low-sloped surfaces in the field; or
- Standard test method for determination of emittance of materials near room temperature using portable emissometers.

Where any of these test methods are registered with the SABS, then that standard must be met.

Conformance to this standard shall be demonstrated either by:

- The provision of a signed declaration by an Executive Officer of the applicant that the product has no solar reflectance, solar absorbance or thermal emittance properties. This declaration shall be supported by copies of relevant labelling and marketing material; or
- The provision of copies of relevant test results in accordance with accepted test methods.

3.4 Emissions

3.4.1 Volatile Organic Compounds (VOC's)

The total content of volatile organic compounds in each specific product must not exceed the limits of 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 Products	Exterior Products
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 product not specifically included in the table above must not have a VOC content greater than 5 g/L.
- Where a product 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), unless they are durable coatings.
- Durable coatings may comply with only the durable topcoat limits provided they meet warranty criteria as stated above.
- Where a product can be used for interior or exterior use, it must comply with the interior VOC limit.

Conformance to this standard shall be demonstrated by:

- Providing 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 must be included in this calculation.

3.4.2 Tints and Colourants

Any tints or colorants used with the product must have a VOC limit below 5 g/L.

Conformance to this standard shall be demonstrated by:

- A signed declaration from an Executive Officer of the applicant declaring the maximum VOC content of the tints or colorants; and
- Technical documentation to support the declaration.

3.4.3 Semi-Volatile Organic Compounds

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.

Conformance to this standard shall be demonstrated by:

- An annual report on the content of SVOCs contained in the product, as a portion of the base paint or final product.

3.4.4 Emissions to Water

Emissions from the manufacturing site must not be damaging to the receiving aquatic environment. Applicants must report the amount and destination of all emissions to water resulting from the manufacturing process.

Conformance to this standard shall be demonstrated by:

- A description of the receiving environment (e.g. sewer), together with details on the volumes discharged and the frequency of discharge. Where an ISO14001 EMS system is in operation, this must be reflected and incorporated into such system.

3.5 Dangerous Goods or Materials

The product must not be classifiable as hazardous in terms of the National Occupational Health and Safety Act of South Africa when used according to the manufacturer's instructions.

The product must not be classified 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.

Conformance to this standard shall be demonstrated by:

- Ensuring that all products reflect all hazard identification including dangerous goods classifications on SDS;
- That relevant supporting documentation is provided; or
- If available, any documentation supporting the product's classification as hazardous / non-hazardous or dangerous / not dangerous according to NOSA or other relevant criteria.

3.6 Hazardous Materials

Products 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.

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.

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.

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

* As 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 products covered by this standard. Therefore, ethanol as used in paints and coatings will not be considered carcinogenic based on the IARC classification.

For reference purposes, the following link may be used to clarify any of the above R-phrases or IARC Classifications:

<http://monographs.iarc.fr/ENG/Classification/ClassificationsAlphaOrder.pdf>

Conformance to this standard shall be demonstrated by:

- The provision of comprehensive SDS for each ingredient; and
- Independent laboratory test results.

3.7 Prohibited Substances

The following substances are prohibited in any product under this category:

- 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 alkoxyates.

** 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.

Halogens, halogenated compounds and aromatic compounds must not be used except as preservatives or biocides, and then only where such compounds conform to the standard for Biocides (3.8).

Conformance to this standard shall be demonstrated by:

- Providing a complete list of ingredients for each product; and
- Providing an SDS for each ingredient.

3.8 Biocides

The product must not contain any substance for which a decision of non-inclusion into Annex 1 or 1a of the European Biocide Products Directive (98/8/EC) has been adopted.

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

Conformance to this standard shall be demonstrated by:

- Full ingredients list for each product and SDS for each ingredient. Note: in case of changes in Annex 1 or 1a of the European Biocide Products Directive (98/8/EC), the product will be assessed against the version of this document that is considered current at the time of assessment.

3.9 Manufacturing Safety

The applicant shall demonstrate that suitable procedures have been established to ensure staff are protected from exposure to hazardous substances during the manufacturing and packaging processes. This may include the elimination or substitution of hazardous substances; the use of engineering controls; or the supply and use of protective equipment.

Conformance to this standard shall be demonstrated by:

- An on-site inspection; or
- Copies of independent safety and health audits (NOSA) of the site; and
- Documentation detailing chemical use, engineering controls, safety manuals, protective equipment maintenance reports and / or evidence of employee training as applicable.

4 LABELLING, PRODUCT INFORMATION AND PACKAGING

4.1 Labelling and Product Information

Appropriate and relevant information must be supplied with the product or made available to the public. Information that must be shown on the label shall include:

- Instructions for preparation, application and care of the product;
- An instruction for users to read the SDS;
- Storage and safe disposal instructions; and
- Recycling instructions for used packaging.

The following information must be available to the public:

- Product specific SDS (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;
- Emergency treatment instructions;
- Environmentally responsible use and disposal instructions; and
- Information regarding solar reflectance, solar absorbance and thermal emittance if required by standard **3.3**.

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

The applicant 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.

Conformance to this standard shall be demonstrated by:

- Copy of labels, care instructions and other information provided with the product:
- A current safety data sheet for each product, and
- Technical data sheets, web pages and any other information freely available to customers or the public.

4.2 Packaging Requirements

Halogenated packaging is not permitted.

All packaging in excess of 10g in weight must be clearly marked with a plastics identification code

Conformance to this standard shall be demonstrated by:

- Information regarding composition of packaging materials including chemical names, CAS numbers, technical data sheets or SDS where applicable; and
- An example of proposed packaging components must be made available for visual inspection. 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.

5 RESPONSIBLE PRODUCTION MANAGEMENT

5.1 Waste Minimisation

The applicant must have effective policies, procedures and management systems in place to ensure:

- Effective reduction and management of waste being generated through the production process;
- Efficient waste recovery measures are in place to capture and reuse as much waste as is practical;
- Responsible use of resources through a process of dematerialisation; and
- Effective energy conservation through minimised energy consumption.

The applicant must demonstrate that at least 93 - 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 resulting waste production rate (<3 - 7%) shall not include any waste material that is reused by the manufacturer to create saleable product and may be calculated as an annual average.

Conformance to this standard shall be demonstrated by:

- 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
- A copy of a formalised company EMS which addresses the above issues; or
- Certificate of ISO14001 compliance by an independent certification body; and
- Reporting on energy use and sourcing, including electricity bills or consumption reporting and the type or origin of energy used.

5.2 Materials Handling and Storage

The applicant must properly store materials and 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.

Conformance to this standard shall be demonstrated by:

- On-site assessment of the storage facilities; handling procedures and work processes by a ECA appointed assessor; or
- An independent report on materials handling and storage facilities, procedures and work processes by a recognised authority; and
- Provision of copies of storage handling requirements and procedures for the control and remediation of chemical spills. This must be included in the company EMS, whether ISO 14001 certified or not.

6 ENVIRONMENTAL CLAIMS

Any environmental claims beyond the scope of this Standard that have been applied to a product for which certification has been applied must comply with ISO 14021, and the applicant must be able to verify these claims to ECA.

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 ECA.

For claims outside the scope of ISO 14021 or ISO 14064, a 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.

Conformance to this standard shall be demonstrated by:

- A copy of any relevant advertising material currently in use - or for new products, intended for use; and
- Relevant documentation confirming the grounds of the claim and its compliance with this criterion.

The onus for compliance with this standard rests with the applicant.

7 COMPLIANCE TO ENVIRONMENTAL REGULATIONS

The applicant is required to comply with relevant environmental legislation and government orders at the Local, National, and International levels, if these have been issued. An applicant’s compliance with these criteria may be established by undertaking a series of random checks; and/or by gathering samples of applicant operational procedures and documents from approved assessors as evidence to support compliance during the verification. Where an applicant is from an overseas jurisdiction, that jurisdiction’s environmental regulations apply. Where the applicant is subject to a guilty verdict by a legally constituted court in the last 24 months on the basis of a breach of any environmental legislation or permits, there must be evidence of corrective action.

8 COMPLIANCE TO LABOUR, ANTI-DISCRIMINATION AND SAFETY REGULATIONS

An applicant shall demonstrate that all employees are covered by national labour standards, or a certified industrial agreement or a registered workplace agreement as determined by relevant local legislation.

An applicant shall demonstrate general compliance to the Occupational, Health and Safety Act. Where the applicant is subject to a breach order by a government agency, or a guilty verdict by a South African Court within the last 24 months, on the basis of a breach of the Occupational, Health and Safety Act, there must be evidence of corrective action.

Where an applicant is from an overseas jurisdiction, the applicant shall demonstrate general compliance to that jurisdiction's anti-discrimination, occupational health and safety, and workers' compensations regulations. Where the applicant is subject to a breach order by a government agency, or a guilty verdict by a legal court in their respective country within the last 24 months on the basis of a the breach of anti-discrimination, occupational health and safety, and workers' compensation regulations, there must be evidence of corrective action.

An applicant's compliance with these criteria may be established by undertaking a series of random checks; gathering samples of applicant operational procedures and documents from approved assessors; and/or by providing a self-declaration document signed by an executive officer of the applicant organisation as evidence to support compliance during verification.

9 COMPLIANCE TESTING

9.1 Audit Methodology

Conformance with this standard shall be demonstrated by undertaking an assessment under the above criteria by an approved assessor, following the certification and verification procedures detailed in the Eco-Choice Africa Documented Quality Management System, which generally follows the environmental auditing requirements of ISO 19 011.

9.2 Assessor Competency

The Eco-Choice Africa Ecolabel Program classifies approved assessors as:

- a. Assessors registered by Eco-Choice Africa Ltd as environmental professionals that hold expertise relevant for an assessment, and who have undertaken training in the procedures of the Eco-Choice Africa Ecolabel.
- b. Environmental auditors accredited with SAACTA

9.3 Suitable Sources

Audit evidence should be of such a quality and quantity that competent environmental auditors, working independently of each other, will reach similar audit findings from evaluation of the same audit evidence against the same audit criteria.

Suitable sources of information to establish compliance may be, but are not limited to:

- I. Technical specification of the product.
- II. Obvious characteristics of the product under examination.
- III. Scientific test results and reports.
- IV. Environmental management system and audit reports and results.
- V. Life-cycle assessment of each stage of the product life-cycle via a physical audit and

- examination.
- VI. Life-cycle assessment via scientific testing.
 - VII. A statement of confirmation by an executive officer.
 - VIII. An assessment of company or government records.
 - IX. Other material that can be considered objective evidence.

9.4 Laboratory Testing

New testing shall be undertaken by a laboratory accredited by the National Laboratory Association (NLA), or similar overseas accreditation agents who can conduct the relevant tests and/or provide documentation detailing environmental performance against the criteria of this standard. The test results should be presented on NLA-endorsed reports or from a laboratory acceptable to Eco-Choice Africa Ltd.

If test results or environmental auditing results are not available, and/or there is insufficient data to establish full compliance with the criteria required by this standard, then certification cannot be awarded.