



IMPORTANT MATERIAL SAFETY DATA SHEET

READ CAREFULLY BEFORE USING CHEMICAL
OSHA requires that this form be kept on file.

Product No. SB 1188 M

Product Name CITRIC ACID,
ANHYDROUS

CHEMTREC 800-424-9300

1. EXTREME
3. SEVERE
2. MODERATE
1. SLIGHT
0. MINIMAL

Health Hazard	0
Flammability	1
Reactivity	0

SECTION I NAME

Chemical Synonyms	N/A
Formula	$C_6H_8O_7$
C.A.S. No.	77-92-9

SECTION II HAZARDOUS INGREDIENTS OF MIXTURES

Principal Hazardous Component(s)	%	P.E.L.	TLV Units
Citric Acid CAS# 77-92-9		None	Established

* chemical subject to the reporting requirements of SARA Title III.

SECTION III PHYSICAL DATA

Melting Point (°F)	N/A	Specific Gravity ($H_2O=1$)	N/A
Boiling Point (°F)	N/A	Percent Volatile by Volume (%)	N/A
Vapor Pressure (mm Hg)	N/A	Evaporation Rate (----- =1)	N/A
Vapor Density (Air=1)	N/A		
Solubility in Water	59.2% at 200°C		
Appearance & Odor	White crystalline powder. Odorless.		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

Flash Point (Method Used)	N/A	Flammable Limits in Air % by Volume	Lower	Upper
			N/A	N/A
Extinguisher Media	Use dry chemical, carbon dioxide, water spray or foam.			

Special Firefighting Procedures

Wear self-contained breathing apparatus and full protective clothing.

Unusual Fire and Explosion Hazards

High concentrations of dust in air may form explosive mixture.

DEC 07 1995

D.O.T. Not Regulated

None established.

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Effects of Overexposure

INHALATION: May cause irritation of upper respiratory system, coughing and shortness of breath. **INGESTION:** May cause abdominal pains, nausea, vomiting. **SKIN:** May cause irritation, swelling and pain. Prolonged contact may cause burns. **EYES:** Contact may cause redness, tearing, conjunctivitis.

Emergency and First Aid Procedures

SKIN: Remove contaminated clothing and shoes. Flush with plenty of water then wash with mild soap and water. If irritation or burns develop and persist, get medical attention. Wash clothing before reuse. **EYES:** Immediately flush with plenty of water for at least 15 minutes while occasionally lifting lids. **INGESTION:** Conscious individuals give two glasses of water or milk. Do not induce vomiting. Never give anything by mouth to an unconscious person. **INHALATION:** Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Call a physician.

SECTION VI REACTIVITY DATA

Stability	Conditions to Avoid
Stable <input checked="" type="checkbox"/> Unstable <input type="checkbox"/>	None
Incompatibility (Materials to Avoid)	Metallic nitrates, strong oxidizers.
Hazardous Decomposition Products	Thermal decomposition results in acid fumes, carbon monoxide, carbon dioxide.
Hazardous Polymerization	Conditions to Avoid
May Occur <input type="checkbox"/> Will Not Occur <input checked="" type="checkbox"/>	None

SECTION VII SPILL OR LEAK PROCEDURES

Steps to be Taken in Case Material is Released or Spilled

Contain spill. Sweep or vacuum into containers for disposal according to local, state and federal regulations.

Waste Disposal Method

Discharge, treatment, or disposal may be subject to Federal, State or Local laws. These disposal guidelines are intended for the disposal of catalog-size quantities. Dispose of in approved disposal site according to local, state and federal regulations.

SECTION VIII SPECIAL PROTECTION INFORMATION

Respiratory Protection (Specify Type)	NIOSH approved dust mask in high concentrations.		
Ventilation	Local Exhaust	Mechanical (General)	Special
		X	Other
Protective Gloves	Gloves	Eye Protection	Resistant Goggles
Other Protective Equipment	Full body covering in clothing.		

SECTION IX SPECIAL PRECAUTIONS

Precautions to be Taken in Handling & Storing

Keep container tightly closed when not in use.

Keep container closed. Wash thoroughly after handling. Store in cool, dry area away from strong oxidizers. Protect container from damage.

Other Precautions

Read label on container before using. Do not wear contact lenses when working with chemicals.

Remove containers from fire if possible. Cool containers exposed to flame with water.

Approved by	Steven C. Quandt	Effective Date	06/19/95	For laboratory use only. Not for household use. Keep out of reach of children.
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