

USU REQUIREMENTS FOR STORAGE OF FLAMMABLE AND COMBUSTIBLE LIQUIDS INSIDE OF BUILDINGS

It is recommended that all flammable chemicals be kept in an approved flammable liquid storage cabinet when not in use. It is required to store flammable liquids in appropriate storage cabinets when quantities exceed the Total Allowable Quantities.

For the purposes of this guidance flammable and combustible materials shall be divided into the following classes:

Class I Flammable Liquid	Flash point < 100 degrees F (37.8 degrees C) and having a vapor pressure not exceeding 40 lb per sq. in. (absolute) at 100 degrees F (37.8 C).	Examples include: acetone, methanol, ethyl ether, toluene, benzene, and hydrazine.
Class II Combustible Liquid	Flash point \geq 100 degrees F (37.8 degrees C) and < 140 degrees F (60 degrees C).	Examples include: acetic acid, naphtha, and Stoddard solvent.
Class III Combustible Liquid	Flash point \geq 140 degrees F (60 degrees C) and < 200 degrees F (93.4 degrees C).	Examples include: cyclohexanol, formic acid, nitrobenzene, and formalin.

Total Allowable Quantities

1. Hazardous chemicals stored in the open in the laboratory/work area shall be kept to the minimum necessary for the work being done.
2. Not more than 10 gal (37.8 L) of Class I and Class II liquids combined may be stored in a single fire area (i.e. lab) outside of an approved storage cabinet or a separate inside storage area.
3. The quantity of Class I and Class II liquids in a flammable storage cabinet shall not exceed 60 gallons.
4. Not more than 60 gal (227 L) of Class IIIA liquids shall be stored outside of an approved flammable storage cabinet or area.
5. When Class II or III liquids are stored within the same fire area as a Class I liquid, the quantity restriction for Class I liquids apply.

Container Size and Type

1. Glass containers for Class I liquids outside of an approved flammable storage cabinet/area should not exceed a capacity of 1 pint, unless in a container of no more than 2 gal (7.6 L) which has a spring closing lid/spout and flame arrester.
2. Exception: Glass containers as large as 1 gal (3.785 L) may be used if the required purity would be adversely affected by storage in a metal or approved plastic container.

Storage Cabinets

1. Cabinets must be conspicuously labeled in red letters on contrasting background **FLAMMABLE- KEEP FIRE AWAY.**
2. Doors shall be well fitted, self-closing, and equipped with a latch.
3. The bottom must be liquid tight to a height of at least 2 inches.
4. Metal cabinets shall be constructed of steel having a thickness of not less than 0.044-inch (18 gauge). The cabinet, including the door, shall be double walled with 1 1/2-inch airspace between the walls. Joints must be riveted or welded and shall be tight fitting.