

 **CRYOTECH POLAR PLUS™ - CONCENTRATE**
Type I Aircraft Deicing/Anti-icing Fluid
MATERIAL SAFETY DATA SHEET

<p>1. PRODUCT NAME & DESCRIPTION</p> <p>CRYOTECH POLAR PLUS™ - CONCENTRATE (must be diluted prior to use) Type I Aircraft Deicing/Anti-icing Fluid Complies with Specification AMS 1424</p> <p>MANUFACTURED AND SUPPLIED IN THE USA BY: Cryotech Deicing Technology 6103 Orthoway Fort Madison, IA 52627 United States</p> <p>CRYOTECH CONTACT INFORMATION: Telephone: (800)346-7237 FAX: (319)372-2662 email: deicers@cryotech.com website: http://www.cryotech.com</p>	<p>5. FIRE FIGHTING MEASURES</p> <p>FLASH POINT (close cup): None below boiling point.</p> <p>AUTO IGNITION: 446°C</p> <p>EXPOSURE LIMITS: No data available.</p> <p>EXTINGUISHING MEDIA: Water, foam, Carbon Dioxide, dry powder.</p> <p>FIRE FIGHTING PROCEDURES: None</p> <p>HAZARDOUS DECOMPOSITION PRODUCTS: Incomplete combustion may produce Carbon Monoxide and other harmful gases/vapors.</p> <p>UNUSUAL FIRE HAZARDS: The product may become combustible after prolonged heating at the boiling point.</p> <p>NFPA RATINGS: Health 0; Flammability 1; Reactivity 0; Special NDA: (Least - 0, Slight - 1, Moderate - 2, High - 3, Extreme - 4) These values are obtained using the guidelines or published evaluations prepared by the National Fire Protection Association (NFPA) or the National Paint Coating Association.</p>															
<p>2. CHEMICAL COMPOSITION</p> <p>The percent compositions are given to allow for the various ranges of the components present in the whole product and may not equal 100%.</p> <table border="1"> <thead> <tr> <th>PERCENT CONTAINING</th> <th>COMPONENT</th> <th>CAS#</th> </tr> </thead> <tbody> <tr> <td>100%</td> <td>Cryotech Polar Plus™ Concentrate Type I</td> <td></td> </tr> <tr> <td>88%</td> <td>Propylene Glycol</td> <td>57-55-6</td> </tr> <tr> <td><1%</td> <td>Corrosion Inhibitors</td> <td></td> </tr> <tr> <td>12%</td> <td>Water</td> <td>7732-18-5</td> </tr> </tbody> </table> <p>CAS - Chemical Abstract Service Number</p>	PERCENT CONTAINING	COMPONENT	CAS#	100%	Cryotech Polar Plus™ Concentrate Type I		88%	Propylene Glycol	57-55-6	<1%	Corrosion Inhibitors		12%	Water	7732-18-5	<p>6. ACCIDENTAL RELEASE MEASURES</p> <p>Chemical Emergency: Spill, leak, fire, or accident call Chemtrec day or night (800)424-9300; Outside continental USA call (703)527-3887</p> <p>SPILL/LEAK PRECAUTIONS: Contain spillage and absorb on suitable material e.g. sawdust, sand or earth. Transfer to a container for disposal. See section 13. Wash the spillage area with plenty of water.</p>
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<p>3. HAZARD IDENTIFICATION (also see Sections 11 and 12) CAUTION! - MAY CAUSE EYE IRRITATION</p> <p>EYE CONTACT: This substance may be slightly irritating to the eyes.</p> <p>SKIN IRRITATION: This substance is not expected to cause prolonged or significant skin irritation.</p> <p>RESPIRATORY/INHALATION: This material does not present an inhalation hazard.</p> <p>INGESTION: If swallowed, this substance is considered practically non-toxic to internal organs.</p>	<p>7. HANDLING AND STORAGE</p> <p>STORAGE: Store in tightly sealed original containers, away from direct heat and strong oxidizing agents.</p> <p>SPECIAL PRECAUTIONS: Avoid contact with skin and eyes. Avoid breathing mists/vapors when spraying.</p> <p>TEMPERATURE STORAGE LIMITS: Minimum -45°C (-50°F) Maximum 60°C (140°F)</p>															
<p>4. FIRST AID MEASURES</p> <p>Chemical Emergency: Spill, leak, fire, or accident call Chemtrec day or night (800)424-9300; Outside continental USA call (703)527-3887</p> <p>EYE CONTACT: Flush eyes immediately with fresh water for at least 15 minutes while holding the eyelids open. Remove contact lenses if worn. No additional first aid should be necessary. However, if irritation persists, see a doctor.</p> <p>SKIN CONTACT: No first aid procedures are required. As a precaution, wash skin thoroughly with soap and water. Remove and wash contaminated clothing.</p> <p>INHALATION: Since this material is not expected to be an immediate inhalation problem, no first aid procedures are required.</p> <p>INGESTION: If swallowed, give water or milk to drink and telephone for medical advice. DO NOT make the person vomit unless directed to do so by medical personnel. If medical advice cannot be obtained, then take the person and product container to the nearest medical emergency treatment center or hospital.</p>	<p>8. EXPOSURE CONTROLS/PERSONAL PROTECTION</p> <p>EYE PROTECTION: Wear eye protection if splashing is possible.</p> <p>SKIN PROTECTION: No special skin protection is usually necessary. Avoid prolonged or frequently repeated skin contact with this material. Skin contact can be minimized by wearing protective clothing.</p> <p>RESPIRATORY PROTECTION: No special respiratory protection is normally required.</p> <p>VENTILATION: No special ventilation is necessary.</p>															

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<p>9. PHYSICAL AND CHEMICAL PROPERTIES</p> <p>APPEARANCE: Clear, orange fluid.</p> <p>ODOR: None</p> <p>REFRACTIVE INDEX (20°C): 1.4230 - 1.4260</p> <p>pH (20°C): 8.3 - 9.3</p> <p>BOILING POINT: ~117°C</p> <p>FLAMMABILITY DATA: See Section 5.</p> <p>VAPOR PRESSURE (20°C): 10 mm Hg</p> <p>SPECIFIC GRAVITY (20°C): 1.043</p> <p>VAPOR DENSITY (AIR = 1): No data available.</p> <p>FREEZING POINT: below -60°C (-76°F)</p> <p>VISCOSITY (20°C): 25 cP</p> <p>SOLUBILITY: Completely miscible in water.</p>	<p>13. DISPOSAL CONSIDERATION</p> <p>Based on information available to Cryotech Deicing Technology, this product is neither listed as a hazardous waste nor does it exhibit any of the characteristics that would cause it to be classified or disposed of as an RCRA hazardous waste. If product should spill or be otherwise unsuitable for normal deicing applications, it may be absorbed on suitable materials and disposed of in sanitary landfill unless state or local regulations prohibit such disposal.</p>																			
<p>10. STABILITY & REACTIVITY</p> <p>HAZARDOUS DECOMPOSITION PRODUCTS: None known.</p> <p>STABILITY: Stable</p> <p>HAZARDOUS POLYMERIZATION: Polymerization will not occur.</p> <p>INCOMPATIBILITY: May react with strong acids or strong oxidizing agents, such as chlorates, nitrates, peroxides, etc.</p> <p>SPECIAL PRECAUTIONS: READ AND OBSERVE ALL PRECAUTIONS ON PRODUCT LABEL. Store away from strong oxidizing materials.</p>	<p>14. TRANSPORT INFORMATION</p> <p>Not restricted under any transport regulations.</p>																			
<p>11. TOXICOLOGICAL INFORMATION</p> <p>Considered to have low oral toxicity. See also section 3.</p> <table border="0"> <tr> <td>LD₅₀</td> <td>Rat - oral</td> <td>>10g/Kg (estimated)</td> </tr> <tr> <td>LC₅₀</td> <td>Pimephales Promelas</td> <td>6,350 mg/L (96h)</td> </tr> <tr> <td>LC₅₀</td> <td>Daphnia Magnia</td> <td>6,825 mg/L (48h)</td> </tr> </table>	LD ₅₀	Rat - oral	>10g/Kg (estimated)	LC ₅₀	Pimephales Promelas	6,350 mg/L (96h)	LC ₅₀	Daphnia Magnia	6,825 mg/L (48h)	<p>15. REGULATORY INFORMATION</p> <p>ALL OF THE COMPONENTS IN THIS PRODUCT ARE ON THE FOLLOWING INVENTORY LISTS: U.S.A. (TSCA), Europe (EINECS), Canada (DSL/NDSL).</p> <p>TSCA SECTION 12(b): None of the chemicals in this product are listed under TSCA Section 12(b).</p> <p>OSHA HAZARD CLASSIFICATION: Hazardous Chemical (Irritant); None of the chemicals in this product are considered highly hazardous by OSHA.</p> <p>CERCLA HAZARDOUS SUBSTANCES: There is no CERCLA Reportable Quantity for this material.</p> <p>SARA 311 CATEGORIES:</p> <table border="0"> <tr> <td>Immediate (Acute) Health Hazard:</td> <td>Yes</td> </tr> <tr> <td>Delayed (Chronic) Health Hazard:</td> <td>No</td> </tr> <tr> <td>Fire Hazard:</td> <td>Yes</td> </tr> <tr> <td>Sudden Release of Pressure Hazard:</td> <td>No</td> </tr> <tr> <td>Reactivity Hazard:</td> <td>No</td> </tr> </table> <p>SARA 313: None of the chemicals in this product are subject to reporting requirements under SARA Section 313.</p> <p>CLEAN WATER ACT: None of the chemicals in this product are listed as Priority Pollutants under the CWA. None of the chemicals in this product are listed as Toxic Pollutants under the CWA.</p> <p>STATE RIGHT-TO-KNOW: This product does not contain materials listed on the specific Toxic or Hazardous Substance Lists of the following states: PA, MA, NJ. This product may contain a chemical known to the State of California (Proposition 65) to cause cancer: Propylene Oxide (CAS 75-56-9). This product may contain a chemical known to the State of California (Proposition 65) to cause cancer and/or reproductive harm: Ethylene Oxide (CAS 75-21-8).</p> <p>WHMIS (Canada) CLASSIFICATION: Not controlled</p>	Immediate (Acute) Health Hazard:	Yes	Delayed (Chronic) Health Hazard:	No	Fire Hazard:	Yes	Sudden Release of Pressure Hazard:	No	Reactivity Hazard:	No
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The above information is accurate to the best of our knowledge. However, since data, safety standards, and government regulations are subject to change and the conditions of handling and use or misuse are beyond our control, **Cryotech Deicing Technology, a Division of General Atomics International Services Corporation makes no warranty, either express or implied, with respect to the completeness or continuing accuracy of the information contained herein and disclaims all liability for reliance thereon.** Cryotech Deicing Technology, a Division of General Atomics International Services Corporation assumes no responsibility for any injury or loss resulting from the use of the product described herein. User should satisfy himself that he has all current data relevant to his particular use.