

Fire Safety in Labs



Do you know what the fire hazards are in your laboratory?

- Type of materials and how they should be used?
- Reaction and hazard potential?
- Proper storage methods?
- Emergency response procedures?
- Special considerations when working with material?

If the answer is "no" to any of these questions, you should ask your supervisor and/or consult the Material Safety Data Sheet (MSDS)! You need to know the characteristics of the chemicals you are working with and are stored in your lab. The MSDS can be obtained through your department, contacting the manufacturer, contacting EH&S or searching the EH&S MSDS website (www.msds.sunysb.edu).

Do you know the location of the safety equipment in and around your laboratory?

- Fire extinguisher
- Emergency eyewash and emergency shower
- Spill clean up material
- Alarm pull box

In the event of an emergency, you do not have time to waste in trying to find them!

Do you know these additional fire safety tips?

- Outlets should never be overloaded with multiple plugs.
- Do not use extension cords.
- Use multi outlet devices that have their own self contained circuit breaker.
- If your clothing is on fire, remember to STOP, DROP and ROLL. Running will cause the flames to spread and also allows the flames into victim's face and respiratory tract (cover your face when you ROLL).
- Fire retardant or flame resistant lab coats help reduce the risk of clothing fires.
- Never use a fire extinguisher on someone who is on fire. Use the emergency shower.

Common causes of fires include:

- Improper storage, including improper use and storage of flammable liquids (keep no more than 25 gallons of flammable liquids in the lab at any time and no container larger than 5 gallons).
- Keeping chemicals past the expiration dates (e.g. ethyl ether is 6 months from when first opened).
- Not using the least hazardous materials.
- Purchasing non-anhydrous chemicals and drying out in the fume hood.
- Spontaneous combustion (ex.: some solvents on towels will self-ignite in the trash).
- Water reactivity (ex.: sodium).
- Faulty electrical wiring & equipment (frayed wires, too close to combustibles, overheating wires, lack of over current protection).
- Poor housekeeping.

Do you know what type of fire extinguisher is appropriate and how to use it?

- Do you need sand for combustible metals?
- If you need more than one extinguisher to put out the fire you must evacuate!