



SAFETY DATA SHEET

OSHA Hazard Communication
Standard 29 CFR 1910.1200.
Prepared to GHS Rev 3.



SDS Revision Date: 02/14/15

SECTION 1: Identification

Product identifier: Citric Acid 50% Solution.
Other means of identification: 1043
CAS number: 77-92-9
Recommended use: Food Additive/Flavor Enhancer. Cleaning and Polishing Agent. Pharmaceutical Applications.
Recommended restrictions: No data available

Manufacturer/Importer/Supplier/Distributor information:

Company Name: SAL Chemical Company, Inc.
Company Address: 3036 Birch Drive
 Weirton, WV 26062
Company Telephone: 800-879-1725
24hr. Emergency Telephone: Chemtrec (800) 424-9300

SECTION 2: Hazard(s) Identification

Classification of the chemical in accordance with paragraph (d) of §1910.1200:

Physical hazards

No physical hazards for this product.

Health hazards

Skin corrosion/irritation Category 1
 Serious eye damage/irritation Category 1

Environmental hazards

No environmental hazards for this product.

Signal word:

DANGER.

Hazard statement(s):

H314 - Causes severe skin burns and eye damage.
 H318 - Causes serious eye damage.

Hazard symbol(s):



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Precautionary statement(s):

- P260 - Do not breathe dusts or mists.
- P264 - Wash hands thoroughly after handling.
- P280 - Wear protective gloves/protective clothing/ eye protection/face protection.
- P301+P330+P331 - IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
- P303+P361+P353 - IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
- P304+P340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
- 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 doctor/physician.
- P321 - Specific treatment (see instructions on this label).
- P363 - Wash contaminated clothing before reuse.
- P405 - Store locked up.
- P501 - Dispose of contents/containers in accordance with local/regional/national/international regulations.

Hazard(s) not otherwise classified (HNOC): None known.**Percentage of ingredient(s) of unknown acute toxicity:**

50% of the mixture consists of ingredients of unknown acute toxicity (oral/dermal/inhalation).

SECTION 3: Composition/Information on Ingredients**Mixture:** Citric acid and water mixture.

Chemical name	Concentration (weight %)	CAS#
Citric Acid	50%	77-92-9

SECTION 4: First-Aid Measures**Inhalation:** Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. Call a poison control center or physician for further treatment advice.**Skin contact:** Take off contaminated clothing. Rinse skin immediately with plenty of water for 15 – 20 minutes. If irritation develops, call a physician.

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Eye contact: Flood eyes and eye lid area with water for 15 minutes. Call a poison control center or physician for treatment advice.

Ingestion: Drink large amounts of water. DO NOT induce vomiting. Consult a physician if necessary.

Most important symptoms/effects, acute and delayed: May cause mucous membrane irritation. May cause acute gastrointestinal irritation. May cause skin and eye irritation.

Indication of immediate medical attention and special treatment needed: If any symptoms are observed, contact a physician and give them this SDS sheet.

SECTION 5: Fire-Fighting Measures

Suitable extinguishing media: Water, water spray, dry chemical, carbon dioxide or foam. Remove container from fire source if possible and safe to do so. No unsuitable extinguishing media known.

Specific hazards arising from the chemical: None known.
Hazardous combustion products may include: CO (Carbon Monoxide), CO₂ (Carbon Dioxide).

Special protective equipment and precautions for fire-fighters: Wear MSHA/NIOSH-approved, self-contained breathing apparatus and full protective clothing.

SECTION 6: Accidental Release Measures

Personal precautions, protective equipment and emergency procedures:

Use personal protective equipment. Avoid breathing vapors, mist or gas. Ensure adequate ventilation.

Methods and materials for containment and cleaning up:

SMALL SPILL: Wear appropriate protective clothing (see Section 8). Contain spill if possible to do so without risk of personal injury or harm. Wipe up or absorb spill on suitable material.

Place in approved container for disposal.

LARGE SPILL: Wear appropriate protective clothing (see Section 8). Restrict access to contaminated area. Stop spill at source. Dike to prevent spreading. Wipe up or absorb spill on suitable material. Place in approved container for disposal. Follow all local, state, and federal regulations for disposal. Do not contaminate water while cleaning equipment or disposing of wastes.

SECTION 7: Handling and Storage

Precautions for safe handling: Avoid allowing material to dry. Resultant powder is more irritating than liquid and should avoid being breathed. Wash all splashes and spillages with water. Avoid letting washings go to storm sewers or waterways without neutralization. Comply with all existing regulations for discharges. .

Conditions for safe storage, including any incompatibles: Store in a cool, dry place away from incompatible materials, protect containers from damage.

SECTION 8: Exposure Controls/Personal Protection

Control Parameters:

Occupational exposure limits:

US OSHA HAZARDOUS COMPONENTS (29 CFR 1910.1200): Permissible Exposure Limits		
Substance	PEL-TWA (8 hour)	PEL-STEL (15 min)
Citric Acid (anhydrous)	15 mg/m ³	None available
Citric Acid 50% solution	None available	None available

ACGIH Threshold Limit Values		
Substance	TLV-TWA (8 hour)	TLV-STEL (15 min)
Citric Acid (anhydrous)	10 mg/m ³	None available
Citric Acid 50% solution	None available	None available

Other Exposure Limits: None available.

Appropriate engineering controls: Handle in accordance with good industrial hygiene and safety practice. Good industrial hygiene practice dictates that indoor work areas should be isolated and provided with adequate local exhaust ventilation. Wash hands before breaks and at the end of workday.

Individual protection measures, such as personal protective equipment:

Eye/face protection: Safety glasses with side-shields conforming to NIOSH. Use suitable eye protection, tested and approved under appropriate government standards.

Skin and Hand protection: Handle with gloves (Nitrile rubber). Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Respiratory protection: None normally required if good ventilation is maintained.

Other: None normally required. Use as necessary to prevent exposure. Work clothing should be changed daily. Contaminated clothing should be removed and washed thoroughly before re-using.

Thermal hazards: None known.

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SECTION 9: Physical and chemical properties

Appearance:

Physical state:

Liquid.

Color:

Clear colorless.

Odor:

Acidic odor.

Odor threshold:

Not available.

pH:

1.65 +/- 0.3

Melting Point/Freezing Point:

29°F

Initial Boiling point/Boiling Range:

208°F.

Flash point:

N/A—Water borne product.

Evaporation rate:

Not available.

Flammability (solid, gas):

Not available.

**Upper/lower flammability
or explosive limits:**

Not Determined.

Vapor pressure (MMhG):

Not known.

Vapor density (Air=1):

Not known.

Relative density (Specific gravity):

1.241 (Water = 1.000)

Solubilities (water, other):

100% - Complete.

Partition coefficient (n-octanol/water):

Not available.

Auto-ignition temperature:

Not known.

Decomposition temperature:

Not available.

Viscosity:

Not known.

SECTION 10: Stability and Reactivity

Reactivity: Stable.

Chemical stability: This material is stable under normal handling and storage conditions.

Possibility of hazardous reactions: Material is not known to polymerize.

Conditions to avoid: Not known.

Incompatible materials: Strong Bases, Oxidizing Agents.

Hazardous decomposition Products: CO (Carbon Monoxide), CO₂ (Carbon Dioxide) may be formed on burning in limited air supply.

SECTION 11: Toxicological Information

Information on likely routes of exposure:

Inhalation: May cause mucous membrane irritation with symptoms of a sore throat, coughing and/or shortness of breath.

Ingestion: May cause acute gastrointestinal irritation with abdominal pain.

Skin: May cause irritation with redness, swelling and pain.

Eye: May cause irritation with redness, pain, conjunctivitis, possible eye burns, ulceration and permanent cloudiness.

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Symptoms related to the physical, chemical, and toxicological characteristics: None known.**Delayed and immediate effects and chronic effects from short or long-term exposure:** May cause conjunctivitis and/or dermatitis with long or repeated contact.**Acute toxicity:****Ingredient Information:**

Substance	Test Type (species)	Value
Citric Acid	LD ₅₀ Oral (Rat)	7280 mg/kg
	LD ₅₀ Oral (Mouse)	5045 mg/kg
	LD ₅₀ Dermal (Rat)	> 2000 mg/kg
	LC ₅₀ Inhalation, Dust	None known

Product Acute Toxicity Estimates:L.D.₅₀/p.o./rat 11,700 mg/kgL.D.₅₀/p.o./rat 885 mg/kgL.D.₅₀/p.o./mouse 5,040 mg/kgL.D.₅₀/p.o./mouse 961 mg/kg**Carcinogenicity:** None of the components are listed in the National Toxicology Program (NTP) Report on Carcinogens (latest edition) or has been found to be a potential carcinogen in the International Agency for Research on Cancer (IARC) Monographs (latest edition), or by OSHA.**SECTION 12: Ecological Information****Ecotoxicity:****Product data:**Toxicity to Fish (LC₅₀/96h/goldfish=440-706 mg/L

Toxicity to Bacteria (ECO) - >10,000 mg/L

Ingredient Information:

Substance	Test Type	Species	Value
Citric Acid	LC ₅₀	Fish - Leuciscus idus melanotus (Orfe)	440 mg/L (48h)
	EC ₅₀	Invertebrate - Daphnia magna (Water flea)	1535 mg/L (24h)
	LC ₅₀	Algae	None available

Persistence and degradability:Readily biodegradable: (BOD) = 528 mg O₂/g.Chemical oxygen demand = 728 mg O₂ /g**Bioaccumulative potential:**

98% after 2 days.

Mobility in soil:

No data available.

Other adverse effects:

No data available.

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SECTION 13: Disposal Considerations

Disposal instructions:

Any disposal must be in compliance with local, state and federal laws and regulations. Contact local or state environmental agencies for specific rules.

SECTION 14: Transport Information

DOT: UN 1760. Corrosive Liquid N.O.S (Citric Acid), Hazard Class 8, PG III

IATA: UN 1760. Corrosive Liquid N.O.S (Citric Acid), Hazard Class 8, PG III.

IMDG: UN 1760. Corrosive Liquid N.O.S (Citric Acid), Hazard Class 8, PG III.

SECTION 15: Regulatory Information

USA:

United States Federal Regulations: This SDS complies with the OSHA, 29 CFR 1910.1200. The product is hazardous under OSHA.

SARA Superfund and Reauthorization Act of 1986 Title III sections 302, 311,312 and 313:

Section 302 – No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

CERCLA/Superfund, 40 CFR 117, 302: Not listed.

CHEMICAL	C.A.S. Number	Weight %	Section 311/312
Citric Acid	77-92-9	50%	Acute Health Hazard

Section 313 – List of Toxic Chemicals (40CFC 372): This product does not contain the chemicals (at level of 1% or greater) found on the 313 list of Toxic Chemicals.

STATE REGULATIONS:

This SDS contains specific health and safety data is applicable for state requirements. For details on your regulatory requirements you should contact the appropriate agency in your state.

California Proposition 65: This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

New Jersey Right to Know: Citric acid is listed on the New Jersey Right to Know list.

Pennsylvania Right to Know: Citric acid is listed on the Pennsylvania Right to Know list.

Massachusetts Right to Know: No components are listed on the Massachusetts Right to Know list.

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INTERNATIONAL REGULATIONS:

Canadian Controlled Products Regulations (WHMIS): This product has been classified as Class E (Corrosive Material) in accordance with the hazard criteria of the *Controlled Products Regulations* and the SDS contains all the information required by the *Controlled Products Regulations*.

SECTION 16: Other Information

Revision Date: February 14, 2015

DISCLAIMER: The information contained within this Material Safety Data Sheet is for the specific material described herein only and may not be valid if the material is used in combination with any other materials or process. All information appearing herein is based upon data obtained from the manufacturer and/or recognized technical sources. While the information is believed to be accurate, SAL Chemical makes no representations as to the completeness or accuracy of this information. The user is responsible to determine the completeness of the information and suitability for the user's own particular use. The information provided herein is supplied under the condition that the person or persons receiving this information will make their own determination as to its suitability for their purpose of use and shall assume all risks of their use, handling, and disposal of the material. SAL Chemical expressly disclaims all express or implied warranties of merchantability and fitness for a particular purpose, with respect to the material or information provided herein, and SAL Chemical shall, under no circumstances, be liable for incidental or consequential damages.