



## ECOgent General Purpose Cleaner Specifications

### BACKGROUND:

- **Dangers of common chemical cleaners**  
Many conventional cleaning products pose risks to both human health and to the natural environment. Many such products can cause occupational asthma, and pose special risks for chemically hypersensitive individuals. Furthermore, they can adversely affect the reproductive systems of certain species of fish and wildlife. ECOgent General Purpose Cleaner is specifically designed to avoid harming either human beings or the environment.

### DESCRIPTION AND INGREDIENTS:

- **General purpose cleaner concentrate**  
ECOgent provides one product for all daily cleaning tasks. It is used in various dilutions according to the requirements of each task.
- **Made from 100% natural ingredients**  
ECOgent is derived from renewable resources, primarily vegetable products. It is sustainable; that is, it can be produced and used without depleting non-renewable resources or causing human or environmental damage.
- **Cleans without Harming**  
ECOgent does not contain petrochemicals, phosphates, EDTA, NTA, dyes, synthetic perfumes, preservatives or pesticides. It is an ideal cleaner for use by organizations with scent-free policies and for use where some of the building occupants may be chemically hypersensitive. Using ECOgent also reduces occupational health risks.

### CERTIFICATIONS

- **Environmental Choice™ PRC-097**  
ECOgent is certified by Environment Canada's Environmental Choice™ Program under its new PRC-097 Criteria "Cleaning Products with Low Potential for Environmental Illness and Endocrine Disruption". The PRC-097 criteria was designed to go well beyond the requirements of Environmental Choice's more general ECP33 standard for general purpose cleaners. Under ECP33, cleaners can contain up to 10% VOC (volatile organic compounds) in concentrate form.. Aerobic biodegradation is required under ECP33, but anaerobic biodegradation is not.  
  
PRC-097 allows only 0.05% volatiles in the concentrate, and requires that no ingredients be derived from ethylene oxide, a chemical commonly used in the production of surfactants. (Ethylene oxide is an established carcinogen and can cause acute toxicity, high reactivity, reproductive and mutagenic effects, neurotoxicity and sensitization to those workers exposed to it.) PRC-097 requires that products be readily biodegradable anaerobically as well as aerobically, and requires that ingredients must not form any persistent metabolites during the biodegradation test.
- **Envirodesic™ Certification Program**  
ECOgent is certified under the *Envirodesic*™ Certification Program as a "sustainable low-emission cleaning product with minimal environmental impact, that is suitable even for the hypersensitive." *Envirodesic*™ is concerned with sustainability, environmental impact, indoor air quality and health impact on chemically hypersensitive individuals. *Envirodesic*™-certified products are ideal for building situations with scent-free policies.
- **Commonwealth of Massachusetts**  
ECOgent is a Statewide supplier of environmentally preferred general purpose, glass, bathroom and carpet cleaners to The Commonwealth of Massachusetts
- **Canadian Food Inspection Agency**  
The Canadian Food Inspection Agency has no objection to the use of ECOgent as a general purpose cleaner in registered establishments, provided the instructions on the label are followed.
- **Patented Formula**  
ECOgent is patented under United States Patent number 6,432,395. The Canadian Patent is pending.



## CLEANING EFFICIENCY

- ECOgent General Purpose Cleaner cleans effectively. Tests prove that it cleans as well as national brand all-purpose cleaner concentrates (Test method ASTM C5343-93).
- ECOgent has also proven not to promote carpet resoiling.

## VOLATILITY

- ECOgent contains less than 0.05% Volatile Organic Compounds as defined by the California Air Resources Board (CARB) and the U.S. EPA National Volatile Organic Compounds Emission Standards for consumer products.
- ECOgent is listed by the Environmental Illness Society of Canada in their EI-Friendly directory. It is endorsed by the *Envirodesic*<sup>™</sup> Certification Program as a low-volatile cleaner that will help to achieve Maximum Indoor Air Quality<sup>™</sup>.

## TOXICITY

- **Non-Hazardous under WHMIS/OSHA**  
WHMIS (Canada) and OSHA (U.S.) specify requirements and classifications regarding health and safety in the occupational setting. ECOgent is non-hazardous by WHMIS/OSHA criteria.
- **Dermal Toxicity**  
Absorption through the skin is an important route for entry of toxic compounds. A product is considered dermally toxic if its dermal toxicity rating is less than 2000 mg/kg. body weight. ECOgent's dermal toxicity is greater than 2000 mg/kg (calculated).
- **Oral Toxicity**  
The Environmental Choice<sup>™</sup> PRC-097 Criteria seeks a calculated oral rat toxicity (LD<sub>50</sub>) of greater than 5000 mg/kg body weight by whole formulation test. ECOgent's oral toxicity is greater than 12000 mg/kg (calculated).
- **Aquatic Toxicity**  
Many conventional surfactants have endocrine disrupting effects, that is, they can alter the reproductive systems of aquatic life. Environmental concentrations of surfactants in the inland waters around populated centers range between .005 mg/l and 2 mg/l. Surfactants can be toxic to aquatic life at concentrations as low as .025 mg/l, and have demonstrated effects on aquatic life at concentrations as low as .005mg/l. They have demonstrated synergy with many chemical compounds and may interact with other more toxic pollutants to create mixtures of unknown toxicological properties. Tests prove that ECOgent is not hazardous to aquatic life at levels likely to enter the environment (test method OECD 202 PI).

## BIODEGRADABILITY

- **Aerobic Biodegradation**  
It is important that substances that enter water treatment plants and subsequently the natural aquatic environment be readily biodegradable in aerated conditions, that is, by bacteria that live on free oxygen in the air. ECOgent is readily biodegradable under aerobic conditions (Test method OECD 301D; combined ingredient based testing).
- **Anaerobic Biodegradation**  
It is equally important that substances that enter the natural aquatic environment be readily biodegradable under anaerobic conditions (in the absence of oxygen), for example, in sludge at the bottom of a lake or river. ECOgent demonstrates excellent anaerobic biodegradation (Test method ASTM 1196-92; combined ingredient based testing).

## ANIMAL TESTING

- Many people feel that it is inappropriate to subject animals to test substances in order to assess irritancy and other properties. Animal testing was avoided at all stages of development of ECOgent General Purpose Cleaner.

## APPLICATIONS

- ECOgent General Purpose Cleaner is suitable for most commercial, institutional and household cleaning tasks.
- ECOgent is highly recommended for use in: schools, colleges and universities; hospitals; federal, state, provincial and municipal government facilities; federally inspected food establishments; farm industries; grocery stores; restaurants; hotels; offices; long term care institutions; day care facilities; apartment buildings and condominiums; townhouses and single family homes.
- ECOgent has proved to be suitable for use on polystyrene, polycarbonate, and plexiglass (Test method 142.5 hours immersion at 50 degrees C.) C. Galbocca, Canada's leading manufacturer of acrylic and polystyrene shower stalls, bathtubs, whirlpool tubs and accessories suggests the use of ECOgent as a cleaner of its products.



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# MATERIAL SAFETY DATA SHEET

(Prepared according to 29 CFR 1910.1200)

Degree of hazard: 4 = Extreme, 3 = High, 2 = Moderate, 1 = Slight, 0 = Insignificant

Health: 1

Flammability: 0

Reactivity: 0

## SECTION I: PRODUCT IDENTIFICATION

**PRODUCT NAME:** Ecogent General Purpose Cleaner

**DATE REVIEWED:** January 31, 2008

**DOC CODE:** Ecogent General Purpose Cleaner

**CHEMICAL FAMILY:** Mixture.

**EMERGENCY 24-HOUR TELEPHONE #** 1-613-996-6666 (Canutec)

N/A = Not applicable or Not available.

N/D = Not determined.

## SECTION II: COMPOSITION/ INFORMATION ON INGREDIENTS

This product has not been tested as a whole for health effects on animals or humans. According to the OSHA Hazardous Communications Standard (29 CFR 1910.1200) any hazardous ingredients that comprise >1.0% of the material and any carcinogenic ingredients that comprise >0.1% must be listed on the MSDS. When individually tested at 100% ingredients in the make-up of this product posed the following health hazards.

### SECTION II a: HAZARDOUS INGREDIENTS >1.0%

None

### SECTION II b: CARCINOGENIC INGREDIENTS AT >0.1%

None.

## SECTION III: HAZARDS IDENTIFICATION

**EYES:** May cause mild eye irritation.

**SKIN:** None expected.

**INGESTION:** Ingesting large amounts may cause abdominal discomfort, nausea and diarrhea.

## SECTION IV: FIRST AID PROCEDURES

**EYES:** Flush with water for at least 15 minutes. If irritation persists consult physician.

**INGESTION:** Drink 1 to 2 glasses of water. Consult physician.

**SKIN:** Remove contaminated clothing. Thoroughly wash exposed area with soap and water.

**PHYSICIAN:** Treatment based on judgment of attending physician.

## SECTION V: FIRE AND EXPLOSION DATA

**FLASH POINT:** N/A

**AUTO-IGNITION TEMPERATURE:** N/D

**EXPLOSIVE LIMITS - UEL:** N/D **LEL:** N/D

EXTINGUISHING MEDIA: Alcohol foam, water fog, CO<sub>2</sub> or dry chemical.

SPECIAL FIRE FIGHTING PROCEDURES: Use NIOSH/MSHA approved self-contained positive pressure breathing apparatus and protective clothing where this material is involved in a fire.

UNUSUAL FIRE AND EXPLOSION HAZARD: None known.

## SECTION VI: ACCIDENTAL RELEASE MEASURES

Scoop up spilled material and re-use if possible. If material cannot be used dispose in landfill.

## SECTION VII: HANDLING AND STORAGE

No special precautions required.

## SECTION VIII: PROTECTION MEASURES

VENTILATION: Local exhaust or dilution ventilation is necessary in poorly ventilated areas.

GLOVES: Rubber gloves.

RESPIRATORY: Not usually required

EYE: Safety glasses.

OTHER PROTECTIVE EQUIPMENT: Body-covering clothing should be worn.

## SECTION IX: PHYSICAL/CHEMICAL DATA

APPEARANCE AND ODOR: Clear colorless liquid with no fragrance added.

WATER SOLUBILITY, % BY WT: Complete

% VOLATILE BY WT.: ≈90

pH @ USE: Varies

pH(as supplied): 4.0-5.0

## SECTION X: REACTIVITY DATA

STABILITY: Stable

HAZARDOUS POLYMERIZATION: Will not occur.

INCOMPATIBILITY: Strong Acids, oxidizers.

HAZARDOUS DECOMPOSITION/COMBUSTION PRODUCTS: Possibly oxides of carbon and other unidentified organic compounds.

## SECTION XI: TOXICOLOGICAL INFORMATION OF INGREDIENTS

Calculated Oral LD50: 12526 mg/kg, Dermal LD50 > 2000mg/kg.

## SECTION XII: ECOLOGICAL INFORMATION

Biodegradability:

COD: 135,600 mg/kg.

5- Day Biodegradability: 58%.

15-Day Biodegradability: 83%

28-Day Biodegradability: 100%

Anaerobic Biodegradability: 84.5% in 24 days.

Biodegradability tested using methods OECD 301D ASTM 1196-92 and OECD 202 PI.

Aquatic Toxicity:

Ceriodaphnia Dubia

48-h LC50: >100 mg/l

48-h NOEC (LC0): 100 mg/l

Test method OECD 202 Part I.

### **SECTION XIII: SPILL, LEAK AND DISPOSAL PROCEDURES**

WASTE DISPOSAL: In accordance with Provincial and Federal regulations.  
NEUTRALIZING CHEMICALS: Water.

### **SECTION XIV: TRANSPORT INFORMATION PER 49 CFR 172.101**

**GROUND TRANSPORTATION:** None required.

**AIR TRANSPORTATION:** None required.

**MARITIME TRANSPORTATION:** None required.

### **SECTION XV: REGULATORY INFORMATION**

**Domestic:**

TSCA: All ingredients are listed on the TSCA chemical substance inventory.

SARA Section 313 Ingredients: None.

California Prop 65 Ingredients: None.

**Canadian:**

WHMIS Hazard Class: Not controlled.

### **SECTION XVI: OTHER INFORMATION**

One should always use chemicals with awareness of potential hazards, known and unknown, and their effect on the human system. We urge users to minimize employee exposure to all chemicals, including this product and to keep the level of exposure commensurate with good industrial hygiene practices.

#### **DISCLAIMER OF LIABILITY**

The manufacturer and seller warrants that this product conforms to its standard specifications when used according to directions. As the conditions or methods of use are beyond our control, we do not assume any responsibility and expressly disclaim any liability for use of this product. Information contained herein is believed to be true and accurate but all statements or suggestions are made without warranty, expressed or implied, regarding accuracy of the information, the hazards connected with the use of the material and the results to be obtained from the use thereof.