Material Safety Data Sheet
Chloroacetic Acid, Flakes, 99%

Section 1 - Hazards Identification

EMERGENCY OVERVIEW

Appearance: colorless or white solid.

**Danger!** Corrosive. Causes eye and skin burns. Causes digestive and respiratory tract burns. May be harmful if swallowed. May cause central nervous system effects. May cause lung damage. May cause liver and kidney damage.

**Target Organs:** Kidneys, central nervous system, liver.

**Potential Health Effects**

**Eye:** May cause irreversible eye injury. Contact with liquid is corrosive to the eyes and causes severe burns.

**Skin:** Contact with liquid is corrosive and causes severe burns and ulceration.

**Ingestion:** May cause perforation of the digestive tract. Causes severe digestive tract burns with abdominal pain, vomiting, and possible death. May cause corrosion and permanent tissue destruction of the esophagus and digestive tract. May be harmful if swallowed.

**Inhalation:** Inhalation of high concentrations may cause central nervous system effects characterized by nausea, headache, dizziness, unconsciousness and coma. May cause liver and kidney damage. Causes severe irritation of upper respiratory tract with coughing, burns, breathing difficulty, and possible coma. May cause pulmonary edema and severe respiratory disturbances. May cause kidney damage.

**Chronic:** May cause liver and kidney damage.

Section 2 - First Aid Measures

**Eyes:** Get medical aid immediately. Do NOT allow victim to rub eyes or keep eyes closed. Extensive irrigation with water is required (at least 30 minutes).

**Skin:** Get medical aid immediately. Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Destroy contaminated shoes.

**Ingestion:** Never give anything by mouth to an unconscious person. Get medical aid immediately. Do NOT induce vomiting. If conscious and alert, rinse mouth and drink 2-4 cupfuls of milk or water.

**Inhalation:** Get medical aid immediately. Remove from exposure and move to fresh air immediately. If breathing is difficult, give oxygen. Do NOT use mouth-to-mouth resuscitation. If breathing has ceased apply artificial respiration using oxygen and a suitable mechanical device such as a bag and a mask.

**Notes to Physician:** Chloroacetic acid causes competitive inhibition of acetate oxidation and acetylates sulfhydryl residues in the liver and kidney.
Section 3 - Personal Protection

**Personal Protective Equipment**

**Eyes:** Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

**Skin:** Wear appropriate protective gloves to prevent skin exposure.

**Clothing:** Wear appropriate protective clothing to prevent skin exposure.

**Respirators:** Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

Section 4 - Physical and Chemical Properties

**Physical State:** Solid

**Appearance:** Colorless or white

**Odor:** Acetic odor

**pH:** 1.93 (0.1M)

**Boiling Point:** 189 deg C

**Freezing/Melting Point:** 62 deg C

**Decomposition Temperature:** Not available.

**Solubility:** Soluble in water.

Section 5 - Stability and Reactivity

**Chemical Stability:** Stable at room temperature in closed containers under normal storage and handling conditions.

**Conditions to Avoid:** Incompatible materials, ignition sources, dust generation, moisture, metals, excess heat.

**Incompatibilities with Other Materials:** Strong oxidizers, amines, alcohols, reducing agents, metals, and alkali.

**Hazardous Decomposition Products:** Carbon monoxide, irritating and toxic fumes and gases, carbon dioxide.

**Hazardous Polymerization:** Has not been reported.