

# Material Safety Data Sheet

May be used to comply with  
OSHA's Hazard Communication Standard,  
29 CFR 1910.1200. Standard must be  
consulted for specific requirements.

## U.S. Department of Labor

Occupational Safety and Health Administration  
(Non-Mandatory Form)  
Form Approved  
OMB No. 1218-0072



IDENTITY(As used on Label and List)

**CHEM-CREST M-PYROL**

Note: Blank spaces are not permitted. If any item is not applicable, or no information is available, the space must be marked to indicate that.

### Section I – Product and Company Identification

Manufacturer's Name CREST ULTRASONICS CORPORATION	Emergency Telephone Number (800) 424-9300 (Chemtrec) or (703) 527-3887 outside the US
Address (Number, Street, City, State, and ZIP Code) SCOTCH ROAD, TRENTON MERCER AIRPORT	Telephone Number for Information (609) 883-4000
TRENTON, NJ 08628	Last update: 2 August 2011

### Section II – Hazards Identification

	<b>Emergency Overview:</b> Clear light yellow liquid, mild amine odor WARNING! Can cause skin irritation, may cause allergic skin reaction May be harmful if swallowed. Causes coughing and/or upset stomach. Breathing of mist can cause irritation and damage to throat and respiratory system Symptoms of expose are irritation of eyes, throat, skin, nasal passages. Ingestion may cause vomiting and abdominal pain. <b>Recommended Personal Protective Equipment:</b> PVC-lined gloves, chemical splash goggles, good handling practices Avoid splashing and spilling. Eye wash should be available in area. Wash hands before handling food after using any chemical.
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### Section III – Composition / Information on Ingredients

Hazardous Components (Specific Chemical Identity; Common Name(s))	OSHA PEL	Other Limits Recommended	C.A.S. #
COMPONENTS:	% ACTIVE		
1-METHYL-2-PYRROLIDINONE	98-100%	10 mg/m <sup>3</sup> (WEEL TWA) LD50 (oral, rat): 4,200 mg/kg	872-50-4

### Section IV – First Aid Measures

#### General Advice:

Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area. Never give anything to an unconscious person.

#### Contact with eyes:

Flush with water for at least 15 minutes, lifting upper and lower lids occasionally. See a physician if irritation persists.

#### If swallowed:

Slowly dilute with two large glasses of water or milk. Do NOT induce vomiting. See a physician.

#### If inhaled:

Remove to fresh air. Give oxygen if necessary. No specific treatment should be necessary.

#### Skin contact:

Wash off with plenty of soap and water. Launder all contaminated clothing before reuse.

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## **Section V – Fire-fighting Measures**

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### Suitable extinguishing media:

Alcohol-resistant foam, dry chemical, carbon dioxide.

### Protective equipment for fire-fighters:

Must use self-contained breathing apparatus (SCBA), eye protection. Vapors are heavier than air, and can travel considerable distances, and flash back. Vapor-air mixtures are explosive.

### Flash Point:

90°C / 194°F

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## **Section VI – Accidental Release Measures**

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### In case of a leak or spill:

Completely isolate the area of the leak or spill. Remove all non-necessary personnel from the area. Dyke the spilled material with sand, earth, or absorbent material. Soak up or suction material to drums, following all recommendations in Section VIII – Personal Protective Equipment of this MSDS. If possible, avoid all draining to sewage and waterways. Material is slippery. Do not discharge into water ways or sewer system.

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## **Section VII – Handling and Storage**

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### Handling of material:

Avoid contact with eyes, skin, clothing, and other exposed areas of the body. Avoid inhalation of vapor or mist. Use SCBA fire-fighting purposes. Eye wash and safety shower should be available in area where product is used. Ensure use of proper personal protective equipment when handling any chemical.

### Storage of material:

Keep material in container, tightly closed, in a dry environment. Do not allow to freeze. Follow all appropriate grounding and bonding procedures during use of any chemical. Follow all appropriate lockout / tag out procedures in all areas. Do not allow access of unauthorized personnel to chemical storage areas. Observe all local, state, and federal regulations. Material may be repackaged in steel, poly, or aluminum containers. Material should be kept over secondary containment in case of spill as material is slippery, and should not be discharged to water ways or sewer system.

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## **Section VIII – Exposure controls / Personal Protective Equipment**

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### Engineering Controls:

In areas where deemed necessary, investigate all engineering controls and techniques in order to reduce risk of exposure to any chemical. Provide necessary ventilation. If necessary, use local exhaust ventilation at sources of air contamination. Consult ACGIH ventilation manual or NFPA Standard 91 for exhaust system designs.

### Face and Eye Protection:

The use of chemical splash / safety goggles is highly recommended, along with accessibility to eye wash stations and safety showers. If necessary, provide workers with chemical full-face shields and/or SCBA. Any long hair should be firmly held behind or on top of the head to avoid exposure.

### Skin Protection:

The use of chemically-resistant clothing and PVC-lined, latex, or Nitrile gloves is highly recommended for use with this product. Consult with glove manufacturers for a list of gloves acceptable for use with any chemical. If necessary, wear full-face shield and rubber aprons with use of chemicals. Launder all clothing that has been exposed to chemicals before reuse.

### Respiratory Protection:

Avoid inhalation of vapor from product. When exposure limits in a given area exceed set values, use NIOSH approved respiratory protection. Consult with respiratory protection equipment manufacturer for types of equipment suitable for each chemical. Respiratory protection must comply with 29 CFR 1910.134. When emergency conditions are presented, evacuate areas affected and use appropriate safety measures for respiratory protection such as, but not limited to, self-contained breathing apparatus, air-line respirator, full-face respirator, or other approved methods for each given chemical.

### Hygiene Measures:

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday, and after use of chemicals before any other activity.

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## Section IX – Physical and Chemical Properties

Appearance / Odor	Clear yellow to pale tan liquid, mild amine odor
pH (10%)	7.2 ± 0.5
Specific Gravity	1.03 ± 0.03
Vapor Pressure	N/E
Vapor Density	N/A
Freezing Point	<32°F
Boiling Point:	>300°F
Solubility in Water	Miscible
Flash Point	194°F (concentrate, closed cup)
Evaporation Rate (butyl acetate = 1)	N/A

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## Section X – Stability and Reactivity

Stability	Unstable		
	Stable	X	This chemical should be stable under normal operating use conditions

Incompatibility (Materials to Avoid): Ignition sources, strong acids, strong oxidizing agents at high temperatures

Hazardous Decomposition or Byproducts: Oxides of carbon, nitrogen may form under high temperatures

Hazardous Polymerization	May Occur		
	Will Not Occur	X	This chemical will not undergo hazardous polymerization under anticipated normal operating conditions

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## Section XI – Toxicological Information

This product is not fully evaluated; see MSDS for 1-methyl-2-pyrrolidinone for general guidelines.

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## Section XII – Ecological Information

This product is not fully evaluated; see MSDS for 1-methyl-2-pyrrolidinone for general guidelines.

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## Section XIII – Waste Disposal

Incinerate, or bury as solid after absorption on cementation in a licensed facility. Do not discharge into water ways of sewer system. Always dispose of all chemicals via State, Local, and Federal Regulations.

**Any processing done with the use of this chemical in which any substances are added to this material may make this waste management information inaccurate. Local laws must always be consulted when considering waste disposal.**

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## Section XIV – Transportation Information

US Department of Transportation (DOT)

(Non-bulk)

NOT REGULATED

(Bulk)

COMBUSTABLE LIQUID, N.O.S.(CONTAINS N-METHYL-2-PYROLLIDINONE), NA1993, CLASS CBL, PG III  
MARINE POLLUTANT: NO  
POISON INHALATION HAZARD: NO

ICAO/IATA

NOT REGULATED

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## Section XIV – Transportation Information (con’t)

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### IMDG

NOT REGULATED

### Harmonization Code

3402.90.xxxx

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## Section XV – Regulatory Information

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### OSHA Hazard Communication Standard

This product contains “Hazardous Chemicals” as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200. Combustible liquid, target organ effect (bone marrow, thymus, spleen, lymphatic system), irritant, teratogen

### Superfund Amendments and Reauthorization Act of 1986 Title III (Emergency Planning and Community Right-to-Know Act of 1986) Sections 311 and 312

Fire hazard, acute health hazard, chronic health hazard (teratogen)

### SARA Title III, section 313

1-Methyl-2-Pyrrolidinone (CAS# 872-50-4) is subject to regulation under SARA Title III, section 313.

### California Prop. 65 Components

WARNING! This product contains chemicals known to the State of California to cause birth defects or reproductive harm.

1-Methyl-2-Pyrrolidinone (CAS# 872-50-4) – may cause fetal damage

### New Jersey / Pennsylvania / Massachusetts Right to Know Components

1-Methyl-2-Pyrrolidinone (CAS# 872-50-4)

### TSCA Section 8(b)

All of the components of this product are listed on the TSCA Inventory

### CERCLA Reportable Quantities

N/E

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## Section XVI: Other Information

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Chem Crest Chemical MSDS are available on via website, <http://www.crest-ultrasonics.com>

MSDS Prepared by: Charles P. Kaczorek, Technology Department Manager

Date of preparation: 2 August 2011

Legend:

N/A – Not Available

N/E – Not Established

THE INFORMATION CONTAINED HEREIN IS BELIEVED TO BE ACCURATE BUT IS NOT WARRANTED, RECIPIENTS ARE ADVISED TO CONFIRM IN ADVANCE OF NEED THAT THE INFORMATION IS CURRENT AND APPLICABLE TO THEIR CIRCUMSTANCES. CREST CHEMICALS SHOULD ONLY BE HANDLED BY APPROPRIATE PERSONNEL. CREST ULTRASONICS HOLDS NO WARRANTY, EXPRESS OR IMPLIED, RESULTING FROM THE MISUSE OF CHEMICALS, OR OF THE INFORMATION CONTAINED HEREIN EXCEPT THAT ALL INFORMATION IS TO THE BEST KNOWLEDGE AND BELIEF TO THE DATE INDICATED IN THE UPDATE. ALL USERS OF THIS CHEMICAL SHOULD BE PROVIDED WITH A COPY OF THIS MSDS ALONG WITH ADEQUATE TIME TO REVIEW IT PRIOR TO USE OF THE CHEMICALS.

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