7.02 STANDARD OPERATING PROCEDURES

Acetic acid, glacial; CH_3COOH
CAS # 0064-19-7

HAZARDS:

Health: Corrosive (4), Irritant (1);

Inhalation: Inhalation of this material's vapors at concentrations over 50 ppm is intolerable, resulting in irritation of the eyes, nose throat and lungs. Repeated exposure to high concentrations of this material may produce congestion of the pharynx.

Skin and eyes: Eye contact will produce immediate burns and possible permanent damage. High concentrations of vapor may blacken skin, produce skin sensitization, conjunctivitis, and erosion of tooth enamel.

Ingestion: Ingestion is improbable because the odor is extremely irritating, but severe intestinal irritation would result in burns to the mouth and upper respiratory tract.

Treatment: In case of eye or skin contact, flush with cold water for 15 minutes and get medical attention immediately. In case of ingestion, DO NOT induce vomiting; give milk or water if conscious, and get medical attention immediately. If shoes or clothing become contaminated, use emergency safety shower immediately and remove contaminated clothing.

Flammability: Combustible unless diluted with water; aqueous solutions can react with metals to form hydrogen gas.

Incompatibilities: This material may react violently with strong oxidizing agents, ammonium nitrate, phosphorous trichloride, potassium hydroxide and other alkaline materials. It reacts readily with most common metals (except aluminum), basic salts, and amines, etc. to form water soluble salts. It reacts with alcohol to form esters. Nitric acid or chromic acid can explode with acetic acid if not kept cold **(add acid to water, never water to acid).** Keep glacial acetic acid from freezing as it expands when frozen.

PROTECTIVE EQUIPMENT: Goggles, gloves

USE AND HANDLING AND DISPOSAL PROCEDURES: When diluting concentrated acid, use fume hood or sink with face shield. Avoid breathing vapors. Add acid to water, never water to acid (strongly exothermic). Close the stock bottle promptly and put it away to minimize the possibility of a spill. Store tightly sealed in vented acid cabinet. Use an approved safety carrier when transporting. Dilute acids may be used at the bench. Keep bottle closed when not in use. Acetic acid is used at 10% on PBC 4 in the Staining solution and Fast Destain. Students handle approx. 100 ml of the 10% solution. They wear gloves, goggles, and a lab coat. Part of the solution is recycled; the remaining portion is collected in suitable waste containers in the hood and disposed of by the Safety Office.

SPILL CLEANUP: Wear protective equipment; surround and absorb spill cautiously using acid spill kit. For large spills, wear protective breathing apparatuses. Remove personnel to fresh air as necessary. Collect absorbed materials in an appropriate container and give it to the Safety Office for disposal.