

Glacial Acetic Acid

1. Identification

Product Name: Glacial Acetic Acid

Item #: C8551

Synonyms: Acetic Acid, GAA, Ethanoic acid, Methanecarboxylic acid

Recommended Use: N/A

Restrictions on Use: N/A

Manufacturer:

 Cancer Diagnostics, Inc.
 116 Page Point Circle
 Durham, NC 27703
 1-877-846-5393

In Case of Emergency:

 Chemtrec US 1-800-424-9300
 Infotrac International 1-352-323-3500

2. Hazards Identification

OSHA Hazard Classification(s):

Acute Toxicity - Inhalation - Category 3

Acute Toxicity - Dermal - Category 4

Skin Corrosion - Category 1A

Eye Damage - Category 1

Flammable Liquids - Category 3

Signal Word: Danger

Hazard Statement(s): Toxic if inhaled. Harmful in contact with skin. Causes severe skin burns and eye damage. Causes serious eye damage. Flammable liquid and vapor.

Pictogram(s):

Precautionary Statement(s): Prevention: Avoid breathing dust, vapors. Use only outdoors or in a well-ventilated area. Wear protective gloves and protective clothing. Do not breathe dusts or mists. Wash body thoroughly after handling. Wear protective gloves, protective clothing, eye protection and face protection. Wear eye protection, face protection. Keep away from heat sources and open flame. No smoking. Keep container tightly closed. Ground/bond container and receiving equipment. Use explosion-proof electrical, ventilating, lighting and equipment. Use only non-sparking tools. Take precautionary measures against static discharge.

Response: If inhaled: Remove person to fresh air and keep comfortable for breathing. Call a doctor. Specific treatment (see first aid section on this label). If on skin: Wash with plenty of water. Call a doctor if you feel unwell. Take off immediately all contaminated clothing and wash it before reuse. If swallowed: Rinse mouth. Do NOT induce vomiting. If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. Take off all contaminated clothing and wash it before reuse. Immediately call a doctor. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue Rinsing. In case of fire: Use water, dry chemical, CO2 or foam to extinguish.

Storage: Store in a well-ventilated place. Keep container tightly closed. Store locked up. Keep cool.

Disposal: Dispose of contents/container in accordance with local regulations.

Descriptions of Hazards not otherwise classified: N/A

Percent of mixture with unknown acute toxicity: N/A

3. Composition and Information on Ingredients

Chemical Name	Common Name	CAS #	Concentration %
Glacial Acetic Acid	Ethanoic Acid	64-19-7	99.5-100

4. First Aid Measures

Eye Contact: If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention immediately.

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Skin Contact: If on skin (or hair): Take off immediately all contaminated clothing and wash before reuse. Wash with plenty of water. If skin irritation occurs: Get medical advice/attention immediately.

Inhalation: Remove to fresh air; give artificial respiration if breathing has stopped. Get medical advice/attention immediately.

Ingestion: Do not induce vomiting. If vomiting occurs spontaneously, keep head below hips to prevent aspiration of liquid into the lungs. Get medical attention immediately.

Symptoms: Irritation of eyes, skin; nose, throat; cough, sore throat, eye, skin burns; blisters, skin sensitization; dental erosion; black skin, hyperkeratosis; conjunctivitis, lacrimation; headache, dizziness; shortness of breath, pharyngeal edema; chronic bronchitis; pulmonary edema (may be delayed); loss of vision; INGES. ACUTE: Abdominal pain, burning sensation, vomiting, diarrhea; hemolysis, hemoglobinuria, kidney failure; shock or collapse

Recommendations for immediate medical care/special treatment: Get medical advice/attention if you feel unwell or think you have been exposed.

5. Fire- Fighting Measures

Extinguishing Media: Dry chemical, carbon dioxide, alcohol foam, water. Use water spray to cool fire-exposed containers and disperse vapors.

Fire Hazards (Chemical): OSHA classified Flammable Liquid Category 3

Special Protective Equipment: Fire fighters should use self-contained breathing apparatus and protective clothing.

Precautions for Firefighters: Fire fighters should use self-contained breathing apparatus and protective clothing.

6. Accidental Release Measures

Emergency Procedures: Evacuate the area of all unnecessary personnel. Wear suitable protective equipment. Eliminate all sources of ignition and provide ventilation.

Protective Equipment: See section 8

Environmental Precautions: Prevent release to the environment by using barriers.

Containment and Clean-Up Procedures: Use barriers to prevent spreading. Collect spill in container. Call waste authorities.

7. Handling and Storage

Handling: Do not breathe vapors. Do not eat, drink or smoke when using this product. Keep away from heat, sparks, open flames, hot surfaces. Keep container tightly closed. Ground/Bond container and receiving equipment. Use explosion-proof electrical, ventilating, and lighting equipment. Use only non-sparking tools. Take precautionary measures against static discharge.

Storage: Store in a well-ventilated place. Keep container tightly closed. Store locked up. Keep cool.

8. Exposure Controls/Personal Protection

OSHA Permissible Exposure Limits (PELs):

Reagent	CAS #	OSHA PEL TWA
Glacial Acetic Acid	64-19-7	10 ppm, 25 mg/m ³

ACGIH Threshold Limit Values (TLVs):

Reagent	CAS #	ACGIH PEL TLV	ACGIH STEL
Glacial Acetic Acid	64-19-7	10 ppm, 25 mg/m ³	15 ppm, 37 mg/m ³

Engineering Controls: Use in a well ventilated area to prevent exposure. Maintain eyewash fountain and quick-drench facilities in work areas.

Personal Protective Measures: Wear gloves, lab coat, eye protection and impervious footwear. Contact lenses should not be worn when working with this material.

Special PPE Requirements: If ventilation hood not available wear respirator.

9. Physical and Chemical Properties Section

Appearance: Colorless, Liquid

Glacial Acetic Acid

Molecular Weight: 60.05
Molecular Formula: C₂H₄O₂
pH: 2.4
Boiling Point and Boiling Range: 244 to 246 °F
Melting Point/Freezing Point: 61 to 62 °F
Flash Point: 104 °F
Specific Gravity/Relative Density: 1.05 (20°C)
Odor: Vinegar like
Odor Threshold: 0.48ppm
Color: Colorless
Flammability (solid/gas): Flammable Liquid
Vapor Density: 2.1
Upper/Lower flammability or explosive limits: LEL: 4%, UEL: 16%
Vapor Pressure: 20°C; 15.2mbar
Evaporation Rate: 0.87 (n-butyl acetate=1)
Partition Coefficient: n-octanol/water: N/A
Viscosity: 1.22 mPa s
Auto-ignition temperature: 801 °F
Solubility: Miscible with water
Decomposition Temperature: 824 °F

10. Stability and Reactivity

Reactivity: N/A
Chemical Stability: Stable
Conditions of Stability/Instability: Avoid exposure to heat, open flame or other sources of ignition. Flammable liquid and vapor.
Stabilizers needed: None
Safety issue indicated by appearance change: N/A
Other: N/A
Hazardous Reactions: N/A
Hazardous Polymerization: Does not occur
Conditions to avoid: When heated above 440 °C (824 °F), acetic acid decomposes to produce carbon dioxide and methane, or to produce ketene and water
Classes of Incompatible Materials: Oxidizers, Strong Acids, Strong Bases. Mildly corrosive to metals including iron, magnesium, and zinc, forming hydrogen gas and salts called acetates
Hazardous Decomposition Products: Thermal-oxidation degradation can produce oxides of carbon. Toxic gases and vapors (i.e. Carbon monoxide) may be released in a fire.

11. Toxicological Information

Likely Routes of Exposure

Eyes: Solution is corrosive to eyes. May cause irritation, pain, redness and/or permanent corneal damage. Vapors are corrosive to the eyes and may cause irritation, pain and redness.

Skin: Solution is corrosive to skin. May cause pain, dryness, redness and/or permanent scarring. Vapors are corrosive to skin and may cause irritation or dryness.

Inhalation: Vapors are harmful. May cause irritation to lungs, dizziness, headaches and/or permanent lung damage. May cause asthma or irritate current asthma conditions.

Ingestion: Poison by ingestion. Corrosive to tissue. May cause corrosive burns to mouth, throat, stomach and gastrointestinal tract. May cause dental erosion or yellowing of teeth.

Signs or Symptoms of Exposure: Irritation of eyes, skin; nose, throat; cough, sore throat, eye, skin burns; blisters, skin

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sensitization; dental erosion; black skin, hyperkeratosis; conjunctivitis, lacrimation; headache, dizziness; shortness of breath, pharyngeal edema; chronic bronchitis; pulmonary edema (may be delayed); loss of vision; INGES. ACUTE: Abdominal pain, burning sensation, vomiting, diarrhea; hemolysis, hemoglobinuria, kidney failure; shock or collapse

Effects from short term exposure (delayed, immediate, chronic): Irritation to the eyes, nose, throat, skin; headache, dizziness, nausea. Asthma, Lung damage. Affected organs: Eyes, skin, respiratory system, teeth

Acute Toxicity (Numerical Measures): LD50 (mammal, skin)=1060mg/kg; LD50 (rabbit, skin)=1060 mg/kg; LC50(inhalation, mouse)=5620 ppm/1H; LC50(inhalation, mouse)=5620 mg/m³/1H

Carcinogenicity (NTP, IARC, OSHA): Not listed as a carcinogen.

12. Ecological Information

Ecotoxicity: Acute Aquatic Effects Data for 100% Glacial Acetic Acid 96 h LC-50 (fathead minnow): > 100mg/L 48 h LC-50 (golden orfe): 410 mg/L 48 h LC-50 (mosquito fish): 251 mg/L 96 h LC-50 (daphnid): > 100 mg/L

Persistence and degradability: N/A

Bioaccumulation Potential (octanol-water partition coefficient, BCF): Oxygen Demand Data for 100% Glacial Acetic Acid BOD-5: 340-880 mg/g BOD-20: 900 mg/g COD: 1,030 mg/g

Mobility in the soil: N/A

Adverse Environmental Effects: This material is a strongly acidic aqueous solution, and this property may cause adverse environmental effects.

13. Disposal Considerations

Recommended Disposal Containers: Check with your local waste authorities*

Recommended Disposal Methods: Do not dispose of in drains, check with your local waste authorities.*

Physical/Chemical Properties affecting Disposal: See section 2 and section 9 applicable information.*

Special Precautions for Landfill and Incineration Activities: Check with your local waste authorities.*

Waste Stream: Consult your local or regional authorities.*

14. Transport Information

UN Number: UN2789

UN Proper Shipping Name: Acetic Acid Solution

Transport Hazard Class(es): 8 (3)

Packing Group Number: II

Environmental Hazards (IMDG code):

Marine Pollutant:

Transport in Bulk (IBC Code): N/A

Special Transport Precautions: N/A

15. Regulatory Information

OSHA: N/A

DOT: N/A

EPA: N/A

CPSC: N/A

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16. Other Information

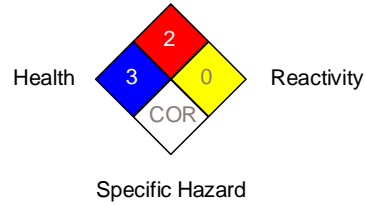
Revision Date: 01/11/2019

NFPA

Health	3
Fire Hazard	2
Reactivity	0
Specific Hazard	COR

National Fire Protection Association (USA) NFPA

Fire Hazard



HMIS

Health	3
Flammability	2
Physical Hazard	0
Personal Protection	

Hazardous Material Information System HMIS

Health	3
Flammability	2
Physical Hazard	0
Personal Protection	

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