

MATERIAL SAFETY DATA SHEET

SECTION 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

- **Product name:** ACETIC ACID, 90%
- **Manufacturer:** Deep South Chemical, Inc.
229 Millstone Road
Broussard, LA 70518 (337) 837-9931
- **For Emergency : Call CHEMTREC 1-800-424-9300**
Outside the U.S.A. (703)-527-3887
- **Chemical Family:** ACID
- **Contact Person:** Glenn Ray
- **Formula:** CH₃COOH (90%)
- **MSDS Revised:** January 1, 2014

SECTION 2. COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous components	CAS Number	%	PEL(OSHA)		TLV(ACGIH)		IDLH
			TWA	STEL	TWA	STEL	
ACETIC ACID	64-19-7	90	10ppm	N/E	10ppm	15ppm	50ppm

SECTION 3. HAZARDS IDENTIFICATION, INCLUDING EMERGENCY OVERVIEW

Effects of overexposure:

Inhalation: Irritant

Eye Contact: Can burn the eye cornea

Skin Contact: Irritating to skin. Toxic if absorbed through skin.

Ingestion: Irritation of the mouth, throat, and digestive tract.

SECTION 4. FIRST AID MEASURES

Eyes: Move victim away from exposure and into fresh air. If irritation persists, seek medical attention. For direct exposure, flush with clean water for 15 minutes. Hold eyelids apart to ensure flushing of the entire eye surface.

Inhalation: Move victim away from source of exposure and into fresh air. If irritation persists, seek medical attention. If victim is not breathing, artificial respiration should be administered.

Skin: Remove contaminated clothes. Cleanse affected area thoroughly with soap and water. If irritation persists, seek medical attention. Wash contaminated clothing.

Ingestion: Drink plenty water. Do not induce vomiting. If victim is drowsy or unconscious, place on left side with head down. Seek medical attention.

SECTION 5. FIRE FIGHTING MEASURES

Fire fighting measures: Use water fog, powder, foam, or CO₂ to extinguish fire.

Special Fire Fighting Procedures: Water spray to cool drums.

Explosive Properties:

LEL: 4.4%

UEL: 79.9%

SECTION 6. ACCIDENTAL RELEASE MEASURES

Steps to be taken if material is released or spilled: Use proper personal protective equipment. Stay upwind and away from spill. Keep all sources of ignition and hot metal surfaces away from spill. If spill is indoors, ventilate area. Keep out of drains, sewers or waterways. Use sand or other inert material to contain and soak up spill.

Waste disposal method: Dispose of according to local, state and federal regulations in an approved disposal facility or recycling facility.

SECTION 7. HANDLING AND STORAGE

Storage: Store in a well-ventilated area. Keep container tightly closed when not in use. Store in cool, dry area. Keep away from sources of ignition.

Handling: Use proper personal protective equipment. Avoid contact with skin or eyes. Avoid breathing of vapors. Handle in well-ventilated workspace. When handling do not eat, drink, or smoke.

Other precautions: Do not pressurize, cut, weld, braze, solder, drill, grind or expose containers to heat, flame, sparks or other sources of ignition.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Ventilation: Keep work area well ventilated.

Protective clothing: Impermeable gloves and impervious clothing as appropriate.

Eye protection: Chemical goggles where splashing may occur.

Respiratory Protection: Use appropriate respiratory protection when handling or in case of insufficient ventilation.

Special Protection: Safety shower, eye bath, and washing facilities should be available.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Specific gravity @ 75°F (H₂O = 1): 1.05

Flash Point: 102°F

Viscosity: 1.22 cp @ 75°F

Vapor density (Air = 1): 2.07

Solubility: 100% in water

Vapor pressure @ 75°F: 15.7 mm Hg

Evaporation Rate: 0.97

Appearance and Odor: Clear liquid with pungent odor

Boiling Point: 244°F

Freezing Point: 61.9°F

Percent Volatile by Volume: N/D

pH: <1.0

Auto-ignition: 961 °F

SECTION 10. STABILITY AND REACTIVITY

Stability and Reactivity: Stable in normal conditions.

Incompatibility/Materials: Strong oxidizing agents. Do not use with aluminum equipment at temperatures above 120°F.

Hazardous Decomposition Products: Smoke, carbon oxides.

Hazardous polymerization: Will not occur.

SECTION 11. TOXICOLOGICAL INFORMATION

Oral LD₅₀: 3.2-3.6g/kg (rats); slightly toxic to animals.

Inhalation LC₅₀: >16000ppm (rats, 4 hours); practically nontoxic to animals.

Skin: Corrosive to rabbit skin. Moderately toxic to animals (LD₅₀, rabbits: 1.1g/kg).

Eyes: Corrosive to rabbit eyes.

Mutagenicity: Mixed results in vitro (negative in the Ames and Chinese hamster ovary assay; positive in human lymphocytes for SCEs and in some DNA damage assays). The positive results are thought to be due to artifacts caused by acidification of culture media.

Carcinogenicity: No studies conducted according to accepted scientific principles.

Reproductive/Developmental Effects: No reproductive effects were found after oral administration of 1.6 apple cider vinegar per day (5% acetic acid) to pregnant rabbits, rats or mice.

Repeated Exposure: Acetic acid was administered to rats in the drinking water at concentrations up to 0.5% (up to 390mg/kg) for 2 to 4 months. Reduced food intake and growth were noted in the 390mg/kg group but no effects were noted in concentrations of 8 to 195mg/kg. Administration of 0.5ml of 3% acetic acid to rats (approximately 60mg/kg/treatment) in water by stomach tube 3 times/week for 8 months induced cell proliferation of the gullet and forestomach.

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity: The aquatic toxicity and biodegradation of acetic acid are expected to be influenced by its potential to lower pH.

Mosquito fish, TLm=251ppm/96 hour

Fathead minnow, LC₅₀=122mg/L/24 hour, 106mg/L/48 hour and 88mg/L/96 hour

Rainbow trout, LC₅₀=105mg/L/48 hour

Environmental Fate

Degradation: Acetic acid will biodegrade readily if released to water or soil.

Bioaccumulation: The log n-octanol water partition coefficient for acetic acid is -0.17. This suggests that acetic acid has low potential to bioaccumulate.

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal of waste materials: Incinerate or in compliance with local and federal regulations.

Disposal of waste containers: Recycle, clean out residues.

SECTION 14. TRANSPORT INFORMATION

DOT transport information: UN 2789, Acetic Acid Solution, with more than 80% acid by mass, 8, (3), PG II, rq 5000/2270

Shipping labeling: Corrosive

Subsidiary hazard: 3 (Flammable Liquid)

SECTION 15. REGULATORY INFORMATION

Toxic Substances Control Act (TCSA): All ingredients are on the TSCA inventory or are not required to be listed on the TSCA inventory.

CERCLA RQ-40 CFR 302.4(a)

Component

Acetic Acid

CERCLA RQ (lbs)

5000

SARA 302 Components-40 CFR 355 Appendix A

Component

None

TPQ(Threshold Planning Quantity) (lbs)

Section 311/312 Hazard Class-40 CFR 370.2

Immediate (X)

Delayed (X)

Fire (X)

Reactive ()

Sudden Release of Pressure ()

SARA 313-40 CFR 372.65

Component

None

CAS Number

%



SECTION 16. OTHER INFORMATION

NFPA RATING: Health (3) Fire (2) Reactivity (0)

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N/D= No data; N/A = Not available; N/E= Not established