

Safety Data Sheet

SECTION 1 - IDENTIFICATION

PRODUCT IDENTIFIER

Cryotech LC17[®] Liquid Runway Deicer

OTHER MEANS OF IDENTIFICATION

RECOMMENDED USE OF THE CHEMICAL AND RESTRICTIONS ON USE

Deicing/anti-icing runways and other pavements and structures

RESPONSIBLE PARTY INFORMATION

Name/Address Cryotech Deicing Technology

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Fort Madison, IA 52627

United States

Contact information Telephone: (800) 346-7237

Email: <u>deicers@cryotech.com</u>
Website: <u>www.cryotech.com</u>

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.)
Cryotech LC17 Liquid Runway Deicer is an aqueous solution containing:			
1,2-Propanediol	Propylene glycol; Propane-1,2-diol	57-55-6	15-40
Potassium acetate	Potassium ethanoate; Potassium salt of acetic acid	127-08-2	15-40

Composition commentsThis product may contain small amounts of additives such as corrosion inhibitors and colorants.



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SECTION 4 - FIRST AID MEASURES

DESCRIPTION OF FIRST AID MEASURE

Inhalation If inhaled, remove to fresh air. Get medical advice if cough or other symptoms appear.

Skin Wash hands and exposed skin thoroughly after handling.

Eye If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and

easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

Ingestion 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, ACUTE AND DELAYED

May cause temporary eye irritation. Symptoms may include temporary discomfort, excessive blinking, tear production, redness, and/or swelling. May cause itching or irritation of any cut or abraded skin. Prolonged contact may cause dry skin. Inhalation of mist during handling may cause minor respiratory tract irritation and coughing. Ingestion of large quantities may cause nausea, vomiting, diarrhea, and/or abdominal discomfort.

INDICATION OF IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT NEEDED

If you feel unwell, seek medical advice. This product contains potassium acetate. Though ingestion of large amounts of potassium salts usually results in vomiting, excessive potassium absorption can cause hyperkalemia.

SECTION 5 - FIRE-FIGHTING MEASURES

SUITABLE EXTINGUISHING MEDIA

Water, carbon dioxide, or dry chemical. Use extinguishing media appropriate for the surrounding environment.

UNSUITABLE EXTINGUISHING MEDIA

Not applicable

SPECIFIC HAZARDS ARISING FROM THE CHEMICAL

None expected

SPECIAL PROTECTIVE EOUIPMENT 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., sawdust, sand, kitty litter). Scoop up material and transfer to disposal container. If needed, rinse spillage area with plenty of water.

SECTION 7 - HANDLING AND STORAGE

PRECAUTIONS FOR SAFE HANDLING

Avoid eye/skin contact. Avoid breathing of mist. Wear appropriate personal protective equipment (refer to Section 8 of this SDS). Wash hands thoroughly after use. Change contaminated clothing.

PRECAUTIONS FOR SAFE STORAGE, INCLUDING ANY INCOMPATIBILITIES

Store in tightly sealed containers, away from direct heat and strong oxidizing agents. Do not store or handle product in systems constructed of wetted parts consisting of galvanized steel, zinc, or brass components.



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SECTION 8 - EXPOSURE CONTROLS/PERSONAL PROTECTION

US OSHA PERMISSIBLE EXPOSURE LIMIT (PEL)

No specific limits established.

AMERICAN CONFERENCE OF GOVERNMENTAL INDUSTRIAL HYGIENISTS THRESHOLD LIMIT VALUE (TLV)

No TI V established.

AMERICAN INDUSTRIAL HYGIENE ASSOCIATION (AIHA)

Workplace Environmental Exposure Level (WEEL) for Propane-1,2-diol (CAS: 57-55-6): 8-hr Time-weighted Average (TWA): 10 mg/m³

APPROPRIATE ENGINEERING CONTROLS

Have eyewash stations available. Ensure adequate ventilation if handling can generate mist, especially in confined areas.

INDIVIDUAL PROTECTION MEASURES, SUCH AS PERSONAL PROTECTIVE EQUIPMENT

Wear safety glasses with side shields or safety goggles. Chemical-resistant gloves are not usually necessary, but should be worn if prolonged exposure is possible. Clothing should be suitable to protect skin (e.g., long sleeves, long pants). Avoid breathing mist. If conditions create high airborne concentrations of this product, use an approved respirator, such as an N95 mask. Always use good personal hygiene habits when using this product, such as avoiding touching the face, and thoroughly and regularly washing hands.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

Physical State Liquid

Color Clear, colorless to light straw color. May be dyed blue at customer request.

Odor Odorless to slight vinegar odor (odor threshold not available)

Melting point/freezing point-50°F (-45°C)Boiling point~110°C (220°F)FlammabilityNot flammable

Explosive limits (lower and upper)Data not available; Not considered to be an explosion hazard

Flash point >100°C (212°F)
Auto-ignition temperature Decomposition temperature Data not available pH 10.5-11.5

Kinematic viscosity 8 cP at 20°C

Solubility Completely miscible in water

Partition coefficient n-octanol/water Data not available Vapor pressure Data not available

Relative density 1.15

Relative vapor densityParticle characteristics
Data not available
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. Polymerization will not occur.

POSSIBILITY OF HAZARDOUS REACTIONS. INCLUDING THOSE ASSOCIATED WITH FORESEEABLE EMERGENCIES

In unventilated/closed systems, especially where moisture is present, this product may slowly oxidize reactive metals such as magnesium or zinc resulting in gradual liberation of hydrogen gas which may accumulate over time.



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CONDITIONS TO AVOID

Avoid prolonged contact with reactive metals such as magnesium and zinc in closed systems.

INCOMPATIBLE MATERIALS

Strong oxidizing agents; strong acids.

HAZARDOUS DECOMPOSITION PRODUCTS

May decompose into oxides of carbon (e.g., CO, CO₂).

SECTION 11 - TOXICOLOGICAL INFORMATION

INFORMATION ON LIKELY ROUTES OF EXPOSURE

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

SYMPTOMS RELATED TO THE PHYSICAL, CHEMICAL, AND TOXICOLOGICAL CHARACTERISTICS

May cause acute, temporary eye irritation, excessive blinking, or tearing. Corneal injury is unlikely. May cause irritation or itching of cut or abraded skin. Repeated or prolonged skin exposure may cause dryness. Inhalation of mist during handling may cause temporary respiratory tract irritation and coughing. Ingestion of large quantities may cause nausea, vomiting, diarrhea, and/or abdominal discomfort.

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

Exposure may result in immediate temporary eye irritation or minor skin irritation/dryness. 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: > 5 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

Acute Fish Toxicity (Pimephales promelas, static system 96 hr LC50): 4225 mg/L Acute Daphnid Toxicity (Daphnia magna, static system 48 hr LC50): 4150 mg/L

PERSISTENCE AND DEGRADABILITY

Biodegradable. BOD5 (20°C): 0.24 kg O2/kg fluid; COD: 0.68 kg O2/kg fluid

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

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 recovered product is not fit for use, dispose of contents/container in accordance with local, state, regional, national, and/or international regulations.

SECTION 14 - TRANSPORT INFORMATION

UN number Not applicable. This material is not regulated as dangerous per US DOT or IATA/ICAO.

UN proper shipping name
Transport hazard class(es)
Packing group

Not applicable
Not applicable

Environmental hazardsNot applicable. This material is not a Marine pollutant.
Transport in bulk
Consult IMO regulations before transporting ocean bulk.

Special precautions 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.

HAZARD CATEGORIES FOR EPCRA 311 / 312

Health hazard	
Carcinogenicity	
Acute toxicity (any route of exposure)	
Aspiration hazard	
Reproductive toxicity	
Germ cell mutagenicity	
Skin corrosion or irritation	
Respiratory or skin sensitization	
Serious eye damage or eye irritation	
Specific organ toxicity (single or repeated exposure)	
Simple asphyxiant	
Hazard not otherwise classified (HNOC)	

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

CLEAN WATER ACT

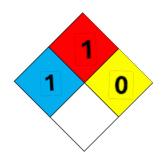
None of the chemicals in this product are listed as Priority Pollutants under the US EPA CWA. None of the chemicals in this product are listed as Toxic Pollutants under the US EPA CWA.



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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