

Spotlight On Safety

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CHEMICAL STORAGE IN REFRIGERATORS & FREEZERS

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CAUTION

**DO NOT STORE FOOD OR
FLAMMABLE LIQUIDS
IN THIS UNIT**

Storing flammable or unstable chemicals in household-type refrigerators/freezers creates a hazard. "Lab-Safe" or flammable storage refrigerators/freezers are required for the storage of flammable/explosive materials.¹ The interior of a "Lab-Safe" unit has no switches that could arc, or other spark points to provide a source of ignition.

"Explosion-proof" refrigerators/freezers are designed to operate in areas where the air may be explosive, to prevent ignition of flammable vapors or gases that may be present inside but also outside the unit. This type of equipment must be used in locations such as solvent dispensing rooms, where a flammable atmosphere may develop at some time in the room. Explosion-proof refrigerators/ freezers require special hazardous-location

wiring rather than cord and plug connections. In most cases, a "Lab-Safe" refrigerator/freezer rather than an explosion-proof unit is sufficient for storage of flammable materials. Please contact EH&S if you believe you have a need for an explosion-proof refrigerator/freezer.

Guidelines

- "Lab-Safe" or flammable storage refrigerators/freezers are required for storage of flammable materials. Ethanol/water solutions containing more than 50% ethanol are considered flammable.
- Household-type refrigerators/freezers are allowed in labs only for storage of aqueous solutions and other non-flammable/non-explosive materials
- EH&S recommends that a "Caution - Do Not Store Flammable Liquids in this Unit" label be placed on all household-type refrigerators/freezers located in labs (sample above)
- Refrigerators/freezers must be cleaned on a regular basis, and old chemicals must be properly discarded via EH&S (for information on hazardous waste disposal at UCR, visit the EH&S Waste Management webpage at <https://ehs.ucr.edu/waste>)
- Never store food or drinks in any chemical storage refrigerator/freezer
- Refrigerators or freezers to be discarded must first be cleaned/decontaminated, and inspected by EH&S for clearance to be picked up by [Campus Business Services](#) as surplus property
- The refrigerants used in refrigerators/freezers must be removed by a certified technician before discarding. If Campus Business Services does not pick-up your old refrigerator/freezer as surplus property, you must ensure all refrigerants are removed prior to disposal. Contact Facilities Services for assistance at <https://facilities.ucr.edu/> or (951) 827-4214.

Visit <https://ehs.ucr.edu> or call (951) 827-5528 for additional information.

¹ National Fire Protection Association Code 45-22-12.2.2