

M A T E R I A L   S A F E T Y   D A T A   S H E E T

RN DELIMER 4X1 CASE

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2/11/2009

**PRODUCT NAME:** RN DELIMER 4X1 CASE  
**PRODUCT CODE:** FLLFSDRXRN-FSD-1

=====**SECTION I - MANUFACTURER IDENTIFICATION**=====

**MANUFACTURER'S NAME:** Formula Corporation  
**ADDRESS:** 4432 C Street NE  
                    Auburn, WA 98002

**EMERGENCY PHONE:** 800-228-5635 x059   **DATE REVISED:** 2/11/2009  
**INFORMATION PHONE:** 800-772-7005  
**NAME OF PREPARER:** REGULATORY DEPARTMENT

=====**SECTION II - HAZARDOUS INGREDIENTS/SARA III INFORMATION**=====

REPORTABLE COMPONENTS	CAS NUMBER	VAPOR PRESSURE mm Hg @ TEMP	WEIGHT PERCENT
PHOSPHORIC ACID OSHA PEL: 1 MG/M3, ACGIH TLV: 1 MG/M3, OTHER: 3 MG/M3	7664-38-2	6.0      68 DEG F	15
* HYDROCHLORIC (MURIATIC) ACID OSHA PEL: 5 PPM, ACGIH TLV: 5 PPM, OTHER: NONE	7647-01-0	25      20 DEG C	5
OXALIC ACID	144-62-7	N/A      N/A	1

\* Indicates toxic chemical(s) subject to the reporting requirements of section 313 of Title III and of 40 CFR 372.  
This product may contain chemicals known to the state of California to cause cancer, birth defects or other reproductive harm.

=====**SECTION III - PHYSICAL/CHEMICAL CHARACTERISTICS**=====

**BOILING POINT:** 212 DEG F                   **SPECIFIC GRAVITY (H2O=1):** 1.12  
**VAPOR DENSITY:** HEAVIER THAN AIR       **EVAPORATION RATE:** SLOWER THAN ETHER  
**SOLUBILITY IN WATER:** Complete         **pH:** < 2.0  
**APPEARANCE AND ODOR:** Liquid, non-viscous, faint sweet odor.

=====**SECTION IV - FIRE AND EXPLOSION HAZARD DATA**=====

**FLASH POINT:** NONE                       **METHOD USED:** COC  
**FLAMMABLE LIMITS IN AIR BY VOLUME-** LOWER: N/A       **UPPER:** N/A  
**EXTINGUISHING MEDIA:** FOAM, CO2, DRY CHEMICAL, WATER FOG  
**SPECIAL FIREFIGHTING PROCEDURES**

Fire fighters should wear self-contained breathing apparatus and full protective clothing. Use water spray to cool nearby containers and structures exposed to fire.

**UNUSUAL FIRE AND EXPLOSION HAZARDS**

Extinguish all nearby sources of ignition since flammable hydrogen gas may be liberated from contact with some metals.

=====**SECTION V - REACTIVITY DATA**=====

**STABILITY:** STABLE  
**CONDITIONS TO AVOID**  
None

**INCOMPATIBILITY (MATERIALS TO AVOID)**

Alkalis, oxidizing or reducing materials, and combustible materials. Keep away from formaldehyde and metal oxides.

**HAZARDOUS DECOMPOSITION OR BYPRODUCTS**

May liberate hydrogen chloride or phosphorous oxides.

**HAZARDOUS POLYMERIZATION:** WILL NOT OCCUR

=====**SECTION VI - HEALTH HAZARD DATA**=====

**INHALATION HEALTH RISKS AND SYMPTOMS OF EXPOSURE**

Vapors and mists are extremely corrosive to the nose, throat, and mucous membranes. Irritation, coughing, chest pain, and breathing difficulty may occur with brief exposure while prolonged exposure may result in more severe irritation.

**SKIN AND EYE CONTACT HEALTH RISKS AND SYMPTOMS OF EXPOSURE**

EYES - Vapors, liquid, and mists are extremely corrosive to the eyes. Brief contact will damage the eyes, prolonged contact may cause permanent damage or blindness. SKIN - Extremely corrosive to the skin, will burn or destroy tissue.

**SKIN ABSORPTION HEALTH RISKS AND SYMPTOMS OF EXPOSURE**

Redness, drying of skin, or other signs of irritation or contact dermatitis. May result in primary irritant dermatitis.

**INGESTION HEALTH RISKS AND SYMPTOMS OF EXPOSURE**

Vapors, mists, and liquid are extremely corrosive to the mouth and throat. Swallowing the liquid burns the tissues, and may cause severe abdominal pain, nausea, vomiting, and collapse. Swallowing large quantities may result in death.

**HEALTH HAZARDS (ACUTE AND CHRONIC)**

Repeated exposure may result in areas of destruction of skin tissue or primary irritant dermatitis. Inhalation of dusts, vapors, or mists may cause varying degrees of damage to the affected tissues and also increasing susceptibility to respiratory illness.

**CARCINOGENICITY: NTP CARCINOGEN: No IARC MONOGRAPHS: No OSHA REGULATED: No**

The components of this product are not considered to be carcinogens by the National Toxicology Program, the International Agency for Research on Cancer, or the Occupational Safety and Health Administration.

**MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE**

None reported.

**EMERGENCY AND FIRST AID PROCEDURES**

INHALATION - Remove to fresh air. Give artificial respiration if not breathing. EYES - Flush immediately with lots of running water for at least 15 minutes holding eye lids open. GET MEDICAL ATTENTION. SKIN - Immediately flush skin with lots of running water for at least 15 minutes. Remove contaminated clothing and shoes. INGESTION - Drink 1 to 8 glasses of water to dilute. DO NOT INDUCE VOMITING. Consult a physician or poison control center immediately. Treat symptomatically. Do not give anything by mouth to an unconscious or convulsing person.

**===== SECTION VII - PRECAUTIONS FOR SAFE HANDLING AND USE =====**

**STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED**

For small spills dilute with water, mop or wipe up and contain. For large spills, contain by diking with absorbent material and carefully neutralize with lime. Keep material out of sewers, storm drains, surface waters, and soil.

**WASTE DISPOSAL METHOD**

Comply with all applicable governmental regulations on spill reporting, handling and disposal of waste. Dispose of contaminated product and materials used in clean up in a manner approved for this material and the contaminant. Consult appropriate Federal, State and Local regulatory agencies to ascertain proper disposal procedures and comply with them.

**PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING**

Store in a dry, well ventilated place away from incompatible materials. Keep container tightly closed when not in use. Store at temperatures above the solutions freezing point to remain liquid. Do not use pressure to empty container.

**OTHER PRECAUTIONS**

Empty containers usually still hold residues of material and vapors. These must be considered hazardous and disposed of in accordance with proper handling procedures prescribed for hazardous chemicals. When mixing with water, always add this product to water and stir.

**===== SECTION VIII - CONTROL MEASURES =====**

**RESPIRATORY PROTECTION**

In the absence of adequate ventilation an approved respirator may be required.

**VENTILATION**

Be sure to provide adequate ventilation in all working areas at all time. In general, health problems could result from repeated and prolonged exposure to chemical vapors.

**PROTECTIVE GLOVES**

Wear resistant gloves such as polyethylene or rubber.

**EYE PROTECTION**

Chemical splash goggles should be worn during application of this product.

**OTHER PROTECTIVE CLOTHING OR EQUIPMENT**

Where gross eye and skin contact may occur use and wear appropriate clothing, rubber boots with pants on the outside, and rubber gloves.

**WORK/HYGIENIC PRACTICES**

Standard hygienic practices must be observed when handling all chemicals.

**===== SECTION IX - DISCLAIMER =====**

Information contained herein is furnished without warranty of any kind. Employees should use this information only as a supplement to other information gathered by them and must make independent determination of suitability and completeness of information from all sources to assure proper use of these materials and for the safety and health of employees.