



Material Safety Data Sheet

Citric Acid Solution

Product# 1043-MB

Section 01 • Product and Company Identification

SAL Chemical Company
3036 Birch Drive
Weirton, WV 26062

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For More Information Call:

304-748-8200

800-879-1725

Emergency Phone Number:

ChemTrec: 800-424-9300

24 Hours/Day—7 Days/Week

TRADE NAME:

Citric Acid Solution

CAS NUMBER:

77-92-9

Section 02 • Hazardous Ingredients

HAZARDOUS INGREDIENT	PERCENT	CAS #	PEL
Citric Acid	50%	77-92-9	Not Established

Section 03 • Physical Data

APPEARANCE:	Clear, Colorless
ODOR:	Acidic Odor
BULK DENSITY:	10.330 lb/gal.
pH :	1.65 +/- 0.3
SOLUBILITY IN WATER:	100% - Complete
VAPOR PRESSURE (MMHG):	N/A
VAPOR DENSITY (AIR=1)	N/A
BOILING POINT:	208°F
FREEZING/MELTING POINT:	29°F
SPECIFIC GRAVITY	1.241 (WATER=1.000)

Section 04 • Fire and Explosion Data

FLASH POINT:	N/A—Water borne product
EXTINGUISHING MEDIA:	Water, water spray, dry chemical, carbon dioxide or foam. Remove container from fire source if possible and safe to do so.
SPECIAL FIRE FIGHTING PROCEDURES:	Always use personal protective equipment or self-contained breathing apparatus when fighting a fire in an enclosed area.

Section 05 • Reactivity Data

STABILITY:	Stable
HAZARDOUS DECOMPOSITION:	CO (Carbon Monoxide), CO ₂ (Carbon Dioxide) may be formed on burning in limited air supply.
HAZARDOUS POLYMERIZATION:	Will not occur
INCOMPATIBILITY:	Strong Bases, Oxidizing Agents

As the result of our inspection(s), this certifies that the material identified above, blended by SAL Chemical Company, Inc., meets or exceeds all conformance standards listed above, and fully complies with the customer's order. In no way is this certificate intended to alter SAL Chemical's General Terms & Conditions of the parties' contract.

Section 06 · Health Data

EMERGENCY OVERVIEW:	Odorless, colorless solution with a strong acidic taste. Citric acid solutions may be a skin and mucous membrane irritant. It is also a strong eye irritant and may produce allergic reactions in some individuals.
ROUTES OF ENTRY:	Eyes, Skin, Inhalation
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 (DERMAL):	May cause irritation with redness, swelling and pain.
EYES:	May cause irritation with redness, pain, conjunctivitis, possible eye burns, ulceration and permanent cloudiness.
POTENTIAL CARCINOGEN:	Not a carcinogen or potential carcinogen according to the National Toxicology Program I.A.R.C. Monographs and OSHA
MEDICAL CONDITIONS	
AGGRAVATED BY EXPOSURE:	Conjunctivitis, dermatitis with long or repeated contact
HUMAN EXPERIENCE:	Health injuries are not known or expected under normal use.
ACUTE TOXICITY:	L.D. ₅₀ /p.o./rat 11,700 mg/kg L.D. ₅₀ /p.o./rat 885 mg/kg L.D. ₅₀ /p.o./mouse 5,040 mg/kg L.D. ₅₀ /p.o./mouse 961 mg/kg
CHEMICAL OXYGEN DEMAND:	(COD) = 728 mg O ₂ /g
READILY BIODEGRADABLE:	(BOD) = 528 mg O ₂ /g
BIOACCUMULATION:	98% after 2 days
ECOTOXICITY EFFECTS:	Toxicity to Fish (LC ₅₀ /96h/goldfish=440-706 mg/L Toxicity to Bacteria (ECO) - >10,000 mg/L

Section 07 · First Aid

SWALLOWING (INGESTION):	Drink large amounts of water. DO NOT induce vomiting. Consult a physician if necessary
EYES:	Flood eyes and eye lid area with water for 15 minutes. Call physician and seek medical advice.
SKIN (DERMAL):	Wash off immediately with soap and water. Rinse thoroughly. If irritation develops, call a physician.

Section 08 · Employee Protection

EXPIRATORY PROTECTION:	None needed if exposure limits are not exceeded.
PROTECTIVE CLOTHING:	Gloves, Goggles/Safety Glasses, Normal work clothing covering arms and legs.
EXPOSURE LIMITS:	Not established for this product.
VENTILATION:	Local exhaust to provide clean, general ventilation

Section 09 · Spill and Disposal Data

SPILLS:	Do not allow material to dry. Dried material is more irritating than liquid to both eyes and mucous membranes. 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.
WASTE DISPOSAL:	Any disposal must be in compliance with local, state and federal laws and regulations. Contact local or state environmental agencies for specific rules.

Section 10 • Handling/Storage/Transportation Data

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.
STORAGE:	Store in a cool, dry place away from incompatible materials, protect containers from damage.
STORAGE TEMPERATURE:	Ambient
INCOMPATIBILITIES:	Avoid contact with strong bases and oxidizing agents
EMPTY CONTAINERS:	Can retain product residue and odors. Observe all label precautions even after the container is emptied. Do not reuse containers unless thoroughly cleaned.
PROPER SHIPPING NAME:	Citric Acid Solution
HAZARD CLASS AND LABEL:	Not DOT regulated

Section 11 • Other Regulatory Information

GENERAL:	Citric Acid is generally regarded as safe (gras) by USA FDA, 21 CFR 182.1033 Meets the criteria for hazardous material as defined by OSHA Hazard Communication Standard 29 CFR 1910.1200. Listed European Food Additive E330. This material is listed on the TSCA Inventory List
CERCLA:	Not Hazardous (<i>Comprehensive Response Compensation and Liability Act</i>)
SARA TITLE III:	Not considered hazardous (<i>Superfund Amendments and Reauthorization Bill</i>)
FOREIGN INVENTORY STATUS:	Canadian DSL (<i>Domestic Substance List</i>)
CA PROP 65:	Does not contain any California Prop 65 Substances

Section 12 • Additional Information

DISCLAIMER: The information contained within this Material Safety Data Sheet is for the specific material described only and may not be valid if the material is used in combination with any other materials or process. The user is responsible to determine the completeness of the information and suitability for the user's own particular use. To the knowledge and belief of Sal Chemical, the information is accurate and reliable as of the date indicated but Sal Chemical makes no express implied warranty of merchantability for the material or for the information.