

EcoLogo^M is inviting public participation for the review of the DRAFT environmental criteria for Closed System Water Corrosion Inhibitors (CCD-170).

The EcoLogo^M Program is North America's most widely recognized and respected certification of environmental leadership. It is a science-intensive program of rigorous environmental study, criteria-setting and applicant auditing. By setting standards and certifying products in more than 120 categories, EcoLogo^M helps individuals and organizations identify, trust, buy and sell "green" goods and services.

In developing environmental leadership standards, EcoLogo^M welcomes and actively encourages the participation of a wide variety of stakeholders familiar with the product group. This includes environmental NGOs and other not-for-profit organizations, academics and other scientific experts, manufacturers, industry associations, government representatives, and purchasing professionals.

We are requesting comments on the proposed standard for **Closed System Water Corrosion Inhibitors (CCD-170)**.

By lending your expertise in the review of our proposed criteria, you will contribute to EcoLogo's continued scientific rigor and environmental leadership. Please direct comments to me by either regular or electronic mail at the address below before February 21th, 2008.

All comments will be treated with utmost discretion and confidentiality.

Sincerely,

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EcoLogo^M Program Certification Criteria Document

CCD-170 DRAFT

Corrosion Inhibitors – Closed Water Systems



Introduction

The EcoLogo^M Program is pleased to publish the following certification criteria document **Closed System Water Corrosion Inhibitor**.

The EcoLogo^M Program is designed to support a continuing effort to improve the environmental performance of the marketplace by reducing energy and materials consumption and by minimizing the impacts of pollution generated by the production, use and disposal of goods and services.

The function of corrosion inhibitors is to control corrosion and deterioration within the piping of closed water systems. This serves to maintain heat transfer efficiency and prolong the life of the system. Closed water systems are designed to distribute heated or chilled water throughout a designated area. Common closed water systems are hot water heating of apartments and offices, and chilled water systems used for air conditioning in large buildings.

Corrosion is caused mainly by oxygen dissolved in the water and corroding steel and iron. Corrosion can be minimized by reducing air-leakage and changing filters on a routine basis, and use of chemical treatments.

There are several types of chemical treatments. Most have nitrite as active ingredient, a smaller proportion have molybdenum as active ingredient. Other common ingredients are an azole for inhibiting corrosion on copper and sodium borate (borax) to buffer pH and further reduce corrosion on steel and copper.

Based on a review of currently available life-cycle information, the product category requirements will provide an environmental benefit through a **reduction of chemical emissions**.

As information and technology change, the product category requirements will be reviewed and possible amended.

Notice

Any reference to a standard means to the latest edition of that standard.

The EcoLogo^M Program reserves the right to accept equivalent test data for the test methods specified in this guideline.

Interpretation

1. In this criteria document, the following definitions apply:

“closed system water corrosion inhibitors” are chemical mixtures added to hot and chilled water systems to control corrosion;

“IARC” means "IARC" means International Agency for Research on Cancer, an organization which lists known and suspected carcinogens;

“recommended dosage” means the amount of corrosion inhibitor recommended by the product manufacturer for addition to the water system measured in ppm;

“TKN” means Total Kjeldahl Nitrogen (TKN) is the sum of organic nitrogen and ammonia NH₃ and ammonium. It is a common measure used in wastewater treatment.

Category Definition

This category includes all close system water corrosion inhibitors. Open system corrosion inhibitors are not covered.

General Requirements

2. To be authorized to carry the EcoLogo^M, fine paper must:
- meet or exceed all applicable governmental and industrial safety and performance standards.
 - be manufactured and transported in such a manner that all steps of the process, including the disposal of waste products arising therefrom, meet the requirements of all applicable governmental acts, by laws and regulations including, for facilities located in Canada, the *Fisheries Act* and the *Canadian Environmental Protection Act (CEPA)*.

Product Specific Requirements

3. To be authorized to carry the EcoLogo^M the fine paper must:
- demonstrate < 0.2 mils per year (mpy) prevention of corrosion on steel and <0.05 mpy prevention of corrosion on copper by when tested in a closed water system according to ASTM D2688 *Standard Test Methods for Corrosivity of Water in the Absence of Heat Transfer (Weight Loss Methods)*;
 - demonstrate an LC₅₀ of > 1000 mg/l when tested on trout at recommended dosage according to *Environment Canada Biological Test Method Reference Method for Determining Acute Lethality of Effluents to Rainbow Trout RM 13/ 2000*;

- (c) not be manufactured or formulated with molybdenum;
- (d) not be formulated or not be formulated or manufactured with any chemicals that are included in the International Agency for Research on Cancer (IARC) lists for proven (Group 1), probable (Group 2A) or possible (Group 2B) carcinogens;
- (e) provide a TKN of less than 100 mg/l when tested at recommended dosage; and
- (f) provide a total Phosphorous of less than 10 mg/l when tested at recommended dosage.

Verification

- 4. To verify a claim that a product meets the criteria listed in this document, the EcoLogo^M Program will require access, as is its normal practice, to relevant quality control and production records and the right of access to production facilities on an announced basis.
- 5. Compliance with section 2(b) shall be attested to by a signed statement of the Chief Executive Officer or the equivalent signing officer of the manufacturer. The EcoLogo^M Program shall be advised in writing immediately by the licensee of any noncompliance, which may occur during the term of the license. On the occurrence of any noncompliance, the license may be suspended or terminated as stipulated in the license agreement.

Conditions for EcoLogo^M Use

- 6. The EcoLogo^M may appear on wholesale or retail packaging, or on the product itself, provided that the product meets the requirements in this criteria document.
- 7. A criteria statement must appear with the EcoLogo^M whenever the EcoLogo^M is used in association with the printing and writing paper. The intent of this statement is to provide clarification as to why the product was certified and to indicate constraints to which the certification is limited. This is to ensure no ambiguity over, or misrepresentation of, the reason(s) for certification.

The suggested criteria statement wording for this product category is "Closed System Water Corrosion Inhibitor". The licensee may propose other wording for the criteria statement, but any such proposed wording must be approved by the EcoLogo^M Program.
- 8. All licensees and authorized users must comply with the EcoLogo^M Program's *Guide to Proper Use of the EcoLogo^M* regarding the format and usage of the EcoLogo^M.
- 9. Any accompanying advertising must conform with the relevant requirements stipulated in this criteria document, the license agreement and the EcoLogo^M Program's *Guide to Proper Use of the EcoLogo^M*.

For additional copies of this criteria document or
for more information about the EcoLogo^M Program, please contact:

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