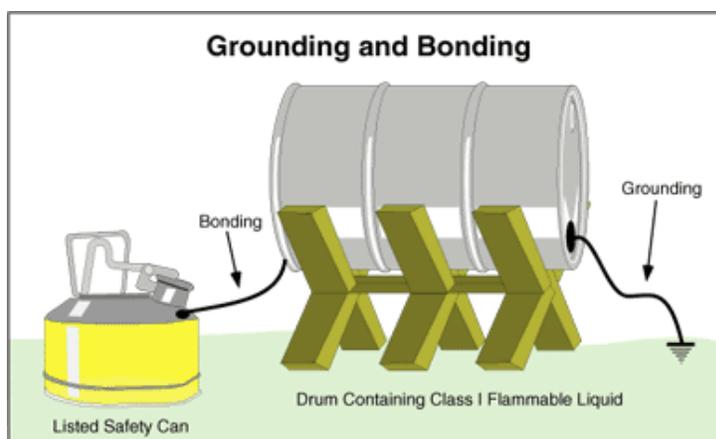


Protocol for Handling and Storing of Flammable Liquids

Flammable Liquids are any liquids which have a boiling point and/or flash point of less than 37.8 °C. (i.e. acetone, acetonitrile, ether, ethanol, hexanal, octane, propanol, pyridine, toluene)

Handling/Dispensing Flammable Liquids

1. Never handle/dispense flammable liquids near open flames or other ignition sources.
2. All dispensing and collection of flammable liquids in a laboratory must be conducted in a properly functioning fume hood.
3. Dispensing of flammable liquids inside fume hoods should be done slowly (no rapid or splash filling) to prevent excessive vapourization as the liquid is dispensed.
4. When dispensing flammable liquids to, or from containers of greater than 5L, the container must be grounded/bonded.
 - a. Any conductive containers must be grounded/bonded via a conductive wire.
 - b. Dispensing flammable liquids into plastic containers that are >5L should be avoided since plastic is prone to static electricity but difficult to ground.
 - c. Proper bonding and grounding techniques must be in place before dispensing of a flammable liquid begins. See illustration below.



- Examples
- i) When dispensing flammables from a 170 L drum, the drum must be grounded. If dispensing from a large drum into a container that is >5L, it must be bonded via a conductive wire to the drum.
 - ii) When pouring from a 20L metal pail to a 4L glass bottle, then only the 20L pail must be grounded.
 - iii) When filling waste containers larger than 5L, the container must be grounded.

Storing Flammables

1. No more than 5 litres of flammable liquids may be stored *outside* of a storage cabinet.
2. Flammable liquids must be stored in an approved flammable storage cabinet.
3. In each lab room, up to 250 litres of flammable liquids can be stored in a flammable storage cabinet, in closed containers. These volume amounts must take "waste" liquid/solvent into account as well.
4. Flammable liquids stored or transported in a closed container do not require grounding/bonding.