

The Australian Ecolabel Program Good Environmental Choice Australia Standard

Lubricants

INTERIM STANDARD for public comment & consultation



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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 Australian Ecolabel Program. Products that are certified with the mark of conformity, the “Good Environmental 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 Australian 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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Abstract

This Standard specifies environmental performance requirements of lubricating products for the Australian Ecolabel Program. The Australian 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

Additive is a chemical substance added to a base oil to impart or enhance certain properties, suppress deficiencies and increase durability.

Base Oil is a refined lubricating fluid whose properties such as age, anti-wear and lubricity can be improved by the addition of additives. It is the major component of a lubricant.

Grease is a type of lubricant composed of oil or oils thickened with soap, soaps or other thickener to a semisolid or solid consistency.

Label means the Good Environmental Choice Australia Label.

Lubricant is a substance that has a lubricating and pressure transferring effect. It is composed of base oil and additives.

Renewable Oils are base oils that are derived from animal and plant sources.

Re-refined Oil is an end product of recycled oil that has been treated to remove contaminants and additives to produce a reusable base oil.

Thickener is a substance that is added to the base oil or grease to thicken or alter its rheology.

1 INTRODUCTION

1.1 Purpose

This Standard seeks to define good environmental performance benchmarks for a broad range of lubricants. The voluntary environmental labelling standard implemented by Good Environmental Choice Australia (GECA) as part of the Australian ecolabel program specifies environmental performance criteria for a range of lubricants used in open, semi-closed and closed systems. This standard stipulates the environmental load of such products throughout the major aspects of their life cycle.

1.2 Background

This Standard is a voluntary environmental labelling standard which specifies environmental performance requirements for lubricants in the Australian market. Each year approximately 500 million litres of oil is sold on the Australian market. The environmental loads from this product include production of the raw materials, the use of these products and their disposal.

Conventional lubricants, produced from petroleum sources are harmful to the environment as they have a very low biodegradability property and many of the additives used in the product can be toxic to soil and waterways. These additives can also be harmful to humans and potentially carcinogenic.

The primary purpose of this standard is to define environmental performance criteria for the most harmful environmental and human health hazards and to use these criteria as indicators of general environmental performance of this product group.

The Standard aims in particular at promoting:

- The use of renewable and re-refined oils;
- The reduction of energy consumption during production;
- The reduction of harmful affects to the water systems and soil;
- The environmental issues of disposal and recycling at the product end-of life.

2 STANDARD CATEGORY SCOPE

This standard is applicable to a range of lubricants for both consumer and professional use, including but not limited to:

- Chain oil
- Mould oil
- 2-stroke oil
- Lubricating grease
- Metal cutting and rolling fluid
- Hydraulic oil
- Gear or transmission oil
- Concrete release agents and other total loss lubricants

How this Standard relates to Australian Standards

This is a voluntary environmental labelling standard only.

All GECA voluntary ecolabelling standards require that products satisfy the relevant Australian or International Standard as a prerequisite for GECA certification.

Australian Standards typically define “fit-for-purpose” criteria but do not provide assurance of environmental preferability. This Standard seeks to define environmental performance benchmarks above and beyond the AS.

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. 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 Australian or International Standard, or the product meets the applicable and accepted standard in its target market if it is to be exported, or

3.1.2 Demonstrated Performance

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

3.2 Material Requirements

The following requirements apply for all substances added to the finished product.

3.2.1 Prohibited Substances

The following substances must not be present in the lubricant or used in production

Halogenated organic substances

Nitric compounds

Polybrominated diphenyl ethers, or brominated paraffins, chlorinated paraffins.

Alkylphenolethoxylates (APEO), their derivatives (APDs), or linear alkylbenzene sulphonates (LAS).

Colours and other additives that contain lead, tin, arsenic, cadmium, mercury, hexavalent chromium or their compounds.

Metals or metallic compounds with the exception of sodium, potassium, magnesium and calcium.

Carcinogenic substances in categories 1, 2A and 2B as classed by the International Agency for Research on Cancer – <http://www.iarc.fr>

Thickeners may contain lithium and aluminium compounds provided both the thickener compound and final product comply with the requirements of Section 3.3

Lubricants must not contain chemical compounds that have been identified by the Department of the Environment as a Priority Existing Chemical (PEC) still under investigation or are prioritised for research by the EU as endocrine disruptors.

3.2.2 Renewable or Re-refined Oil Requirements

Certified products must contain, as a minimum, the following amounts of renewable oils and/or re-refined base oils.

Lubricant	Min Content of Renewable Oil and /or re-refined base oils (%)
Chain oil	70
Mould oil	70
Hydraulic oil	50
Lubricating grease	45
2-stroke oil	50
Metal cutting & Rolling fluid	55
Gear / Transmission fluid	55

Water-based products (> 60 % water) are exempt from this requirement.

3.2.3 Aquatic Toxicity

The base oil and additives must not be toxic to aquatic life in accordance with the OECD 201 or 202 or equivalent test methods.

3.2.4 Biodegradability

Base oils and additives must be able to degrade in accordance to the OECD 301 B or F or equivalent test methods.

3.2.5 Additive Requirements

Additives that are classified as environmentally hazardous, with the R-phrase R50/53, R51/53 or R52/53 must not exceed the following composition percentages.

Lubricant	Additives Classified as R50 or R50/53	Additives Classified as R51/53	Additives Classified as R53 or R52/53
Chain oil	1%	1%	3%
Mould oil	1%	1%	3%
Hydraulic oil	2%	1%	3%
Lubricating grease	1%	1%	2%
2-stroke oil	1%	1%	15%
Metal cutting & Rolling fluid	2%	2%	5%

3.3 Finished Product Requirements

This criterion applies to the classification of the finished product only.

Certified products must not be assigned the following R-phrases:

- R20 - R28 inclusive
- R33 - R43 inclusive
- R45 - R46 inclusive
- R48 - R49 inclusive
- R50 - R59 inclusive
- R60 - R68 inclusive

The product must not be classifiable as a fire hazard or explosive hazard.

3.4 Manufacturing Requirements

3.4.1 Waste Minimisation

The manufacturer must have effective policies and procedures to minimise waste, including measures to recycle, reincorporate waste materials from the production process.

The product must be designed in such a way that it can be safely processed after use by means of normal methods available in the market in which it will be used and disposed (e.g. re-use, recycling/reprocessing and/or safe disposal).

Where hazardous waste is generated in the manufacturing process, the manufacturer must have in place a contract with a licensed or registered hazardous waste disposal company who is responsible for the correct disposal of the hazardous waste.

3.4.2 Packaging Requirements

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

Plastic packaging weighing greater than 50g must be labelled with an appropriate resin identification code promulgated by the Plastics and Chemical Industry Association (<http://www.pacia.org.au>) or in accordance with ISO 11469.

Packaging and delivery containers for lubricants shall be commonly recyclable in mainstream local recycling systems or shall be subject to a packaging stewardship take-back and re-use arrangement with the manufacturer or agent.

For packaging that holds up to 5L of the product, designs must be made to prevent the retention of oil.

3.5 Product Information

Products must be labelled with:

- A warning that lubricants may be harmful to health and environment and must be disposed of responsibly;
- Correct disposal advice and directions, including details of local or national oil-recycling programs that will accept recovered oil;
- An environmental warning against product disposal into waste water systems, waterways, the ground or landfill;
- Details of how customers may make use of the packaging stewardship offer, or other appropriate packaging recycling instructions.

4 COMPLIANCE TO ENVIRONMENTAL REGULATIONS

The applicant is required to comply with relevant environmental legislation and government orders at the Local, State, and Commonwealth 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.

5 COMPLIANCE TO LABOUR, ANTI-DISCRIMINATION AND SAFETY REGULATIONS

An applicant shall demonstrate that all employees are covered by a Federal or State award or a certified industrial agreement or a registered workplace agreement as determined by the Industrial Relations Commission, the Employment Advocate 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.

An applicant shall demonstrate general compliance to the terms of State or Territory Legislation concerning Occupational, Health and Safety and/or the *Commonwealth Safety, Rehabilitation and Compensation Act 1988*, where applicable. Where the applicant is subject to a breach order by a government agency, or a guilty verdict by an Australian Court within the last 24 months, on the basis of a breach of State, Territory or Commonwealth Occupational, Health and Safety Legislation, there must be evidence of corrective action.

The applicant shall demonstrate general compliance to 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. Applicants cannot be in the list of 'named' or non-compliant employers under the Equal Opportunity for Women in the Workplace Act 1999. Where the applicant is subject to a breach order by a government agency, or a guilty verdict by an Australian Court in the last 24 months on the basis of a breach of these Acts, 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.

6 EVIDENCE OF CONFORMANCE

6.1 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 Good Environmental Choice Australia Ltd Documented Quality Management System, which generally follows the environmental auditing requirements of ISO 19 011.

6.2 Assessor Competency

The Australian Ecolabel Program classifies approved assessors as:

- a. Assessors registered by Good Environmental Choice Australia Ltd as environmental professionals that hold expertise relevant for an assessment, and who have undertaken training in the procedures of the Australian Ecolabel Program; or
- b. Environmental auditors accredited with the RABQSA.

6.3 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:

- a. Technical specification of the product.
- b. Obvious characteristics of the product under examination.
- c. Scientific test results and reports.
- d. Environmental management system and audit reports and results.
- e. Life-cycle assessment of each stage of the product life-cycle via a physical audit and examination.
- f. Life-cycle assessment via scientific testing.
- g. A statement of confirmation by an executive officer.
- h. An assessment of company or government records.
- i. Other material that can be considered objective evidence.

6.4 Laboratory Testing

New testing shall be undertaken by a laboratory accredited by the National Association of Testing Authorities (NATA), or an ISO 17 025 registered laboratory, or a similarly independent accreditation agent 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 NATA-endorsed reports or from a laboratory acceptable to Good Environmental Choice Australia 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.