

**THATCHER COMPANY MATERIAL SAFETY DATA SHEET****PRODUCT: CITRIC ACID SOLUTION, 50%****Page 1 of 3**

MSDS Date: May 3, 2007

Emergency Contact: 1-800-424-9300

SECTION I**PRODUCT NAME:** Citric Acid solution, 50%**CHEMICAL NAME:** (2-hydroxy-1,2,3-propanetricarboxylic acid**CHEMICAL FAMILY:** Organic Acids Solution**DOT SHIPPING INFORMATION:** Not DOT regulated.**SECTION II - HAZARDOUS INGREDIENTS**

This material contains no ingredients which are known by Thatcher Company to be hazardous unless listed below.

HAZARDOUS MATERIAL	CAS NUMBER	w/w %	EXPOSURE LIMITS IN AIR
Citric acid	77-92-9		None established

The specific identity of some ingredients may be withheld for confidential business purposes. However, all known potential health effects from exposure to these ingredients are being addressed.

SECTION III - PHYSICAL DATA**BOILING POINT (F):** 215° F**SPECIFIC GRAVITY:** 1.24**VAPOR PRESSURE (mm Hg) @ 25° C:** 21.72**% VOLATILE, BY VOLUME:** 50%**VAPOR DENSITY (air = 1):** N/A**EVAPORATION RATE:** N/A**SOLUBILITY IN WATER:** Soluble**APPEARANCE AND ODOR:** Clear liquid with little odor.**SECTION IV - FIRE AND EXPLOSION DATA****FLASH POINT:** Nonflammable**FLAMMABLE LIMITS:** Lel: N/A Uel: N/A**EXTINGUISHING MEDIA:**

Use any.

SPECIAL FIRE-FIGHTING PROCEDURES:

None.

UNUSUAL FIRE AND EXPLOSION HAZARDS:

None.



SECTION V - REACTIVITY DATA

STABILITY: Stable

HAZARDOUS POLYMERIZATION:

Will not occur.

CONDITIONS OR MATERIALS TO AVOID:

Metal Nitrates

SECTION VI - HEALTH HAZARD DATA

CARCINOGENIC LISTING:

NTP: No ingredients listed in this section.

IARC MONOGRAPHS: No ingredients listed in this section.

OSHA 29 CFR 1910: No ingredients listed in this section.

ENTRY ROUTES & EFFECTS OF OVEREXPOSURE:

Contact: Can cause irritation to the eyes and skin. May promote allergenic reactions.

Inhalation: Can cause irritation to the respiratory tract.

Ingestion: Can cause nausea and diarrhea if large amounts are ingested.

STATEMENT OF PRACTICAL TREATMENT:

Contact: Wash exposed area with soap and water. For eyes, flush with cool water for 15 minutes. If irritation persists, consult a physician.

Inhalation: Remove to fresh air.

Ingestion: If conscious, give several glasses of water and induce vomiting. Call a physician immediately.

SECTION VII - SPECIAL PRECAUTIONS

HANDLING AND STORAGE PRECAUTIONS:

Avoid contact with skin and eyes. Avoid breathing any mist. Keep containers tightly closed.

STEPS TO BE TAKEN IF MATERIAL SPILLS OR LEAKS:

Scoop into containers. Wash residue to sewer with large amounts of water. Comply with all local, state and federal regulations.

WASTE DISPOSAL METHOD:

Waste product is not a hazardous waste. Dispose of at landfill or other approved disposal facility. Comply with all local, state and federal regulations.



SECTION VIII - SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION:

None normally required.

VENTILATION:

Adequate ventilation is sufficient.

EYE PROTECTION:

Chemical goggles.

SKIN PROTECTION:

Rubber gloves.

OTHER PROTECTIVE EQUIPMENT:

As needed to prevent contact with skin and eyes.

ACGIH = American Conference of Governmental Industrial Hygienists

CL = Ceiling Level

IARC = International Agency for Research on Cancer: Monographs

OSHA = Occupational Safety and Health Administration

N/A = Not Applicable

NTP = National Toxicology Program: Annual Report on Carcinogens

PEL = Permissible Exposure Level (OSHA)

TLV = Threshold Limit Value (ACGIH)

TWA = Time Weighted Average over 8 Hours

STEL = Short Term Exposure Limit (ACGIH)

ND = Not Determined

This information is, to the best of our knowledge, accurate but may not be complete. THATCHER COMPANY furnishes this information in good faith, but without warranty, representation or guarantee of its accuracy, completeness, or reliability.