



# Material Safety Data Sheet # 301

Hercules Chemical Company Inc.  
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 Passaic NJ 07055-7398  
 Information Telephone: 1-800 221-9330  
 Internet: www.herchem.com

NFPA	HMIS	PPE	Transport Symbol						
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HEALTH	1								
FLAMMABILITY	1								
REACTIVITY	0								

Preparation 04/04/04

Revision Date 8/5/08

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.  
 111 South Street  
 Passaic, New Jersey 07055-7398

**Information Telephone:** (800) 221-9330

**Internet:** <http://www.herchem.com>

**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.

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

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