

Cold & Warm Room Safety Guidelines

Warm (up to 120°F) and cold (as low as 35°F) rooms are used primarily for microbial culture and storage of biological materials, but can also be used as work areas for temperature-sensitive experiments.

CAUTION! Certain experiments and materials are not permitted in these environmental rooms (hot/cold) because these rooms usually do not have mechanically supplied or exhausted air. Air is typically continuously recirculated to more efficiently control temperature and humidity.

Mold Treatment

If minimal mold is present:

- Cleaning with a detergent or disinfectant will help remediate.
- Dilute hydrogen peroxide (0.5-3%) recommended. Use wipes, or paper towel, do not spray disinfectant.
- 10% bleach not recommended as it can damage metal and can lead to irritation in a confined space.
- Thorough drying of surfaces needed after cleaning.
- Dry sweeping may disturb and distribute mold spores.



If extensive mold is present or in the fan/refrigeration system:

- Contact Facilities. They may hire a mold remediation firm.

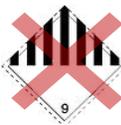
Mold Prevention

- Minimize/eliminate **CARDBOARD, WOOD, CLOTH OR PAPER** (e.g., boxes, pallets, shelves).
 - These cellulose based-materials support mold growth that can contaminate research materials or be carried and spread to other areas. Store necessary porous materials in closed plastic containers.
- Humid environments can support mold growth. Moisture may also lead to rust, corrosion, or degradation of surfaces in the environmental room.
 - Report water leaks or condensation on surfaces to Facilities.
 - Latch the door to minimize condensation from air leakage.
 - Promptly clean spilled media, buffers, and other liquids and thoroughly dry surfaces after cleaning. Mold can thrive on any organic medium.

Storage and experimentation restrictions:

NO DRY ICE, LIQUID NITROGEN OR COMPRESSED GAS

These may displace oxygen and result in asphyxiation. If compressed gas (other than breathing air or oxygen) is essential for experimentation, contact EHS (Environmental Health and Safety) about identifying the correct oxygen or gas sensor and local alarm. Post the alarm procedure and train all room users to it.



NO FOOD OR BEVERAGE (which may become contaminated by chemicals or biological organisms)



NO FLAMMABLE LIQUIDS OR GASES (e.g., solvents, alcohols, butane). Their vapors can accumulate, creating an explosive atmosphere, which can be ignited by electrical switches or other ignition sources.



NO OPEN FLAMES (e.g., Bunsen burners)

NO VOLATILE CHEMICALS (e.g., chloroform, benzene, ethylene glycol, formaldehyde, methylene chloride, toluene, xylene, and 1,3-butadiene). In environmental rooms, the vapors accumulate, elevating inhalation and skin exposure risks with potentially short- and long-term health effects. This includes **VOLATILE ACIDS** (e.g., acetic, propionic, butyric) which can corrode metal.



HAZARDOUS CHEMICALS not noted above (e.g., carcinogens, reproductive toxins, etc..) should be stored in lab fridges. If this is not possible, store hazardous chemicals in secondary containers in cold room. This will reduce their likelihood of being knocked over/tip on the metal grating of the shelves. It will also allow their organization/containment into one area. Such chemicals should not be used in the cold room since the lack of exhaust ventilation increases the risk of personnel exposure. Do not store hazardous chemicals in warm rooms, some chemicals are heat sensitive. Contact EH&S if a procedure requires the use of hazardous chemical in an environmental room.

