




Citric Acid 50%

1. Product and Company Identification

Product Name	Citric Acid 50%	NFPA diamond and HMIS ratings for this product may be found in section 16 of this Safety Data Sheet.
Synonyms	None	
SDS Number	D27193	
Company Identification	Aquachem of America Inc. PO Box 129 Little Chute, WI 54140	
Telephone	Aquachem of America Inc. – 920-687-5238 CHEMTREC – 800.424.9300	

2. Hazards Identification

Form	Liquid
Color	Clear, colorless to pale yellow
Odor	Slight sugar odor
OSHA/HCS Status	Material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200); corrosive
GHS Classification	Skin corrosion (Category 1C) Serious eye damage (Category 1)
Pictogram	
Signal Word	Danger
Hazard Statement(s) H314	Causes severe skin burns and eye damage.
Precautionary Statement(s)	
P260	Do not breathe mists.
P264	Wash skin 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): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P340 + P340 + P310	IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER or doctor/physician.
P305 + P351 + P338 + P310	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 doctor/physician.
P363	Wash contaminated clothing before reuse.
P405	Store locked up.
P501	Dispose of contents/ container to an approved waste disposal plant.



Potential Acute Health Effects

Inhalation	Corrosive material - may be harmful if inhaled. Causes respiratory tract irritation.
Ingestion	Corrosive material - may be harmful if swallowed.
Skin	Causes skin burns, especially on prolonged contact.
Eyes	Causes eye burns.

See section 11 for more detailed information on health effects and symptoms

3. Composition/Information on Ingredients

<u>Ingredient Name</u>	<u>CAS Number</u>	<u>WT %</u>
Citric Acid USP grade	77-92-9	50
Deionized water	7732-18-5	50

4. First Aid Measures

Eye Contact	Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.
Skin Contact	Take off contaminated clothing and shoes. Wash off with soap and plenty of water. Consult a physician.
Inhalation	If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.
Ingestion	Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.
Protection of First Aid Personnel	No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wear gloves while removing contaminated clothing. If it is suspected that dust, vapor, mist, or gas is still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus.

5. Fire-fighting Measures

Flammability of the Product	Not flammable or combustible
Flash Point (Method)	Not applicable
Auto Ignition Temperature	Not applicable
<u>Extinguishing Media</u>	
Suitable	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Not Suitable	No data available
Special Fire-fighting Procedures & Hazards	Wear self-contained breathing apparatus and chemical protective clothing for firefighting. Approach upwind to avoid toxic vapors.
Unusual Fire & Explosion Hazards	None known.



6. Accidental Release Measures

Personal Precautions	Use personal protective equipment. Avoid dust formation. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Avoid breathing dust.
Environmental Precautions	Do not let product enter drains.
Spill	Stop the flow of material, if this can be done without risk. Contain the discharged solution; dike runoff to prevent spill from contaminating storm drains, sewers, soil or groundwater waterways.

7. Handling and Storage

Handling	Avoid contact with skin and eyes. Avoid formation of aerosols. Provide appropriate exhaust ventilation. Do not breathe vapor or mist.
Storage	Keep container tightly closed in a dry and well-ventilated area away from direct sunlight, sources of intense heat, or where freezing is possible.

8. Exposure Controls/Personal Protection

<u>Ingredient Name</u>	<u>ACGIH TLV</u>	<u>OSHA PEL</u>
Citric Acid	Not established	Not established
Engineering Measures	Local exhaust ventilation or other engineering controls are normally required when handling or using this product to avoid overexposure. Maintain adequate ventilation.	
Hygiene Measures	Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.	
Respiratory	Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator.	
Eyes and Face	Wear chemical safety goggles while handling this product.	
Skin	Prevent contact with this product. Wear gloves and protective clothing depending on condition of use. Protective gloves: gauntlet-type, neoprene, nitrile.	



9. Physical and Chemical Properties

Appearance	Clear, colorless to pale yellow liquid
Odor	Slight sugar odor
pH	1.87
Water Solubility	Complete
Vapor Density (air = 1)	Not available
Evaporation rate (butyl acetate = 1)	Similar to water
Boiling Point (°F)	219 °F (104 °C)
Freezing Point (°F)	32 °F (0 °C)
Specific Gravity (H ₂ O = 1 @ 70 °F)	1.24 – 1.26
Vapor Pressure (mm Hg, 20 °C)	Not available
Volatile Organic (VOC)	Content None

10. Stability and Reactivity

Stable:	X	Unstable:		Hazardous Polymerization:		Occurs:		Does Not Occur:	X
Conditions to Avoid	Heat, moisture, and incompatible materials.								
Materials to Avoid	Potassium tartrate, alkali and alkaline earth, carbonates, bicarbonates, acetates, sulfides, metal nitrates, and strong oxidizers.								
Decomposition Products	Carbon oxides								

11. Toxicological Information

Eye		Causes eye burns.
	Citric Acid	Eyes - rabbit – irritating to eyes
Dermal		Causes skin burns, especially on prolonged contact.
	Citric Acid	Dermal LD50 – rat - > 2000 mg/kg
		Skin corrosion/irritation: rabbit – mild skin irritation
Inhalation		Corrosive material - may be harmful if inhaled. Causes respiratory tract irritation.
	Citric Acid	Inhalation LC50 – no data available
Oral		Corrosive material - may be harmful if swallowed.
	Citric Acid	Oral LD50 – rat – 5400 mg/kg

Potential Chronic Health Effects

Carcinogenicity	No component of this product present at levels greater than or equal to 0.1% is identified as a probable, possible, or confirmed human carcinogen by IARC, ACGIH, NTP, or OSHA.
Mutagenicity	No data available
Teratogenicity	No data available
Fertility Effects	No data available

Over-exposure Signs/Symptoms

Vomiting, diarrhea, damage to tooth enamel, dermatitis.



12. Ecological Information

Biodegradability	Biological Oxygen Demand (BOD): 40%, 5 days - 60%, 10-20 days. Citric acid biodegrades quite rapidly.
Ecotoxicity	Toxicity to fish: LC50, mortality – <i>Leuciscus idus melanotus</i> – 440 mg/l – 48 h Toxicity to aquatic invertebrates: Static test – <i>Daphnia magna</i> (water flea) – 1535 mg/l - 24 h Dangerous to aquatic life in high concentrations. Lowers pH in water but does not dissociate to any great extent.

13. Disposal Considerations

Waste Disposal	Dispose of in a permitted waste management facility following all local, state, and federal regulations.
RCRA	No component of this product is listed as a hazardous waste.

14. Transportation

The data provided in this section is for information only and may not be specific to your package size or mode of transport. You will need to apply the appropriate regulations to properly classify your shipment for transportation.

US DOT 49 CFR 172.101	<u>Non-bulk Shipments (Drums/Totes)</u>	<u>Bulk Shipments (Tank Trucks/Rail Cars)</u>
Proper Shipping Name	Not DOT regulated	Same
Hazard Class	Not applicable	Same
Identification Number	Not applicable	Same
Packing Group	Not applicable	Same
Reportable Quantities	Not applicable	Same
Placards/Labels	Not applicable	Same



15. Regulatory Information

CERCLA / SARA Emergency Reporting

A spill or release of this material may trigger the emergency release reporting requirements under CERCLA (40 CFR Part 300) and/or SARA Title III (40 CFR Part 355). State or local reporting requirements may differ from federal requirements. Consult counsel for further guidance on your responsibilities under these laws.

Product does not require reporting

This product does not require reporting.

SARA Title III Section 313 Clean Water Act (CWA) Section 311

The following chemicals are listed under Section 311 as hazardous substances requiring the submission of a National Pollutant Discharge Elimination System (NPDES) permit application to EPA.

Product not listed

TSCA – Toxic Substances Control Act RCRA – Resource Conservation and Recovery Act

All components of this product are listed as “Active” on the Toxic Substances Control Act (TSCA) 8(b) Inventory

The requirements of the federal hazardous waste regulations do not apply unless the waste fails to pass any of EPA’s four tests for determining hazardous wastes. Note: If this product is altered, it is the responsibility of the user to determine whether the material meets the criteria for hazardous waste at the time of disposal.

No components listed

State Regulations

Massachusetts
New Jersey
Pennsylvania
California

RTK Substances: The following components are listed: no component(s) listed

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

16. Other Information

Date of Issue 3/4/2014 | 6/23/2015-updated GHS statements, section 2. Changed DOT shipping status, section 14 | 12/27/2017-reviewed for accuracy (ST) | 09/26/2019 – updated TSCA statement, section 15 (RP) | 2/8/2021-updated address, section 1 (ST)

NFPA



HMIS	HEALTH	2
	FLAMMABILITY	0
	PHYSICAL HAZARD	0
	PPE	

Caution: NFPA and HMIS ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although these ratings are not required on SDSs under 29 CFR 1910.1200, the preparer may choose to provide them.
The customer is responsible for determining the PPE code for this material.

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