

FLINN SCIENTIFIC, INC.

Material Safety Data Sheet (MSDS)

MSDS #: 5.00

Revision Date: April 27, 2010

SECTION 1 — CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Acetic Acid; Glacial

Flinn Scientific, Inc. P.O. Box 219 Batavia, IL 60510 (800) 452-1261

CHEMTREC Emergency Phone Number: (800) 424-9300

SECTION 2 — COMPOSITION, INFORMATION ON INGREDIENTS

Acetic Acid; Glacial (99%)

Synonyms: vinegar acid, ethanoic acid

CAS#: 64-19-7

SECTION 3 — HAZARDS IDENTIFICATION

Clear, colorless liquid with a strong vinegar odor.

Corrosive; causes severe burns to eyes and skin. Fumes can be suffocating. Toxic by ingestion, inhalation, and skin absorption.

Class II Combustible liquid.

FLINN AT-A-GLANCE

Health-2

Flammability-2

Reactivity-2

Exposure-3

Storage-3

0 is low hazard, 3 is high hazard

SECTION 4 — FIRST AID MEASURES

Call a physician and seek medical attention for further treatment, observation, and support after first aid.

Inhalation: Remove to fresh air at once. If breathing has stopped, give artificial respiration immediately.

Eye: Immediately flush with fresh water for at least 15 minutes.

External: Wash continuously with fresh water for at least 15 minutes.

Internal: Give large quantities of water. May also give gastric antacids such as milk of magnesia. Do not induce vomiting. Call a physician or poison control at once.

SECTION 5 — FIRE FIGHTING MEASURES

Class II combustible liquid. When heating to decomposition, emits irritating fumes.

Flash Point: 104 °F (CC) Upper: 19.9% Lower: 4.0% Autoignition Temperature: 867 °F

Fire Fighting Instructions: Use a triclass, dry chemical fire extinguisher. Firefighters should wear PPE and SCBA with full facepiece operated in positive pressure mode.

NFPA CODE

H-3

F-2

R-0

SECTION 6 — ACCIDENTAL RELEASE MEASURES

Restrict unprotected personnel from the area. Remove all ignition sources and ventilate area. Contain the spill with sand or other inert absorbent material, neutralize with sodium bicarbonate or calcium hydroxide, and deposit in a sealed bag or container. See Sections 8 and 13 for further information.

SECTION 7 — HANDLING AND STORAGE

Flinn Suggested Chemical Storage Pattern: Organic #1. Store with acids, anhydrides, and peracids. Store away from nitric acid.

Store in a dedicated acid cabinet and away from any source of water. If an acid cabinet is not available, store in a Flinn Saf-Cube.

Use and dispense in a hood. Always add acid to water.

SECTION 8 — EXPOSURE CONTROLS, PERSONAL PROTECTION

Avoid contact with eyes, skin, and clothing. Wear chemical splash goggles, chemical-resistant gloves, and chemical-resistant apron.

Use ventilation to keep airborne concentrations below exposure limits. Always wear a NIOSH-approved respirator with proper cartridges or a positive pressure, air-supplied respirator when handling this material in emergency situations (spill or fire).

Exposure guidelines: TWA 10 ppm, STEL 15 ppm (OSHA, NIOSH)

SECTION 9 — PHYSICAL AND CHEMICAL PROPERTIES

Clear, colorless liquid with a strong vinegar-like odor

Concentration: 17.4 molar; 99%

Solubility: Soluble in water.

Freezes at slightly below room temperature (17 °C).

Formula: CH₃CO₂H Formula Weight: 60.05

Boiling Point: 244 °F (118 °C)

Melting Point: 61 °F (16.2 °C)

Specific Gravity: 1.05

Vapor Density: 2.1

Vapor Pressure: 11 mm at 20 °C

SECTION 10 — STABILITY AND REACTIVITY

Avoid contact with strong oxidizers, especially chromic and nitric acids. Incompatible with metals (except aluminum), alcohols, amines, permanganates, peroxides, hydroxides, oxides, phosphates, and carbonates.

Shelf Life: Indefinite, if stored properly.

SECTION 11 — TOXICOLOGICAL INFORMATION

Acute effects: Harmful liquid, corrosive.

Chronic effects: Respiratory tract inflammation; darkens skin.

Target organs: Mucous membranes, respiratory tract, eyes, and skin.

ORL-RAT LD₅₀: 3310 mg/kg

IHL-MUS LC₅₀: 5620 ppm/1hour

SKN-RBT LD₅₀: 1060 mg/kg

N.A. = Not available, not all health aspects of this substance have been fully investigated.

SECTION 12 — ECOLOGICAL INFORMATION

May be toxic to aquatic life.

Microtox test: If released in water or soil, acetic acid will biodegrade readily.

SECTION 13 — DISPOSAL CONSIDERATIONS

Please consult with state and local regulations.

Flinn Suggested Disposal Method #24a is one option.

SECTION 14 — TRANSPORT INFORMATION

Shipping Name: Acetic Acid, Glacial

Hazard Class: 8, Corrosive, Flammable Liquid

UN Number: UN2789

N/A = Not applicable

SECTION 15 — REGULATORY INFORMATION

TSCA-listed, EINECS-listed (200-580-7). RCRA code D001, D002.

SECTION 16 — OTHER INFORMATION

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**Consult your copy of the *Flinn Science Catalog/Reference Manual*
for additional information about laboratory chemicals.**