

## **HAZCOM (Hazards Communication) Labeling**

Requirements for labeling:

A. Chemicals (liquid or dry) including smaller quantities of a chemical from a larger or bulk container:

1. Identity of the chemical
2. Directions for use, storage and disposal
3. Hazard warnings (flammable, corrosive, toxic, combustible, etc.)

B. Reagents (mixtures of chemicals), Hazardous Waste or “Used Chemicals” generated from laboratory procedures:

1. Identity of the chemical constituents
2. Directions for use, storage and/or disposal
3. Hazard warnings (flammable, corrosive, toxic, combustible, etc.)
4. Date made and the initials of the person who made the reagent

**NOTE:** If a chemical, reagent, hazardous waste or used chemical is put into any container with a label for the original contents, remove or deface that label and re-label with the new contents.

## SUGGESTIONS FOR SAFE STORAGE OF LABORATORY REAGENTS

### Acids and Bases:

1. Vessels containing acids and bases should be stored in secondary containers of sufficient volume to completely contain a loss of contents in the event of breakage or leakage of the primary vessel.
2. Acids and bases should be stored separate from one another (i.e., placed in separate secondary containers).
3. Oxidizing acids (nitric, sulfuric, perchloric) should be separated from all organic compounds, including organic acids such as acetic acid.
4. Perchloric acid should never be stored in wooden cabinetry, owing to the possibility of spontaneous combustion of perchloric acid-soaked wood which may occur should the acid leak into the wood.

### Solvents:

1. Solvent vessels should be stored in secondary containers of sufficient volume to completely contain a loss of contents in the event of breakage or leakage of the primary vessel. The secondary containers must be chemically resistant to attack by the solvents.
2. Solvents should be stored only in ventilated areas (in ventilated solvent cabinets underneath chemical hoods if the cabinet is ventilated by the hood (note that some hood cabinetry is sealed from the hood ventilation system and is thus not suitable for storage of volatile or hazardous chemicals).
3. Ethers such as diethyl ether should be disposed of in accordance with the expiration date on the label. Because explosive peroxides may be formed upon storage, special care must be exercised in disposing of ethers. The dangers of explosion increase dramatically upon removal of the solvent, so bottles or cans of ethers should never be merely allowed to evaporate to dryness in a hood. Small amounts may be disposed of by first adding a small amount of water to the can or bottle and then allowing the ether to evaporate in a chemical hood; the remaining aqueous solution may be disposed of as a waste solvent. Larger quantities of ether should be disposed of by burning in an EPS-approved incinerator following adequate dilution with less volatile solvents.