Material Safety Data Sheet
Acetic acid, >96%

Section 1 - Hazards Identification

EMERGENCY OVERVIEW

Appearance: clear, colorless liquid. Flash Point: 39 deg C.

**Danger!** Causes severe eye and skin burns. Causes severe digestive and respiratory tract burns. **Flammable liquid and vapor.** May be harmful if absorbed through the skin. Glacial acetic acid solidifies below 62°F (17°C). Corrosive to metal.

**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 (excretion of a diminished amount of urine in relation to the fluid intake) and anuria (complete suppression of urination). 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 2 - 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:** 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 3 - Personal Protection

**Personal Protective Equipment**
- **Eyes:** Wear chemical splash goggles and face shield.
- **Skin:** Wear appropriate gloves to prevent skin exposure.
- **Clothing:** Wear appropriate protective clothing to prevent skin exposure.
- **Respirators:** A respiratory protection program that meets OSHA’s 29 CFR 1910.134 and ANSI Z88.2 requirements or European Standard EN 149 must be followed whenever workplace conditions warrant respirator use.

Section 4 - Physical and Chemical Properties

- **Physical State:** Liquid
- **Appearance:** clear, colorless
- **Odor:** pungent odor - vinegar odor
- **pH:** <.01
- **Boiling Point:** 117-118 deg C
- **Freezing/Melting Point:** 16.6 deg C
- **Decomposition Temperature:** Not available.
- **Solubility:** Soluble.

Section 5 - Stability and Reactivity

- **Chemical Stability:** Stable at room temperature in closed containers under normal storage and handling conditions.
- **Conditions to Avoid:** Ignition sources, excess heat, freezing temperatures, confined spaces. Note: Use great caution in mixing with water due to heat evolution that causes explosive spattering. Always add the acid to water, never the reverse.
- **Incompatibilities with Other Materials:** Metals, strong oxidizing agents, bases, chlorine trifluoride, nitric acid, acetaldehyde, chlorosulfonic acid, oleum, bromine pentafluoride, perchloric acid, potassium tert-butoxide, ethylenimine, 2-aminoethanol, ethylene diamine, phosphorus trichloride, phosphorus isocyanate, chromic acid.
- **Hazardous Decomposition Products:** Carbon monoxide, irritating and toxic fumes and gases, carbon dioxide.
- **Hazardous Polymerization:** Will not occur.