## Standard Operating Procedure

# **Flammables**

## https://www.osha.gov/dsg/hazcom/pictograms/image2.jpgOverview

A flammable solvent is defined by the National Fire Protection Agency (NFPA) as having a flashpoint below 100 °F (37.8 °C). The lower the flashpoint, the more easily the liquid can be ignited. Their presence in the laboratory in fairy large volumes greatly exacerbates the fire risk posed by these materials. The large volumes also increase the risk posed by any other hazards associated with the specific material (toxicity, carcinogenicity, etc.)

## Special Handling and Storage Concerns

**Personal Protective Equipment**

* Flame Resistant Lab Coat.
* Nitrile or Neoprene Gloves are adequate for possible incidental exposure. Consult a glove chart if large splashes or immersion are possible.
* ANSI Z87.1-compliant safety glasses. Safety goggles if a large splash hazard is present.

**Special Storage Requirements**

Store in a flammable storage cabinet with self-closing hinges, or in a refrigerator rated for flammable storage. Any container larger than 1 gallon (4L) must be stored in a flammable storage cabinet at all times. *The maximum amount of flammable material allowed outside of these storage areas is 10 gallons*. Store flammable materials away from oxidizers and combustible materials. Flammable cabinets must be labeled clearly with the statement “Flammable – Keep Fire Away”.

**Engineering Controls**

If your protocol does not permit the handling of these materials in a **fume hood**, EH&S *must* be contacted to assess alternate ventilation options.

**Special Handling Considerations**

*Static Electricity Risk*: Large containers of flammable liquid (> 20L) should always be grounded, and should be bonded to the receiving container during transfer. Flammable storage cabinets are equipped with a grounding system that should be connected to a building ground. Transferring these materials between unbonded metal containers, or between plastic containers may lead to a fire hazard due to static electricity buildup.

**Decontamination**

This SOP covers a wide range of materials. Consult the SDS for any possible special decontamination procedures.

## Waste Management

Segregate halogenated from non-halogenated organic solvent waste.

## First Aid and Emergencies

**Spill**

A number of organic solvents are carcinogenic (e.g. benzene, methylene chloride, formaldehyde). Do not attempt to clean up a spill of these materials. Consult the SDS to confirm toxicity information, then call EH&S for assistance.

**Fire**

Standard firefighting measures apply.

**Personnel Exposure**

Standard measures apply.

## Laboratory Specific Information

**Prior Approval Required**

**NO**

**YES (describe):**

**Designated Area**

**Entire Laboratory Area**

**Other (describe):**

**Experimental Conditions of Use**

**Temperature Range:**

**Pressure Range:**

**Scale Range:**

**Other Relevant Details:**