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## Material Safety Data Sheet Citric Acid Monohydrate

ACC# 84211

### Section 1 - Chemical Product and Company Identification

**MSDS Name:** Citric Acid Monohydrate  
**Catalog Numbers:** S72836-2, S72836-3, A104 10, A104 3, A104 500, A104-10, A104-250LB, A104-3, A104-500, A10410, A1043, A104500, A110 10, A110 3, A110-10, A110-3, A110-500, A11010, A1103, A110500, S728362, S728363  
**Synonyms:** 2-Hydroxy-1,2,3-propanetricarboxylic acid monohydrate  
**Company Identification:**  
 Fisher Scientific  
 1 Reagent Lane  
 Fairlawn, NJ 07410  
**For information, call:** 201-796-7100  
**Emergency Number:** 201-796-7100  
**For CHEMTREC assistance, call:** 800-424-9300  
**For International CHEMTREC assistance, call:** 703-527-3887

### Section 2 - Composition, Information on Ingredients

CAS#	Chemical Name	Percent	EINECS/ELINCS
5949-29-1	Citric Acid, Monohydrate	>99	unlisted

### Section 3 - Hazards Identification

## EMERGENCY OVERVIEW

Appearance: colourless. **Warning!** May cause respiratory tract irritation. May cause severe eye and skin irritation with possible burns. May cause digestive tract irritation with nausea, vomiting, and diarrhea.

**Target Organs:** None.

#### Potential Health Effects

**Eye:** Contact with eyes may cause severe irritation, and possible eye burns.

**Skin:** May cause skin irritation.

**Ingestion:** May cause gastrointestinal irritation with nausea, vomiting and diarrhea.

**Inhalation:** Dust is irritating to the respiratory tract.

**Chronic:** Not available.

### Section 4 - First Aid Measures

**Eyes:** Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower lids. Get medical aid immediately.

**Skin:** Get medical aid if irritation develops or persists. Flush skin with plenty of soap and water.

**Ingestion:** If victim is conscious and alert, give 2-4 cupfuls of milk or water. Get medical aid.

**Inhalation:** Get medical aid immediately. Remove from exposure to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen.

**Notes to Physician:** Treat symptomatically and supportively.

**Antidote:** None reported

### Section 5 - Firefighting Measures

**General Information:** Dusts at sufficient concentrations can form explosive mixtures with air. Wear appropriate protective clothing to prevent contact with skin and eyes. Wear a self-contained breathing apparatus (SCBA) to prevent contact with thermal decomposition products.

**Extinguishing Media:** For small fires, use water spray, dry chemical, carbon dioxide or chemical foam.

**Autoignition Temperature:** Not applicable.

**Flash Point:** Not applicable.

**NFPA Rating:** Not published. Explosion Limits, Lower: Not available. Upper: Not available.

### Section 6 - Accidental Release Measures

**General Information:** Use proper personal protective equipment as indicated in Section 8.

**Spills/Leaks:** Vacuum or sweep up material and place into a suitable disposal container. Avoid generating dusty conditions.

## Section 7 - Handling and Storage

**Handling:** Wash thoroughly after handling. Use with adequate ventilation. Minimize dust generation and accumulation. Avoid contact with skin and eyes. Avoid ingestion and inhalation.

**Storage:** Keep from contact with oxidizing materials. Store in a cool, dry, well-ventilated area away from incompatible substances.

## Section 8 - Exposure Controls, Personal Protection

**Engineering Controls:** Use adequate general or local exhaust ventilation to keep airborne concentrations below the permissible exposure limits.

### Exposure Limits

Chemical Name	ACGIH	NIOSH	OSHA - Final PELs
Citric Acid, Monohydrate	none listed	none listed	none listed

**OSHA Vacated PELs:** Citric Acid, Monohydrate: No OSHA Vacated PELs are listed for this chemical.

### Personal Protective Equipment

**Eyes:** Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

**Skin:** Wear impervious gloves.

**Clothing:** Wear appropriate protective clothing to minimize contact with skin.

**Respirators:** A NIOSH/MSHA approved air purifying dust or mist respirator or European Standard EN 149. Follow the OSHA respirator regulations found in 29CFR 1910.134 or European Standard EN 149. Always use a NIOSH or European Standard EN 149 approved respirator when necessary.

## Section 9 - Physical and Chemical Properties

**Physical State:** Solid

**Appearance:** colourless

**Odor:** odorless

**pH:** 2.2 at 0.1 N

**Vapor Pressure:** Not available.

**Vapor Density:** Not available.

**Evaporation Rate:**

**Viscosity:** Not available.

**Boiling Point:** Not available.

**Freezing/Melting Point:** 212 deg F

**Decomposition Temperature:** Not available.

**Solubility:** Completely soluble in water.

**Specific Gravity/Density:** 1.54

**Molecular Formula:** C<sub>6</sub>H<sub>8</sub>O<sub>7</sub>.H<sub>2</sub>O

**Molecular Weight:**

## Section 10 - Stability and Reactivity

**Chemical Stability:** Stable.

**Conditions to Avoid:** Strong oxidants.

**Incompatibilities with Other Materials:** Incompatible with strong oxidizers.

**Hazardous Decomposition Products:** Carbon monoxide, carbon dioxide.

**Hazardous Polymerization:** Has not been reported.

## Section 11 - Toxicological Information

**RTECS#:**

**CAS# 5949-29-1:** GE7810000

**LD50/LC50:**

Not available.

**Carcinogenicity:**

**CAS# 5949-29-1:** Not listed by ACGIH, IARC, NIOSH, NTP, or OSHA.

**Epidemiology:** No data available.

**Teratogenicity:** No data available.

**Reproductive Effects:** No data available.

**Neurotoxicity:** No data available.

**Mutagenicity:** No data available.

**Other Studies:** No data available.

## Section 12 - Ecological Information

**Ecotoxicity:** Acute aquatic effects: 96-hour LC50; Fathead minnow: GT 1000 mg/L. 96-hour LC50; Water flea: GT 1000 mg/L. 48-hour LC50; Golden orfe (minnow): 760 mg/L.

**Environmental Fate:** This chemical is expected to be readily biodegradable and is not likely to bioconcentrate.

**Physical/Chemical:** Not available.

**Other:** Not available.

## Section 13 - Disposal Considerations

Dispose of in a manner consistent with federal, state, and local regulations.

**RCRA D-Series Maximum Concentration of Contaminants:** None listed.

**RCRA D-Series Chronic Toxicity Reference Levels:** None listed.

**RCRA F-Series:** None listed.

**RCRA P-Series:** None listed.

**RCRA U-Series:** None listed.

## Section 14 - Transport Information

	US DOT	IATA	RID/ADR	IMO	Canada TDG
<b>Shipping Name:</b>	No information available.	No information available.	No information available.	No information available.No information available.	
<b>Hazard Class:</b>					
<b>UN Number:</b>					
<b>Packing Group:</b>					

### Section 15 - Regulatory Information

#### US FEDERAL

##### TSCA

CAS# 5949-29-1 is not on the TSCA Inventory. It is a hydrate and exempt from TSCA Inventory requirements (40CFR720.3(u)(2)).

##### Health & Safety Reporting List

None of the chemicals are on the Health & Safety Reporting List.

##### Chemical Test Rules

None of the chemicals in this product are under a Chemical Test Rule.

##### Section 12b

None of the chemicals are listed under TSCA Section 12b.

##### TSCA Significant New Use Rule

None of the chemicals in this material have a SNUR under TSCA.

##### SARA

##### Section 302 (RQ)

None of the chemicals in this material have an RQ.

##### Section 302 (TPQ)

None of the chemicals in this product have a TPQ.

##### SARA Codes

CAS # 5949-29-1: acute.

##### Section 313

No chemicals are reportable under Section 313.

##### Clean Air Act:

This material does not contain any hazardous air pollutants. This material does not contain any Class 1 Ozone depleters. This material does not contain any Class 2 Ozone depleters.

##### Clean Water Act:

None of the chemicals in this product are listed as Hazardous Substances under the CWA. None of the chemicals in this product are listed as Priority Pollutants under the CWA. None of the chemicals in this product are listed as Toxic Pollutants under the CWA.

##### OSHA:

None of the chemicals in this product are considered highly hazardous by OSHA.

##### STATE

CAS# 5949-29-1 is not present on state lists from CA, PA, MN, MA, FL, or NJ.

California No Significant Risk Level: None of the chemicals in this product are

listed. **European/International Regulations**  
**European Labeling in Accordance with EC Directives**

**Hazard Symbols:**

Not available.

**Risk Phrases:**

**Safety Phrases:**

**WGK (Water Danger/Protection)**

CAS# 5949-29-1: 0

Canada

None of the chemicals in this product are listed on the DSL/NDSL list. This product has a WHMIS classification of D2B.

CAS# 5949-29-1 is not listed on Canada's Ingredient Disclosure List.


**Exposure Limits**

**Section 16 - Additional Information**

**MSDS Creation Date:** 1/16/1995

**Revision #12 Date:** 12/12/1997

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