

## Citric Acid

Safety Data Sheet according to Federal Register / Vol. 77, No. 58 /  
March 26, 2012 / Rules and Regulation

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Supersedes: 12-Jun-2017

### 1 PRODUCT & COMPANY IDENTIFICATION

**Product Name:** Citric Acid  
**Synonyms:** 2-Hydroxy-1,2,3-propanetricarboxylic acid  
**INCI Name:** Citric Acid  
**CAS Number:** 77-92-9  
**Formula:** C<sub>6</sub>H<sub>8</sub>O<sub>7</sub>  
**Product Form:** Powder  
**Product Use:** Cosmetic use

**Distributor:** MakingCosmetics.com Inc.  
**Address:** 10800 231<sup>st</sup> Way NE  
 Redmond, WA 98053 (USA)  
**Phone / Fax:** 425-292-9502 / 425-292-9601  
**Web:** www.makingcosmetics.com

**Emergency Telephone Number:** 1-800-424-9300 (Chemtrec)

### 2 HAZARDS IDENTIFICATION

**GHS Classification:** Eye Irritation - Category 2A  
**GHS Signal Word:** WARNING

**GHS Hazard Pictograms:**



**GHS Hazard Statements:**

H319: Causes serious eye irritation  
 May form combustible dust concentrations in air (during processing).

**GHS Precautionary Statements:**

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.

**Potential Health Hazards:**

Eyes: Causes serious eye irritation. May cause mild and mechanical irritation and thus symptoms would be redness and pain.  
 Inhalation: May cause respiratory irritation.  
 Skin: Causes skin irritation.  
 Ingestion: May cause gastrointestinal tract irritation.

**NFPA Ratings (704):**

Health	N/A	N/A
Flammability	N/A	N/A
Reactivity	N/A	N/A
Specific Hazard	N/A	

### 3 COMPOSITION/INFORMATION ON INGREDIENTS

<u>Component</u>	<u>CAS No.</u>	<u>Weight %</u>	<u>Molecular Weight</u>
Citric Acid	77-92-9	100%	192.12 g/mol

### 4 FIRST AID MEASURES

**Eyes:** Remove contact lenses, if present and easy to do. Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. If eye irritation persists, consult a specialist.  
**Inhalation:** If breathed in, move person into fresh air. If symptoms persist, call a physician. If not breathing, give artificial respiration. If breathing is difficult, give oxygen.  
**Skin:** In case of contact, immediately flush skin with plenty of water. Get medical attention if symptoms occur.  
**Ingestion:** Drink plenty of water. Do Not Induce Vomiting! Never give anything by mouth to an unconscious person. Seek medical attention if necessary.

### 5 FIRE-FIGHTING MEASURES

**Suitable (and unsuitable)** May be combustible at high temperature. Use appropriate media (water spray, dry powder,

**extinguishing media:** foam, carbon dioxide) for adjacent fire. Do not use high volume water jet.

**Special protective equipment & precautions for firefighters:** Wear self-contained, approved breathing apparatus and full protective clothing, including eye protection and boots. Avoid generating dust; fine dust dispersed in air in sufficient concentrations, and in the presences of an ignition source is a potential dust explosion hazard. Do not use a solid water stream as it may scatter and spread fire. In the event of fire and/or explosion do not breathe fumes.

**Flash Points:** Not applicable

**Specific hazards arising from the chemical:** Hazardous decomposition products formed under fire conditions: Carbon dioxide, carbon monoxide. See also Stability and Reactivity section.

## 6 ACCIDENTAL RELEASE MEASURES

**Personal precautions, protective equipment & emergency procedures:** Avoid dust formation. Dust deposits should not be allowed to accumulate on surfaces, as these may form an explosive mixture if they are released into the atmosphere in sufficient concentration. Avoid breathing dust. Ensure adequate ventilation, especially in confined areas. Avoid contact with skin and eyes. Do not try to clean up the leak without proper protective equipment. See section 8 for recommendations on the use of personal protective equipment.

**Environmental precautions:** No special environmental precautions required. Prevent further leakage or spillage if safe to do so.

**Methods and material for containment and cleaning up:** Use mechanical handling equipment. Keep in suitable, closed containers for disposal. Clean contaminated surface thoroughly. Sections 13 and 15 of this SDS provide information regarding certain local or national requirements.

## 7 HANDLING & STORAGE

**Precautions for safe handling:** Risk of dust explosion. Do not breathe dust. Avoid contact with skin and eyes. Wear personal protective equipment. See section 8 for recommendations on the use of personal protective equipment. Keep container closed when not in use.

**Conditions for safe storage, incl. any incompatibilities:** Keep in an area equipped with acid resistant flooring. Keep container tightly closed in a dry and well-ventilated place. Minimize dust generation and accumulation. Take measures to prevent the buildup of electrostatic charge. Keep away from heat and incompatible materials (see section 10 for incompatibilities).

## 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

<u>Component</u>	<u>Exposure Limits</u>	<u>Basis</u>	<u>Entity</u>
Citric Acid	Not available		

TWA: Time Weighted Average over 8 hours of work.  
 TLV: Threshold Limit Value over 8 hours of work.  
 REL: Recommended Exposure Limit  
 PEL: Permissible Exposure Limit

STEL: Short Term Exposure Limit during x minutes.  
 IDLH: Immediately Dangerous to Life or Health  
 WEEL: Workplace Environmental Exposure Levels  
 CEIL: Ceiling

**Personal Protection:**

**Eyes:** Safety glasses should be worn.

**Inhalation:** Provide adequate ventilation. Ensure that dust-handling systems (such as ducts, dust collectors, vessels, and processing equipment) are designed in a manner to prevent the escape of dust into the work area (i.e., there is no leakage from the equipment). IN the case of dust or aerosol formation use respirator with an approved filter. Use NIOSH approved respiratory protection.

**Body:** Choose gloves to protect hands against chemicals depending on the concentration and the quality of the hazardous substance and specific to the place of work. For special applications, we recommend clarifying the resistance to chemicals of the aforementioned protective gloves with the glove manufacturer. Choose body protection according to the amount and concentration of the dangerous substance at the work place.

**Other:** Wash hands before breaks and immediately after handling the product. Remove contaminated clothing and protective equipment before entering eating areas. Use good personal hygiene practices. Provide eyewash stations, quick-drench showers and washing facilities accessible to areas of use and handling.

## 9 PHYSICAL AND CHEMICAL PROPERTIES

<b>Appearance:</b>	Crystalline	<b>Vapor Pressure:</b>	Not applicable
<b>Odor:</b>	Odorless	<b>Vapor Density:</b>	Not applicable
<b>Odor Threshold:</b>	Not relevant	<b>Evaporation Rate:</b>	Not applicable
<b>Color:</b>	White	<b>Flammability:</b>	Does not ignite
<b>Molecular Weight:</b>	No data available	<b>Upper/lower Explosive Limit:</b>	No data available
<b>pH @ 77 °F:</b>	1.8 (concentration 5%)	<b>Flash Point:</b>	Not applicable
<b>Boiling Point:</b>	Not applicable	<b>Specific Gravity:</b>	No data available
<b>Melting Point/Range:</b>	Ca. 307 °F	<b>Solubility in Water @ 68 °F:</b>	Ca. 1450 g/L
<b>Density @ 68 °F:</b>	1.665 g/cm <sup>3</sup>	<b>Auto-Ignition Temperature:</b>	No data available
<b>Partition Coefficient: n-octanol/water:</b>	Log Pow: -1.8 to -0.2 (calculation)	<b>Decomposition Temperature:</b>	No data available
<b>Viscosity:</b>	No data available	<b>Explosive Properties:</b>	No data available
<b>Oxidizing Properties:</b>	No data available	<b>Freezing Point:</b>	No data available
<b>Dust Explosion Class:</b>	St1		

## 10 STABILITY AND REACTIVITY

<b>Reactivity:</b>	No decomposition if stored and applied as directed.
<b>Chemical Stability:</b>	Stable under normal conditions.
<b>Hazardous Polymerization:</b>	No dangerous reaction known under conditions of normal use.
<b>Conditions to Avoid:</b>	Avoid dust formation.
<b>Incompatible Materials:</b>	Strong bases. Oxidizing agents.
<b>Hazardous Decomposition Products:</b>	Buildup of dangerous/toxic fumes possible in cases of fire/high temperature. Carbon dioxide. Carbon monoxide.

## 11 TOXICOLOGICAL INFORMATION

<b>Acute Toxicity:</b>	LD50: 725 mg/kg (Application Route: i.p.) LD50: 940 mg/kg (Application Route: i.p.)
<b>Skin:</b>	LD50: >2.000 mg/kg bw May cause skin irritation in susceptible persons.
<b>Eyes:</b>	Irritating to eyes. (OECD Test Guideline 405) Symptoms include: redness, itching.
<b>Respiratory:</b>	No aspiration toxicity classification.
<b>Ingestion:</b>	LD50: 5.400 mg/kg bw (OECD Test Guideline 401) LD50: 11.700 mg/kg bw (OECD Test Guideline 401)
<b>Carcinogenicity:</b>	Not classifiable as a human carcinogen.
<b>Teratogenicity:</b>	No data available
<b>Germ Cell Mutagenicity:</b>	In vitro tests did not show mutagenic effects.
<b>Embryotoxicity:</b>	No data available
<b>Specific Target Organ Toxicity:</b>	No data available
<b>Reproductive Toxicity:</b>	No toxicity to reproduction.
<b>Respiratory/Skin Sensitization:</b>	No data available
<b>Corrosivity:</b>	No skin irritation. May cause skin irritation in susceptible persons.
<b>Sensitization:</b>	No skin irritation. May cause skin irritation in susceptible persons.
<b>Irritation:</b>	No data available
<b>Repeated Dose Toxicity:</b>	NOAEL: 4000 mg/kg LOAEL: 8000 mg/kg (Application Route: Oral, Exposure Time: 10d, Dose: 2, 4, 8, 16 g/kg bw/day)

## 12 ECOLOGICAL INFORMATION

<b>Ecotoxicity</b>	
<b>Aquatic Vertebrate:</b>	LC50: 440 mg/L ( <i>Leuciscus idus</i> ) (48h) (Test Type: static test, Method: OECD Test Guideline 203)
<b>Aquatic Invertebrate:</b>	LD50: 1535 mg/L ( <i>Daphnia magna</i> ) (24h) (Test Type: static test)
<b>Terrestrial:</b>	NOEC: 425 mg/L ( <i>Scenedesmus quadricauda</i> ) (8d) (Test Type: static test) TT: >10000 mg/L ( <i>Pseudomonas putida</i> ) (16h)
<b>Persistence and Degradability:</b>	Biodegradation: 97%. (28d) Readily biodegradable. (Method: OECD Test Guideline 301B)

<b>Bioaccumulative Potential:</b>	Biodegradation: 100%. (19d) Readily biodegradable. (Method: OECD Test Guideline 301E) Biochemical Oxygen Demand (BOD): 526 mg/g Chemical Oxygen Demand (COD): 728 mg/g Physico-chemical removability: Readily biodegradable.
<b>Mobility in Soil:</b>	Partition coefficient: n-octanol/water: log Pow: -1.8 to -0.2 (Calculation)
<b>PBT and vPvB Assessment:</b>	This product is miscible in water and readily biodegradable in both water and soil. Accumulation is not expected.
<b>Other Adverse Effects:</b>	No data available

## 13 DISPOSAL CONSIDERATIONS

<b>Waste Residues:</b>	Where possible recycling is preferred to disposal or incineration. Can be landfilled or incinerated, when in compliance with local regulations. 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.
<b>Product Containers:</b>	Empty containers should be taken to an approved waste handling site for recycling or disposal. Disposal of as unused product. 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 in section 13 is for the product as shipped. Use and/or alterations to the product may change the characteristics of the material and alter the waste classification and proper disposal methods

## 14 TRANSPORT INFORMATION

<b>DOT (Dept. of Transportation, USA):</b>	Not regulated as a hazardous material.
<b>TDG (Transportation of Dangerous Goods, Canada):</b>	No data available
<b>IMDG (International Maritime Dangerous Goods):</b>	Not regulated as a dangerous good.
<b>IATA (International Air Transport Association):</b>	Not regulated as a dangerous good.
<b>ICAO (International Civil Aviation Organization):</b>	No data available
<b>Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code:</b>	Not applicable for product as supplied.

## 15 REGULATORY INFORMATION

<b>TSCA Inventory Status:</b>	On the inventory, or in compliance with the inventory.
<b>TSCA 12(b):</b>	ON TSCA Inventory.
<b>DSCL (EEC):</b>	No data available
<b>WHMIS (Canada):</b>	No data available
<b>DSL (Canada):</b>	All components of this product are on the Canadian DSL.
<b>EU EINECS/ELINCS/NLP:</b>	No data available
<b>China IECSC:</b>	No data available
<b>China IECIC (06.30.2014):</b>	No data available
<b>Australia AICS:</b>	No data available
<b>Japan ENCS:</b>	No data available
<b>Philippines PICCS:</b>	No data available
<b>Korea KECI:</b>	No data available
<b>New Zealand NZIoC:</b>	No data available
<b>SARA 311/312 Hazards:</b>	Acute Health Hazard Fire Hazard
<b>SARA 302:</b>	No chemicals in this material are subject to the reporting requirements of SARA Title III Section 302.
<b>SARA 313:</b>	This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III Section 313.
<b>Clean Water Act:</b>	This product does not contain any toxic pollutants listed under the US Clean Water Act Section 307.
<b>California Prop. 65:</b>	This product does not contain any chemicals known to the State of California to cause cancer, birth defects, or any other reproductive harm.
<b>REACH:</b>	On the inventory, or in compliance with the inventory.

## 16 OTHER INFORMATION

**Revision Date:** 31-Aug-2021

**Compliance:** This document has been prepared in accordance with the SDS requirements of the OSHA Hazard Communication Standard 29 CFR 1910.1200

**Disclaimer:** This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any other process. Such information is to be the best of the company's knowledge and believed accurate and reliable as of the date indicated. However, no representation, warranty or guarantee of any kind, express or implied, is made as to its accuracy, reliability or completeness and we assume no responsibility for any loss, damage or expense, direct or consequential, arising out of use. It is the user's responsibility to satisfy himself as to the suitability & completeness of such information for his own particular use.