

**Safety Data Sheet**

**Citric Acid, Anhydrous, Granular, ACS**

**1. PRODUCT AND COMPANY IDENTIFICATION**

**Product Name:** Citric Acid, Anhydrous, Granular

**Synonyms/Generic Names:** Citric Acid; 2-Hydroxy-1,2,3-propanetricarboxylic acid

**Product Number:** C001

**Product Use:** Industrial, Manufacturing or Laboratory use

**Supplier:** Chemical Store, Inc.  
1059 Main Avenue,  
Clifton, NJ 07011

**For More Information:** 973-405-6248 (Monday-Friday 10:00 - 6:00)  
[www.chemicalstore.com](http://www.chemicalstore.com)

**In Case of Emergency Call:** CHEMICALSTORE 973-420-4972 (24 Hours/Day, 7 Days/Week)

**2. HAZARDS IDENTIFICATION**

**OSHA Hazards:** Irritant

**Target Organs:** Not Available

**Signal Words:** Warning

**Pictograms:**



**GHS Classification:**

Eye irritation	Category 2A
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**GHS Label Elements, including precautionary statements:**

**Hazard Statements:**

H319	Causes serious eye irritation.
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**Precautionary Statements:**

P264	Wash hands thoroughly after handling.
P280	Wear protective gloves/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.
P337+P313	If eye irritation persists: Get medical advice/attention.

### Potential Health Effects

Eyes	Causes eye irritation.
Inhalation	May cause respiratory tract irritation.
Skin	May cause skin irritation.
Ingestion	May be harmful if swallowed.

### NFPA Ratings

Health	1
Flammability	0
Reactivity	0
Specific hazard	Not Available

### HMIS Ratings

Health	1
Fire	0
Reactivity	0
Personal	Not Available

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

Component	Weight %	CAS #	EINECS# / ELINCS#	Formula	Molecular Weight
Citric Acid, Anhydrous	>99	77-92-9	201-069-1	C <sub>6</sub> H <sub>8</sub> O <sub>7</sub>	192.12 g/mol

## 4. FIRST-AID MEASURES

Eyes	Rinse with plenty of water for at least 15 minutes and seek medical attention if irritation persists.
Inhalation	Move casualty to fresh air and keep at rest. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Get medical attention if irritation persists.
Skin	Flush with plenty of water for at least 15 minutes while removing contaminated clothing and wash using soap. Get medical attention if irritation persists.
Ingestion	<b>Do Not Induce Vomiting!</b> Never give anything by mouth to an unconscious person. If conscious, wash out mouth with water. Get medical attention if irritation persists.

## 5. FIRE-FIGHTING MEASURES

Suitable (and unsuitable) extinguishing media	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide. Use flooding quantities of water to cool containers.
Special protective equipment and precautions for firefighters	Wear self-contained, approved breathing apparatus and full protective clothing, including eye protection and boots.
Specific hazards arising from the chemical	Emits toxic fumes (carbon oxides) under fire conditions. (See also Stability and Reactivity section).

## 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures	See section 8 for recommendations on the use of personal protective equipment.
Environmental precautions	Prevent spillage from entering drains. Any release to the environment may be subject to federal/national or local reporting requirements.
Methods and materials for containment and cleaning up	Pick up and arrange disposal without creating dust. Sweep up and shovel. Clean surfaces thoroughly with water to remove residual contamination. Dispose of all waste and cleanup materials in accordance with regulations.

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## 7. HANDLING AND STORAGE

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### Precautions for safe handling

See section 8 for recommendations on the use of personal protective equipment. Use with adequate ventilation. Wash thoroughly after using. Keep container closed when not in use. Avoid formation of dusts.

### Conditions for safe storage, including any incompatibilities

Store in a cool, dry, well ventilated area. Keep away from incompatible materials (see section 10 for incompatibilities).

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## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

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**Occupational exposure controls:** Contains no substances with occupational exposure limit values.

### Personal Protection

<b>Eyes</b>	Wear chemical safety glasses with side shields or goggles.
<b>Inhalation</b>	Provide local exhaust, preferably mechanical. If exposure levels are excessive, use an approved respirator.
<b>Skin</b>	Wear nitrile or rubber gloves, apron or lab coat. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.
<b>Other</b>	Not Available

### Other Recommendations

Provide eyewash stations, quick-drench showers and washing facilities accessible to areas of use and handling.

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## 9. PHYSICAL AND CHEMICAL PROPERTIES

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Appearance (physical state, color, etc.)	White crystalline solid.
Odor	Odorless
Odor threshold	Not Available
pH	1.8 at ca. 50 g/l at 25°C (77°F)
Melting point/freezing point	153°C (307°F)
Initial boiling point and boiling range	175°C
Flash point	100°C (212°F)
Evaporation rate	Not Available
Flammability (solid, gas)	Flammable solid when heated above flash point.
Upper/lower flammability or explosive limit	LEL: 0.28%; UEL: 2.29%
Vapor pressure	Not Available
Vapor density	Not Available
Density	1.665 g/cm <sup>3</sup>
Solubility (ies)	Soluble in water; 383 g/l at 25°C (77°F)
Partition coefficient: n-octanol/water	Log Pow: -1.64 at 20°C (68°F)
Auto-ignition temperature	1,010°C (1,850°F)
Decomposition temperature	175°C

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## 10. STABILITY AND REACTIVITY

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<b>Chemical Stability</b>	Stable
<b>Possibility of Hazardous Reactions</b>	Will not occur.
<b>Conditions to Avoid</b>	Excess heat.

<b>Incompatible Materials</b>	Strong oxidizing agents, bases, reducing agents, nitrates.
<b>Hazardous Decomposition Products</b>	Carbon oxides

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## 11. TOXICOLOGICAL INFORMATION

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### Acute Toxicity

<b>Skin</b>	LD50 Dermal – rat - >2,000 mg/kg
<b>Eyes</b>	Eyes – rabbit – Irritating to eyes – OECD Test Guideline 405
<b>Respiratory</b>	Not Available
<b>Ingestion</b>	LD50 Oral – rat – 5,400 mg/kg

### Carcinogenicity

<b>IARC</b>	No components of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
<b>ACGIH</b>	No components of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.
<b>NTP</b>	No components of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.
<b>OSHA</b>	No components of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

### Signs & Symptoms of Exposure

<b>Skin</b>	Irritation, itching, swelling, redness, and pain.
<b>Eyes</b>	Irritation, itching, redness, pain.
<b>Respiratory</b>	Irritation.
<b>Ingestion</b>	Gastrointestinal discomfort and possible pain.

<b>Chronic Toxicity</b>	Not Available
<b>Teratogenicity</b>	Not Available
<b>Mutagenicity</b>	Not Available
<b>Embryo toxicity</b>	Not Available
<b>Specific Target Organ Toxicity</b>	Not Available
<b>Reproductive Toxicity</b>	Not Available
<b>Respiratory/Skin Sensitization</b>	Not Available

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## 12. ECOLOGICAL INFORMATION

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### Ecotoxicity

<b>Aquatic Vertebrate</b>	Mortality LC50 – Leuciscus idus melanotus – 440 mg/l – 48 hours Method: OECD Test Guideline 203
<b>Aquatic Invertebrate</b>	Static test – Daphnia magna (water flea) – 1,535 mg/l – 24 hours
<b>Terrestrial</b>	Not Available

<b>Persistence and Degradability</b>	Not Available
<b>Bioaccumulative Potential</b>	Not Available
<b>Mobility in Soil</b>	Not Available
<b>PBT and vPvB Assessment</b>	Not Available
<b>Other Adverse Effects</b>	Not Available

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### 13. DISPOSAL CONSIDERATIONS

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<b>Waste Product or Residues</b>	Users should review their operations in terms of the applicable federal/national or local regulations and consult with appropriate regulatory agencies if necessary before disposing of waste product or residue.
<b>Product Containers</b>	Users should review their operations in terms of the applicable federal/national or local regulations and consult with appropriate regulatory agencies if necessary before disposing of waste product container.

The information offered in section 13 is for the product as shipped. Use and/or alterations to the product may significantly change the characteristics of the material and alter the waste classification and proper disposal methods.

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### 14. TRANSPORTATION INFORMATION

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US DOT	Not Dangerous Goods
TDG	Not Dangerous Goods
IMDG	Not Dangerous Goods
Marine Pollutant	No
IATA/ICAO	Not Dangerous Goods

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### 15. REGULATORY INFORMATION

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TSCA Inventory Status	All ingredients are listed on the TSCA inventory.
DSCL (EEC)	All ingredients are listed on the DSCL inventory.
California Proposition 65	Not Listed
SARA 302	Not Listed
SARA 304	Not Listed
SARA 311	Acute Health Hazard
SARA 312	Acute Health Hazard
SARA 313	Not Listed
WHMIS Canada	Class E: Corrosive material.

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### 16. OTHER INFORMATION

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Revision	Date
Revision 1	07/09/2012
Revision 2	07/20/2017
Revision 3	07/2/2019

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