

**Section 1 Chemical Product and Company Identification**

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**HOME SCIENCE TOOLS**

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**CHEMTREC 24 Hour Emergency USA**  
**Phone Number (800) 424-9300**  
**1 703-741-5500 (from anywhere in the world).**  
For laboratory and industrial use only.  
Not for drug, food or household use.

<b>Product</b>	<b>CITRIC ACID, MONOHYDRATE</b>
<b>Synonyms</b>	2-Hydroxy-1,2,3-Propane Tricarboxylic Acid

**Section 2 Hazards Identification**

This substance or mixture has not been classified as hazardous according to the Globally Harmonized System (GHS) of Classification and Labeling of Chemicals.

**Signal word:** WARNING  
**Pictograms:** GHS07  
**Target organs:** None known



**GHS Classification:**  
Eye irritation (Category 2)

**GHS Label information: Hazard statement(s):**  
H319: Causes serious eye irritation.

**Precautionary statement(s):**

P264: Wash hands thoroughly after handling.  
P280: Wear protective gloves/protective clothing/eye protection/face protection.  
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P337+P313: If eye irritation persists: Get medical attention.

**Hazards not otherwise classified:**

Health hazards not otherwise classified (HHNOC) - Not Known  
Physical hazards not otherwise classified (PHNOC) - Not Known

**Section 3 Composition / Information on Ingredients**

Chemical Name	CAS #	%	EINECS
Citric acid, monohydrate	5949-29-1	100%	201-069-1 (anhydrous)

**Section 4 First Aid Measures**

**INGESTION:** Call physician or Poison Control Center immediately. Induce vomiting only if advised by appropriate medical personnel. 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. Get medical attention.

**EYE CONTACT:** CAUSES IRRITATION. Check for and remove contact lenses. Flush thoroughly with water for at least 15 minutes, lifting upper and lower eyelids occasionally. Get immediate medical attention.

**SKIN ABSORPTION:** Remove contaminated clothing. Flush thoroughly with mild soap and water. If irritation occurs, get medical attention.

**Section 5 Fire Fighting Measures**

**Suitable Extinguishing Media:** Use any media suitable for extinguishing supporting fire

**Protective Actions for Fire-fighters:** In fire conditions, wear a NIOSH/MSHA-approved self-contained breathing apparatus and full protective gear. Use water spray to keep fire-exposed containers cool.

**Specific Hazards:** During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion.

**Section 6 Accidental Release Measures**

**Personal Precautions:** Evacuate personnel to safe area. Use proper personal protective equipment as indicated in Section 8. Provide adequate ventilation.

**Environmental Precautions:** Avoid runoff into storm sewers and ditches which lead to waterways.

**Containment and Cleanup:** Recover for use if not contaminated. Sweep or vacuum up and place in a suitable container for proper disposal. Wash spill area with soap and water.

**Precautions for Safe Handling:** Read label on container before using. Do not wear contact lenses when working with chemicals. Keep out of reach of children. Avoid contact with eyes, skin and clothing. Do not inhale dusts. Use with adequate ventilation. Avoid ingestion. Wash thoroughly after handling. Remove and wash clothing before reuse.

**Conditions for Safe Storage:** Store in a cool, dry, well-ventilated area away from incompatible substances. Minimize dust generation.

## Section 8 Exposure Controls / Personal Protection

Exposure Limits:	Chemical Name	ACGIH (TLV)	OSHA (PEL)	NIOSH (REL)
	Citric acid	Not listed	Not listed	Not listed

**Engineering controls:** Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower and fire extinguishing material. Personnel should wear safety glasses, goggles, or faceshield, lab coat or apron, appropriate protective gloves. Use adequate ventilation to keep airborne concentrations low.

**Respiratory protection:** None should be needed in normal laboratory handling at room temperatures. If dusty conditions prevail, work in fume hood or wear a NIOSH/MSHA-approved respirator.

## Section 9 Physical &amp; Chemical Properties

<b>Appearance:</b> Solid. White, deliquescent crystals	<b>Evaporation rate ( = 1):</b> Not applicable	<b>Partition coefficient:</b> Data not available
<b>Odor:</b> No odor.	<b>Flammability (solid/gas):</b> Not applicable	<b>Auto-ignition temperature:</b> Data not available
<b>Odor threshold:</b> Data not available	<b>Explosion limits: Lower / Upper:</b> Not applicable	<b>Decomposition temperature:</b> Data not available
<b>pH:</b> Unknown	<b>Vapor pressure (mm Hg):</b> Data not available	<b>Viscosity:</b> Not applicable
<b>Melting / Freezing point:</b> Loses H <sub>2</sub> O @ 100°C (212°F)	<b>Vapor density (Air = 1):</b> Data not available	<b>Molecular formula:</b> C <sub>6</sub> H <sub>8</sub> O <sub>7</sub> •H <sub>2</sub> O
<b>Boiling point:</b> Decomposes	<b>Relative density (Specific gravity):</b> 1.542	<b>Molecular weight:</b> 210.14
<b>Flash point:</b> Non-flammable	<b>Solubility(ies):</b> Soluble in water	

## Section 10 Stability &amp; Reactivity

**Chemical stability:** Stable **Hazardous polymerization:** Will not occur.

**Conditions to avoid:** Excessive temperature and heat. Avoid dust formation.

**Incompatible materials:** Strong bases and oxidizing materials.

**Hazardous decomposition products:** Carbon oxides.

## Section 11 Toxicological Information

**Acute toxicity:** Oral-rat LD50: 12,000 mg/kg (anhydrous)

**Skin corrosion/irritation:** Data not available

**Serious eye damage/irritation:** Rabbit-highly irritating

**Respiratory or skin sensitization:** Data not available

**Germ cell mutagenicity:** Data not available

**Carcinogenicity:** Data not available

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

**Reproductive toxicity:** Data not available

**STOT-single exposure:** Data not available

**STOT-repeated exposure:** Data not available

**Aspiration hazard:** Data not available

**Potential health effects:**

Inhalation: Inhalation may cause irritation to mucous membranes causing sore throat, coughing and shortness of breath.

Ingestion: Ingestion may cause acute gastrointestinal irritation with abdominal pain.

Skin: Contact may cause irritation.

Eyes: Contact with eyes may cause irritation with redness, pain, possible eye burns, conjunctivitis, ulceration and permanent cloudiness.

**Signs and symptoms of exposure:** Long term over-exposure may cause damage to tooth enamel.

**Additional information:** RTECS #: GE7350000 (anhydrous)

## Section 12 Ecological Information

**Toxicity to fish:** Lepomis macrochirus (Fish, Fresh water) LC50: 1,516 mg/l/96 hours (anhydrous)

**Toxicity to daphnia and other aquatic invertebrates:** Daphnia magna (Crustacea) EC50: ca. 120 mg/l/72 hours (anhydrous)

**Toxicity to algae:** Scenedesmus quadricauda (Algae) EC3: 640 mg/l/7 days (anhydrous)

**Persistence and degradability:** No data available

**Bioaccumulative potential:** No data available

**Mobility in soil:** No data available

**PBT and vPvB assessment:** No data available

**Other adverse effects:** An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

## Section 13 Disposal Considerations

These disposal guidelines are intended for the disposal of catalog-size quantities only. Federal regulations may apply to empty container. State and/or local regulations may be different. Dispose of in accordance with all local, state and federal regulations or contract with a licensed chemical disposal agency.

## Section 14 Transport Information (US DOT / CANADA TDG)

**UN/NA number:** Not applicable

**Shipping name:** Not Regulated

**Hazard class:** Not applicable

**Packing group:** Not applicable

**Reportable Quantity:** No

**Marine pollutant:** No

**Exceptions:** Not applicable

**2016 ERG Guide #:** Not applicable

## Section 15 Regulatory Information

A chemical is considered to be listed if the CAS number for the anhydrous form is on the Inventory list.

Component	TSCA	CERLCA (RQ)	RCRA code	DSL	NDSL	CA Prop 65
Citric acid, anhydrous	Listed	Not listed	Not listed	Listed	Not listed	This product does not contain any chemicals known to the State of California to cause cancer or reproductive toxicity.

## Section 16 Other Information

The information contained herein is furnished without warranty of any kind. Employers should use this information only as a supplement to other information gathered by them and must make independent determinations of suitability and completeness of information from all sources to assure proper use of these materials and the safety and health of employees. NTP: National Toxicology Program, IARC: International Agency for Research on Cancer, OSHA: Occupational Safety and Health Administration, STOT: Specific Target Organ Toxicity, SE: Single Exposure, RE: Repeated Exposure, ERG: Emergency Response Guidebook.