



# CRYOTECH GLACIER AF<sup>®</sup> LAVATORY ANTIFREEZE

## Safety Data Sheet

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### Section 1: IDENTIFICATION

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#### PRODUCT IDENTIFIER

CRYOTECH GLACIER AF<sup>®</sup> LAVATORY ANTIFREEZE

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

Freeze point depressant in aircraft and transit lavatory systems

#### DETAILS OF THE SUPPLIER OF THE SAFETY DATA SHEET

**Name/Address:** Cryotech Deicing Technology  
6103 Orthoway  
Fort Madison, IA 52627  
United States

**Contact Information:** Telephone: (800) 346-7237  
Fax: (319) 372-2662  
Email: [deicers@cryotech.com](mailto:deicers@cryotech.com)  
Website: [www.cryotech.com](http://www.cryotech.com)

#### EMERGENCY TELEPHONE NUMBER

CHEMTREC: (800) 424-9300  
Outside U.S.A. & Canada: +1 703-741-5970

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### Section 2: HAZARD(S) IDENTIFICATION

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#### CLASSIFICATION ACCORDING TO OSHA HAZCOM 2012

**Hazard Class** Not classified as hazardous

#### LABEL ELEMENTS ACCORDING TO OSHA HAZCOM 2012

There are no OSHA required label elements for this product.

#### CLASSIFICATION ACCORDING TO WHMIS (Canada)

**Hazard Class** Not controlled

**WHMIS Hazard Symbols** Not applicable

**WHMIS Signal Word** Not applicable

#### HAZARDS NOT OTHERWISE CLASSIFIED (HNOC)

None known

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### Section 3: COMPOSITION/INFORMATION ON INGREDIENTS

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# CRYOTECH GLACIER AF<sup>®</sup> LAVATORY ANTIFREEZE

## Safety Data Sheet

### MIXTURES

Ingredient	CAS No	Wt. %
Cryotech Glacier AF Lavatory Antifreeze Concentrate Aqueous solution containing:		100
Propylene Glycol	57-55-6	60-90
Corrosion inhibitors		< 1%

### 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. If easy to do, remove contact lenses, if worn. If irritation persists, seek medical attention.
<b>Skin</b>	As a precaution, wash skin thoroughly with soap and water. Remove and wash contaminated clothing.
<b>Inhalation</b>	If inhaled, remove to fresh air
<b>Ingestion</b>	If swallowed, give milk or water to drink and telephone for medical advice. 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

<b>Eye</b>	May cause minor temporary eye irritation.
<b>Skin</b>	Unlikely to cause prolonged or significant skin irritation.
<b>Inhalation</b>	Inhalation of aerosol during spraying may cause physical respiratory tract irritation and coughing. This product is not otherwise expected to be an inhalation hazard.
<b>Ingestion</b>	Not expected to cause significant health effects by accidental ingestion.

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

<b>Specific treatments</b>	If you feel unwell, seek medical advice immediately. Show the label or safety data sheet to medical personnel if possible.
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### Section 5: FIRE FIGHTING MEASURES

#### FLAMMABILITY

Non-flammable by OSHA/WHMIS criteria

#### EXTINGUISHING MEDIA

**Suitable Extinguishing Media** Fine water spray, alcohol-resistant foam, carbon dioxide, or dry chemical. Use extinguishing media appropriate for surrounding materials.

#### SPECIAL HAZARDS



# CRYOTECH GLACIER AF<sup>®</sup> LAVATORY ANTIFREEZE

## Safety Data Sheet

**Hazardous Combustion Products** Combustion may form carbon monoxide (CO) and/or carbon dioxide (CO<sub>2</sub>).

**Unusual Fire Hazards** 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.

### SPECIAL PROTECTIVE EQUIPMENT AND PRECAUTIONS FOR FIREFIGHTERS

**Special Protective Equipment for Firefighters** Wear protective equipment suitable for the surrounding environment.

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### Section 6: ACCIDENTAL RELEASE MEASURES

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

Avoid eye/skin contact with spilled material. Refer to Section 7 for additional handling precautions

**Methods for Containment** Contain and/or absorb spill with inert material (e.g. sawdust, sand, vermiculite).

**Methods for Cleaning-Up** Scoop up material and transfer to disposal container. Wash the spillage area with plenty of water.

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### Section 7: HANDLING AND STORAGE

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#### PRECAUTIONS FOR SAFE HANDLING

**Handling** Avoid eye contact. Avoid breathing mist/aerosols when handling.

#### PRECAUTIONS FOR SAFE STORAGE, INCLUDING ANY INCOMPATIBILITIES

**Storage** Store in tightly sealed original containers, away from direct heat and strong oxidizing agents, strong acids, or strong bases.



# CRYOTECH GLACIER AF<sup>®</sup> LAVATORY ANTIFREEZE

## Safety Data Sheet

### Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

#### EXPOSURE LIMITS

Exposure Limits	Regulation	Type of Listing	Value
Propylene Glycol	US WEEL	TWA	10 mg/m <sup>3</sup>

#### EXPOSURE CONTROLS

**Engineering Controls** No special ventilation is usually necessary. Normal use of this product is not expected to result in airborne concentrations above the exposure limit.

#### INDIVIDUAL PROTECTIVE MEASURES/PERSONAL PROTECTIVE EQUIPMENT

**Eye Protection** Safety glasses or goggles are recommended if splashing/spraying into eyes is possible.

**Skin Protection** No special skin protection is usually necessary. Avoid prolonged or repeated contact.

**Respiratory Protection** No special respiratory protection is usually necessary. Breathing of mist/aerosol should be avoided.

### Section 9: PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE	Clear, colorless to light straw colored liquid.
ODOR	Odorless
ODOR THRESHOLD	No data available
pH (20°C, 68°F)	7 - 10
FREEZING POINT	<-60°F (-51°C)
BOILING POINT	>240°F (115°C)
FLASH POINT	>219°F (104°C) based on propylene glycol
EVAPORATION RATE	No data available
FLAMMABILITY/EXPLOSION LIMITS	Not applicable
VAPOR PRESSURE (20°C)	~8 mmHg (vapor is almost entirely water fraction)
VAPOR DENSITY (AIR = 1)	No data available
RELATIVE DENSITY	1.02 - 1.06
SOLUBILITY IN WATER	Completely miscible
PARTITION COEFFICIENT; n-OCTANOL/WATER	No data available
AUTO-IGNITION TEMPERATURE	>400°C (752°F) based on propylene glycol
DECOMPOSITION TEMPERATURE	No data available
VISCOSITY (20°C)	21 cP
OXIDIZING PROPERTIES	Not oxidizing
EXPLOSIVE PROPERTIES	Not explosive



# CRYOTECH GLACIER AF<sup>®</sup> LAVATORY ANTIFREEZE

## Safety Data Sheet

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### Section 10: STABILITY AND REACTIVITY

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#### REACTIVITY

No dangerous reactions known under conditions of normal use.

#### CHEMICAL STABILITY

Stable. Hazardous polymerization will not occur.

#### POSSIBILITY OF HAZARDOUS REACTIONS

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, material is combustible.

#### INCOMPATIBLE MATERIALS

Strong oxidizing agents; strong acids; strong bases.

#### HAZARDOUS DECOMPOSITION PRODUCTS

May decompose into oxides of carbon (e.g., carbon monoxide, carbon dioxide) as well as aldehydes, ethers, and organic acids.

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### Section 11: TOXICOLOGICAL INFORMATION

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#### ACUTE TOXICITY

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

#### LIKELY ROUTES OF EXPOSURE

Skin contact, eye contact, ingestion.

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

<b>Eye</b>	May cause minor temporary eye irritation. Corneal injury is unlikely.
<b>Skin</b>	Unlikely to cause prolonged or significant skin irritation.
<b>Inhalation</b>	This product is not expected to be an inhalation hazard.
<b>Ingestion</b>	Not expected to cause significant health effects by accidental ingestion.

#### DELAYED AND IMMEDIATE EFFECTS AND CHRONIC EFFECTS FROM SHORT- AND LONG-TERM EXPOSURE/NUMERICAL MEASURES OF TOXICITY



# CRYOTECH GLACIER AF<sup>®</sup> LAVATORY ANTIFREEZE

## Safety Data Sheet

<b>Skin Corrosion/Irritation</b>	Based on available data, the classification criteria are not met.
<b>Serious Eye Damage/Irritation</b>	Based on available data, the classification criteria are not met.
<b>Respiratory or Skin Sensitization</b>	Based on available data, the classification criteria are not met.
<b>Germ Cell Mutagenicity</b>	Based on available data, the classification criteria are not met.
<b>Carcinogenicity</b>	This product does not contain any ingredients that are considered to be carcinogens by IARC, NTP, or OSHA.
<b>Reproductive Toxicity</b>	Based on available data, the classification criteria are not met.
<b>STOT-Single Exposure</b>	Based on available data, the classification criteria are not met.
<b>STOT-Repeated Exposure</b>	Based on available data, the classification criteria are not met.
<b>Aspiration Hazard</b>	Based on available data, the classification criteria are not met.

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### Section 12: ECOLOGICAL INFORMATION

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#### ECOTOXICITY (AQUATIC AND TERRESTRIAL)

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

#### PERSISTENCE AND DEGRADABILITY

Readily biodegradable. COD (TOD): 0.70 g O<sub>2</sub>/g deicer; BOD<sub>5</sub> (20°C): 0.28 g O<sub>2</sub>/g deicer (based on 50% dilution by volume as is recommended for normal use).

#### BIOACCUMULATIVE POTENTIAL

Bioaccumulation is not expected.

#### MOBILITY IN SOIL

Adverse effects not expected.

#### OTHER ADVERSE EFFECTS

None expected.

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### Section 13: DISPOSAL CONSIDERATIONS

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#### WASTE TREATMENT 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 RCRA. This product may be absorbed onto suitable materials and disposed of in a sanitary landfill unless local, state, or provincial regulations prohibit such disposal.

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### Section 14: TRANSPORT INFORMATION

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#### TRANSPORT INFORMATION

Not regulated as dangerous goods per US DOT or IATA.

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### Section 15: REGULATORY INFORMATION

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#### INVENTORY LISTS



# CRYOTECH GLACIER AF<sup>®</sup> LAVATORY ANTIFREEZE

## Safety Data Sheet

All of the components in this product are on the following inventory lists: USA (TSCA), Canada (DSL/NDSL); Europe (EINECS)

### TSCA SECTION 12(b)

None of the chemicals in this product are listed under TSCA Section 12(b).

### CERCLA HAZARDOUS SUBSTANCES

There is no CERCLA Reportable Quantity for this material.

### SARA 311/312 CATEGORIES

Physical hazards	
Explosive	No
Flammable (gases, aerosols, liquids or solids)	No
Oxidizer (liquid, solid or gas)	No
Self-reactive	No
Pyrophoric (liquid or solid)	No
Pyrophoric Gas	No
Self-heating	No
Corrosive to metal	No
Gas under pressure (compressed gas)	No
In contact with water emits flammable gas	No
Combustible Dust	No
Hazard Not Otherwise Classified (HNOC)	No

Health hazards	
Acute toxicity (any route of exposure)	No
Skin corrosion or irritation	No
Serious eye damage or eye irritation	No
Respiratory or skin sensitization	No
Germ cell mutagenicity	No
Carcinogenicity	No
Reproductive toxicity	No
Specific target organ toxicity (single or repeated exposure)	No
Aspiration hazard	No
Simple Asphyxiant	No
Hazard Not Otherwise Classified (HNOC)	No

### SARA 313

None of the components in this product are subject to reporting under SARA Section 313.

### 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.

### STATE RIGHT-TO-KNOW:

This product does not contain components at levels which are required to be reported under the statutes of the following states: MA

This product contains the following chemicals regulated by New Jersey's Worker and Community Right to Know Act, the Pennsylvania Right to Know Act, and the Minnesota Right to Know Act:

Ingredient	CAS No	Wt. %
Propylene Glycol	57-55-6	60-90



# CRYOTECH GLACIER AF<sup>®</sup> LAVATORY ANTIFREEZE

## Safety Data Sheet

This product does not contain materials known to the State of California (Proposition 65) to cause cancer and/or reproductive harm at levels which would require a warning under the statute.

<b>NFPA 704</b>	
Health	0
Fire	1
Physical Hazard	0
Hazard Rating 0-4 0-least hazardous; 4-most hazardous	

<b>HMIS – Hazardous Materials Identification System</b>	
Health	0
Fire	1
Physical Hazard	0
Hazard Rating: 0 = minimal, 1 = slight, 2 = moderate, 3 = serious, 4 = severe	

### Section 16: OTHER INFORMATION

#### SDS REVISION DATE

**Revision date:** August 1, 2019

**Expiration date:** August 1, 2022.

Latest version of this SDS can be obtained from Cryotech.

#### NOTE TO EMPLOYER

This Safety Data Sheet contains environmental, health and toxicology information for your employees. Please ensure this information is provided to them. It also contains information to help you meet community right-to-know/emergency response reporting requirements under SARA Title III and many other laws. If you resell this product, this SDS must be given to the buyer or the information incorporated in your SDS. Discard any previous edition of this SDS.

#### DISCLAIMER

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**End of Safety Data Sheet**