

Laboratory safety program reminders

[ASU Policy EHS 104](#) and [ASU's Chemical Hygiene Plan](#) requires all ASU laboratories to register with the Department of Environmental Health and Safety (EHS). A laboratory is defined by OSHA as:

“A facility or room where potentially hazardous chemicals, biological agents or sources of energy (i.e. lasers, high voltage, radiation, etc.) are used and where scientific experimentation, research, or education occurs.”

Required registration documents include:

- [Chemical Inventory.](#)
- [Responsible Party Information sheet.](#)

These registration documents must be updated and resubmitted to EHS annually by emailing them to ehslabregistration@asu.edu or via campus mail to mail code 3804. If the laboratory is part of Biodesign, Fulton School of Engineering, Department of Chemistry and Biochemistry, or School of Life Sciences, contact the Health and Safety Officer or Laboratory Safety Inspector in these areas for additional requirements.

Storage and handling of hazardous materials

The following information addresses general safety rules for the storage and handling of hazardous materials. It is not intended to replace any department specific procedures. Check with your supervisor or lab manager to determine if there are additional requirements within your department.

Flammable chemicals

Flammable liquids and gases can create a severe fire and explosion hazard. Flammables must be stored in approved sealed containers, in flammable storage cabinets or approved storage rooms.

When working with flammables, remove only the amount needed for the work period from the storage area to minimize risk. Eliminate sources of ignition when using flammables including static electricity, friction, and heat.

Open flames must always be attended to and must be kept away from combustible and flammable materials. Practice good housekeeping in your laboratory and discard combustible waste as soon as possible.



Compressed gas cylinders

- Always store cylinders upright and secure them individually using approved lock-down device, strap or chain (securing point must be approximately 2/3rds the cylinder height).
- Always use the correct pressure regulator for the specific gas.
- Cylinders must be clearly labeled with the content's correct chemical name and chemical formula.
- Cylinders must be handled as a high pressure source. Always transport cylinders with the safety cap securely installed and use a cylinder cart with straps to secure the cylinder. Do not roll the cylinder by hand along the floor or on their side.
- Cylinders which contain toxic gases must be stored in a well ventilated designated area, preferably monitored with environmental abatement technology.
- Do not store cylinders with the attached regulators.
- Use and storage must be below the facility's accumulated maximum allowable physical and health hazard quantities per fire code.



Laboratory storage

The amount of chemicals stored in the laboratory should be as small as practical for their intended use. Long term storage on bench tops and in chemical fume hoods is not advised. Do not expose chemicals to heat or direct sunlight. An annual inventory of chemicals will reveal the presence of unneeded or expired chemicals that can be discarded as hazardous waste. The hazardous waste must be tagged, stored in a satellite accumulation area, and prepared for pick up by the designated department.



Chemical storage cabinets

Purchase and use chemical storage cabinets rated specifically for the type of materials you intend to store there (i.e. flammables, acids, corrosives, etc.)

Foods beverages and cosmetics

Do not store, handle, or consume food or beverages in chemical storage areas. Do not apply cosmetics including lip balm in the laboratory. Designate refrigerators, glassware and utensils meant strictly for chemical use and storage as such. Explicitly designate refrigerators, freezers, microwaves and ice machines etc. as meant for laboratory use or for personal food items. EHS has multiple laminated signs that can assist you in placing appropriate labels on these appliances. Contact [ehs](#) to obtain signs which are free-of-charge.



Material safety data sheets

MSDS's must be available in each laboratory for all hazardous and nonhazardous materials. Refer to the section in the MSDS titled "Handling and Storage" for proper storage guidelines and guidance regarding segregating chemicals from those that are incompatible.

Questions? Contact ASU Environmental Health and Safety at 480-965-1823 or email asuehs@asu.edu.

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