

# Material Safety Data Sheet

Martrex, Inc.  
P.O. Box 1709  
Minnetonka, MN 55345-3793

IDENTITY (As used on label and list)  
Citric Acid Monohydrate, USP/FCC

Issue Date: July 23, 1996

## Section I

Distributor's Name  
Martrex, Inc.  
P.O. Box 1709  
Minnetonka, MN 55345-3793

Emergency Telephone Number (Chemtrec)  
(800) 424-9300  
(703) 527-3887

## Section II - Hazardous Ingredients/Identity Information

Hazardous Components (Chemical Identity; Common Name) OSHA PEL ACGIH TLV

### Hazard Data

Citric Acid, 2-Hydroxy -1,2,3 - propanetricarboxylic acid  
Cas No. 5949-29-1 C6H8O7.H2O

N/A N/A  
ori-rat LD, 11.700 mg/kg  
dermal acute 500 mg/24 hr moderate  
Eye 750 mg/24 hr severe

## Section III - Physical/Chemical Characteristics

### Boiling Point

Not applicable - solid

### Specific Gravity (H2O = 1)

1.665

### Vapor Pressure (mm Hg)

Not applicable - solid

### Melting Point

153°C

### Vapor Density (Air = 1)

Not applicable

### Evaporation Rate (Butyl Acetate = 1)

< 1

### Solubility in water

Greater than 50%

### Appearance and Odor

White odorless powder and/or granules

## Section IV - Fire and Explosion Hazard Data

Flash Point (Method Used)  
Ignition temp. 1000 - 1020°C

Flammable Limits LEL UEL  
Min. 8 g/cuft NA NA  
Opt. 65 g/cuft

### Extinguishing Media

Water, carbon dioxide, foam, powder extinguisher

### Special Fire Fighting Procedures

Fire fighters wear protective clothing and NIOSH approved respirator.

### Unusual Fire and Explosion Hazards

None - At optimum air concentration Bureau of Mines Relative: Explosive rating = Weak

## Section V - Reactivity Data

### Stability Stable Unstable

Stable under normal conditions

### Conditions to Avoid

None known

### Incompatibility (Materials to Avoid)

Metal nitrates and strong oxidizers

## Hazardous Decomposition or Byproducts

None Known

**Hazardous polymerization** May Occur Will Not Occur  
Will not occur

**Conditions to Avoid**  
None known

## Section VI - Health Hazard Data

**Routes of Entry** Inhalation Skin Ingestion  
Skin contact, Ingestion, Inhalation of mist.

**Health Hazards (Acute and Chronic)**  
Prolonged contact with the product may cause irritation.

<b>Carcinogenicity</b>	<b>NTP?</b>	<b>IARC Monographs?</b>	<b>OSHA Regulated?</b>
No	No	No	No

**Signs and Symptoms of Exposure**  
May be slight eye irritant, long term exposure to skin could be a mild irritant.

**Medical Conditions Generally Aggravated by Exposure**  
No information available.

**Emergency and First Aid Procedures**  
Eyes - immediately flush with plenty of water for 15 minutes. Call a physician.  
Skin - wash area with water, remove contaminated clothing and launder before reuse.

## Section VII - Precautions for Safe Handling and Use

**Steps to Be Taken in Case of Material is Released or Spilled**  
Recover by vacuum or broom and shovel. Flush area with water to remove final traces.

**Waste Disposal Method**  
Conform to applicable federal, state and local regulations  
Landfill or neutralize and flush to drain. Material is biodegradable in waste treatment facility.

**Precautions to Be Taken in Handling and Storing**  
Store in a dry area.

**Other Precautions**  
Aqueous solutions of Citric Acid can, if in contact with reactive metal (iron, zinc, aluminum) form hydrogen which may form explosive mixtures.

## Section VIII - Control Measures

**Respiratory Protection (Specify Type)**  
NIOSH approved chemical respirator with dust and mist filter while handling crystalline material and concentrated solutions.

<b>Ventilation</b>	<b>Local Exhaust</b>	<b>Mechanical (General)</b>	<b>Special</b>	<b>Other</b>
Local exhaust sufficient to control dust.				

<b>Protective Gloves</b>	<b>Eye Protection</b>
Standard work gloves	Safety Glasses

**Other Protective Clothing or Equipment**  
None

This MSDS is based upon a limited review of Martrex, Inc. files and standard Toxicological handbooks. The information herein is furnished without warranty of any kind. This information should only be used as a supplement to information already in your possession concerning the product. The determination of whether and under what conditions the product should be used by your employees is yours to make.