

# Material Safety Data Sheet

Acetic acid solution 1N

ACC# 00121

## Section 1 - Chemical Product and Company Identification

**MSDS Name:** Acetic acid solution 1N

**Catalog Numbers:** S80238, S80238-2, NC9501319, S70041-1, SA36-1

**Synonyms:**

**Company Identification:**

Fisher Scientific  
1 Reagent Lane  
Fair Lawn, NJ 07410

**For information, call:** 201-796-7100

**Emergency Number:** 201-796-7100

**For CHEMTREC assistance, call:** 800-424-9300

**For International CHEMTREC assistance, call:** 703-527-3887

## Section 2 - Composition, Information on Ingredients

CAS#	Chemical Name	Percent	EINECS/ELINCS
7732-18-5	Water	94.0	231-791-2
64-19-7	Acetic acid	3.0-4.0	200-580-7

## Section 3 - Hazards Identification

### EMERGENCY OVERVIEW

Appearance: colorless liquid.

**Caution!** May cause allergic skin reaction. May cause respiratory and digestive tract irritation. May cause eye and skin irritation.

**Target Organs:** Kidneys, teeth.

#### Potential Health Effects

**Eye:** May cause eye irritation and possible damage.

**Skin:** May cause severe skin irritation. May cause skin sensitization, an allergic reaction, which becomes evident upon re-exposure to this material.

**Ingestion:** May cause gastrointestinal irritation with nausea, vomiting and diarrhea.

**Inhalation:** Effects may be delayed. May cause respiratory tract irritation.

**Chronic:** Prolonged or repeated skin contact may cause dermatitis. Repeated inhalation may cause chronic bronchitis. Repeated exposure may cause erosion of teeth. May cause reproductive and fetal effects. Laboratory experiments have resulted in mutagenic effects.

## Section 4 - First Aid Measures

**Eyes:** Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid.

**Skin:** Get medical aid. Flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse.

**Ingestion:** Do not induce vomiting. If victim is conscious and alert, give 2-4 cupfuls of milk or water. Never give anything by mouth to an unconscious person. Get medical aid.

**Inhalation:** Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid.

**Notes to Physician:** Treat symptomatically and supportively.

## Section 5 - Fire Fighting Measures

**General Information:** During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion. Wear appropriate protective clothing to prevent contact with skin and eyes. Wear a self-contained breathing apparatus (SCBA) to prevent contact with thermal decomposition products. Reacts with most metals to form highly flammable hydrogen gas which can form explosive mixtures with air.

**Extinguishing Media:** Use extinguishing media most appropriate for the surrounding fire. Use water spray, dry chemical, carbon dioxide, or appropriate foam.

**Flash Point:** Not applicable.

**Autoignition Temperature:** Not applicable.

**Explosion Limits, Lower:** Not available.

**Upper:** Not available.

**NFPA Rating:** (estimated) Health: 1; Flammability: 0; Instability: 0

## Section 6 - Accidental Release Measures

**General Information:** Use proper personal protective equipment as indicated in Section 8.

**Spills/Leaks:** Absorb spill with inert material (e.g. vermiculite, sand or earth), then place in suitable container. Clean up spills immediately, observing precautions in the Protective Equipment section. Provide ventilation.

## Section 7 - Handling and Storage

**Handling:** Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Use only in a well-ventilated area. Avoid contact with eyes, skin, and clothing. Avoid ingestion and inhalation.

**Storage:** Store in a tightly closed container. Store in a cool, dry, well-ventilated area away from incompatible substances.

## Section 8 - Exposure Controls, Personal Protection

**Engineering Controls:** Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate ventilation to keep airborne concentrations low.

### Exposure Limits

Chemical Name	ACGIH	NIOSH	OSHA - Final PELs
Water	none listed	none listed	none listed
Acetic acid	10 ppm TWA; 15 ppm STEL	10 ppm TWA; 25 mg/m <sup>3</sup> TWA 50 ppm IDLH	10 ppm TWA; 25 mg/m <sup>3</sup> TWA

**OSHA Vacated PELs:** Water: No OSHA Vacated PELs are listed for this chemical. Acetic acid: 10 ppm TWA; 25 mg/m<sup>3</sup> TWA

### Personal Protective Equipment

**Eyes:** Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

**Skin:** Wear appropriate protective gloves to prevent skin exposure.

**Clothing:** Wear appropriate protective clothing to prevent skin exposure.

**Respirators:** A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements or European Standard EN 149 must be followed whenever workplace conditions warrant respirator use.

## Section 9 - Physical and Chemical Properties

**Physical State:** Liquid

**Appearance:** colorless

**Odor:** none reported

**pH:** Not available.

**Vapor Pressure:** Not available.

**Vapor Density:** Not available.  
**Evaporation Rate:**Not available.  
**Viscosity:** Not available.  
**Boiling Point:** Not available.  
**Freezing/Melting Point:**Not available.  
**Decomposition Temperature:**Not available.  
**Solubility:** Not available.  
**Specific Gravity/Density:**Not available.  
**Molecular Formula:**CH<sub>3</sub>CO<sub>2</sub>H  
**Molecular Weight:**60.0268

## Section 10 - Stability and Reactivity

**Chemical Stability:** Stable under normal temperatures and pressures.  
**Conditions to Avoid:** Incompatible materials, excess heat.  
**Incompatibilities with Other Materials:** Metals, oxidizing agents, acids, bases, acetic anhydride, alcohols, amines, ammonium nitrate, bromine trifluoride, chlorine trifluoride, nitric acid, permanganates, sodium hydroxide, sodium peroxide, hydrogen peroxide, acetaldehyde, acid anhydrides, chlorosulfonic acid, oleum, potassium hydroxide, perchloric acid, potassium-tert-butoxide, ethyleneimine, 2-aminoethanol, ethylene diamine, phosphorus trichloride, chromic acid anhydride, phosphorus isocyanate, diallyl methyl carbinol + ozone, nitric acid + acetone, xylene.  
**Hazardous Decomposition Products:** Carbon monoxide, irritating and toxic fumes and gases, carbon dioxide.  
**Hazardous Polymerization:** Has not been reported.

## Section 11 - Toxicological Information

**RTECS#:**  
**CAS# 7732-18-5:** ZC0110000  
**CAS# 64-19-7:** AF1225000  
**LD50/LC50:**  
**CAS# 7732-18-5:**  
Oral, rat: LD50 = >90 mL/kg;

**CAS# 64-19-7:**  
Draize test, rabbit, skin: 50 mg/24H Mild;  
Inhalation, mouse: LC50 = 5620 ppm/1H;  
Oral, rat: LD50 = 3310 mg/kg;  
Skin, rabbit: LD50 = 1060 uL/kg;

**Carcinogenicity:**  
**CAS# 7732-18-5:** Not listed by ACGIH, IARC, NTP, or CA Prop 65.

CAS# 64-19-7: Not listed by ACGIH, IARC, NTP, or CA Prop 65.

**Epidemiology:** No information available.

**Teratogenicity:** Effects on Newborn: behavioral, orl-rat TDLo=700 mg/kg for acetic acid.

**Reproductive Effects:** Fertility: male index, itt-rat TDLo=400 mg/kg for acetic acid.

**Mutagenicity:** No information available.

**Neurotoxicity:** No information available.

**Other Studies:**

## Section 12 - Ecological Information

**Ecotoxicity:** Fish: Bluegill/Sunfish: TLm = 100; Unspecified; CAS# 64-19-7 Fresh waterFish: Goldfish: TLm = 75 ppm; 96 Hr; CAS# 64-19-7 Fresh waterFish: Fathead Minnow: LC50 = 88 mg/L; 96 Hr; Static bioassay @ 18-22°C Fish: Bluegill/Sunfish: LC50 = 75 mg/L; 96 Hr; Unspecified Fish: Goldfish: LC50 = 423 mg/L; 24 Hr; Unspecified Water flea Daphnia: EC50 = 32-47 mg/L; 24-48 Hr; Unspecified Bacteria: Phytobacterium phosphoreum: EC50 = 8.86-11 mg/L; 5,15,25 min; Microtox test Acetic acid: Bluegill (fresh water) TLm=75 ppm/96H Goldfish (fresh water) TLm=100 ppm/96H Shrimp (aerated water) LC50=100-330 ppm/48H

**Environmental:** Acetic acid spreads on soil surface and penetrates at rate dependent on soil type and water content. It readily degrades in water and shows little potential for bioaccumulation.

**Physical:** No information available.

**Other:** None.

## Section 13 - Disposal Considerations

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR Parts 261.3. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.

**RCRA P-Series:** None listed.

**RCRA U-Series:** None listed.

## Section 14 - Transport Information

	US DOT	Canada TDG
<b>Shipping Name:</b>	CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S.	No information available.
<b>Hazard Class:</b>	8	
<b>UN Number:</b>	UN3265	

<b>Packing Group:</b>	III	
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## Section 15 - Regulatory Information

### US FEDERAL

#### TSCA

CAS# 7732-18-5 is listed on the TSCA inventory.

CAS# 64-19-7 is listed on the TSCA inventory.

#### Health & Safety Reporting List

None of the chemicals are on the Health & Safety Reporting List.

#### Chemical Test Rules

None of the chemicals in this product are under a Chemical Test Rule.

#### Section 12b

None of the chemicals are listed under TSCA Section 12b.

#### TSCA Significant New Use Rule

None of the chemicals in this material have a SNUR under TSCA.

#### CERCLA Hazardous Substances and corresponding RQs

CAS# 64-19-7: 5000 lb final RQ; 2270 kg final RQ

#### SARA Section 302 Extremely Hazardous Substances

None of the chemicals in this product have a TPQ.

#### SARA Codes

CAS # 64-19-7: immediate, delayed, fire.

**Section 313** No chemicals are reportable under Section 313.

#### Clean Air Act:

This material does not contain any hazardous air pollutants.

This material does not contain any Class 1 Ozone depletors.

This material does not contain any Class 2 Ozone depletors.

#### Clean Water Act:

CAS# 64-19-7 is listed as a Hazardous Substance under the CWA.

None of the chemicals in this product are listed as Priority Pollutants under the CWA.

None of the chemicals in this product are listed as Toxic Pollutants under the CWA.

#### OSHA:

None of the chemicals in this product are considered highly hazardous by OSHA.

#### STATE

CAS# 7732-18-5 is not present on state lists from CA, PA, MN, MA, FL, or NJ.

CAS# 64-19-7 can be found on the following state right to know lists: California, New Jersey, Pennsylvania, Minnesota, Massachusetts.

#### California Prop 65

California No Significant Risk Level: None of the chemicals in this product are listed.

### European/International Regulations

#### European Labeling in Accordance with EC Directives

#### Hazard Symbols:

Not available.

**Risk Phrases:**

**Safety Phrases:**

**WGK (Water Danger/Protection)**

CAS# 7732-18-5: No information available.

CAS# 64-19-7: 1

**Canada - DSL/NDSL**

CAS# 7732-18-5 is listed on Canada's DSL List.

CAS# 64-19-7 is listed on Canada's DSL List.

**Canada - WHMIS**

This product has a WHMIS classification of E.

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all of the information required by those regulations.

**Canadian Ingredient Disclosure List**

CAS# 64-19-7 is listed on the Canadian Ingredient Disclosure List.

**Section 16 - Additional Information**

**MSDS Creation Date:** 7/22/1999

**Revision #5 Date:** 9/26/2007

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