



MATERIAL SAFETY DATA SHEET

0100Eco

SECTION 1- PRODUCT AND MANUFACTURER INFORMATION

MSDS DATE: 7/1/2010

PRODUCT: EcoFlo
SYNONYMS: SAE/AMS 1424 Type I Deicing Fluid
CHEMICAL FAMILY: Glycols
FORMULA: Proprietary Blend

MANUFACTURED BY

OCTAGON PROCESS
Serviced by Katapult LLC
30 Ramland Rd, Ste 103
Orangeburg, NY 10962

EMERGENCY

CHEMTREC.....800-424-9300
COMPANY EMERGENCY PHONE.....800 423-3375

SECTION 2 - HAZARDOUS INGREDIENTS

CHEMICAL/COMMON NAME CAS-NO % PEL-OSHA TLV-ACGIH

Product contains no component ingredients listed by OSHA at 29CFR 1910.1000 (Subpart Z)

Product contains no component ingredients listed as carcinogen by IARC, NTP, ACGIH, OSHA

SECTION 3 - HAZARDOUS MATERIAL IDENTIFICATION SYSTEM

HEALTH=1 FLAMMABILITY=0 REACTIVITY=0 PROTECTION=B*

*Refer to Section 11 of this document for explanation of personal protective equipment

SECTION 4 - HEALTH HAZARD DATA

HEALTH EFFECTS (Acute And Chronic)

EYES May cause a stinging sensation, redness and irritation. No chronic adverse effects are expected.

SKIN No acute or chronic adverse effects are expected under normal conditions.

INHALATION No acute or chronic adverse effects are expected under normal conditions.

INGESTION Accidental ingestion can cause minor stomach distress.

PRIMARY ROUTES OF ENTRY

EYES/SKIN: Yes

INHALATION: Yes (mist/vapor)

INGESTION: Not likely

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE Pre-existing eye conditions



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SECTION 5 - FIRST AID INSTRUCTIONS

EMERGENCY FIRST AID PROCEDURES

EYES Flood with water for at least 15 minutes, holding eyelids open. If irritation persists, get medical attention

SKIN Wash exposed areas with mild soap and water. If irritation occurs and persists, get medical attention.

INHALATION If breathing is difficult, give oxygen. If breathing has stopped, administer artificial respiration (mouth to mouth is preferred) if trained - get immediate medical attention.

INGESTION Accidental ingestion of a small quantity of this material: Rinse mouth with water. If larger quantity is ingested, give victim 4 to 8 oz of water. *DO NOT INDUCE VOMITING.* Get medical attention.

SECTION 6 - CHEMICAL DATA

BOILING POINT >120°C
1.14@25°C

SPECIFIC GRAVITY (WATER=1)

VAPOR PRESSURE (mmHg) <1.0

PERCENT VOLATILE BY VOLUME (%) NA

VAPOR DENSITY (AIR=1) Not Determined

EVAPORATION RATE (n-butyl acetate =1) <1.0%

SOLUBILITY IN WATER Complete

APPEARANCE AND ODOR INFORMATION orange, odorless liquid

INCOMPATIBILITY (Materials To Avoid) strong oxidizers

HAZARDOUS DECOMPOSITION PRODUCTS incomplete combustion may release oxides of carbon or acrolein.

WILL HAZARDOUS POLYMERIZATION OCCUR No

CONDITIONS TO AVOID FOR POLYMERIZATION None

IS THE PRODUCT STABLE Yes

CONDITIONS TO AVOID FOR STABILITY strong oxidizers, high temperatures

SECTION 7 – FIRE FIGHTING INFORMATION

FLASH POINT (Method Used) None to Boiling (COC)

FLAMMABLE LIMITS Not Determined

EXTINGUISHING MEDIA Product does not burn. However, in a fire situation, some components of this product may boil off, leaving a combustible residue. Use water spray or fog, foam, dry chemical, CO₂.

SPECIAL FIRE FIGHTING PROCEDURES Keep fire-exposed containers cool with water spray. Wear chemical protective clothing and NIOSH/MSHA-approved SCBA as recommended by NFPA.

UNUSUAL FIRE AND EXPLOSION HAZARDS None



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SECTION 8 - SPILL OR LEAK/DISPOSAL PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED Caution: spilled product will be slippery. If large spill, dike and contain spill. Spread inert absorbent material on area and sweep up. Place in plastic container for disposal. Keep material out of sewers and waterways. Comply with spill notification requirements. All response activities must comply with HAZWOPER (29CFR 1910.120).

WASTE DISPOSAL METHODS Dispose of waste in compliance with local, state and federal regulations. Recycle material where possible. Not considered a RCRA hazardous waste.

SECTION 9 – TOXICOLOGY INFORMATION

48 Hour LC50 (daphnia magna) 18,500 ppm
96 Hour LC50 (pimephales promelas) 16,875 ppm

SECTION 10 – ECOLOGICAL INFORMATION

BOD₅: 0.39 kgO₂/kg fluid
COD: 1.20 kgO₂/kg fluid

SECTION 11 - EXPOSURE CONTROL AND PROTECTION

EYES: Use goggles when eye contact due to splashing or spraying is possible.

INHAILATION: Special respiratory protection is generally not required under normal recommended use conditions with adequate ventilation. Protect against inhalation of large volumes of mist during application.

SKIN: Wear chemical resistant gloves, such as Rubber or PVC. If contact with skin is possible, practice good personal hygiene and wash equipment after each use.

OTHER PROTECTIVE EQUIPMENT: Select the appropriate personal protective equipment based on an evaluation of the performance characteristics of the protective equipment relative to the tasks to be performed, conditions present, duration of use, and the hazards and/or potential hazards that may be encountered during use.

OTHER ENGINEERING CONTROLS: No special ventilation is recommended under anticipated conditions of normal use beyond that needed for normal comfort control.

WORK PRACTICES All users should consult MSDS before handling this material.

HYGIENIC PRACTICES Use good personal hygiene practices. Wash hands and face after using this product. Promptly remove soiled clothing and wash thoroughly before reuse.

SECTION 12 – HANDLING AND STORAGE

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE Store in a cool, dry place away from oxidizers. Keep containers closed when not in use. Protect against high moisture pickup.



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SECTION 13 - SPECIAL PRECAUTIONS

NA

SECTION 14 – OTHER INFORMATION

NA

SECTION 15 – REGULATORY INFORMATION

NEW JERSEY RIGHT TO KNOW INFORMATION

| | |
|------------------------------|---|
| Propylene Glycol (40% - 60%) | 57-55-6 |
| Glycerin (40% - 60%) | 56-81-5 |
| Water (>10%) | 7732-18-5 |
| Proprietary Additives (<2%) | New Jersey Trade Secret Registry No 14866100000-5026P |

SARA INFORMATION

Product contains no components regulated under SARA III Section 313 Supplier Notification Requirements.

TSCA INFORMATION

All components of this product are listed in the TSCA Inventory.

TRANSPORTATION INFORMATION

Not Regulated by DOT

SECTION 16 – HAZARDOUS MATERIAL IDENTIFICATION GUIDE

The follow letter codes refer to personal protective equipment (PPE) recommendations as shown in SECTION 3 of this MSDS, relative to handling hazardous chemical products.

| | |
|----------|--|
| A | Safety Glasses |
| B | Safety Glasses, Hand Protection |
| C | Safety Glasses, Hand Protection, Protective Apron |
| D | Full Face Shield, Hand Protection, Protective Apron |
| E | Safety Glasses, Hand Protection, Dust Respirator |
| F | Safety Glasses, Hand Protection, Dust Respirator, Protective Apron |
| G | Safety Glasses, Hand Protection, Vapor Respirator |
| H | Splash Goggles, Hand Protection, Protective Apron, Vapor Respirator |
| I | Safety Glasses, Hand Protection, Dust & Vapor Respirator |
| J | Safety Glasses, Hand Protection, Protective Apron, Dust & Vapor Respirator |
| K | Air Line Hood or Mask, Hand Protection, Full Body Suit, protective Boots |
| X | Unspecified – to be determined* |

(*special equipment selection for site-specific applications not otherwise shown here)

The above information is accurate to the best of our knowledge, however, since data, safety standards and government regulations are subject to change and the conditions of handling and use or misuse are beyond our control, Octagon Process, Inc. assumes no responsibility for any injury or loss resulting from the use of the product described herein.

Prepared according to the OSHA Hazard Communication Standard (29CFR 1910.1200) by Octagon Process.