# MATERIAL SAFETY DATA SHEET

## Propylene Glycol ClearCool™ V-100

**Inhibited Propylene**
Glycol-Based Heat Transfer Fluid Concentrate

Protective Equipment:

| | |
|---|---|
| 0 | Health |
| 1 | Flammability |
| 0 | Reactivity |
| 0 | Special |

## SECTION 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

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|---|---|
| **Product Name:** | ClearCool V-100 |
| **Product Description:** | Propylene glycol based industrial coolant and/or heat transfer fluid |
| **Chemical Name:** | Inhibited propylene glycol, aqueous solution |
| **Chemical Family:** | Mixture |
| **Formula:** | Mixture |
| **Synonyms:** | Heat transfer fluid, coolant |
| **DOT Identification No.:** | Not regulated |
| **DOT Shipping Name:** | Not regulated |
| **CAS Registry:** | Mixture |
| **Manufacturer:** | Clear Choice<br>9009 Quince St, Unit C<br>Henderson, CO 80640<br>303-227-9900 |

## SECTION 2 - COMPOSITION / INFORMATION ON INGREDIENTS

| MATERIAL | CAS NO | WT. RANGE % |
|---|---|---|
| Propylene Glycol, Virgin | 000057-55-6 | > 95% |
| Dipotassium Phosphate | 007758-11-4 | < 5% |
| Deionized Water | 007732-18-5 | Balance |

This document is prepared pursuant to the OSHA Hazard Communication Standard (29 CFR 1910.1200). In addition, other substances not “Hazardous” per this OSHA Standard may be listed. Where proprietary ingredient shows, the identity may be made available as provided in this standard.

## SECTION 3 - HAZARDOUS IDENTIFICATION

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| **Health:** | 0 |
| **Flammability:** | 1 |
| **Reactivity:** | 0 |
| **Special:** | None |

0 = minimal 1= slight 2=moderate 3= serious 4= severe

**HMIS**
**H** # 0
**F** # 1
**R** # 0
**PPE†**
†Sec. 8

**Route(s) of Entry**

**Inhalation:** A single prolonged (hours) inhalation exposure is not likely to cause adverse effects. Mists in high concentrations may cause irritation of nose and throat, cause headache, nausea or drowsiness.

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| **Skin:** | A single prolonged exposure is not likely to result in the material being absorbed through skin in harmful amounts. Repeated exposure may cause slight flaking, tenderness and softening of skin. |
| **Ingestion:** | Single dose oral toxicity is low. If more than several mouthfuls are swallowed, abdominal discomfort, nausea or diarrhea may occur. |
| **Eyes:** | May cause minor irritation of eyes in some individuals. Corneal injury is unlikely. |
| **Target Organs:** | None known |
| **Effects of overexposure:** | Repeated excessive ingestion may cause central nervous system effects. No carcinogenic effects have been seen in long-term animal studies. Birth defects are unlikely. Exposures having no adverse effects on the mother should have no effect on the fetus. In animal studies, has been shown not to interfere with reproduction. Results of mutagenicity tests in vitro (test tube) and in animals have been negative. |
| **Signs and Symptoms of Exposure:** | Redness and/or stinging sensation in eyes or on skin. Minor eye or skin irritation may occur with some people. |
| **Medical Conditions Generally Aggravated by Long-Term Exposure:** | None expected. |
| **Chronic Effects:** | None known |
| **Carcinogenicity** | |
| **NTP:** | None known |
| **IARC Monographs:** | None known |
| **OSHA Regulations:** | None known |
| **ACGIH** | None known |

## SECTION 4 - FIRST AID MEASURES

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| **Emergency and First Aid Procedures:** | **Eye contact:** | Flush eyes with large amounts of water for 15 minutes. If irritation persists, get medical attention. |
| | **Skin contact:** | Wash off in flowing water or shower. Wash contaminated clothing before reuse. |
| | **Ingestion:** | DO NOT induce vomiting immediately and seek medical attention. Never give anything by mouth to an unconscious person. |
| | **Inhalation:** | Remove to fresh air. If breathing has stopped, start artificial respiration. Seek medical attention. |
| **Note to Physicians:** | Treat symptomatically. No specific antidote. Supportive care. Treatment based on judgment of physician in response to reactions of the patient. | |
| **Special Precautions/Procedures:** | None known | |

## SECTION 5 - FIRE-FIGHTING MEASURES

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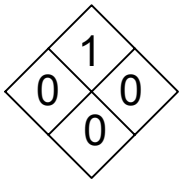
| **Flash Point:** | 215°F, 102°C |
| **Flash Point Method:** | COC |
| **Burning Rate:** | Not available |
| **Autoignition Temperature:** | Not available |
| **Flammable limits in air (% by volume)** | |
| **LEL:** | Not available |
| **UEL:** | Not available |
| **Extinguishing Media:** | Water, fog, foam, $CO_2$ , dry chemical. Alcohol resistant foams (ATC type) are best when available. Do not use direct water stream as it may spread the fire. |
| **Unusual Fire or Explosion Hazards:** | Closed containers may rupture or explode due to steam pressure build-up when exposed to extreme heat. Water may be used to cool closed containers. Do not us a direct water stream on fire. Container may rupture from gas generation in a fire situation. |
| **Fire-Fighting Instructions:** | Do not release runoff from fire control methods to sewers or waterways. |

NFPA



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| **Fire-Fighting Equipment:** | Full protective equipment including positive-pressure, self-contained breathing apparatus. During emergency conditions, overexposure to decomposition products may cause a health hazard. Symptoms may not be immediately apparent. Seek medical attention. |
| **Unusual Fire Fighting procedures:** | Keep people out of the area and isolate fire. Burning liquids may be moved by flushing with water. Do not use a direct water stream as it may spread fire. |

## SECTION 6 - ACCIDENTAL RELEASE MEASURES

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| **Spill/Leak Procedures:** | Recover usable material by convenient method; residual may be removed by wipe or wet mop. |
| **Small Spills:** | Small spills should be absorbed with a suitable inert material (sand, earth, clay, etc.). Remove the absorbed material and place in an appropriate chemical waste container for disposal. |
| **Large Spills:** | Large spills should be diked and pumped. |
| **Containment:** | For large spills, dike far ahead of liquid spill for later disposal. |
| **Regulatory Requirements:** | Follow applicable OSHA regulations (29 CFR 1910.120). |

## SECTION 7 - HANDLING AND STORAGE

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| **Handling Precautions** | Wear impermeable gloves and other protective clothing to avoid prolonged or repeated skin contact. When handling, wear eye protection. |
| **Storage Requirements:** | Keep containers tightly closed when not in use. Store only in containers resistant to alkaline solutions with a pH of 9.0-12.0. Avoid temperatures above 450°F, 232°C |

## SECTION 8 - EXPOSURE CONTROLS/PERSONAL PROTECTION

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| **Exposure Guidelines:** | Propylene Glycol: AIHA WEEL is 50 ppm total, 10mg/m3 aerosol only. 10mg/m3 for Propylene Glycol mist, 400ppm for Propylene Glycol vapors. |
| **Ventilation:** | Provide general or local exhaust ventilation systems. |
| **Administrative Controls** | |
| **Respiratory Protection:** | If personal exposure cannot be controlled below applicable exposure limits by ventilation, wear respiratory devices approved by NIOSH/MSHA, for protection against organic vapors, dust, fumes and mists. |
| **Protective Clothing/Equipment:** | Wear chemically protective gloves, boots, aprons, and gauntlets to prevent prolonged or repeated skin contact. Wear protective eyeglasses or chemical safety goggles. |
| **Work and Hygienic Practices:** | Wash or rinse hands before touching eyes or contact lenses, and before eating. |
| **Safety Stations:** | Make emergency eyewash stations, safety/quick-drench showers, and washing facilities available in work area. |
| **Contaminated Equipment:** | Separate contaminated work clothes from street clothes. Launder before reuse. Remove this material from your shoes and clean personal protective equipment. |
| **Comments:** | Never eat, drink, or smoke in work areas. Practice good personal hygiene after using this material, especially before eating, drinking, smoking, using the toilet, or applying cosmetics. |

## SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

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| **Appearance and odor:** | Clear, colorless, liquid, mild odor |
| **Boiling Point (760 mm Hg):** | 286°F |
| **Specific Gravity (water =1):** | 1.055 min. |
| **Vapor Density (air =1):** | 2.60-2.63 |
| **Solubility in Water (% by wt):** | Complete |
| **Vapor Pressure:** | 0.22mmHg @ 68°F, 20°C |
| **pH:** | 9.5-10.8 |

## SECTION 10 - STABILITY AND REACTIVITY

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| **Stability:** | Stable |
| **Polymerization:** | Hazardous polymerization cannot occur. |
| **Chemical Incompatibilities:** | Oxidizing materials, strong acids |
| **Conditions to Avoid:** | Avoid contact with strong acids and strong oxidizers |
| **Hazardous decomposition products:** | Depends upon temperature, air supply and the presence of other materials. |

## SECTION 11 - TOXICOLOGICAL INFORMATION

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| **Eye Effects:** | Irritating to eyes |
| **Skin Effects:** | The LD50 for skin absorption in rabbits is >10,000 mg/kg. |
| **Acute Inhalation Effects:** | Significant vapors are only generated at elevated temperatures; may irritate nose and respiratory system. |
| **Acute Oral Effects:** | The oral LD50 for rats is 20,000-34,000 mg/kg |
| **Chronic Effects:** | None known |
| **Carcinogenicity:** | None known |
| **Mutagenicity:** | Not mutagenic |
| **Teratogenicity:** | Not teratogenic |

## SECTION 12 - ECOLOGICAL INFORMATION

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| **Ecotoxicity:** | Based primarily on data for the major components, product is practically non-toxic to aquatic organisms. |
| **Environmental Fate:** | Decomposes to carbon, oxygen, nitrogen and water. |
| **Environmental Degradation:** | Biodegradable |
| **Soil Absorption/Mobility:** | Not determined |

## SECTION 13 - DISPOSAL CONSIDERATIONS

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| **Waste Disposal Method:** | Sanitary landfill or incinerate in approved facilities in accordance with local, state and federal regulations. Do not dump into any sewers, on the ground or into any body of water. |
| **Disposal Regulatory Requirements:** | This product, if unused, does not meet the RCRA criteria for being identified as a hazardous waste by characteristics. |
| **Container Cleaning and Disposal:** | Containers should be cleaned of residual product before disposal, and disposed of in accordance with all applicable laws and regulations. |

## SECTION 14 - TRANSPORT INFORMATION

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| **DOT Shipping Name:** | Not regulated |
| **Shipping Symbols:** | Not applicable |
| **Hazard Class:** | Not applicable |
| **DOT Identification No.:** | Not regulated |
| **Packing Group:** | Not applicable |
| **Label:** | Not applicable |
| **Special Provisions (172.102):** | Not applicable |
| **Packaging Authorizations** | |
| **a) Exceptions:** | Not applicable |
| **b) Non-bulk Packaging:** | Not applicable |
| **c) Bulk Packaging:** | Not applicable |
| **Quantity Limitations** | |
| **a) Passenger, Aircraft, or Railcar:** | Not applicable |
| **b) Cargo Aircraft Only:** | Not applicable |

**Vessel Stowage Requirements**

| | |
|---|---|
| **a) Vessel Stowage:** | Not applicable |
| **b) Other:** | Not applicable |

## SECTION 15 - REGULATORY INFORMATION

**Regulatory Information:**
(Not meant to be all-inclusive – selected regulations represented.)

Notice: The information herein is presented in good faith and believed to be accurate as the effective date shown above. However, no warranty, expressed or implied, is given. Regulatory requirements are subject to change and may differ from one location to another; it is the buyer's responsibility to ensure that its activities comply with federal, state or provincial and local laws. The following specific information is made for the purpose of complying with numerous federal, state or provincial, and local laws and regulations.

**EPA Regulations**

| | |
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| RCRA Hazardous Waste Number and RCRA Hazardous Waste Classification: | Not applicable |
| CERCLA Hazardous Substance and CERCLA Reportable Quantity: | Not applicable |
| SARA 313: | To the best of our knowledge, this product contains no chemical subject to SARA Title III Section 313 supplier notification requirements. |
| SARA Hazard Category: | This product has been reviewed according to the EPA "Hazard Categories" promulgated under Sections 311 and 312 of the Superfund Amendment and Reauthorization Act of 1986 (SARA Title III) and is considered, under applicable definitions not to have met any hazard category. |
| **OSHA Regulations:** | This product is not a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200 |
| **WHMIS:** (The Canadian Workplace Hazardous Materials Information System) | Not a "Controlled Product" under WHMIS |

## SECTION 16 - OTHER INFORMATION

**Additional Hazard Rating Systems:** None

**Disclaimer: THE INFORMATION GIVEN HEREIN IS GIVEN IN GOOD FAITH AND FROM SOURCES WE BELIEVE RELIABLE. BUT NO WARRANTY, EXPRESS OR IMPLIED, REGARDING ITS CORRECTNESS IS MADE.**

The conditions or methods of handling, storage, use and disposal of this product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of this product.

This MSDS was prepared and is to be used only for this product. If the product is used as a component in another product, this MSDS information may not apply.

**CONSULT COMPANY LISTED IN SECTION 1 FOR FURTHER INFORMATION.**