Material Safety Data Sheet # 301

Hercules Chemical Company Inc.
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Information Telephone: 1-800 221-9330
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NFPA	HMIS	PPE	Transport Symbol
			

Preparation 04/04/04 **Revision Date 4/17/12** **Revision Number** 1

1. PRODUCT AND COMPANY IDENTIFICATION

Product Identity: Cryo-tek -100, Cryo-tek AG, Cryo-tek

Intended Use: Freeze Protection for Hydronic Heating, Cooling, Potable Water, Closed Loop Solar Systems

Manufacturer: Hercules Chemical Company, Inc.
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Passaic, New Jersey 07055-7398

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Emergency Phone: **CHEMTREC: (800) 424-9300**

MSDS Date of Preparation: 23-Apr-04

2. HAZARDS IDENTIFICATION

This product is a red or blue liquid with no odor.

EMERGENCY OVERVIEW

May cause mild eye and skin irritation.
Repeated excessive ingestion may cause central nervous system effects.

Primary route of Exposure: Skin contact, Eye contact

Ingestion: Repeated ingestion may cause central nervous system effects. Single ingestion of large amount may cause nausea, vomiting and diarrhea.

Inhalation: Inhalation of heated vapors or mists may cause irritation of the nose throat and upper respiratory tract.

Eye: May cause mild, transient irritation. Eye injury is unlikely.

Skin: No significant irritation is expected. Repeated contact may cause mild irritation.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Component	CAS No.	Amount
Propylene glycol	57-55-6	45-98%

4. FIRST AID MEASURES

Eye: Flush victim's eyes with large quantities of water, holding the eyelids apart. Get medical attention if irritation persists.

Skin: Flush skin with water

Ingestion: Get prompt medical attention.

Inhalation: No adverse effects are expected, however, if irritation or other symptoms develop, remove to fresh air. Seek medical attention if symptoms persist.

Other: Not applicable

5. FIRE FIGHTING MEASURES

Flash Point: >200°F (93.3°C)

Auto ignition Temperature: Not determined

Flammable Limits: LEL 2.6% **UEL** 12.5%

Extinguishing Media: Use water fog or spray, carbon dioxide, dry chemical or alcohol resistant foam. Do not use direct water stream will spread fire. Cool fire exposed containers and structures with water.

Unusual Fire or Explosion Hazards: Not classified as flammable or combustible but will burn under fire conditions. A solid stream of water directed into hot, burning liquid can cause frothing. Heat from fire may generate flammable vapor. Fine sprays or mists may be combustible at temperatures below the normal flash point.

Special Fire-Fighting Instructions: Firefighters should wear positive pressure self-contained breathing apparatus and full protective clothing.

Hazardous Combustion Products: Burning may produce carbon monoxide, carbon dioxide and aldehydes.

Explosion Data: (sensitivity to mechanical impact or static discharge): None known.

6. ACCIDENTAL RELEASE MEASURES

Wear appropriate protective clothing as described in Section 8. Do not flush spill to sewer. Collect using an inert absorbent material and place in appropriate containers for disposal. Prevent spill from entering sewers and water courses. Report releases as required by local, provincial and federal authorities.

7. HANDLING AND STORAGE

Handling: Avoid contact with the eyes. Avoid prolonged contact with skin and clothing. Avoid breathing vapors and mists. Wash thoroughly with soap and water after handling. Keep containers closed when not in use.

Do not reuse containers. Empty containers retain product residues can be hazardous. Follow all

Storage: Store in a cool, dry, well ventilated area away from incompatible materials.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines: Propylene glycol 50 ppm AIHA WEEL

Engineering Controls: Use with general or local exhaust ventilation to maintain exposures below the occupational exposure limits.

Respiratory Protection: None normally needed. In operations where the occupational exposure limits are exceeded, a NIOSH approved respirator with organic vapor/dust/mist cartridges or supplied air respirator appropriate for the form and concentration of the contaminants should be used.

Selection and use of respiratory equipment must be in accordance with local authority and good industrial hygiene practice.

Skin Protection: None normally needed. For prolonged contact nitrile gloves can be worn.
Eye Protection: Safety glasses or goggles recommended where splashing is possible.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance And Odor: This product is a red or blue liquid with no odor.

Physical State: Liquid	**Boiling Point:** 188°C (propylene glycol)
Vapor Density: 2.62 (propylene glycol)	**Vapor Pressure:** 0.08 mm Hg @ 20°C
Solubility In Water: 100%	**Evaporation Rate:** Not available (Buac=1)
Specific Gravity: 1.03-1.05	**pH:** 8.5-9.5
Melting Point: Not Determined	**Octanol/Water Coefficient:** -0.92 (propylene glycol)
VOC Content: No VOC	**Viscosity:** Not Determined

10. STABILITY AND REACTIVITY

Stability: Stable under normal storage and handling conditions.

Incompatibility: Strong oxidizing agents.

Hazardous Decomposition Products: Burning may produce carbon monoxide, carbon dioxide and unidentified hydrocarbons.

Hazardous Polymerization: Will not occur.

11. TOXICOLOGICAL INFORMATION

Health Hazards

Ingestion: Repeated ingestion may cause central nervous system effects. Single ingestion of large amount may cause nausea, vomiting and diarrhea.

Inhalation: Inhalation of heated vapors or mists may cause irritation of the nose throat and upper respiratory tract.

Eye: May cause mild, transient irritation. Eye injury is unlikely.

Skin: No significant irritation is expected. Repeated contact may cause mild irritation.

Sensitization: None expected.

Chronic: None known.

Carcinogenicity: None of the components is listed as a carcinogen or suspected carcinogen by IARC, NTP or OSHA

Mutagenicity: None known.

Medical Conditions aggravated by: None known.

Acute Toxicity Value Propylene glycol: Oral Rat LD50 20,000-34,000 mg/kg; Skin Rabbit LD50 >10,000 mg/kg

12. ECOLOGICAL INFORMATION

Propylene glycol is practically non-toxic to aquatic organisms (LC50 >100 mg/L) and is expected to rapidly biodegrade.

13. DISPOSAL CONSIDERATIONS

Dispose in accordance with local, state and federal environmental regulations.

14. TRANSPORT INFORMATION

	DOT	TDG	MEX
Proper Shipping Name:	Not regulated for transport	Not regulated for transport	Not regulated for transport
UN Number:	None	None	None
Labels Required:	None	None	None
Hazard Class / Packing Group:	None	None	None

15. REGULATORY INFORMATION

Inventory Status.
TSCA: Complies
DSL/NDSL: Complies

U.S. Federal Regulations
SARA 313.
Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

SARA 311/312 Hazard Categories
Acute Health Hazard No
Chronic Health Hazard No
Fire Hazard No
Sudden Release of Pressure Hazard No
Reactive Hazard No

California Proposition 65
This product contains no chemicals requiring reporting under Proposition 65.

This product has been classified under the CPR and this MSDS discloses information elements required by the CPR.
Canadian WHMIS: Classification: Not a controlled product
Canadian CEPA: All the components of this product are listed on the Canadian DSL.
WHMIS: Not a controlled product.

16. OTHER INFORMATION

NFPA Rating: Health = 1 Fire = 1 Reactivity = 0
HMIS Rating: Health = 1 Fire = 1 Reactivity = 0

Disclaimer
The information provided on this MSDS is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.