

DATE: 03/06/03  
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ACCT: 756607001  
CAT NO: A35500

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\*\*\*\* MATERIAL SAFETY DATA SHEET \*\*\*\*

Acetic Acid, Glacial  
00120

\*\*\*\* SECTION 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION \*\*\*\*

MSDS Name: Acetic Acid, Glacial

Catalog Numbers:  
S70048, S70048-1SC, S70048SC, A35-500, A35500LC, A38-212, A38-450LB,  
A38-500, A38-56LB, A38500LC, A38C-2.5, A38C-212, A38C212EA, A38FP500,  
A38J500, A38P-20, A38P500, A38S-2.5, A38S-212, A38S-500, A38S212EA,  
A38SI-212, A465-1, A465-250, A490-212, A491-212, A49120, A4914, A491SAM1,  
A491SAM2, A491SAM3, A492-200L, A492-20L, A492-212L, A492-500, A507-212,  
A507-500, BP1185-212, BP1185-500, BP1185-PP20, BP2400-500, BP2401-212,  
BP2401-500, BP2401C-212, BP2401P-20, BP2401S-212, BP2401S-500, BP2401SI-212,  
BP2401SI21, NC9011470, NC9532182, NC9776814, NC9776815, S70048-1MF\*,  
S70048-1SCMF, S70048-2MF, S700481MF, S700481SC, S700481SCMF, S700482MF,  
XXA4902-SLI, XXA490EP450L

Synonyms:

Ethanoic acid; Ethylic acid; Glacial acetic acid; Methanecarboxylic acid; Vinegar acid.

Company Identification: Fisher Scientific  
1 Reagent Lane  
Fairlawn, 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	%	EINECS#
64-19-7	Acetic acid	ca.100	200-580-7

Hazard Symbols: C  
Risk Phrases: 10 35

\*\*\*\* SECTION 3 - HAZARDS IDENTIFICATION \*\*\*\*

EMERGENCY OVERVIEW

Appearance: colorless liquid liquid. Flash Point: 39 deg C.  
Danger! Flammable liquid and vapor. May be harmful if absorbed through the skin. Corrosive. Causes severe eye and skin burns. Causes severe digestive and respiratory tract burns. Acetic acid forms ice-like solid below 62&F (17&C).  
Target Organs: Teeth, eyes, skin, mucous membranes.

Potential Health Effects

Eye:

Causes severe eye irritation. Contact with liquid or vapor causes severe burns and possible irreversible eye damage.

Skin:

Causes skin burns. May be harmful if absorbed through the skin. Contact with the skin may cause blackening and hyperkeratosis of the skin of the hands.

Ingestion:

May cause severe and permanent damage to the digestive tract. Causes severe pain, nausea, vomiting, diarrhea, and shock. May cause polyuria, oliguria and anuria. Rapidly absorbed from the gastrointestinal tract.

Inhalation:

Effects may be delayed. Causes chemical burns to the respiratory tract. Exposure may lead to bronchitis, pharyngitis, and dental erosion. May be absorbed through the lungs.

Chronic:

Chronic exposure to acetic acid may cause erosion of dental enamel, bronchitis, eye irritation, darkening of the skin, and chronic inflammation of the respiratory tract. Acetic acid can cause occupational asthma. One case of a delayed asthmatic response to glacial acetic acid has been reported in a person with bronchial asthma. Skin sensitization to acetic acid is rare, but has occurred.

\*\*\*\* SECTION 4 - FIRST AID MEASURES \*\*\*\*

Eyes:

In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical aid immediately.

Skin:

In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical aid immediately. Wash clothing before reuse.

Ingestion:

If swallowed, do NOT induce vomiting. Get medical aid immediately. If victim is fully conscious, give a cupful of water. Never give anything by mouth to an unconscious person.

Inhalation:

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If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid.  
Notes to Physician:

Persons with pre-existing skin disorders or impaired respiratory or pulmonary function may be at increased risk to the effects of this substance. Treat symptomatically and supportively.

\*\*\*\* SECTION 5 - FIRE FIGHTING MEASURES \*\*\*\*

General Information:

Vapors may form an explosive mixture with air. Use water spray to keep fire-exposed containers cool. 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. Flammable liquid and vapor. May be ignited by friction, heat, sparks, or flame. Vapors are heavier than air and may travel to a source of ignition and flash back. Vapors can spread along the ground and collect in low or confined areas.

Extinguishing Media:

For small fires, use dry chemical, carbon dioxide, water spray or alcohol-resistant foam. Use water spray to cool fire-exposed containers. For large fires, use water spray, fog or alcohol-resistant foam.

Autoignition Temperature: 426 deg C ( 798.80 deg F)

Flash Point: 39 deg C ( 102.20 deg F)

Explosion Limits, lower: 4.0 vol %

Explosion Limits, upper: 19.9 vol %

NFPA Rating: (estimated) Health: 3; Flammability: 2; Instability: 0

\*\*\*\* SECTION 6 - ACCIDENTAL RELEASE MEASURES \*\*\*\*

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

Spills/Leaks:

Use water spray to dilute spill to a non-flammable mixture. Avoid runoff into storm sewers and ditches which lead to waterways. Wash area with soap and water. Use water spray to disperse the gas/vapor. Remove all sources of ignition. Use a spark-proof tool. Provide ventilation. Cover with material such as dry soda ash or calcium carbonate and place into a closed container for disposal. A vapor suppressing foam may be used to reduce vapors.

\*\*\*\* SECTION 7 - HANDLING and STORAGE \*\*\*\*

Handling:

Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Use only in a well-ventilated area. Empty containers retain product residue, (liquid and/or vapor), and can be dangerous. Avoid contact with heat, sparks and flame. Do not get on skin or in eyes. Do not ingest or inhale. Discard contaminated shoes. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose empty containers to heat, sparks or open flames.

Storage:

Keep away from heat, sparks, and flame. Keep from freezing. Keep from contact with oxidizing materials. Store in a cool, dry, well-ventilated area away from incompatible substances. Corrosives area. Do not store near alkaline substances. Acetic acid should be kept above its freezing point (62&F), since it will expand as it solidifies and may break container.

\*\*\*\* 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 general or local exhaust ventilation to keep airborne concentrations below the permissible exposure limits.

Chemical Name	Exposure Limits		
	ACGIH	NIOSH	OSHA - Final PELs
Acetic acid	10 ppm STEL 15 ppm TWA	10 ppm TWA; 25 mg/m3 TWA 50 ppm IDLH	10 ppm TWA; 25 mg/m3 TWA

OSHA Vacated PELs:

Acetic acid:  
10 ppm TWA; 25 mg/m3 TWA

Personal Protective Equipment

Eyes: Wear chemical goggles.

Skin: Wear appropriate gloves to prevent skin exposure.

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United Kingdom Maximum Exposure Limits

Canada

CAS# 64-19-7 is listed on Canada's DSL List.  
This product has a WHMIS classification of B3, E.  
CAS# 64-19-7 is listed on Canada's Ingredient Disclosure List.

Exposure Limits

CAS# 64-19-7: OEL-AUSTRALIA:TWA 10 ppm (25 mg/m<sup>3</sup>);STEL 15 ppm (37 mg/m<sup>3</sup>)  
OEL-AUSTRIA:TWA 10 ppm (25 mg/m<sup>3</sup>)  
OEL-BELGIUM:TWA 10 ppm (25 mg/m<sup>3</sup>);STEL 15 ppm (37 mg/m<sup>3</sup>)  
OEL-CZECHOSLOVAKIA:TWA 25 mg/m<sup>3</sup>;STEL 50 mg/m<sup>3</sup>  
OEL-DENMARK:TWA 10 ppm (25 mg/m<sup>3</sup>)  
OEL-FINLAND:TWA 10 ppm (25 mg/m<sup>3</sup>);STEL 15 ppm (37 mg/m<sup>3</sup>);Skin  
OEL-FRANCE:STEL 10 ppm (25 mg/m<sup>3</sup>)  
OEL-GERMANY:TWA 10 ppm (25 mg/m<sup>3</sup>)  
OEL-HUNGARY:TWA 10 mg/m<sup>3</sup>;STEL 20 mg/m<sup>3</sup>  
OEL-INDIA:TWA 10 ppm (25 mg/m<sup>3</sup>);STEL 15 ppm (37 mg/m<sup>3</sup>)  
OEL-JAPAN:TWA 10 ppm (25 mg/m<sup>3</sup>)  
OEL-THE NETHERLANDS:TWA 10 ppm (25 mg/m<sup>3</sup>)  
OEL-THE PHILIPPINES:TWA 10 ppm (25 mg/m<sup>3</sup>)  
OEL-POLAND:TWA 5 mg/m<sup>3</sup>  
OEL-RUSSIA:TWA 10 ppm;STEL 5 mg/m<sup>3</sup>;Skin  
OEL-SWEDEN:TWA 10 ppm (25 mg/m<sup>3</sup>);STEL 15 ppm (35 mg/m<sup>3</sup>)  
OEL-SWITZERLAND:TWA 10 ppm (25 mg/m<sup>3</sup>);STEL 20 ppm (50 mg/m<sup>3</sup>)  
OEL-THAILAND:TWA 10 ppm (25 mg/m<sup>3</sup>)  
OEL-TURKEY:TWA 10 ppm (25 mg/m<sup>3</sup>)  
OEL-UNITED KINGDOM:TWA 10 ppm (25 mg/m<sup>3</sup>);STEL 15 ppm (35 mg/m<sup>3</sup>)  
OEL IN BULGARIA, COLOMBIA, JORDAN, KOREA check ACGIH TLV  
OEL IN NEW ZEALAND, SINGAPORE, VIETNAM check ACGI TLV

\*\*\*\* SECTION 16 - ADDITIONAL INFORMATION \*\*\*\*

MSDS Creation Date: 7/21/1999 Revision #6 Date: 6/12/2002

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no way shall the company be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if the company has been advised of the possibility of such damages.

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