

MATERIAL SAFETY DATA SHEET

ACS GRADE
CAROLINA BIOLOGICAL

Revised: 10/13/09
Replaces: 04/10/08
Printed: 03/06/10

1. PRODUCT DESCRIPTION

Product Name: Acetic Acid, Glacial
Product Code(s): 84-1288,84-1290,84-1291,84-1292,84-1293,84-1135,
17-4100,84-0490,84-0480
Size: 15 ml, 100 ml, 500 ml, 2.5 L
Chemical Name: Acetic Acid
CAS Number: 64-19-7
Formula: CH₃COOH
Synonyms: Ethanoic Acid
Distributor: Carolina Biological Supply Company
2700 York Road
Burlington, NC 27215

Chemical Information: 800-227-1150 (8am-5pm (ET) M-F)
Chemtrec (Transportation Spill Response 24 hours): 800-424-9300

2. COMPOSITION/INFORMATION ON INGREDIENTS

Principal Hazardous Components: Acetic Acid (CAS#64-19-7) 100%
TLV and PEL units: ACGIH-TLV 10ppm(TWA), 15ppm (STEL)
OSHA-PEL 10ppm(TWA); 25 mg/m³ (TWA)

3. HAZARD IDENTIFICATION

Emergency Overview: Causes severe burns; avoid skin and eye contact. Causes extreme damage to mouth, esophagus, and digestive tract if swallowed; do not ingest. Harmful if inhaled; may cause respiratory tract and lung damage. Avoid exposure to vapors or mists.

Potential Health Effects:

Eyes: Causes severe burns and eye damage upon direct contact. Vapor is irritating.

Skin: Causes severe burns.

Ingestion: Causes severe burns in mouth, esophagus, and digestive tract.

Inhalation: Vapors irritating to and may damage mucous membranes and respiratory tract.

4. FIRST AID MEASURES

Emergency and First Aid Procedures:

Eyes - Flush with water for at least 15 minutes, raising and lowering eyelids occasionally. Get medical attention at once.

Skin - Thoroughly wash exposed area for at least 15 minutes. Remove contaminated clothing. Launder contaminated clothing before reuse. Get medical attention at once.

Ingestion - Do not induce vomiting. If swallowed, if conscious, give water immediately and get medical attention at once. Never give anything by mouth to an unconscious person.

Inhalation - Remove to fresh air. Give oxygen if breathing is difficult; give artificial respiration if breathing has stopped. Keep person warm and quiet, and get medical attention at once.

5. FIREFIGHTING PROCEDURES

Flash Point(Method Used):104°F (39°C)(cc)

NFPA Rating: Health: 3
Fire: 2
Reactivity: 0

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Extinguisher Media:

Use dry chemical, CO2 or appropriate foam.

Flammable Limits in Air % by Volume: 4%LEL 19.9%UEL

Autoignition Temperature: 463°C

Special Firefighting Procedures:

Firefighters should wear full protective equipment and NIOSH approved self-contained breathing apparatus.

Unusual Fire and Explosion Hazards: No data available

6. SPILL OR LEAK PROCEDURES

Steps to be Taken in Case Material is Released or Spilled:

Ventilate area of spill. Eliminate all sources of ignition. Remove all non-essential personnel from area. Clean-up personnel should wear proper protective equipment and clothing. Absorb material with suitable absorbent and containerize for disposal.

7. SPECIAL PRECAUTIONS

Precautions to be Taken in Handling or Storing: Store above 62F, away from direct heat, ignition sources and oxidizers. Do not breathe vapor. Other Precautions: Do not reuse container. Residue may make empty containers dangerous.

8. SPECIAL PROTECTION INFORMATION

Respiratory Protection(Specify Type):

A NIOSH/MSHA chemical cartridge respirator should be worn if PEL or TLV is exceeded.

Ventilation:

Local Exhaust: Preferred. Use hood, local exhaust, or other engineering controls to keep airborne levels below PEL or TLV.

Mechanical(General): Acceptable if air exchange is sufficient to maintain airborne levels below PEL or TLV.

Special: No

Other: No

Protective Gloves: Natural rubber, Neoprene, PVC or equivalent.

Eye Protection: Splash proof chemical safety goggles and face shield should be worn.

Other Protective Clothing or Equipment: Lab coat, apron, boots, eye wash, safety shower.

9. PHYSICAL DATA

| | |
|-----------------------------|---|
| Molecular Weight: | 44.05 |
| Melting Point: | -123.37°C |
| Boiling Point: | 20.1°C |
| Vapor Pressure: | 1006 hPa at 20°C |
| Vapor Density(Air=1): | 1.52 |
| Specific Gravity(H2O=1): | 0.7834 @ 18°C |
| Percent Volatile by Volume: | 100 |
| Evaporation Rate(BuAc=1): | 49.1 |
| Solubility in Water: | Miscible |
| Appearance and Odor: | Colorless liquid with fruity, pungent odor. |

10. REACTIVITY DATA

Stability: Very reactive and unstable, easily oxidized or reduced.

Reactions may be violent; forms acetic acid, releases heat, when exposed

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to air and moisture. May form unstable, explosive peroxides. May polymerize and release much heat.

Conditions to Avoid: Heat, ignition sources, air, moisture, incompatibles.

Incompatibility(Materials to Avoid): Oxidizers, strong alkalies, metals, amines, cyanides, sulfides, chromic acid, nitric acid, hydrogen peroxide, carbonates.

Hazardous Decomposition Products: COx

Hazardous Polymerization: Will not occur

11. TOXICITY DATA

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

Effects of Overexposure:

Acute: See section 3

Chronic: Mutation and reproductive effects data cited. Not listed as causing cancer by IARC, NTP, or OSHA.

Conditions Aggravated by Overexposure: Respiratory conditions

Target Organs: Eyes, skin, and respiratory tract.

Primary Route(s) of Entry: Inhalation, ingestion or skin contact.

12. ECOLOGICAL DATA

EPA Waste Numbers: D002 D001

13. DISPOSAL INFORMATION

Waste Disposal Methods: Dispose in accordance with all applicable Federal, State and Local regulations.

Always contact a permitted waste disposer (TSD) to assure compliance.

14. TRANSPORT INFORMATION

Proper Shipping Name: Acetic Acid, Glacial, 8, UN2789, II

15. REGULATORY INFORMATION

EPA TSCA Status: On the TSCA Inventory List.

Hazard Category for SARA Section 311/312 Reporting: Acute

| Product or Components | SARA EHS Sec. 302 TPQ | SARA Sec. 313 Chemicals | | CERCLA Sec. 103 RQ lbs. | RCRA Sec. 261.33 |
|--------------------------|-----------------------------|----------------------------|---------------------------|-------------------------------|------------------------|
| | | Name | Chemical List Category | | |
| Acetic Acid | No | No | No | 5000 | No |

16. ADDITIONAL INFORMATION

The information provided in this Material Safety Data Sheet represents a compilation of data drawn directly from various sources available to us. Carolina Biological Supply makes no representation or guarantee as to the suitability of this information to a particular application of the substance covered in the Material Safety Data Sheet. Any employer must carefully assess the applicability of any information contained herein in regards to the particular use to which the employer puts the material.

Glossary

ACGIH.....American Conference of Governmental Industrial Hygienists

CAS Number..Chemical Abstracts Service Number

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CERCLA.....Comprehensive Environmental Response, Compensation, and Liability Act
DOT.....U.S. Department of Transportation
IARC.....International Agency of Research on Cancer
mppcf.....million particles per cubic foot
N/A.....Not Available
NTP.....National Toxicology Program
OSHA.....Occupational Safety and Health Administration
PEL.....Permissible Exposure Limit
ppm.....parts per million
RCRA.....Resource Conservation and Recovery Act
SARA.....Superfund Amendments and Reauthorization Act
TLV.....Threshold Limit Value
TSCA.....Toxic Substances Control Act