

MSDS Number:39316 MSDS Version:001

001 01/17/01 CRYOTECH E36(R) LRD

PRODUCT IDENTIFICATION

PRODUCT NAME: CRYOTECH E36(R) LRD / Potassium Acetate
MSDS#: 39316
DATE ISSUED: 09/99
SUPERSEDES: NEW
ISSUED BY: 002094

MATERIAL SAFETY DATA SHEET:

Cryotech E36(R) LRD (LRD = Liquid Runway Deicer) 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. Revision Date: September 1999

1. PRODUCT IDENTIFICATION

Cryotech E36(R) LRD
CAUTION! - MAY CAUSE EYE IRRITATION

2. FIRST AID MEASURES

EMERGENCY NUMBER: (24 hr): 1-800-346-7237

EYE CONTACT:

Flush eyes immediately with fresh water for at least 15 minutes while holding the eyelids open. Remove contact lenses if worn. No additional first aid should be necessary. However, if irritation persists, see a doctor.

SKIN CONTACT:

No first aid procedures are required. As a precaution, wash skin thoroughly with soap and water. Remove and Wash contaminated clothing.

INHALATION:

Since this material is not expected to be an immediate inhalation problem, no first aid procedures are required.

INGESTION:

If swallowed, give water or milk to drink and telephone for medical advice. DO NOT make person vomit unless directed to do so by medical personnel. If medical advice cannot be obtained, then take the person and product. container to the nearest medical emergency treatment center or hospital.

3. IMMEDIATE HEALTH EFFECTS

(also see Sections 11 and 12)

EYE CONTACT:

This substance is slightly irritating to the eyes and could cause prolonged (days) impairment of your vision. The degree of the injury will depend on the amount of material that gets into the eye and the speed and thoroughness of the first aid treatment. Signs and symptoms may include pain, tears, swelling, redness, and blurred vision.

SKIN IRRITATION:

This substance is not expected to cause prolonged or significant skin irritation.

DERMAL TOXICITY:

The systematic toxicity of this substance has not been determined. However, it should be practically non-toxic to internal organs if it gets on the skin.

NDA - No Data Available NA - Not Applicable MSDS Number: 118

RESPIRATORY/INHALATION:

This material does not present an inhalation hazard.

INGESTION:

If swallowed, this substance is considered practically non-toxic to internal organs. Ingestion may cause irritation of the digestive tract which may result in nausea, vomiting and diarrhea.

4. PROTECTIVE EQUIPMENT**EYE PROTECTION:**

Do not get this material in your eyes. Eye contact can be avoided by wearing chemical goggles.

SKIN PROTECTION:

No special skin protection is usually necessary. Avoid prolonged or frequently repeated skin contact with this material. Skin contact can be minimized by wearing protective clothing.

RESPIRATORY PROTECTION:

No special respiratory protection is normally required.

VENTILATION:

No special ventilation is necessary.

5. FIRE FIGHTING MEASURES

FLASH POINT: NA

AUTOIGNITION: NA

FLAMMABILITY LIMITS: (96 by volume in air): Lower. NA Upper. NA Non-flammable

EXTINGUISHING MEDIA:

NA - Material is not flammable

FIRE FIGHTING, PROCEDURES:

This material normally will not burn..

COMBUSTION PRODUCTS:

Normal combustion forms carbon dioxide and water vapor.

NFPA 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. STORAGE, HANDLING, AND REACTIVITY

HAZARDOUS DECOMPOSITION PRODUCTS: None known.

STABILITY: Stable.

HAZARDOUS POLYMERIZATION: Polymerization will not occur.

INCOMPATIBILITY:

May react with strong acids or strong oxidizing agents, such as chlorates, nitrates, peroxides, etc. Avoid prolonged contact with reactive metals such as magnesium and zinc, especially in closed systems where hydrogen gas may accumulate over time.

SPECIAL PRECAUTIONS: READ AND OBSERVE ALL PRECAUTIONS ON PRODUCT LABEL. Store away from strong oxidizing materials.

Prepared According to the OSHA Hazard Communication Standard (29 CFR 1910.1200) by Cryotech Deicing Technology, A Division of General Atomics International Services Division, 6103 Orthoway, Fort Madison, IA 52627

PHYSICAL AND CHEMICAL PROPERTIES:

SOLUBILITY: Completely miscible in water.

APPEARANCE: Clear, colorless to light straw colored liquid. (May be dyed blue at customer request)

BOILING POINT: 100 C (approximately)

MELTING POINT: -40 C

EVAPORATION: NDA

SPECIFIC GRAVITY: 1.28 @ 20 C

VAPOR PRESSURE: NDA

PERCENT VOLATILE (VOLUME %): NDA

VAPOR DENSITY (AIR = 11): NDA

VISCOSITY: 6.5 P @ 20 C

8. ENVIRONMENTAL CONCERNS, SPILL RESPONSE AND DISPOSAL

EMERGENCY NUMBER (24 hr): 1-800-346-7237

SPILL/LEAK PRECAUTIONS:

This material is not expected to be toxic to aquatic organisms. This material is not expected to present any environmental problem.

DISPOSAL METHODS:

Based on information available to Cryotech Deicing Technology, this product is neither listed as a hazardous waste nor does it exhibit any of the characteristic that would cause it to be classified or disposed of as a RCRA hazardous waste.

If product should spill or be otherwise unsuitable for normal antifreeze applications, it may be disposed of in sanitary landfill unless state or local regulations prohibit such disposal.

9. EXPOSURE STANDARDS, REGULATORY LIMITS AND 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/CAS#	COMPONENT/REGULATORY LIMITS
100%	Cryotech E36(R) LRD
CONTAINING	
50%	POTASSIUM ACETATE
CAS 127082	

< 1.0%
50% CAS7732185

TLV-Threshold Limit Value

STEL - Short-term Exposure Limit

RQ - Reportable Quantity

CAS -Chemical Abstract AND CORROSION INHIBITORS IN WATER

TWA -Time Weighted Average

TPQ -Threshold Planning Quantity

Service Number CPS - CUSA Product Code

10. REGULATORY INFORMATION

DOT SHIPPING NAME:

NOT DESIGNATED AS A HAZARDOUS MATERIAL BY THE FEDERAL DOT

NDA-No Data Available NA -Not Applicable MSDS Number: 118

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 = OSHA TWA	18 = OSHA STEL
20 = EPA Carcinogen	21 = TSCA Sect 41e1
22 = TSCA Sect 5(a)(1)&(f)	23 = TSCA Sect 6
24 = TSCA Sect 12(b)(1)	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.

11. TOXICOLOGICAL INFORMATION

EYE IRRITATION:

No product toxicology data available. The hazard evaluation was based on data from similar products.

SKIN IRRITATION: No product toxicology data available. The hazard evaluation was based on data from similar materials.

DERMAL TOXICITY:

No product toxicology data available. The hazard evaluation was based on data from similar materials.

RESPIRATORY/INHALATION:

No product toxicology data available. The hazard evaluation was based on data from similar materials.

INGESTION:

The oral LD50 in rats is greater than 5.0 g/kg.

12. ADDITIONAL HEALTH DATA

ADDITIONAL HEALTH DATA COMMENT:

This product contains potassium salts. Ingestion of large amounts (25 or more grams) of potassium salts usually cause: a person to vomit. If the person is not suffering from a preexisting kidney condition the absorbed potassium is rapidly excreted in the urine. However, very young children or individuals with compromised kidney and/or cardiac function could experience the following effects after ingesting excessively large doses of potassium salts: irritation and inflammation of the stomach lining, muscular weakness, burning, tingling and numbness sensations of hands and feet, slower heart beat, reduced blood pressure, irregular heart beat and cardiac arrest.

For Additional Information:

Contact: MSDS Coordinator - Univar USA

During business hours, Pacific Time - (425) 889-3400

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END OF MSDS