

PROPER USE AND STORAGE OF ETHERS

Ethers can present significant fire and explosion hazards if they are not used and stored properly. The most common ethers, such as dimethyl or diethyl, have a high vapor pressure at room temperature and low flash point. They are highly flammable and easily ignited, which makes them severe fire hazards. Ethers may form explosive peroxides on exposure to air and light. The peroxides are shock and heat sensitive and may undergo spontaneous chemical reactions.

Ethers should be ordered in the smallest possible container consistent with use. Containers should be dated when received and again when opened. Opened containers should be discarded within 3 to 6 months after opening; unopened containers should be disposed of 1 year after receipt. Only minimal quantities should be stored in the laboratory. Ethers should not be used or stored near strong oxidizing agents. Store ethers in a cool place, in a flammable storage cabinet or room, or in an explosion-safe or explosion-proof refrigerator.

All work involving ethers should be conducted in a chemical fume hood. Obviously, there should be no open flames or sources of ignition in the area. Waste ethers may be placed in a safety can for chemical waste pickup and disposal.

Please contact EHS at x1451 for additional information on the proper use and storage of ethers.