

Spotlight On Safety

www.ehs.ucr.edu

Storage of Chemical & Flammable Materials

Improper storage of chemical and flammable materials can lead to harmful reactions that can cause fires and explosions. The following are storage guidelines that must be followed to prevent injury to staff, students, visitors, experiments, equipment and the campus facilities.



Chemical Storage-General Guidelines

- Chemical storage areas should be neat, orderly, and clearly identified
- All chemical containers should be labeled with chemical name, type (acid, base, oxidizer...), and degree of hazard
- Chemical storage areas should be equipped with doors or shelf restraints to prevent material from falling
- Incompatible chemicals should not be stored together (strong acids must not be stored with alkalis, mineral acids with strong oxidizers, oxidizers with combustible material)
- Highly reactive chemicals must be stored separately in labeled locations, including water-reactive chemicals such as base metals
- Researchers should constantly closely examine stock of chemicals and dispose of old, outdated, or unnecessary materials
- Disposal of hazardous chemical waste must be in accordance with EH&S guidelines using WASTE.

Flammable Material Storage

- All flammable and combustible liquid containers must be clearly labeled and sealed
- All amounts greater than 10 gallons of Class I flammable liquids (flash point < 100°F) must be stored in a UL approved flammable storage cabinet (up to 25 gallons are allowed in safety cans, and up to 60 gallons in an approved flammable storage cabinet)
- Quantities greater than 60 gallons of Class I flammable liquids must be in approved indoor storage rooms
- Glass containers are prohibited, except original glass containers or if chemical purity is necessary
- Large quantities of flammable liquids must be used only in a fume hood
- Spontaneously flammable materials must be handled under an inert liquid such as mineral oil (containers must be clearly labeled)
- Ether cans must be dated when opened and kept no longer than 6 months, unless the manufacturer's expiration date notes otherwise

For more information visit www.ehs.ucr.edu or call 951-827-5528 if you have questions.