



# CRYOTECH CMA<sup>®</sup>

## Solid Commercial Deicer

### Safety Data Sheet

#### Section 1: IDENTIFICATION

##### PRODUCT IDENTIFIER

**CRYOTECH CMA<sup>®</sup>**  
Solid Commercial Deicer

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

Deicing/anti-icing highways, bridges, parking lots, and other pavements.

##### 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 USA and Canada (703) 741-5970

#### Section 2: HAZARD(S) IDENTIFICATION

##### 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)

May cause temporary eye irritation due to abrasion.

#### Section 3: COMPOSITION / INFORMATION ON INGREDIENTS

##### MIXTURES

Ingredient	CAS No	Wt. %
Calcium Magnesium Acetate	76123-46-1	96
which is a double-salt homogeneous blend of:		
Calcium Acetate	62-54-4	



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Magnesium Acetate	142-72-3	
and small amounts of other nonhazardous acetate salts		
Moisture and water-insoluble oxides/hydroxides		<4

#### 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 and get medical advice
<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 temporary eye irritation. Symptoms may include temporary discomfort or pain, excess blinking, tear production, redness and/or swelling.
<b>Skin</b>	May cause itching or irritation of any cut or abraded skin. Symptoms of prolonged contact may include dry skin.
<b>Inhalation</b>	Inhalation of dust during handling may cause respiratory tract irritation and coughing. This product is not otherwise expected to be an inhalation hazard.
<b>Ingestion</b>	Ingestion of large quantities may cause nausea, vomiting, diarrhea and abdominal discomfort.

##### 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

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##### FLAMMABILITY

**Flash Point (close cup)** Nonflammable by OSHA/WHMIS criteria  
**Auto Ignition** Not applicable

##### EXTINGUISHING MEDIA

**Suitable Extinguishing Media** Water, carbon dioxide, or dry chemical. Use extinguishing media appropriate for surrounding materials.  
**Unsuitable Extinguishing Media** Not applicable

##### SPECIAL HAZARDS

**Hazardous Combustion Products** Normal combustion forms carbon dioxide and water.  
**Explosion Limits** Data not available. Not considered to be an explosion hazard.  
**Unusual Fire Hazards** None expected

#### 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** If material is dissolved, 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. If needed, wash 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 dust when handling.

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

**Storage** Best practice is to store in tightly sealed original 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

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##### EXPOSURE LIMITS

**TWA PEL:** No specific limits have been established for this product. As a guideline, OSHA (United States) has established the following limits which are generally recognized for inert or nuisance dust. Particulates Not Otherwise Regulated (PNOR): 8-hr TWA limits of 15 mg/m<sup>3</sup> (total particulate) and 5 mg/m<sup>3</sup> (respirable fraction).

**TWA TLV:** No specific limits have been established for this product. As a guideline, ACGIH (United States) has established the following limits which are generally recognized for inert or nuisance dust. Particulates (insoluble) Not Otherwise Classified (PNOC): 8-hr TWA limits of 10 mg/m<sup>3</sup> (as total dust) and 3 mg/m<sup>3</sup> (as respirable).

##### EXPOSURE CONTROLS

**Engineering Controls** No special ventilation is usually necessary; however if operating conditions create high concentrations of this material, special ventilation may be needed to keep exposure to airborne contaminants below the exposure limit.

##### INDIVIDUAL PROTECTIVE MEASURES/PERSONAL PROTECTIVE EQUIPMENT

**Eye Protection** Safety glasses or goggles are recommended if eye exposure to product or dust is possible.

**Skin Protection** Chemical-resistant gloves and clothing should be used if prolonged exposure is possible to prevent drying of skin.

**Respiratory Protection** Breathing of dust should be avoided. If operating conditions create high airborne concentrations of this material, the use of an approved respirator is recommended.



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**Section 9: PHYSICAL AND CHEMICAL PROPERTIES**

APPEARANCE	White to off-white spherical pellet
ODOR	Odorless to slight vinegar odor
ODOR THRESHOLD	No data available
pH (20°C, 68°F)	8-10 (10% aqueous solution)
MELTING POINT	Decomposes
BOILING POINT	Not applicable
FLASH POINT	Not applicable
EVAPORATION RATE	No data available
FLAMMABILITY/EXPLOSION LIMITS	Not applicable
VAPOR PRESSURE (20°C)	Not applicable
VAPOR DENSITY (AIR = 1)	Not applicable
RELATIVE DENSITY	>1
SOLUBILITY IN WATER	Partially soluble
PARTITION COEFFICIENT; n-OCTANOL/WATER	No data available
AUTO-IGNITION TEMPERATURE	No data available
DECOMPOSITION TEMPERATURE	No data available
VISCOSITY (20°C)	Not applicable
OXIDIZING PROPERTIES	Not oxidizing
EXPLOSIVE PROPERTIES	Not explosive

**Section 10: STABILITY AND REACTIVITY**

**REACTIVITY**

No dangerous reactions known under conditions of normal use.

**CHEMICAL STABILITY**

Stable. Polymerization will not occur.

**POSSIBILITY OF HAZARDOUS REACTIONS**

No dangerous reactions known under conditions of normal use.

**CONDITIONS TO AVOID**

Avoid prolonged contact with reactive metals such as magnesium and zinc, especially in closed systems where hydrogen gas from the oxidation of these materials may accumulate over time.

**INCOMPATIBLE MATERIALS**

Strong oxidizing agents; strong acids.

**HAZARDOUS DECOMPOSITION PRODUCTS**

May decompose into oxides of carbon.



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#### Section 11: TOXICOLOGICAL INFORMATION

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##### ACUTE TOXICITY

LD50 rat-oral: 3000 mg/kg

LC50 rat-inhalation: >5000 mg/m<sup>3</sup>

LD50 rat-dermal: >5000 mg/kg

Dermal irritation rabbit: Non-irritating

Ocular irritation rabbit: Moderate redness/discharge and some swelling of iris at 1 hr.; insignificant signs of irritation at 24 hr.; all signs cleared at 72 hr.

Sub-chronic oral: No effects after 28 consecutive days dosing at 1000 mg/kg/day.

##### LIKELY ROUTES OF EXPOSURE

Skin contact, eye contact, ingestion.

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

<b>Eye</b>	May cause temporary eye irritation. Corneal injury is unlikely.
<b>Skin</b>	Repeated contact may cause minor skin irritation or dry skin.
<b>Inhalation</b>	Inhalation of dust during handling may cause respiratory tract irritation and coughing. This product is not otherwise expected to be an inhalation hazard.
<b>Ingestion</b>	Ingestion of large quantities may cause nausea, vomiting, diarrhea and abdominal discomfort.

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

<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): 0.75 g O<sub>2</sub>/g deicer; BOD<sub>20</sub> (2°C): 0.40 g O<sub>2</sub>/g deicer, BOD<sub>20</sub> (10°C): 0.67

##### BIOACCUMULATIVE POTENTIAL

Bioaccumulation is not expected.

##### MOBILITY IN SOIL

Adverse effects not expected.



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#### 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

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



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#### 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: PA, MA, MN, and NJ.

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.

NFPA 704	
Health	1
Fire	0
Physical Hazard	0
Hazard Rating 0-4 0-least hazardous; 4-most hazardous	

HMIS – Hazardous Materials Identification System	
Health	1
Fire	0
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

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