



MATERIAL SAFETY DATA SHEET

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1-613-996-6666 – CANUTEC – Transportation Emergency
1-888-243-9771 – ChExSS – Chemical Exposure

CITRIC ACID

SECTION I: IDENTIFICATION OF PRODUCT

Proper Shipping Name: Citric Acid
Product Name: CITRIC ACID
Chemical Family: Organic Acid
WHMIS Classification: D2B
Workplace Hazard: Skin and Eye irritant

Product Use: pH reducer
TDG Classification: Not regulated
Packaging Group: Not applicable
PIN: Not applicable

SECTION II: HAZARDOUS INGREDIENTS

Ingredients	Percent	CAS Number	LD ₅₀ (Species/Route)	LC ₅₀ (Species/Route)
Citric Acid	100	77-92-9	6730 mg/kg	Not available-

SECTION III: TOXICOLOGICAL PROPERTIES

Route of entry: Skin Eye Contact Inhalation Ingestion

Effects of acute exposure:

- **Eye Contact:** Dusts and solutions can cause severe irritation and corrosive injury (destruction of eye tissue), based on animal information. Depending on the concentration of the solution and the degree of exposure, permanent eye damage, including blindness may result.
- **Skin Contact:** Dusts and solutions can cause severe irritation and corrosive injury based on animal information.
- **Ingestion:** Ingestion of large amounts may cause stomach pain and vomiting.
- **Inhalation:** Dusts and mists from solutions may cause temporary irritation of the nose and throat. The severity of these effects would depend on the airborne concentration, concentration of the solution and the duration of exposure.

Effects of chronic exposure: No information available

Exposure limits: Not determined

Irritancy of product: Skin and Eye irritant

Sensitization to product: No information available

Carcinogenicity: Not considered to be carcinogenic

Reproductive toxicity: No information available

Tetratogenicity: No information available

Mutagenicity: No information available

Name of toxicological synergistic products: No information available



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SECTION IV: FIRST AID MEASURES

Skin contact: Immediately flush with water while removing contaminated clothing. If irritation persists obtain medical attention.

Eye contact: Immediately flush with gently flowing warm water for at least 15 minutes. Hold eyelids open to ensure thorough flushing. Obtain medical attention

Inhalation: Move to fresh air. Apply oxygen or artificial respiration if required. If breathing difficulties or distress continues, contact a physician.

Ingestion: Do not induce vomiting. Rinse mouth thoroughly with water. Have victim drink 240-300 mL (8 to 10 oz) of water to dilute material in stomach. If milk is available, it may be administered after the water has been given. If vomiting occurs keep head below hips to prevent aspiration of vomitus; repeat administration of water. Obtain medical attention. Never give anything by mouth to an unconscious or convulsing victim

SECTION V: PHYSICAL DATA

Physical state: Solid

Appearance and odour: Solid white powder or granules; odourless

Odour threshold: Not applicable

Specific gravity (°C): 1.665

Vapor pressure (mmHG): Not applicable

Vapor density (Air=1): Not applicable

Evaporation rate: Not applicable

Boiling point (°C): Not applicable

Melting point (°C): 153

pH (%): 2.2 (1% solution)

Co-efficient of water/oil distribution: 162 g/100 mL @ 25°C



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SECTION VI: FIRE AND EXPLOSION DATA

Conditions of flammability: Not Flammable

Means of extinguishing: Use media suitable for packaging and surrounding fire.

Flash point: Not applicable

Upper flammable limit: 8 g/ft³

Lower flammable limit: 65 g/ft³

Auto-ignition temperature: 1010 °C

Hazardous combustion products: Not applicable

Explosion data-sensitivity to mechanical impact: Not applicable

Explosion data-sensitivity to static discharge: Airborne dust may explode when ignited by an electrostatic spark, other high-voltage sparks or other ignition source.

SECTION VII: REACTIVITY DATA

Chemically unstable (conditions): Stable.

Product incompatible with: Strong oxidizing agents - mixtures may react violently if heated. Strong reducing agents – may react vigorously or violently. Strong bases- mixtures may generate heat and pressure. Metal nitrates- a mixture exploded during a vacuum evaporation procedure. Mildly corrosive to carbon steel, gray and nickel cast iron, copper, brass, aluminum and lead.

Conditions of reactivity: Not available

Hazardous decomposition products: Carbon monoxide, carbon dioxide



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SECTION VIII: PREVENTATIVE MEASURES

Personal protective equipment: NIOSH approved dust mask recommended. Suggest plastic or rubber protective gloves, chemical goggles and/or full-face shield. Do not wear contact lenses when handling this material. Full body covering clothing recommended. Ensure eye wash and emergency shower are available.

Specific engineering controls: Use local ventilation, process enclosure or other engineering controls to keep airborne dust to a minimum.

Procedures for leak/spills: Use appropriate safety equipment. Sweep up to collect. Collect uncontaminated material for repackaging. Collect contaminated material in an approved container for disposal. Avoid creating dust clouds.

Waste disposal: Dispose in accordance with federal, provincial and local regulations. Material is biodegradable in waste treatment facility. It is the responsibility of the end-user to determine if material meets the criteria of hazardous waste at the time of disposal. Empty packages will contain residual material and must be disposed of in accordance with local regulations.

Handling procedures and equipment: Wear suitable protective equipment to prevent skin and eye contact. Avoid inhalation and ingestion. Wash thoroughly after use.

Storage requirements: Store in a cool, dry area away from incompatibles. Keep containers closed when not in use. Aqueous solutions of citric acid can, if in contact with reactive metal (iron, zinc, aluminum) form hydrogen which may form explosive mixtures. Avoid creating dust clouds when handling.

Special shipping information: Not applicable

SECTION IX: PREPARATION

Date updated: June 6, 2008

Prepared by: Product Safety Committee

All the recommendations and suggestions herein concerning this product are based upon tests and data believed to be reliable, however it is the user's responsibility to determine the safety, toxicity and sustainability for their own use of the product described herein. Since the actual use by others is beyond our control, no guarantee, expressed or implied, is made by Q'Max Solutions Inc. as to the effects of such use, the results to be obtained, or the safety and toxicity of the product nor does Q'Max Solutions Inc. assume any liability arising out of use by others. Nor is the information herein to be considered as absolutely complete since additional information may be necessary or desirable when particular or exceptional conditions or circumstances exist or because of applicable laws or government regulations.