

Flammable Liquids

No Smoking signs should be posted wherever flammable liquids are handled or stored. Even if there is no sign, don't smoke or use open flames near flammable liquids.

Substitute non-flammable liquids whenever possible. In many cases they are just as effective, and they can be used with much less risk. Take into account the chemicals reactivity, toxicity, and flammability when selecting its use. A UL approved safety can with a self-closing cover, vent, and flame arrester is the best container for storing flammable liquids in small quantities (from 1 pint to 5 gallons).

Large quantities of flammable liquids may require the use of UL approved metal storage cabinets available in 30 and 45 gallon sizes. Drum size quantities of flammable liquids are not permitted in laboratories and may require detached buildings storage equipped with explosion-proof electrical equipment and automatic sprinklers, etc.

The absence of ignition sources is required in compartments of refrigerators and cooling equipment used for flammable liquid storage. Spray booths and some electrophoresis units require explosion-proof wiring, as it isolates the electrical spark sources. Explosion-proof wiring must be done in accordance with the National Electric Code, Article 500.

Flammable liquids should be used in a hood or a well-ventilated area. Keep flames, heat sources, and electrical spark sources away from areas of use and storage.

Try to prevent spills of flammable liquids or materials in experimental apparatus by supporting containers in racks or holders and using pans to catch spills, which can result from breakage or overflow.

Transfer flammable liquids with caution, the friction of flowing flammable liquids may be sufficient to generate static electricity, which in turn may discharge, causing a spark and ignition. When pouring from metal containers of one gallon or greater capacity, make sure both containers involved in the transfer are bonded to each other and to a ground, as otherwise a dangerous potential difference can build up.

Flammable liquids should be stored in UL or approved flammable liquid storage cabinets. Mechanical venting of flammable liquid storage cabinets should be decided in conjunction with the safety office .