CRYOTECH CMA40®
MATERIAL SAFETY DATA SHEET

1. PRODUCT NAME & DESCRIPTION

Cryotech CMA40® Deicer

MANUFACTURED AND SUPPLIED IN THE USA BY
Cryotech Deicing Technology
6103 Orthoway
Fort Madison, IA 52627
United States

Cryotech Contact Information
Telephone: (800)346-7237
FAX: (319)372-2662
email: deicers@cryotech.com
website: http://www.cryotech.com

2. CHEMICAL COMPOSITION
The percent compositions are given to allow for the various ranges of the components present in the whole product and may not equal 100%.

Percent	Component	CAS#
100%	Cryotech CMA40® Deicer	
Containing		
40%	Cryotech CMA® Deicer	76123-46-1
60%	Sodium Chloride	7647-14-5

CAS - Chemical Abstract Service Number

3. HAZARD IDENTIFICATION
(also see Sections 11 and 12)

CAUTION! - MAY CAUSE EYE IRRITATION

EYE CONTACT:
This substance may cause eye irritation.
SKIN IRRITATION:
This substance may cause skin irritation.
DERMAL TOXICITY:
If absorbed through the skin, this substance is considered practically non-toxic to internal organs.
RESPIRATORY/INHALATION:
Dust in high concentration may cause irritation to eye, nose and throat.
INGESTION:
If swallowed, this substance is considered practically non-toxic to internal organs. Ingestion may cause irritation of digestive tract.
OCCUPATIONAL EXPOSURE LIMITS:
None established per OSHA, PEL and ACGIHTLV (TWA)

4. FIRST AID MEASURES

Chemical Emergency: Spill, leak, fire, or accident call
Chemtrec day or night (800)424-9300;
Outside continental USA call (703)527-3887

EYE CONTACT: Immediately flush eyes with fresh water for 15 minutes. Remove contact lenses if worn.
SKIN CONTACT: Wash skin thoroughly with soap and water for 15 minutes. Remove and wash contaminated clothing.
INHALATION: If a person breathes large amounts, move to fresh air. If breathing is difficult, see a doctor.
INGESTION:
If swallowed, give water or milk to drink and telephone for medical advice. Consult medical personnel before inducing vomiting. If medical advice cannot be obtained, then take the person and product container to the nearest medical emergency treatment center or hospital.

5. FIRE FIGHTING MEASURES
FLASH POINT: Not applicable
AUTO IGNITION: No data
FLAMMABILITY LIMITS (% by volume in air):
Lower: No data Upper: No data
EXTINGUISHING MEDIA:
Material does not burn.
FIRE FIGHTING PROCEDURES:
This material will not burn.
COMBUSTION PRODUCTS:
Sodium Chloride decomposes when heated above 801C and may release toxic fumes of chlorine and sodium oxides.
NFPA RATINGS:
Health 1; Flammability 0; Reactivity 0; Special NDA:
HMIS RATINGS:
Health 1; Flammability 0; 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.

6. ACCIDENTAL RELEASE MEASURES

Chemical Emergency: Spill, leak, fire, or accident call
Outside continental USA call (703)527-3887
Chemtrec day or night (800)424-9300;

Sweep up spills and transfer to a container for disposal. See section 13
If needed, wash spillage area with plenty of water.

7. HANDLING AND STORAGE
Avoid contact with skin and eyes. Avoid breathing dust.
Do not store or handle product with systems constructed of parts that have galvanized steel, zinc or brass components.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION
EYE PROTECTION:
Safety glasses should be worn when working with chemicals.
SKIN PROTECTION:
Protective clothing may be worn in dusty area, but is generally not required.
RESPIRATORY PROTECTION:
No special respiratory protection is normally required. However, if operating conditions create high airborne concentrations, the use of an approved respirator is recommended.
VENTILATION: No special ventilation is necessary. However, if operating conditions create high airborne concentrations of this material, special ventilation may be needed.

9. PHYSICAL AND CHEMICAL PROPERTIES
SOLUBILITY: Partially soluble in water.
Appearance: White to off-white spherical granule & white crystalline solids
BOILING POINT: No Data
MELTING POINT: No Data
EVAPORATION: No Data
SPECIFIC GRAVITY: 1.8
VAPOR PRESSURE: No data
PERCENT VOLATILE (VOLUME %): No data
VAPOR DENSITY (AIR = 1): No data
pH: 8-10 for CMA, 6-8 for NaCl (10% aqueous solution)

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10. STABILITY & REACTIVITY
HAZARDOUS DECOMPOSITION PRODUCTS:
Sodium Chloride decomposes to chlorine and sodium oxides. CMA produces no hazardous decomposition products.
STABILITY: Stable
HAZARDOUS POLYMERIZATION: Polymerization will not occur.
INCOMPATIBILITY: None for CMA. Sodium Chloride is reactive with oxidizing agents, acids, Lithium, bromine triflouride.
SPECIAL PRECAUTIONS:
READ AND OBSERVE ALL PRECAUTIONS ON PRODUCT LABEL.

11. TOXICOLOGICAL INFORMATION
EYE IRRITATION (CMA):
The Draize Eye Irritation Score (range, 0-110) in rabbits is 8.7
SKIN IRRITATION (CMA):
The Draize Skin Primary Irritation Score (range, 0-8) for a 4-hour exposure (rabbits) is 0.1. This material was not a skin sensitizer in the Buehler Guinea Pig Sensitization Test.
DERMAL TOXICITY (CMA):
The dermal LD50 in rabbits is >5.0 g/kg
RESPIRATORY/INHALATION (CMA):
The 4-hour inhalation LC50 in rats is 4.6 mg/liter
RESPIRATORY/INHALATION (NaCl):
The 4-hour inhalation LC50 in rats is >2100 ml/m^3
INGESTION (CMA):
The oral LD50 in rats is greater than 5000 mg/liter. Additional Toxicological Data: The 96-hour LC50 in rainbow trout (Salmo gairdneri) is >1000 mg/L The 48-hour LC50 daphinia (Daphnia magna) is >1000 mg/L.
Results of a 28-day oral toxicity study in rats showed that daily doses of 1000 mg/kg of Cryotech CMA Deicer caused no significant toxicity.
INGESTION (NaCl): The oral LD50 in rats is 3000 mg/kg

12. ECOLOGICAL INFORMATION
CMA COD (TOD): 0.75 kg O_2/kg
CMA BOD_{20} @ 2° C: 0.40 kg O_2/kg
CMA BOD_{20} @ 10° C: 0.67 kg O_2/kg
Sodium Chloride may be harmful to freshwater aquatic species and to plants that are not saline tolerant.

13. DISPOSAL CONSIDERATION
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.

14. TRANSPORT INFORMATION
Not restricted under any transport regulations.

15. REGULATORY INFORMATION
DOT SHIPPING NAME: Not designated as a hazardous material by the Federal DOT.
DOT HAZARD CLASS: Not Applicable
DOT IDENTIFICATION NUMBER: Not Applicable
SARA 311 CATEGORIES:

1. Immediate (Acute) Health Effects:	Yes
2. Delayed (Chronic) Health Effects:	No
3. Fire Hazard:	No
4. Sudden Release of Pressure Hazard:	No
5. Reactivity Hazard:	No

REGULATORY LISTS SEARCHED:

01 = SARA 313	02 = MASS RTK
03 = NTP Carcinogen	04 = CA Prop. 65
05 = MI 406	06 = IARC Group 1
07 = IARC Group 2A	08 = IARC Group 2B
09 = SARA 302/304	10 = PA RTK
11 = NJ RTK	12 = CERCLA 302.4
13 = MN RTK	14 = ACGIH TLV
15 = ACGIH STEL	16 = ACGIH Calculated TLV
17 = OSHATWA	18 = OSHA STEL
20 = EPA Carcinogen	21 = TSCA Sect 4(e)
22 = TSCA Sect 5(a)(e)(f)	23 = TSCA Sect 6
24 = TSCA Sect 12(b)	25 = TSCA Sect 8(a)
26 = TSCA Sect 8(d)	28 = Canadian WHMIS
29 = OSHA CEILING	

None of the components of this material are found on the regulatory lists indicated.

16. OTHER INFORMATION
ADDITIONAL HEALTH DATA COMMENT:
Effects of overexposure: High concentration of dust may cause irritation of eyes, nose and throat, especially for people with chronic respiratory problems This Material Safety Data Sheet contains environmental, health and toxicology information for your employees. Please make sure this information is given 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 MSDS must be given to the buyer or the information incorporated in your MSDS. Discard any previous edition of this MSDS. **Latest version of this MSDS can be found at http://www.cryotech.com**