

## Safety Data Sheet

### SECTION 1: Identification

#### 1.1. Product Identifier

**Trade Name or Designation:** Citric Acid, Monohydrate, ACS Reagent

**Product Number:** 1-10450

**Other Identifying Product Numbers:** 1-10450-1, 1-10450-3, 1-10450-5, 1-10450-7

#### 1.2. Recommended Use and Restrictions on Use

General Laboratory Reagent

#### 1.3. Details of the Supplier of the Safety Data Sheet

**Company:** Reagents Inc.

**Address:** 4746 Sweden Road  
Charlotte, NC 28224 USA

**Telephone:** 800-732-8484

#### 1.4. Emergency Telephone Number (24 hr)

CHEMTREC (USA) 800-424-9300  
CHEMTREC (International) 1+ 703-527-3887

### SECTION 2: Hazard(s) Identification

#### 2.1. Classification of the Substance or Mixture (in accordance with OSHA HCS 29 CFR 1910.1200)

*For the full text of the Hazard and Precautionary Statements listed below, see Section 16.*

Hazard Class	Category	Hazard	
		Statement	Precautionary Statements
Eye Damage / Irritation	Category 1	H318	P280, P305+P351+P338, P310

#### 2.2. GHS Label Elements

**Pictograms:**



**Signal Word:** **Danger**

## Safety Data Sheet

### Hazard Statements:

Hazard Number	Hazard Statement
H318	Causes serious eye damage.

### Precautionary Statements:

Precautionary Number	Precautionary Statement
P280	Wear protective gloves and eye 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.
P310	Immediately call a POISON CENTER or physician.

### 2.3. WHMIS Classification

WHMIS classification is not included based on the recommended option (Option 4) found in the Canada Gazette Part II, Vol. 149, No.3, page 458

### 2.4. Hazards not Otherwise Classified or Covered by GHS

Data not available.

## SECTION 3: Composition / Information on Ingredients

### 3.1. Components of Substance or Mixture

Chemical Name	Formula	Molecular Weight	CAS Number	Weight%
Citric Acid Monohydrate	$C_6H_8O_7 \cdot H_2O$	210.14 g/mol	5949-29-1	100.00%

## SECTION 4: First-Aid Measures

### 4.1. General First Aid Information

**Eye Contact:** IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Highly irritating. May be abrasive.

**Inhalation:** Not expected to require first aid. If necessary, remove to fresh air.

**Skin Contact:** May cause irritation, redness, and pain.

**Ingestion:** Dilute immediately with water or milk. Induce vomiting. Call a physician.

### 4.2. Most Important Symptoms and Effects, Acute and Delayed

Causes irritation to the eyes, skin and respiratory tract. Wash areas of contact with water. Call a physician if irritation develops. May be harmful if swallowed or inhaled.

EYE CONTACT: Highly irritating. May be abrasive. SKIN CONTACT: May cause irritation, redness, and pain.



## Safety Data Sheet

### 4.3. Medical Attention or Special Treatment Needed

Immediately call a POISON CENTER or physician.

## SECTION 5: Fire-Fighting Measures

### 5.1. Extinguishing Media

Water, dry chemical, foam, or carbon dioxide. Water spray may be used to keep fire-exposed containers cool.

### 5.2. Specific Hazards Arising from the Substance or Mixture

Not considered to be a fire or explosion hazard.

### 5.3. Special Protective Equipment for Firefighters

Use protective clothing and breathing equipment appropriate for the surrounding fire.

## SECTION 6: Accidental Release Measures

### 6.1. Personal Precautions, Protective Equipment and Emergency Procedures

Wear protective gloves and eye protection.

### 6.2. Cleanup and Containment Methods and Materials

Pick up in a manner that does not generate dust. Powder may be moistened with water to aid in the clean-up.

## SECTION 7: Handling and Storage

### 7.1. Precautions for Safe Handling and Storage Conditions

As with all chemicals, wash hands thoroughly after handling. Avoid contact with eyes and skin. Protect from physical damage. Keep in tightly closed containers in a cool, dry area.

## SECTION 8: Exposure Controls / Personal Protection

### 8.1. Control Parameters

Chemical Name	Limit Type	Country	Exposure Limit	Information Source
Data not available. ()				

### 8.2. Exposure Controls

**Engineering Controls:** No specific controls are needed. Normal room ventilation is adequate.

**Respiratory Protection:** Normal room ventilation is adequate.

**Skin Protection:** Wear protective gloves and eye protection. Chemical resistant gloves.

**Eye Protection:** Wear protective gloves and eye protection. Safety glasses or goggles.

### 8.3. Personal Protective Equipment

Wear protective gloves and eye protection. Normal room ventilation is adequate. Chemical resistant gloves. Safety glasses or goggles.

## Safety Data Sheet

### SECTION 9: Physical and Chemical Properties

#### 9.1. Basic Physical and Chemical Properties

**Appearance:** Colorless/white solid

**Physical State:** Solid

**Odor:** Faint citrus

**Odor Threshold:** Data not available.

**pH:** Data not available.

**Melting/Freezing Point:** 153°C

**Initial Boiling Point /Range:** Data not available.

**Flash Point:** Data not available.

**Evaporation Rate:** Not applicable.

**Flammability:** Data not available.

**Flammability/Explosive Limits:** Not applicable. - Not applicable.

**Vapor Pressure:** Data not available.

**Vapor Density:** Data not available.

**Relative Density:** 1.54

**Solubility:** 208 G/L @20°C

**Partition Coefficient (n-Octanol/Water):** Data not available.

**Auto-Ignition Temperature:** Data not available.

**Decomposition Temperature:** Data not available.

**Viscosity:** Data not available.

**Explosive Properties:** Data not available.

**Oxidizing Properties:** Data not available.

### SECTION 10: Stability and Reactivity

#### 10.1. Reactivity and Chemical Stability

Stable under normal conditions of use and storage.

#### 10.2. Possibility of Hazardous Reactions

Data not available.

#### 10.3. Conditions to Avoid and Incompatible Materials

Metal nitrates (potentially explosive reaction), alkali carbonates and bicarbonates, potassium tartrate. Will corrode copper, zinc, aluminum and their

#### 10.4. Hazardous Decomposition Products

Will not occur.

## Safety Data Sheet

### SECTION 11: Toxicological Information

#### 11.1. Information on Toxicological Effects

**Acute Toxicity - Oral Exposure:**

Not applicable.

**Acute Toxicity - Dermal Exposure:**

Not applicable.

**Acute Toxicity - Inhalation Exposure:**

Not applicable.

**Acute Toxicity - Other Information:**

LD50, Oral, Rat: (Citric Acid) 3 gm/kg, details of toxic effects not reported other than lethal dose value. Skin irritation, rabbit: 500 mg/24H, mild; Eye irritation, rabbit: 750 ug/24H, severe.

**Skin Corrosion and Irritation:**

Not applicable.

**Serious Eye Damage and Irritation:**

Causes serious eye damage. Wear protective gloves and eye protection. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or physician.

**Respiratory Sensitization:**

Not applicable.

**Skin Sensitization:**

Not applicable.

**Germ Cell Mutagenicity:**

Not applicable.

**Carcinogenicity:**

Not applicable.

**Reproductive Toxicity:**

Not applicable.

**Specific Target Organ Toxicity from Single Exposure:**

Not applicable.

**Specific Target Organ Toxicity from Repeated Exposure:**

Not applicable.

**Aspiration Hazard:**

Not applicable.

**Additional Toxicology Information:**

Data not available.



## Safety Data Sheet

### SECTION 12: Ecological Information

#### 12.1. Ecotoxicity

Not applicable.

#### 12.2. Persistence and Degradability

Data not available.

#### 12.3. Bioaccumulative Potential

Data not available.

#### 12.4. Mobility in Soil

Data not available.

#### 12.5. Other Adverse Ecological Effects

Data not available.

### SECTION 13: Disposal Considerations

#### 13.1. Waste Treatment Methods

Data not available.

### SECTION 14: Transportation Information

#### 14.1. Transportation by Land - Department of Transportation (DOT, United States of America)

Not regulated according to DOT Regulations.



## Safety Data Sheet

### 14.2. Transportation by Air - International Air Transport Association (IATA)

UN Number: N/A

Proper Shipping Name:

Hazard Class:

Packing Group:

Hazard Placard Labels:

## SECTION 15: Regulatory Information

### 15.1. Occupational Safety and Health Administration (OSHA) Hazards

Not listed.

### 15.2. Superfund Amendments and Reauthorization Act (SARA) 302 Extremely Hazardous Substances

Not listed.

### 15.3. Superfund Amendments and Reauthorization Act (SARA) 311/312 Hazardous Chemicals

Not listed.

### 15.4. Superfund Amendments and Reauthorization Act (SARA) 313 Toxic Release Inventory (TRI)

Not listed.

### 15.5. Massachusetts Right-to-Know Substance List

Not listed.

### 15.6. Pennsylvania Right-to-Know Hazardous Substances

Not listed.

### 15.7. New Jersey Worker and Community Right-to-Know Components

Not listed.

### 15.8. California Proposition 65

Not listed.

### 15.9. Canada Domestic Substances List / Non-Domestic Substances List (DSL/NDSL)

Citric Acid Monohydrate (CAS # 5949-29-1): Present

### 15.10. United States of America Toxic Substances Control Act (TSCA) List

Citric Acid Monohydrate (CAS # 5949-29-1): Present

## Safety Data Sheet

15.11. European Inventory of Existing Commercial Chemical Substances (EINECS),  
European List of Notified Chemical Substances (ELINCS), and No Longer Polymers (NLP)  
Not listed.

### SECTION 16: Other Information

#### 16.1. Full Text of Hazard Statements and Precautionary Statements

Causes serious eye damage.

Wear protective gloves and eye protection.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or physician.

#### 16.2. Miscellaneous Hazard Classes

**Canadian Carcinogenicity Hazard Class:** Not Applicable.

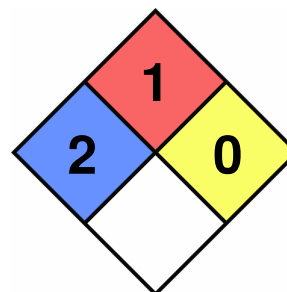
**Physical Hazards Not Otherwise Classified (PHNOC):** Not Applicable.

**Health Hazards Not Otherwise Classified (HHNOC):** Not Applicable.

**Biohazardous Infectious Materials Hazard Class:** Not Applicable.

#### 16.3. National Fire Protection Association (NFPA) Rating

**Health:** 2  
**Flammability:** 1  
**Reactivity:** 0  
**Special Hazard:**



#### 16.4. Document Revision

**Last Revision Date:** 8/25/2016

### DISCLAIMER

When handled properly by qualified personnel, the product described herein does not present a significant health or safety hazard. Alteration of its characteristics by concentration, evaporation, addition of other substances, or other means may present hazards not specifically addressed herein and which must be evaluated by the user. The information furnished herein is believed to be accurate and represents the best data currently available to us. No warranty, expressed or implied, is made and REAGENTS, INC. assumes no legal responsibility or liability whatsoever resulting from its use.