

# Safety Data Sheet

#### ELC Cat EC-1 Premix Antifreeze

# **1. PRODUCT AND COMPANY IDENTIFICATION**

| : | ELC Cat EC-1 Premix Antifreeze                                     |
|---|--|
| : | ValPar<br>PO Box 3856, Hwy #1 East<br>Regina, SK S4P 3R8<br>CANADA |
| : | 877-685-4886   |
| : | 306-791-5911   |
| : | 613-996-6666   |
|   | :                            |

# 2. COMPOSITION/INFORMATION ON INGREDIENTS

| COMPONENTS          | CAS NUMBER  | AMOUNT            |
|---------------------|-------------|-------------------|
| Ethylene Glycol     | 000107-21-1 | < 45 - 48% weight |
| Diethylene Glycol   | 000111-46-6 | < 3% weight       |
| Water               | 007732-18-5 | < 49 - 50% weight |
| Corrosion Inhibitor |             | < 3% weight       |

# **3. HAZARDS IDENTIFICATION**

| Effects of Overexposure | : | Solution is poisonous to both humans and animals. Excessive exposure has |
|-------------------------|---|--|
|                         |   | been shown to cause birth defects in laboratory testing.                 |

| 4. FIRST AID MEASURES |   |   |
|-----------------------|---|---|
| Eye contact           | : | May cause slight transient (temporary) eye irritation. Vapours or mists may irritate eyes. Corneal injury in unlikely.  |
| Skin contact          | : | Essentially nonirritating to skin. Repeated skin exposure may result in absorption of harmful amounts. Massive contact with damaged skin or of material sufficiently hot to burn skin may result in absorption of potentially lethal amounts.   |
| Inhalation            | : | At room temperatures, vapours are minimal due to low vapour pressure. If material is heated or mist is produced, concentrations may be attained that are sufficient to cause irritation and other effects   |
| Ingestion             | : | Single dose oral toxicity is considered to be moderate. Excessive exposure may cause central nervous system effects, cardiopulmonary effect (metabol-<br>ic acidosis), and kidney failure. The lethal dose in humans is estimated to be 100ml (3 ounces). Small amounts swallowed incidental to normal handling operations are not likely to cause injury; however, swallowing amounts larger than that may cause serious injury, even death. |

| Systemic Effects     | : | Excessive exposure may cause irritation to upper respiratory tract. Observations in animals include formation of bladder stones after repeated oral doses of diethylene glycol. Observations in animals include kidney and liver effects and deposition of calcium salts in various tissues after long-term dietary intake of ethylene glycol.   |
|----------------------|---|--|
| Cancer Information   | : | Based on data from long-term animal studies, diethylene glycol is not<br>believed to pose a carcinogenic risk to man. Ethylene glycol did not cause<br>cancer in long-term animal studies  |
| Teratology           | : | Based on animal studies, ingestion of very large amounts of ethylene glycol<br>appears to be the major and possibly only route of exposure to produce birth<br>defects. Exposures by inhalation (tested nose-only in animals to prevent<br>ingestion) or skin contact, the primary routes of occupational exposure, had<br>minimal or essentially no effect on the fetus. Birth defects are unlikely from<br>exposure to minor component diethylene glycol. Exposures having no ad-<br>verse effects on the mother should have no effect on the fetus. |
| Reproductive Effects | : | Ingestion of large amounts of ethylene glycol has been shown to interfere<br>with reproduction in animals. Specifically, growth retardation and decreased<br>litter size in rats and mice and mating frequency in mice were observed. Re-<br>productive effects are unlikely from exposure to minor component diethylene<br>glycol.  |
| First Aid            | : | Flush eye with plenty of water. Wash off in flowing water or shower. If swal-<br>lowed, do not induce vomiting. Never give anything by mouth to an uncon-<br>scious person. Immediately contact a poison control centre, emergency<br>treatment centre or a physician. Remove to fresh air if effects occur. Consult<br>a physician.   |
| Notes to Physician   | : | Early administration of ethanol may counter the toxic effects of ethylene<br>glycol – metabolic acidosis and renal damage. Haematolysis or peritoneal di-<br>alysis have been of benefit. New Eng. J. Med. 304:21 1981. Supportive care.<br>Treatment based on the judgement of the physician in response to reactions<br>of the patient.  |

# 5. FIRE FIGHTING MEASURES

#### Flammable Properties

| Flashpoint                      | :  | > None, % of water is over 20   |
|---------------------------------|----|---|
| Method                          | :  | Setaflash   |
| Autoignition                    | :  | Flashpoint of 100% diethylene glycol is 748 °F, 398 °C.   |
| Flammability (Explosive) Limits | 3: | Lower: No data available<br>Upper: No data available  |
| Extinguishing Media             |    |   |
| Suitable                        | :  | Carbon dioxide, foam, dry chemical and water fog.   |
| Protection of Fire Fighters     |    |   |
| Fire Fighting Instructions      | :  | For large scale fires, alcohol resistant foams are preferred if available. Gen-<br>eral purpose synthetic foams or protein foams may function, but much less<br>effectively. Water may be used to flush spills away from fire exposures and to<br>dilute spills to non-flammable mixtures. If possible, contain fire run off water.<br>For large scale fires, direct water stream may cause violent frothing, but fine<br>water spray may help control situation. |



**Protective Equipment** : Wear positive-pressure, self-contained breathing apparatus and full protective equipment.

# 6. ACCIDENTAL RELEASE MEASURES

| Notification Procedures   | : | Report spills as required to appropriate Provincial and Federal authorities. In particular, immediate reporting is required for all spills that could reach any waterway, including wetlands and intermittent dry creeks. In case of accident or road spill notify CANUTEC 1-613-996-6666. |
|---------------------------|---|--|
| Personal precautions      | : | Material is moderately toxic when ingested. Take adequate precautions to keep people away from spill site. PVC-coated rubber gloves and goggles or face shield can be used during cleanup of spill site.   |
| Environmental precautions | : | Prevent spills from entering storm sewers, drains and contact with soil.   |
| Methods for cleaning up   | : | Adsorb on fire retardant treated sawdust, diatomaceous earth, etc. Shovel<br>up and dispose of at an appropriate waste disposal facility in accordance<br>with current applicable laws and regulations, and product characteristics at<br>time of disposal                                 |

# 7. HANDLING AND STORAGE

| Special Precautions for |  |
|-------------------------|--|
| Handling and Storage    | : Practice reasonable care and cleanliness. Avoid breathing spray mists if generated. See Section 8 for additional personal protection advice when handling this product. Spills of these organic liquids on hot fibrous insulations may lead to lowering of the autoignition temperature, possible resulting in spontaneous combustion. Trace quantities of ethylene oxide (EO) may be present in this product. While these trace quantities could accumulated in head space areas of storage and transport vessels, they are not expected to create a condition which will result in EO concentrations greater that 0.5 ppm (8 hour TWA) in the breathing zone of the workplace for appropriate applications. OSHA has established a permissible exposure limit of 1.0 ppm 8 hr TWA for EO. (Code of Federal Regulations Part 1910.1047 of Title 29) |

# 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

| Engineering measures | : | Provide general and/or local exhaust ventilation to control airborne levels<br>below the exposure guidelines. Local exhaust ventilation may be necessary<br>for some operations.   |
|----------------------|---|--|
| Personal protection  |   |  |
| Eyes                 | : | Use safety goggles. If vapour exposure causes eye discomfort, use a full-face respirator.  |
| Skin                 | : | Use protective clothing impervious to this material. Selection of specific items such as face shield, gloves, boots, aprons or full body suit will depend on operation. Remove contaminated clothing immediately, wash skin area with soap and water, and launder clothing before reuse. If hands are cut or scratched, use gloves impervious to this material even for brief periods. When handling hot material, protect skin from thermal burns as well as from skin absorption |

| <b>Va P</b> ar |
|----------------|
|----------------|

| Respiratory        | : | Atmospheric levels should be maintained below the exposure guideline. For most conditions, no respiratory protection should be needed; however, if material is heated or sprayed, use an approved air-purifying respirator.      |
|--------------------|---|--|
| Exposure Guideline | : | Ethylene glycol: ACGIH TLV is 100 mg/m3, Ceiling A4. OSHA PEL is 50 pm. PELs are in accord with those recommended by OSHA, as in the 1989 revision of PELs. Diethylene glycol: AIHA WEEL is 50 ppm, total; 10mg/m3, aerosol only |

# 9. PHYSICAL AND CHEMICAL PROPERTIES

| Physical state             | : | Liquid                 |
|----------------------------|---|------------------------|
| Color                      | : | Red                    |
| Odor                       | : | Not available.         |
| Flash point                | : | Not available.         |
| Boiling/condensation point | : | Approx 107 °C (226 °F) |
| Vapor density              | : | > 1                    |
| Vapor pressure             | : | 0.1 (mmHg @ 20 °C)     |
| Solubility                 | : | Completely miscible.   |
| Specific Gravity           | : | 1.07                   |

### **10. STABILITY AND REACTIVITY**

| Incompatibility          |   |  |
|--------------------------|---|--|
| (Materials To Avoid)     | : | Strong oxidizers.  |
| Hazardous Decomposition  |   |  |
| Products                 | : | Combustion may produce carbon dioxide, and toxic carbon monoxide.<br>Unidentified organic compounds may be formed during combustion. |
| Hazardous Polymerization | : | Will not occur.  |

### **11. TOXICOLOGICAL INFORMATION**

See Section 3 for Potential Health Effects. For detailed toxicological data, write or call the address or nonemergency number shown in Section 1.

| Skin         | : | The dermal LD50 has not been determined.                          |
|--------------|---|---|
| Ingestion    | : | The oral LD50 for each component was > 6000 mg/kg.                |
| Mutagenicity | : | Vitro mutagenicity and animal mutagenicity studies were negative. |



#### 12. ECOLOGICAL INFORMATION

For detailed Ecological data, write or call the address for non-emergency number shown in Section 1.

#### **Environmental Fate**

| Movement and Partitioning   | : | Based largely or completely on component information. Bioconcentration potential is low (BCF less than 100 or Log Kow less than 3).  |
|-----------------------------|---|--|
| Degradation and Persistence | : | Biodegradation under aerobic static laboratory conditions is high (BOD20 or BOD28/ThOD greater than 40%). Based largely or completely on component information.                        |
| Ecotoxicology               | : | Material is practically non-toxic to aquatic organisms on an acute basis (LC50 greater than 100 mg/L in most sensitive species). Based largely or completely on component information. |

#### 13. DISPOSAL CONDITIONS

**Do not dump into any sewers, on the ground, or into any body of water.** All disposal methods must be in compliance with all Federal, State/Provincial and local laws and regulations. Regulations may vary in different locations. Waste characterizations and compliance with applicable laws are the responsibility solely of the waste generator.

#### **14. TRANSPORT INFORMATION**

| DOT                      | : | For DOT regulatory information, if required, consult transportation regula-<br>tions or product shipping papers. |
|--------------------------|---|--|
| Canadian TDG Information | : | For TDG regulatory information, if required, consult transportation regula-<br>tions or product shipping papers. |

#### **15. REGULATORY INFORMATION**

#### **EU Labeling**

: EC labeling not required.

All components of this product are on the Canadian Domestic Substances List or are in compliance with the requirements of the New Substances Notification Regulations.

**WHMIS Classification** 

: This product was assessed in accordance with the requirements of the Controlled Products Regulations. It has been determined that it is not a Controlled Product under WHMIS.

#### **16. OTHER INFORMATION**

| Product Use | : | This product is intended for use as a heat transfer fluid or coolant fluid in a closed system designed for the fluid. An unacceptable use of this product is to generate an aerosol or high concentration of vapour (example: theatrical fog). An unacceptable use of this product is any use that allows contact with food or drink. Do not ingest. |
|-------------|---|--|
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**Note** : ValPar products are not formulated to contain PCBS.



#### Abbreviations that may have been used in this document:

| TLV  | : | Threshold Limit Value                         |
|------|---|---|
| MSDS | : | Material Safety Data Sheet                    |
| DOT  | : | Department of Transportation (USA)            |
| NTP  | : | National Toxicology Program (USA)             |
| IARC | : | International Agency for Research on Cancer   |
| OSHA | : | Occupational Safety and Health Administration |
| CFR  | : | Code of Federal Regulations                   |

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