

7.02 STANDARD OPERATING PROCEDURE

β -mercaptoethanol (BME); C₂H₆OS
CAS # 60-24-2

HAZARDS:

Health: Irritant (1), Toxic (3), Flammable (7)

Inhalation: coughing, sore throat, shortness of breath

Skin and eyes: Toxic if absorbed through skin. Severe irritant.

Ingestion: Toxic; sore throat, abdominal pain, vomiting.

Treatment: In case of eye contact, flush with cold water for 15 minutes and get medical attention. In case of skin contact, wash with soap and cold water. If ingested, get medical help immediately.

Flammability: Combustible; flash point is 74°C.

Incompatibilities: Oxidizing agents, moisture, metals.

PROTECTIVE EQUIPMENT: Dispense in hood wearing gloves, goggles.

USE AND HANDLING PROCEDURES: Breaks disulfide bonds in proteins. β -ME is used in 2X protein sample buffer at 10% concentration, which is added just before use, then stored at -70°C. Strong, foul odor; when using outside hood, keep tightly covered as much as possible. Cap the stock bottle tightly and store at back of shelf in the cold room to avoid breakage and spill.

DISPOSAL: Quantities used are so small that disposal is not an issue. Any significant quantities would have to be poured into a break-resistant screw-cap solvent waste container under the hood and be removed by the Safety Office. May not go down the drain.

Spill Cleanup: Extinguish all sources of ignition. If spill is not under the hood, put on a half mask chemical cartridge respirator (in Alcove 1) or self-contained breathing apparatus and ventilate the area; in any case, surround the spill using the contents of the solvent spill kit (in Alcove 1). The absorbed chemical should then be sealed up and removed by the Safety Office as hazardous waste.