

Carolina Biological Supply Co. Catalog No.:841292  
MATERIAL SAFETY DATA SHEET

EM SCIENCE

|1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

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Manufacturer.....: Preparation Date.: 7/21/00  
EM SCIENCE  
A Division of EM Industries Information Phone Number.: 856-423-6300  
P.O. Box 70 Hours: Mon. to Fri. 8:30-5  
480 Democrat Road Chemtrec Emergency Number: 800-424-9300  
Gibbstown, N.J. 08027 Hours: 24 hrs a day

Catalog Number(s):

55 AX0072 AX0073 AX0073I AX0076 AX0071 AX0073Y  
AX0073P 62 AX0073T AX0073TP AX0079 AX0073PS AX0074  
0000567W 00005687 ACS003

Product Name:  
Acetic Acid  
Synonyms:  
Ethanoic Acid; Glacial Acetic Acid  
Chemical Family:  
Organic Acid  
Formula:  
CH<sub>3</sub>COOH  
Molecular Weight.:  
60.05

2. COMPOSITION / INFORMATION ON INGREDIENTS

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Component	CAS #	Appr %
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Acetic Acid

64-19-7 100%

### 3. HAZARDS IDENTIFICATION

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#### EMERGENCY OVERVIEW

CAUSES SEVERE BURNS.

MAY BE FATAL IF SWALLOWED.

HARMFUL IF INHALED.

May Cause Damage To Respiratory Passages and Lungs.

FLAMMABLE LIQUID AND VAPOR.

#### Appearance:

Clear, colorless liquid, pungent odor

#### POTENTIAL HEALTH EFFECTS (ACUTE AND CHRONIC)

#### Symptoms of Exposure:

Contact causes severe burns, eye damage. Vapor inhalation causes lachrymation, severe irritation of respiratory passages; bronchitis, pulmonary edema and chemical pneumonitis may occur. May be fatal if swallowed.

#### Medical Cond. Aggravated by Exposure:

Respiratory conditions

#### Routes of Entry:

Inhalation, ingestion or skin contact.

#### Carcinogenicity:

The material is not listed (IARC, NTP, OSHA) as cancer causing agent.

### 4. FIRST AID MEASURES

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#### Emergency First Aid:

GET MEDICAL ASSISTANCE FOR ALL CASES OF OVEREXPOSURE.

Skin: Immediately flush thoroughly with large amounts of water.

Eyes: Immediately flush thoroughly with water for at least 15

minutes.

Inhalation: Remove to fresh air; give artificial respiration if breathing has stopped.

Ingestion: Do not induce vomiting; if conscious, give water freely and get medical attention.

Remove contaminated clothing and wash before reuse.

## 5. FIRE FIGHTING MEASURES

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Flash Point (F): 109F (cc)

Flammable Limits LEL (%): 5.40

Flammable Limits UEL (%): 16.00

Extinguishing Media:

Use water spray, foam, dry chemical, or CO<sub>2</sub>.

Fire Fighting Procedures:

Wear self-contained, positive pressure, breathing apparatus.

Wear acid-resistant protective suit (full face shield) with rubber boots and gloves.

Fire & Explosion Hazards:

Moderate fire and explosion hazard. Vapor can travel distances to ignition source and flash back.

## 6. ACCIDENTAL RELEASE MEASURES

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Spill Response:

Evacuate the area of all unnecessary personnel. Wear suitable protective equipment listed under Exposure / Personal Protection. Eliminate any ignition sources until the area is determined to be free from explosion or fire hazards.

Contain the release and eliminate its source, if this can be done without risk.

Take up and containerize for proper disposal as described under Disposal.

Comply with Federal, State, and local regulations on reporting releases. Refer to Regulatory Information for reportable quantity and other regulatory data.

EM SCIENCE recommends SPILL-X neutralizers and absorbent agents for various types of spills. Additional information on the SPILL-X products can be provided through the EM SCIENCE Technical Service Department (856) 423-6300. The following EM SCIENCE SPILL-X neutralizer and absorbent is recommended for this product:

SX0861 Spill-X-A Acid Spill Treatment Kit

## 7. HANDLING AND STORAGE

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### Handling & Storage:

Keep container tightly closed. Store above 62F, but away from direct heat, ignition sources and oxidizers. Do not breathe vapor. Retained residue may make empty containers hazardous; use caution! Do not get in eyes, on skin, or on clothing.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

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### ENGINEERING CONTROLS AND PERSONAL PROTECTIVE EQUIPMENT:

Ventilation, Respiratory Protection, Protective Clothing, Eye Protection:

Respiratory Protection: If workplace exposure limit(s) of product or any component is exceeded (see TLV/PEL), a NIOSH/MSHA approved air supplied respirator is advised in absence of proper environmental control. OSHA regulations also permit other NIOSH/MSHA respirators (negative pressure type) under specified conditions (see your safety equipment supplier). Engineering and/or administrative controls should be implemented to reduce exposure. Material must be handled or transferred in an approved fume hood or with equivalent ventilation. Protective gloves (Natural rubber, Neoprene, PVC or equivalent) must be worn to prevent skin contact. Safety glasses with side shields must be worn at all times. Impervious protective clothing should be worn to prevent skin contact.

### Work/Hygenic Practices:

Wash thoroughly after handling. Do not take internally. Eye wash and safety equipment should be readily available.

## EXPOSURE GUIDELINES

### OSHA - PEL:

	TWA	STEL	CL				
Component	PPM	MG/M3	PPM	MG/M3	PPM	MG/M3	Skin

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Acetic Acid							
	10	25					

### ACGIH - TLV:

Component	TWA	STEL	CL		PPM	MG/M3	Skin
	PPM	MG/M3	PPM	MG/M3			
Acetic Acid	10	25	15	37			

If there are no exposure limit numbers listed in the Exposure Guidelines chart, this indicates that no OSHA or ACGIH exposure limits have been established.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

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Boiling Point (C 760 mmHg) : 118.1C

Melting Point (C) : 16.7C

Specific Gravity (H2O = 1) : 1.049

Vapor Pressure (mm Hg) : 11.4 20C

Percent Volatile by vol (%) : 100%

Vapor Density (Air = 1) : 2.07

Evaporation Rate (BuAc = 1) : 0.97

Solubility in Water (%) : Miscible

Appearance :

Clear, colorless liquid, pungent odor

## 10. STABILITY AND REACTIVITY

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Stability: Yes

Hazardous Polymerization:

Does not occur

Hazardous Decomposition:

COx

Conditions to Avoid:

Heat; contact with ignition sources. Diluted acid reacts with metals to produce flammable hydrogen gas.

Materials To Avoid:

( ) Water

( ) Acids

( ) Bases

- ( ) Corrosives
- (X) Oxidizers
- (X) Other: Strong alkalies, metals, amines, cyanides, sulfides, chromic acid, nitric acid, hydrogen peroxide, carbonates

## 11. TOXICOLOGICAL INFORMATION

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### Toxicity Data

ihl-mus LC50: 5620 ppm/1H orl-rat LD50: 3310 mg/kg  
skin-rbt LD50: 1060 mg/kg

### Toxicological Findings:

Test on laboratory animals indicate material may produce adverse mutagenic and reproductive effects.

Cited in Registry of Toxic Effects of Chemical Substances (RTECS)

## 12. DISPOSAL CONSIDERATIONS

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EPA Waste Numbers: D002 D001

### Treatment:

Specified Technology - Neutralize to pH 6-9. Contact your local permitted waste disposal site (TSD) for permissible treatment sites.

**ALWAYS CONTACT A PERMITTED WASTE DISPOSER (TSD) TO ASSURE COMPLIANCE WITH ALL CURRENT LOCAL, STATE AND FEDERAL REGULATIONS.**

## 13. TRANSPORT INFORMATION

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### DOT Proper Shipping Name:

Acetic Acid, Glacial

DOT ID Number :  
UN2789

#### 14. REGULATORY INFORMATION

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TSCA Statement:

The CAS number of this product is listed on the TSCA Inventory.

Component	SARA EHS (302)	SARA EHS (lbs)	CERCLA TPQ (lbs)	RQ
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Acetic Acid			5000	
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Component	OSHA Floor List	SARA 313 (%)	DeMinimis for SARA 313
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Acetic Acid			
	Y		

If there is no information listed on the regulatory information chart, this indicates that the chemical is not covered by the specific regulation listed.

#### 15. OTHER INFORMATION

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Comments:  
None

NFPA Hazard Ratings:

Health : 3  
Flammability : 2  
Reactivity : 0  
Special Hazards :

Revision History: 3/20/00 8/1/81 9/1/83 9/12/86  
1/29/87 10/27/87 11/28/88 1/10/89 2/13/89 3/1/91  
11/26/91 12/3/92 3/3/94 10/13/95 1/13/97 10/23/97  
1/29/98 8/26/98

| = Revised Section

N/A = Not Available

N/E = None Established

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