

MATERIAL SAFETY DATA SHEET

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Section 1. PRODUCT IDENTIFICATION

PRODUCT NAME: CITRIC ACID

CHEMICAL FAMILY - Citric Acid Anhydrous USP/FCC

DOT CLASS - Not Regulated by DOT

Section 11. COMPOSITION

HAZARDOUS INGREDIENTS/IDENTITY INFORMATION Hazard Data

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

Citric Acid, 2 Hydroxy-1,2,3-propanetricarboxylic acid	N/A	N/A
Cas No. 77-92-9 C6 H8 O7	orl-rat LD50, 700mg/kg	
	Dermal acute 500mg/24 hr moderate	
	Eye 750mg/24 hr service	

Section 11. PHYSICAL/CHEMICAL CHARACTERISTICS

Boiling Point - N/A - solid	SPECIFIC GRAVITY (H ₂ O = 1) - 1.665
VAPOR PRESSURE, mm Hg - N/A - solid	MELTING POINT - 153°C
VAPOR DENSITY (Air = 1): N/A	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: Min. 8g/cuft. Opt. 65g/cuft LEL: N/A UEL: N/A

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 Hazard: None - At optimum air concentration Bureau of Mines

Relative: Explosive Rating: Weak

Section V. REACTIVITY DATA

STABILITY - Stable under all normal conditions.

CONDITIONS TO AVOID: None Known

INCOMPATIBILITY (Materials to avoid) - Metal nitrates and strong oxidizers.

HAZARDOUS DECOMPOSITION OR BY PRODUCTS: None Known.

HAZARDOUS POLYMERIZATION will not occur.

Section VI. HEALTH HAZARD DATA

Route(s) of Entry: Skin Contact, Ingestion and Inhalation of mist.

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

Carcinogenicity: No NTP? None Known IARC Monographs? None Known

OSHA Regulated? None Known

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: Unavailable information.

Emergency and First Aid Procedures:

EYES: Flush immediately with plenty of water for 15 minutes. Call a physician.

SKIN: Wash area with water, remove contaminated clothing and launder before reuse.

SECTION VII. SPILL, LEAK, AND DISPOSAL INFORMATION

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

Recover by vacuum or broom and a shovel. Flush area with water to remove final traces.

WASTE DISPOSAL METHOD - Can generally be disposed of in an approved disposal facility, in accordance with 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 relative metal (iron, zinc, aluminum) form hydrogen which may form explosive mixtures.

SECTION VIII. SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION: An approved dust respirator should be worn.

VENTILATION: Local exhaust or other ventilation sufficient to control dust.

EYE PROTECTION: Safety Glasses are recommended to reduce dust exposure to the eyes.

OTHER PROTECTIVE EQUIPMENT: Gloves

SECTION IX. SPECIAL PRECAUTIONS

Store in a dry location to avoid loss of product by solution in water, and to avoid subsequent caking.

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