

# Environmental Choice<sup>M</sup> Program CERTIFICATION CRITERIA DOCUMENT



**CCD-089**

**Product: Compost: General**

## Preamble

Pursuant to paragraph 54(1)(b) of the *Canadian Environmental Protection Act, 1999*, the Minister of the Environment is pleased to publish the following national guideline on **compost** under the auspices of the Environmental Choice<sup>M</sup> Program.

The Environmental Choice Program is designed to support a continuing effort to improve and/or maintain environmental quality by reducing energy and materials consumption and by minimizing the impacts of pollution generated by the production, use and disposal of goods and services available to Canadians.

Composting consists of the aerobic biological decomposition of natural organic materials by soil organisms into stable organic matter. Compost provides organic matter which improves the water holding capacity, stability and ease of root penetration in soils and provides plant nutrients.

Canadians generate approximately 16 million tonnes of residential solid waste per year. Composting could reduce this waste stream by up to 50% while biologically producing a valuable soil conditioner from material which is currently being wasted.

Based on a review of currently available life cycle information, the product category requirements will produce an environmental benefit through the **reduction of waste entering the landfill and recycling of organic matter and plant nutrients**.

Life cycle review is an ongoing process. As information and technology change, product category requirements will be reviewed and possibly amended.

The Minister of the Environment anticipates that manufacturers or importers of **compost** which conform to this guideline will apply to the Environmental Choice Program for verification and subsequent authority to label the qualifying products with the Environmental Choice EcoLogo.

## Notice

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

The Environmental Choice Program reserves the right to accept equivalent test data for the test methods specified in this guideline.

## Notice of Intent

It is the intent of the program to require that compost be tested for pathogenic indicator organisms to ensure a sufficient degree of disinfection when the guideline is renewed.

## Interpretation

1. In the following guideline:

**"compost"** is a homogeneous and friable mixture primarily composed of stable (no longer decaying) organic matter produced by composting under aerobic conditions;

**"electrical conductivity"** means the ratio of current density to applied electric field. Its measurement gives an indication of the total concentration of soluble salts. It should be tested for in accordance with the method described in *Methods of Soil Analysis, Part 2, Chemical and Microbiological Properties*, (C.A. Black, D.D. Evans, J.L. White, L.E. Ensminger and F.E. Clark, eds), American Society of Agronomy, Madison Wisconsin, 1965, pp. 938-939;

**"organic matter"** is the product of decomposition of material from animal and plant origin. This should be tested for in accordance with the "loss on ignition" method described in *Methods of Soil Analysis, Part 2, Chemical and Microbiological Properties*, (C.A. Black, D.D. Evans, J.L. White, L.E. Ensminger and F.E. Clark, eds), American Society of Agronomy, Madison Wisconsin, 1965, p. 1399;

**"PCBs"** means polychlorinated biphenyls. They are synthetic compounds consisting of chlorine, carbon and hydrogen. They shall be tested for in accordance with *The Determination of Polychlorinated Biphenyls (PCB), Organochlorines (OC), and Chlorobenzenes (CB) in Soils and Sediments by GLC-ECD (PSAOC-E3270A.6)*, Ontario Ministry of the Environment, 1990. An alternative method is EPA-8080;

**"pH"** is a logarithmic index for the hydrogen ion concentration in an aqueous solution. This should be tested for in accordance with the "saturated soil paste" method described in *Manual on Soil Sampling and Methods of Analysis* (J.A. McKeague, ed.), 2nd edition, Canadian Society of Soil Science, Ottawa, 1978, sub-section 4.13, p. 155;

**"sodium adsorption ratio (SAR)"** is the ratio of specific available cations in the soil solution. It is the concentration of sodium divided by the square root of the sum of the concentration of calcium and magnesium, in mmol/dm<sup>3</sup>. The magnitude of the ratio indicates the extent of accumulation of sodium in the soil exchange complex and, consequently, the degree of degradation of soil structure. SAR should be tested for in accordance with the method described in *Diagnosis and Improvement of Saline and Alkali Soils*, U.S. Salinity Laboratory Agriculture Handbook 60, U.S. Department of Agriculture, 1954, pp. 72-75;

**"source-separated municipal waste"** includes compostable food and yard waste as well as compostable wastes derived from institutional operations that would normally be disposed of in landfill sites or incinerated. This waste will have been separated from non-compostable inorganic wastes (i.e. metals, glass, plastic, etc.), at their source of generation. It does not include materials harvested solely for the purpose of composting or soil amendment (i.e. peat moss); and

**"water content"** shall be tested for in accordance with the "water content, weight basis" method as described in *Manual on Soil Sampling and Methods of Analysis* (J.A. McKeague, ed.), 2nd edition, Canadian Society of Soil Science, Ottawa, 1978, sub-section 2.411.

## Category Definition

2. This category includes all **compost**.

## General Requirements

3. To be authorized to carry the EcoLogo the **compost** must:

- (a) meet or exceed all applicable governmental and industrial safety and performance standards; and

(b) be manufactured and transported in such a manner that all steps of the process including the disposal of waste products arising therefrom will meet the requirements of all applicable governmental acts and regulations including the *Canadian Environmental Protection Act (CEPA)*.

### Product Specific Requirements

4. To be authorized to carry the EcoLogo the **compost** must:

- (a) have been uniformly exposed to temperatures in excess of 55°C for 3 consecutive days;
- (b) have a pH range between 5.0 and 8.0;
- (c) not exceed the following amounts of heavy metals (in mg/kg dry weight):

Arsenic (As)	-	13
Cadmium (Cd)	-	2.6
Chromium (Cr)	-	210
Cobalt (Co)	-	26
Copper (Cu)	-	128
Lead (Pb)	-	83
Mercury (Hg)	-	0.83
Molybdenum (Mo)	-	7
Nickel (Ni)	-	32
Selenium (Se)	-	2.6
Zinc (Zn)	-	315

- (d) have a minimum of 30% organic matter content (of dry weight);
- (e) have a maximum of 50% water;
- (f) have a sodium adsorption ratio less than 5;
- (g) have a maximum particle size of 13mm;
- (h) not contain plastic in excess of 0.4% by dry weight and any combination of glass, rubber and/or metal in excess of 1% by dry weight if such particles have a dimension in excess of 2 mm;
- (i) not contain PCBs in excess of 1 ppm;
- (j) have a maximum electrical conductivity of 3 ms/cm; and
- (k) be derived from source-separated municipal waste.

4.1 All product constituents considered as compost must have undergone the entire composting process.

4.2 If the compost is packaged in a plastic bag, the bag must:

- (a) be labelled in accordance with the Society of the Plastics Institute of Canada (SPI) *Plastic Bottle and Container Material Code System*;

- (b) contain over 15% of recycled plastic by weight, and a minimum of 5% of the total weight must be post-consumer plastic; and
- (c) not be formulated or manufactured with inks, dyes, pigments or any other additives which contain lead, cadmium, mercury or hexavalent chromium and not have a combined contaminant concentration exceeding 250 parts per million.

### Verification



- 5. Verification of 4(b) through (j) shall be accomplished through sampling and analysis. Representative samples shall be taken for every 500 tonnes of finished compost product or every six months, whichever is arrived at sooner.
- 6. To verify a claim that a product meets the criteria listed in the guideline, the Environmental Choice 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 unannounced basis.
- 7. Compliance with section 3(b) shall be attested to by a signed statement of the Chief Executive Officer or the equivalent officer of the manufacturer. The Environmental Choice Program shall be advised in writing immediately by the licensee of any non-compliance which may occur during the term of the license. On the occurrence of any non-compliance, the license may be suspended or terminated as stipulated in the license agreement. In the event of a dispute related to the suspension or termination of the license, the license agreement provides for arbitration.

### Licensing Conditions

- 8. The EcoLogo may appear on wholesale or retail packaging, or on the product itself, provided that the product meets the requirements in this guideline.
- 9. A criteria statement must appear with the EcoLogo whenever the EcoLogo is used in association with the **compost**. 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.

ECP required criteria statement wording for this product type is “Compost”. The licensee may propose other wording for the criteria statement, but any such proposed wording must be approved by the Environmental Choice Program.

- 10. The criteria statements described in 9 above must be in accordance with the Environmental Choice Program's *Graphic Standards Manual*. All licensees and authorized users must also comply with the Environmental Choice Program's policies regarding the format and usage of the EcoLogo.
- 11. Any accompanying advertising must conform with the relevant requirements stipulated in this guideline, the license agreement and the Environmental Choice Program's *Graphic Standards Manual*.

	<p><b>For more information about the EcoLogo™ Program, please direct your inquiry to:</b>          The EcoLogo™ Program          171 Nepean Street, Suite 400          Ottawa, ON, K2P 0B4          Phone: 1.800.478.0399  <a href="http://www.ecologo.org">www.ecologo.org</a></p>	
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