

**HALL CHEM MFG. INC.**1270 rue Nobel  
Boucherville Qc J4B 5H1

Tel. : (450) 645-0296

Fax : (450) 645-0444

**MATERIAL SAFETY DATA SHEET****EMERGENCY : CANUTEC (613) 996-6666****MSDS : 335-2****PRODUCT IDENTIFICATION AND USE****NAME OF PRODUCT :** Plumbing antifreeze**USE OF PRODUCT :** protects plumbing systems against freezing**TRANSPORTATION OF DANGEROUS GOODS****SHIPPING NAME :****WHMIS:** B2, D2B**P.N.I. :****PRIMARY CLASS :****PACKING GROUP :****SUBSIDIARY CLASS :****COMPONENTS**

COMPOSITION	% V/V	CASE #	LD <sub>50</sub> mg/kg Oral/rat	LC <sub>50</sub> ppm 4h	TLV ppm 8h
Propylene glycol	>4	57-55-6	20 000 - 34000		
Ethanol	12 to 35	64-17-5	7060	31623	1900 mg/m <sup>3</sup>
Rust inhibitor					

**PHYSICAL CHARACTERISTICS**

<b>PHYSICAL STATE :</b> Liquid	<b>APPEARANCE :</b> Red	<b>ODOR :</b> Typical mild alcohol	<b>ODORTRESHOLD :</b> Not available
<b>VAPOR TENSION :</b> 5,87 kPa at 20°C	<b>VAPOR DENSITY (Air = 1):</b> 1,6	<b>EVAPORATING RATE :</b> Not available	
<b>BOILING RANGE :</b> 82,5°C	<b>FREEZING POINT :</b> -9°C <b>PROTECTION:</b> -51°C	<b>pH :</b> approx 7,5	
<b>DENSITY (20°C) :</b> 0,960	<b>DISTRIBUTION FACTOR WATER/OIL :</b> Not available	<b>SOLUBILITY IN WATER (25°C) :</b> 100%	

**REACTIVITY DATA**

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**CHEMICAL STABILITY :** Stable under normal storage conditions

**INCOMPATIBILITY WITH OTHER PRODUCTS :** Avoid oxidizing material.

**REACTIVITY CONDITIONS :** No hazardous polymerization.

### EXPLOSION AND FIRE RISKS

**FLAMMABILITY :** Excessive heat

**EXTINGUISHING METHODS :** Water fog, alcohol, foam, CO<sub>2</sub>, dry chemical. Use water spray to cool fire exposed containers and structure, and to disperse vapors.

**FLASH POINT :** 34 TCC

**AUTO-IGNITION TEMPS. :** > 420°C

**FLAMMABILITY (% per volume)**

**SUPERIOR LIMIT :** > 19,0

**LOWER LIMIT :** > 8,8

**HAZARDOUS COMBUSTION PRODUCT :** Carbon monoxide and/or carbon dioxide when burning.

**EXPLOSIBILITY DATA :** Keep the products away from heat, flame, spark and ignition sources.

### TOXICOLOGICAL PROPERTIES

#### ABSORPTION WAYS

#### CONTACT

**SKIN** ✓

**INHALATION** ✓

**INGESTION** ✓

**WITH SKIN** ✓

**EYES** ✓

**EFFECTS OF EXPOSURE TO PRODUCT :** Product can irritate mucus glands. High doses can provoke headaches, drowsiness, nausea, dizziness and fainting. Inhalation may aggravate cases of emphysema and bronchitis. Repeated contact with skin provokes irritations, dryness of the skin and cracking of the skin.

### PREVENTIVE MEASURES

**PROTECTIVE EQUIPMENT :** Gloves, security glasses and protective apron.

**GLOVES :** Rubber, nitrile or PVC

**RESPIRATORY SYSTEM :** If necessary.

**OCULAR INSTRUMENT :** Security glasses.

**CLOTHING :** Protective apron.

**TECHNICAL CONTROL :** Ventilation

**PROCEDURE IN CASE OF LEAKS/SPILLS :** Contain with an inert absorbent. Put the waste in a closed container until future disposal. Do not throw in the sewers or garbage.

**HANDLING :** Handle and open the containers with precaution. Do not weld or cut the containers because they can contain residues from flammable vapors. Do not heat or pressurize containers. Do not put any non-combustible material in empty containers, violent chemical reactions can occur. Do not smoke, eat or drink on working areas. Respect a good personal hygiene after manipulation of the product. Keep containers electrically grounded specially during manipulation or while transferring. The material can accumulate static.

**WASTE DISPOSAL :** Contaminated product, soil, water is potentially combustible. Solids may be landfilled at permitted sites in compliance with federal, provincial, local solid waste regulations. Burn concentrated liquid waste.



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Avoid flameouts and assure emissions comply with regulations. Dilute aqueous wastes may be biodegradable.

Avoid overloading and poisoning plant biomass. Effluent must comply with applicable regulations.

**STORAGE :** In a cool, dry and well ventilated area. Keep away from incompatible material and from sources of ignition (naked flames, sparks, electricity). Keep the containers grounded especially during pumping and transfer operations.

### FIRST AID

**SKIN :** Remove contaminated clothing and wash with large amount of water. Contact a physician.

**EYES :** Flush eyes with water for at least 15 minutes while holding eyelids open.. Contact a physician immediately.

**INHALATION :** Remove patient to fresh air. If breathing has stopped, give artificial respiration, then oxygen if needed. Contact a physician.

**INGESTION :** Do not induce vomiting. If spontaneous vomiting occurs, avoid the victim from inhaling its vomit. Keep victim at rest and warm. Call for medical assistance immediately and/or bring the victim to the hospital or the nearest poison center.

**NOTE TO PHYSICIAN :** No specific antidote. Supporting care, treatment based on judgement of the physician on response to reactions of the patient.

### INFORMATION ON THE M.S.D.S. PREPARATION

**PREPARED BY :**  
Hall Chem Mfg. Inc.

**TELEPHONE :** (450) 645-0296

**REVISED** January, 2015

**NOTE :**

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