



## Polar Guard® Xtend

### Type IV Aircraft Deicing / Anti-icing Fluid Safety Data Sheet

#### SECTION 1 – IDENTIFICATION

##### PRODUCT IDENTIFIER

Polar Guard® Xtend  
Type IV Aircraft Deicing / Anti-icing Fluid  
Complies with Specification AMS 1428/1

##### OTHER MEANS OF IDENTIFICATION

##### RECOMMENDED USE OF THE CHEMICAL AND RESTRICTIONS ON USE

Deicing/Anti-icing aircraft

##### RESPONSIBLE PARTY INFORMATION

###### Name/Address

Cryotech Deicing Technology  
6103 Orthoway  
Fort Madison, IA 52627  
United States

###### Contact information

Telephone: (800) 346-7237  
Email: [deicers@cryotech.com](mailto:deicers@cryotech.com)  
Website: [www.cryotech.com](http://www.cryotech.com)

##### EMERGENCY PHONE NUMBER

CHEMTREC: (800) 424-9300  
Outside USA and Canada: (703) 741-5970

#### SECTION 2 – HAZARD IDENTIFICATION

##### HAZARD INFORMATION ACCORDING TO OSHA HAZCOM 2024

Hazard classification	Not classified as hazardous
Signal word	N/A
Hazard statement(s)	N/A
Hazard symbol(s)	No pictogram
Precautionary statement(s)	Not required
Hazards not otherwise classified	None

#### SECTION 3 – COMPOSITION/INFORMATION ON INGREDIENTS

##### MIXTURES

Chemical Name	Common name and synonyms	CAS number	%(wt.)
Propane-1,2-diol	Propylene glycol	57-55-6	50
Water		7732-18-5	49
Trade secret/proprietary ingredients			<1



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#### SECTION 4 – FIRST AID MEASURES

##### **DESCRIPTION OF FIRST AID MEASURE**

<b>Eye</b>	In case of contact, immediately flush eyes with plenty of water for at least 15 minutes, while holding eyes open. If easy to do, remove contact lenses, if worn. No additional first aid should be necessary, however, if irritation persists, get medical attention.
<b>Skin</b>	As a precaution, wash skin thoroughly with soap and water. Remove and wash contaminated clothing.
<b>Inhalation</b>	Not expected to be an inhalation hazard. If inhaled, remove to fresh air. Get medical advice / attention if feeling unwell.
<b>Ingestion</b>	If swallowed, give milk or water to drink. Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person.

##### **MOST IMPORTANT SYMPTOMS/EFFECTS, ACUTE AND DELAYED**

May cause temporary minor eye or skin irritation. Inhalation of mist during handling may cause minor respiratory tract irritation and coughing.

##### **INDICATION OF IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT NEEDED**

*If you feel unwell, seek medical advice. Treat symptomatically.*

#### SECTION 5 – FIRE-FIGHTING MEASURES

##### **SUITABLE EXTINGUISHING MEDIA**

Water spray, alcohol-resistant foam, carbon dioxide, dry chemical.

##### **UNSUITABLE EXTINGUISHING MEDIA**

Not applicable

##### **SPECIFIC HAZARDS ARISING FROM THE CHEMICAL**

Heat from fire can generate flammable vapor. Vapor is heavier than air and may spread along floors. Pressure buildup in sealed containers in high heat conditions may cause container to rupture.

**Products of combustion:** oxides of carbon

##### **SPECIAL PROTECTIVE EQUIPMENT AND PRECAUTIONS FOR FIRE-FIGHTERS**

Wear protective equipment suitable for the surrounding environment.

#### SECTION 6 – ACCIDENTAL RELEASE MEASURES

##### **PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT, AND EMERGENCY PROCEDURES**

Avoid eye/skin contact with spilled material. Wear appropriate personal protective equipment (refer to Section 8 of this SDS).

##### **METHODS AND MATERIALS FOR CONTAINMENT AND CLEANING UP**

Contain and/or absorb spill with inert material (e.g., sand, vermiculite), then place in a suitable container. Use appropriate Personal Protective Equipment (PPE).

Scoop up material and place in a disposable container.





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#### SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

Physical State	Semi-transparent liquid
Color	Green
Odor	Odorless (Odor threshold not available)
Melting point/freezing point	-34°F(-37°C)
Boiling point	~220°F (105°C)
Flammability	Not flammable
Explosive limits (lower and upper)	Data not available
Flash point	> 212°F (100°C) based on propylene glycol
Auto-ignition temperature	> 750°F (400°C) based on propylene glycol
Decomposition temperature	Data not available
pH	6.2 – 7.2
Kinematic viscosity	6,350 – 23,200 cP at 20°C
Solubility	Completely miscible in water
Partition coefficient n-octanol/water	Data not available
Vapor pressure	~15 mm Hg
Relative density	1.038
Relative vapor density	Data not available
Particle characteristics	Not applicable

#### SECTION 10 – STABILITY AND REACTIVITY

##### **REACTIVITY**

This product is expected to be non-reactive under normal conditions of use, storage, and transport.

##### **CHEMICAL STABILITY**

Stable under normal storage conditions. Polymerization will not occur.

##### **POSSIBILITY OF HAZARDOUS REACTIONS, INCLUDING THOSE ASSOCIATED WITH FORESEEABLE EMERGENCIES**

No dangerous reactions known under conditions of normal use.

##### **CONDITIONS TO AVOID**

Avoid prolonged exposure to temperatures over the boiling point of water. When water has evaporated, remaining material is combustible.

##### **INCOMPATIBLE MATERIALS**

Strong oxidizing agents; strong acids.

##### **HAZARDOUS DECOMPOSITION PRODUCTS**

May decompose into oxides of carbon (e.g., CO, CO<sub>2</sub>).



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## SECTION 11 – TOXICOLOGICAL INFORMATION

### **INFORMATION ON LIKELY ROUTES OF EXPOSURE**

Ingestion is unlikely during normal operations. Inhalation of material is most likely when in confined areas or during spraying operations. Skin contact may occur from spraying operations. Eye contact is possible from touching eyes with contaminated hands.

### **SYMPTOMS RELATED TO THE PHYSICAL, CHEMICAL, AND TOXICOLOGICAL CHARACTERISTICS**

Corneal injury is unlikely. Inhalation of material during handling may cause temporary respiratory tract irritation and coughing. Unlikely to cause significant skin irritation. Not expected to cause significant health effects by accidental ingestion.

### **DELAYED AND IMMEDIATE EFFECTS AND CHRONIC EFFECTS FROM SHORT- AND LONG-TERM EXPOSURE**

This product is not expected to produce serious delayed or chronic effects from short- or long-term exposure.

### **NUMERICAL MEASURES OF TOXICITY**

LD50 rat-oral: > 15 g/kg (estimated from studies of components)

### **INTERACTIVE EFFECTS**

None known.

### **CARCINOGENIC INFORMATION**

No component in this product is listed in the National Toxicology Program (NTP) Report on Carcinogens or has been found to be a potential carcinogen in the International Agency for Research on Cancer (IARC) Monographs or by OSHA.

## SECTION 12 – ECOLOGICAL INFORMATION

### **ECOTOXICITY**

Not expected to cause long-term adverse effects in the aquatic or terrestrial environments.

LC50	Pimephales promelas	1,196 mg/L
LC50	Daphnia magna	1,050 mg/L

### **PERSISTENCE AND DEGRADABILITY**

Readily biodegradable.

COD:	0.67 g O <sub>2</sub> /g deicer
BOD <sub>5</sub> (20°C):	0.36 g O <sub>2</sub> /g deicer
5 day BOD/COD:	0.54

### **BIOACCUMULATIVE POTENTIAL**

Data not available

### **MOBILITY IN SOIL**

Data not available

### **OTHER ADVERSE EFFECTS**

None expected.



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#### SECTION 13 – DISPOSAL CONSIDERATIONS

##### **WASTE RESIDUES AND INFORMATION ON SAFE HANDLING AND METHODS OF DISPOSAL**

Based on available information, this product is neither listed as a hazardous waste nor does it exhibit any of the characteristics that would cause it to be classified as a characterized hazardous waste under the US Resource Conservation and Recovery Act (RCRA). If product should spill or be otherwise unsuitable for normal deicing operations, dispose of contents/container in accordance with local, state, regional, national, and/or international regulations.

#### SECTION 14 – TRANSPORT INFORMATION

<b>UN number</b>	Not applicable. This material is not regulated as dangerous per US DOT or IATA/ICAO.
<b>UN proper shipping name</b>	Not applicable
<b>Transport hazard class(es)</b>	Not applicable
<b>Packing group</b>	Not applicable
<b>Environmental hazards</b>	Not applicable. This material is not a Marine pollutant.
<b>Transport in bulk</b>	Consult IMO regulations before transporting ocean bulk.
<b>Special precautions</b>	Not applicable

#### SECTION 15 – REGULATORY INFORMATION

##### **INVENTORY LISTS**

All of the components in this product are on the following inventory lists: US (TSCA), Canada (DSL/NDSL), Europe (EINECS); or not required to be listed.

##### **TSCA SECTION 12(B)**

None of the chemicals in this product are listed under US EPA Toxic Substances Control Act (TSCA) Section 12(b).

##### **CERCLA HAZARDOUS SUBSTANCES**

This material, as supplied, does not contain any chemicals regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302). There is no CERCLA Reportable Quantity for this material. There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

##### **EMERGENCY PLANNING AND COMMUNITY RIGHT-TO-KNOW ACT (EPCRA) SECTION 313**

None of the chemicals in the product are subject to reporting under the US EPA Toxics Release Inventory (TRI) program.



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#### HAZARD CATEGORIES FOR EPCRA 311 / 312

Health hazard	
Carcinogenicity	No
Acute toxicity (any route of exposure)	No
Aspiration hazard	No
Reproductive toxicity	No
Germ cell mutagenicity	No
Skin corrosion or irritation	No
Respiratory or skin sensitization	No
Serious eye damage or eye irritation	No
Specific organ toxicity (single or repeated exposure)	No
Simple asphyxiant	No
Hazard not otherwise classified (HNOC)	No

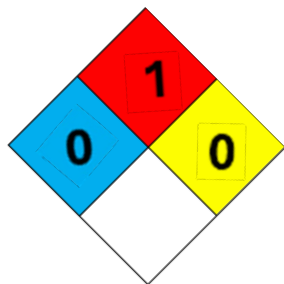
Physical hazard	
Flammable (gases, aerosols, liquids or solids)	No
Gas under pressure	No
Explosive	No
Self-heating	No
Pyrophoric (liquid or solid)	No
Pyrophoric gas	No
Oxidizer (liquid, solid or gas)	No
Organic peroxide	No
Self-reactive	No
In contact with water emits flammable gas	No
Combustible dust	No
Corrosive to metal	No
Hazard not otherwise classified (HNOC)	No

#### CLEAN WATER ACT

None of the chemicals in this product are listed as Priority Pollutants under the US EPA CWA.

None of the chemicals in this product are listed as Toxic Pollutants under the US EPA CWA.

#### NFPA 704



#### SECTION 16 – OTHER INFORMATION

##### SDS REVISION DATE

This SDS was revised on **August 1, 2024**.

The latest version can be obtained by contacting Cryotech Deicing Technology.

##### DISCLAIMER

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, GENERAL ATOMICS INTERNATIONAL SERVICES CORPORATION dba Cryotech Deicing Technology 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. GENERAL ATOMICS INTERNATIONAL SERVICES CORPORATION dba Cryotech Deicing Technology 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.

#### End of Safety Data Sheet

Prepared according to the US OSHA Hazard Communication Standard (29 CFR 1910.1200)

Cryotech Deicing Technology, 6102 Orthoway, Fort Madison, IA 52627

Form# MKT6602

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