

Good Environmental Choice Australia

Environmental Performance Standard

Refrigerants



Issued by: Good Environmental Choice Australia Ltd

Suite G01, 15-17 Belvoir St, Surry Hills, NSW 2010
+61 (02) 9699 2850
standards@geca.org.au
www.geca.eco



USE OF GECA STANDARDS

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

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

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

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

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

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

For further information please contact:
Good Environmental Choice Australia Ltd
Standards Division
Suite G01, 15-17 Belvoir St, Surry Hills, NSW 2010
Phone: +61 (02) 9699 2850
E-mail: standards@geca.org.au



CONTENTS

DOCUMENT HISTORY 4

HOW TO APPLY FOR GECA CERTIFICATION 4

STRUCTURE OF THE STANDARD..... 4

REQUESTING ADDITIONAL EVIDENCE 4

DEFINITIONS & ACRONYMS..... 5

BACKGROUND 6

STANDARD CATEGORY SCOPE 7

FITNESS FOR PURPOSE 7

MATERIAL REQUIREMENTS 8

 Ozone Depletion Potential (ODP) 8

 Global Warming Potential (GWP) 8

PRODUCT INFORMATION AND PACKAGING 9

 Product Information 9

 Packaging 9

ENVIRONMENTAL CLAIMS 10

SOCIAL AND LEGAL COMPLIANCE..... 11

 Environmental Legislation 11

 Fair Pay 11

 Workplace Safety 12

 Equal Opportunity..... 12

 Lawful Conduct..... 12

EVIDENCE OF CONFORMANCE..... 13

APPENDIX A APPLICATION CHECKLIST..... 14

Refrigerants

DOCUMENT HISTORY

Status: Current
Current Version: 2.0
Date Issues: 06 July 2017

Standard No.	Date Published	Summary of Changes
GECA 26-2007	July 2007	
Rv2.0-2015	February 2015	DoC's added; Criterion Global Warming Potential tightened and referenced; Environmental, Social and Legal compliance criteria updated.
Rv2.0i-2017	July 2017	Update: Inclusion of notes in 'how to apply for GECA Certification' and 'Social and Legal Compliance' sections.

HOW TO APPLY FOR GECA CERTIFICATION

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

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

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

Note: GECA reserves the right to refuse, suspend or postpone an application if (a) the organisation does not meet minimum compliance with Environmental Law, Labour Law, Fair Pay, Work, Health and Safety, Lawful behaviour (e.g. pending or ongoing lawsuits) (b) the organisation does not have transparent reporting that is available/accessible on request (c) the core mission of the organisation and/or product is in conflict with GECA's mission and/or is perceived by GECA to pose a risk to the GECA brand or reputation.

STRUCTURE OF THE STANDARD

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

REQUESTING ADDITIONAL EVIDENCE

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



DEFINITIONS & ACRONYMS

% w/w: Percent weight/weight, equivalent to percent by mass.

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

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

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

GECA: Good Environmental Choice Australia Ltd.

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

GWP: Global Warming Potential is defined as the cumulative radiative forcing - both direct and indirect - integrated over a specified period of time (100 years in this Standard) from the emission of a unit mass of gas relative to the cumulative radiative forcing of carbon dioxide. CO₂ has a GWP of 1.0. The GWP values must be as used by the UN Intergovernmental Panel on Climate Change (IPCC) in its 4th Assessment Report (AR4)

ODP: Ozone Depletion Potential is defined in this standard as the comparative ozone depleting ability over a 100 year time frame of a compound in comparison to the ozone depleting ability of CFC -11, which is arbitrarily assigned an ODP of 1.0.

Packaging: Materials used for the transport, containment or display of products.

SDS: Safety Data Sheet (formally Material Safety Data Sheet – MSDS). Contains information relating to the composition, classification and risk assessment of the product. To qualify as suitable, the SDS and information therein must not be more than 5-years old.

Note: all percentages described in this document are to be measured as per cent by mass.



BACKGROUND

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

Refrigerants are used for the purpose of air conditioning, refrigeration and cooling applications in a wide variety of commercial and domestic settings, as well as in heat pumps, or "reverse cycle" systems.

Refrigerants used in air conditioning and refrigeration have significantly contributed to global warming in addition to ozone depletion. Ozone depleting CFC and HCFC compounds found wide application as refrigerants before the significance of ozone depletion was discovered, and industry has slowly been forced to switch to non-ozone depleting substances. However, many of the HFC and other compounds used to replace the original CFC refrigerants also contribute significantly to the global warming problem.



STANDARD CATEGORY SCOPE

Criterion 1: The scope of this standard is applicable to all categories of refrigerants including:

- Domestic and Industrial Air Conditioning Systems.
- Domestic and Industrial Refrigerators.
- Vehicle air conditioning systems.

Demonstration of Conformance

DoC 1.1: A brief description of the product(s) or product range as they apply to the scope of this standard.

FITNESS FOR PURPOSE

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

Criterion 2: The product must meet the performance requirements of the relevant Australian Standard (AS 1677) or equivalent international standards.

Demonstration of Conformance

DoC 2.1: Test reports showing that relevant quality and performance standards are met.

*This standard is due for review and may be superseded by an ISO standard. An update of this GECA standard will then take place.



MATERIAL REQUIREMENTS

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

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

The following requirements apply using ODP and GWP values as defined by the Montreal Protocol and its appendices, as amended from time to time. If a refrigerant that is not defined under the protocol is used, it may be tested in accordance with the test methods accepted by the protocol.

Ozone Depletion Potential (ODP)

Criterion 3: The refrigerant must have an ozone depletion potential equal to zero.

Demonstration of Conformance

DoC 3.1: A list of refrigerants and their ozone depletion potential, and a declaration from the producer/supplier of the refrigerants that the requirement is fulfilled.

Global Warming Potential (GWP)

Criterion 4: The refrigerant must have a global warming potential of 10 or less (measured as CO₂ equivalent over a period of 100 years). The GWP values must be as used by the UN Intergovernmental Panel on Climate Change (IPCC) in their 4th Assessment Report (AR4)

Demonstration of Conformance

DoC 4.1: A list of refrigerants and their global warming potential, and a declaration from the producer/supplier of the refrigerants that the requirement is fulfilled.



PRODUCT INFORMATION AND PACKAGING

Product Information

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

Criterion 5: Suitable information must be supplied with the product or made available to the public.

Information that must be shown on the label or accompanies the product includes:

- Instructions for installation, application/usage, safe handling and care of the product;
- Health hazard information including what to do in case of emergency;
- Precautions for use;
- Storage and disposal instructions for product and packaging including any take back arrangement, if applicable.

Information that must be available to the public includes SDSs, technical data sheets or product data sheets.

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

Demonstration of Conformance

DoC 5.1: Copy of labels, and/or other information provided with the product;

DoC 5.2: SDS or Technical data sheets, web pages and any other information freely available to customers or the public.

Packaging

Packaging may present a significant contribution to the environmental load of a product at several points throughout the product life cycle, including material inputs and disposal.

Criterion 6: Packaging and delivery containers for refrigerants shall be commonly recyclable by end users or shall be subject to a product stewardship take-back arrangement with the manufacturer or agent.

DoC 6.1: Evidence of recyclability of packaging/delivery containers; and/or

DoC 6.2: Copy of instructions outlining the take back service including the costs, contact details of the take-back service, and relevant website documentation.

Criterion 7: Chlorinated or halogenated plastics must not be used in product packaging.

Demonstration of Conformance

DoC 7.1: Information regarding composition of packaging materials including chemical names, CAS numbers, technical data sheets or SDS where applicable.



ENVIRONMENTAL CLAIMS

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

All claims must be relevant to the product and verifiable to GECA or a GECA appointed auditor.

Criterion 8: Any environmental claims beyond the scope of this Standard that have been applied to a product must comply with ISO 14021, and the applicant must be able to verify these claims to GECA.

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

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

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

Demonstration of Conformance

DoC 8.1: A copy of any relevant advertising material currently in use; and

DoC 8.2: Relevant documentation confirming the grounds of the claim and its compliance with this criterion.



SOCIAL AND LEGAL COMPLIANCE

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

Note: In cases where there is a conflict between GECA requirements in this section and relevant legislation or regulations introduced by governments and agencies, national legislation overrides state legislation and state legislation overrides regulations and standards issued by GECA.

Environmental Legislation

Criterion 9: The manufacturer(s) of the product and the applicant company are required by law to comply with relevant environmental legislation and government orders at the Local, State and Commonwealth levels (if these have been issued). Where a manufacturer is from an overseas jurisdiction, it is that jurisdiction's environmental regulations that apply. Where the manufacturer has been found guilty of a breach of any environmental legislation or permit(s) within the last 2-years there must be evidence of corrective action.

Demonstration of Conformance

DoC 9.1: Signed declaration from an Executive Officer of the organisation stating compliance to environmental legislation and government orders; as well as declaration of any breaches of environmental legislation or permits and the date of the breach. Applicant must:

- provide a Legal Register listing applicable environmental legislation (including applicable Regulations under that legislation) in, or as an attachment to, this declaration. The Legal Register must, for each applicable Act and Regulation listed, state whether the manufacturer and applicant company comply; or
- have a certified ISO 14001, Eco-Management and Audit Scheme (EMAS) or equivalent environmental management system in place; and

DoC 9.2: Any relevant permits granted by the EPA or an equivalent national body; and

DoC 9.3: Evidence of corrective action following a guilty verdict, if applicable.

In this criterion, 'Regulation' means an entire regulatory instrument (for example, the Environmentally Hazardous Chemicals Regulation 2008) and not the individual sections, provisions or clauses of a regulatory instrument.

Fair Pay

Criterion 10: All employees must be covered by a Federal or State award; a certified industrial agreement or a registered agreement as determined by the Australian Government Workplace Authority, or a State or Territory Workplace Relations Agency; or a workplace agreement in compliance with Workplace Relations Act 1996 Part 7 - The Australian Fair Pay and Conditions Standard. Where a manufacturer is from an overseas jurisdiction, it is that jurisdiction's equivalent regulations that apply.

Demonstration of Conformance

DoC 10.1: Signed declaration of compliance from an Executive Officer of the organisation;

DoC 10.2: Text or template of a typical workplace agreement offered to employees of the company; and

DoC 10.3: Sample payslips.



Workplace Safety

Criterion 11: A manufacturer / applicant company must demonstrate general compliance with State or Territory Legislation concerning Occupational and Workplace Health and Safety and / or the Commonwealth Safety, Rehabilitation and Compensation Act 1988, where applicable. Where a manufacturer is from an overseas jurisdiction, it is that jurisdiction's equivalent regulations that apply. Where a manufacturer / applicant company has been found guilty of a breach of relevant legislation within the last 2-years, there must be evidence of corrective action.

Demonstration of Conformance

DoC 11.1: Signed declaration from an Executive Officer of the organisation stating compliance to workplace legislation and government orders, as well as declaration of any breaches of legislation and the date of the breach. Applicants must list all applicable legislation in, or as an attachment to, this declaration;

DoC 11.2: Copy of the company Occupational / Workplace H&S policy and procedures;

DoC 11.3: Copy of employee induction records, training records, meeting records and risk assessments; or current OHSAS 18001, AS/NZS 4801 or equivalent certification; or third party certification stating compliance to OH&S Act 2004 and the OH&S Regulations 2007 or equivalent jurisdiction specific legislation; and

DoC 11.4: Evidence of corrective action following a guilty verdict, if applicable.

Equal Opportunity

Criterion 12: The manufacturer and / or applicant company must demonstrate general compliance with the requirements of the Racial Discrimination Act 1975, Sex Discrimination Act 1984, Disability Discrimination Act 1992, Equal Opportunity for Women in the Workplace Act 1999 and complementary State Legislation. The manufacturer cannot be in the list of 'named' or non-compliant employers under the Equal Opportunity for Women in the Workplace Act 1999. Where a manufacturer / applicant company is from an overseas jurisdiction, it is that jurisdiction's equivalent regulations that apply. Where a manufacturer has been found guilty of a breach of relevant legislation within the last 2-years, there must be evidence of corrective action.

Demonstration of Conformance

DoC 12.1: Signed declaration of compliance from an Executive Officer of the organisation;

DoC 12.2: Copy of relevant company policies and procedures;

DoC 12.3: Evidence of corrective action following a guilty verdict, if applicable; and

DoC 12.4: The auditor will verify that the company does not appear on the following list:
www.wgea.gov.au/report/compliance

Lawful Conduct

Criterion 13: The manufacturer / applicant company must not have been convicted of any breach of criminal law, any breach of the Trade Practices Act 1974 or the Corporations Act 2001, including prosecution or de-listing by the Australian Stock Exchange (ASX) or international equivalent. Where a manufacturer is from an overseas jurisdiction, it is that jurisdiction's equivalent regulations that apply. Where a manufacturer has been found guilty of a breach of relevant legislation within the last 2-years, there must be evidence of corrective action.

Demonstration of Conformance

DoC 13.1: Signed declaration from an Executive Officer of the organisation; and

DoC 13.2: Evidence of corrective action following a guilty verdict, if applicable.



EVIDENCE OF CONFORMANCE

Demonstration of Conformance (DoC)

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

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

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



APPENDIX A APPLICATION CHECKLIST

Criterion Number	Criterion Content	Demonstration of Conformance See standard body for details	Evidence Attached	Complies Y/ N or NA
Category Scope				
Criterion 1	Range of products – all categories of refrigerants.	A brief description of the product(s) or product range.	<input type="checkbox"/>	
Fitness For Purpose				
Criterion 2	Applicable Australian standard (AS 1677) or international equivalent.	Test reports showing that relevant quality and performance standards are met.	<input type="checkbox"/>	
Ozone Depletion Potential				
Criterion 3	ODP equal to zero.	A list of refrigerants and their ozone depletion potential, and a declaration from the producer/supplier of the refrigerants that the requirement is fulfilled	<input type="checkbox"/>	
Global Warming Potential				
Criterion 4	GWP less than 10.	A list of refrigerants and their global warming potential, and a declaration from the producer/supplier of the refrigerants that the requirement is fulfilled.	<input type="checkbox"/>	
Product Information				
Criterion 5	Information supplied with product or publicly available.	Copy of labels, and/or other information provided with the product;	<input type="checkbox"/>	
		SDS or Technical data sheets, web pages and any other information freely available to customers or the public.	<input type="checkbox"/>	
Packaging				
Criterion 6	Recyclability and/or take-back program for packaging.	Evidence of recyclability of packaging/delivery containers; and/or	<input type="checkbox"/>	
		Copy of instructions outlining the take back service including the costs, contact details of the take-back service, and relevant website documentation.	<input type="checkbox"/>	
Criterion 7	No halogenated plastics.	Information regarding composition of packaging materials including chemical names, CAS numbers, technical data sheets or SDS where applicable.	<input type="checkbox"/>	



Criterion Number	Criterion Content	Demonstration of Conformance See standard body for details	Evidence Attached	Complies Y/ N or NA
Environmental Claims				
Criterion 8	Public claims made by applicant.	Statement of conformance signed by EO, with report showing compliance to ISO 14021.	<input type="checkbox"/>	
Environmental Legislation				
Criterion 9	Applicable environmental legislation and government orders	Statement of conformance signed by EO, with declaration of breaches and applicable legislation and Legal Register listing applicable environmental legislation or certified environmental management system in place.	<input type="checkbox"/>	
		Applicable permits granted by EPA.	<input type="checkbox"/>	
		Evidence of corrective action (if applicable).	<input type="checkbox"/>	
Fair Pay				
Criterion 10	Coverage of employees under certified agreements	Statement of conformance signed by EO.	<input type="checkbox"/>	
		Sample workplace agreement.	<input type="checkbox"/>	
		Sample payslips.	<input type="checkbox"/>	
Workplace Safety				
Criterion 11	Compliance with state or territory legislation	Statement of conformance signed by EO, with declaration of breaches and applicable legislation.	<input type="checkbox"/>	
		Copy of Occupational and Workplace H&S policies and procedures.	<input type="checkbox"/>	
		Copy of employee induction, training, and meeting record and risk assessments; or current OHSAS 18001, AS/NZS 4801 or equivalent certification; or other third party certification.	<input type="checkbox"/>	
		Evidence of corrective action (if applicable).	<input type="checkbox"/>	
Equal Opportunity				
Criterion 12	Compliance with Racial Discrimination Act, Sex Discrimination Act, Disability Discrimination Act, Equal	Statement of conformance signed by EO.	<input type="checkbox"/>	
		Copy of relevant policies and procedures.	<input type="checkbox"/>	



Criterion Number	Criterion Content	Demonstration of Conformance See standard body for details	Evidence Attached	Complies Y/ N or NA
	Opportunity for Women in the Workplace Act and complementary State Legislation and Regulations.	Evidence of corrective action (if applicable).	<input type="checkbox"/>	
		Does not appear on list of non-compliant organisations.	<input type="checkbox"/>	
Lawful Conduct				
Criterion 13	No breaches of Trade Practices Act or Corporations Act.	Statement of conformance signed by EO.	<input type="checkbox"/>	

© Copyright 2015 Good Environmental Choice Ltd ABN 27 118 766 153