



Cold and Warm Room Safety Guidelines

Environmental cold and warm rooms are primarily used for storing biological materials and microbial cultures. They can also be used as work areas for temperature-sensitive experiment.

Room Type	Temperature
Cold rooms	As low as 35°F
Warm rooms	Up to 120°F

Certain experiments and materials aren't permitted in these rooms because air is typically continuously recirculated to control temperature and humidity more efficiently.

Print and display the [Cold and Warm Room Safety poster](#) on your environmental room's door.

Storage and Experiment Restrictions

- **No dry ice, liquid nitrogen, or compressed gases:** These materials can displace oxygen and cause asphyxiation.

If your experiment must use compressed gas other than breathing air, [contact EH&S](#) to identify the correct oxygen or gas sensor and local alarm. Post the alarm procedure and use it to train all environmental room users.

- **No food or drinks:** Chemicals and biological organisms can contaminate food and drinks.
- **No flammable liquids or gases:** Accumulated vapors can create an explosive atmosphere, which can be ignited by electrical switches or other ignition sources.

Examples: Solvents, alcohols, and butane.

- **No open flames** like Bunsen burners.
- **No volatile chemicals (including acids):** Accumulated vapors can increase inhalation and skin exposure risks with potentially short- and long-term health effects. Volatile acids can corrode metal.



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Examples: Chloroform, benzene, ethylene glycol, formaldehyde, methylene chloride, toluene, xylene, 1,3-butadiene, acetic acid, propionic acid, and butyric acid.

- **Store other hazardous chemicals in lab fridges.**

If it isn't possible to store hazardous chemicals (including carcinogens or reproductive toxins) in lab fridges, then store them in secondary containers in cold rooms to:

- Reduce the chance of knocking them over on the shelf's metal grating.
- Organize and contain them in one area.

Only store flammable chemicals in [flammable materials \(lab-safe\) or explosion-proof refrigerators or freezers](#).

Don't use these hazardous chemicals in cold rooms. The lack of exhaust ventilation increases personnel exposure risks if you open chemical containers.

Don't store hazardous chemicals in warm rooms, as some chemicals are heat sensitive.

Contact EH&S if your procedure requires using hazardous chemical in an environmental room.

Mold Prevention and Treatment

Minimize and eliminate cardboard, wood, cloth, and paper (like boxes, pallets, and shelves). These cellulose-based materials support mold growth that can contaminate research materials or be carried and spread to other areas. Store porous materials you must use in closed plastic containers.

Reduce humidity because moisture can support mold growth and may cause rust, corrosion, or degradation of surfaces in environmental rooms.

- Report water leaks and surface condensation to facilities.
- Latch doors to minimize condensation from air leaks.
- Quickly clean spilled media, buffers, and other liquids and thoroughly dry surfaces after cleaning. Mold can thrive on any organic medium.



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Treat minimal mold:

1. Clean mold with a detergent or disinfectant.
 - Use dilute hydrogen peroxide (0.5%-3%) with wipes or paper towels.
 - Don't spray disinfectant and don't use 10% bleach (which can lead to irritation in a non-ventilated room and can damage metal).
2. Thoroughly dry surfaces after cleaning. Don't dry sweep surfaces to prevent disturbing mold spores.

For extensive mold or mold in fan or refrigeration systems:

- Contact your school's facilities department, who may hire a mold remediation firm.