SAFETY DATA SHEET

GENERAL STORAGE CODE GREEN

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.

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Section 1 Chemical Product and Company Identification

HOME SCIENCE TOOLS

665 Carbon Street Billings, MT 59102 800-860-6272 www.homesciencetools.com

Product CITRIC ACID, ANHYDROUS

Synonyms 2-Hydroxy-1,2,3-Propane Tricarboxylic Acid

Hazards Identification

Section 2

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



GHS Classification: Eye irritation (Category 2A)

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 advice/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, anhydrous	77-92-9	100%	201-069-1				
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.

Section 7 Handling & Storage

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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/MSHAapproved respirator.

Section 9 Physical & Chemical Pro	perties						
Appearance: Solid. White, deliquescent crystals Odor: No odor. Odor threshold: Data not available pH: 2.2 in 0.1N aqueous solution Melting / Freezing point: 153°C (307°F) Boiling point: Data not available Flash point: Non-flammable	ent crystals Evaporation rate (= 1): Not applicable Flammability (solid/gas): Not applicable Explosion limits: Lower / Upper: Not applicable Vapor pressure (mm Hg): Data not available			Partition coefficient: Data not availableAuto-ignition temperature: $1010^{\circ}C$ ($1850^{\circ}F$)Decomposition temperature: $>170^{\circ}C$ ($338^{\circ}F$)Viscosity: Not applicableMolecular formula: $C_6H_8O_7$ Molecular weight: 192.13			
Section 10 Stability & Reactivity							
Chemical stability: Stable Hazardous polymerization: Will not occur. Conditions to avoid: Excessive temperature and heat. Avoid dust formation.							
Incompatible materials: Strong bases and oxidiz	ng materials.						
Hazardous decomposition products: Carbon oxides.							
Section 11 Toxicological Informatio	n						
Acute toxicity: Oral-rat LD50: 12,000 mg/kg Skin corrosion/irritation: Data not available Serious eye damage/irritation: Data not available Respiratory or skin sensitization: Data not available Germ cell mutagenicity: Data not available Carcinogenity: 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 a carcinogen or potential carcinogen by OSHA. Reproductive toxicity: Data not available STOT-sepeated exposure: Data not available STOT-repeated exposure: Data not available Aspiration hazard: Data not available Potential health effects: Inhalation: Inhalation: Ingestion: Ingestion: Ingestion may cause irritation to mucous membranes causing sore throat, coughing and shortness of breath. Ingestion: Ingestion: Skin: Contact may cause irritation. Skin: Contact may cause irritation. Skin: Contact with eyes may cause irritation with redness, pain, possible eye burns, conjunctivitis, ulceration and permanent cloudiness.							
Section 12 Ecological Information Toxicity to fish: Lepomis macrochirus (Fish, Fresh water) LC50: 1,516 mg/l/96 hours Toxicity to daphnia and other aquatic invertebrates: Daphnia magna (Crustacea) EC50: ca. 120 mg/l/72 hours Toxicity to algae: Scenedesmus quadricauda (Algae) EC3: 640 mg/l/7 days 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			lessional handling o	n uisposai.			
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: Marine pollutant: No Exceptions: Not applicable 2016 ERG Guide # Not applicable Reportable Quantity: No Section 15 Regulatory Information Regulatory Not applicable Reportable Reportable Quantity: No							
A chemical is considered to be listed if the CAS number for	r 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	

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.

of California to cause cancer or reproductive toxicity.