

University of Pittsburgh Safety Manual	EH&S Guideline Number: 03-024	
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MOLD PREVENTION IN COLD ROOMS

Mold will grow inside a cold room due to the temperature, the humidity, and the presence of nutrients conducive to mold growth. EH&S recommends controlling these parameters to limit mold growth. Contamination with mold may result in potential health problems via inhalation of mold spores, and may result in the contamination of research materials.

1. Controlling humidity in the cold room is critical to prevent mold growth.
 - 1.1. Humidity levels should be kept below 60%.
 - 1.2. The cold room door should be kept closed at all times and the door gaskets should be checked regularly for leaks. Warm, moist air from outside the cold room will cause condensation on metal and cool surfaces and promote mold growth.
 - 1.3. Spills or standing water must be cleaned promptly.
 - 1.4. Inexpensive temperature/humidistat gauges can be purchased to monitor temperature and humidity levels in the cold room. Facilities management should examine cold rooms to ensure structural integrity, drainage of the cooling system, and humidity control settings (especially if condensation and/or standing water are forming in the room).
2. Limit food sources
 - 2.1. Do not store cardboard, paper, paper towels, Kimwipes, absorbent pads, Benchkote, Styrofoam, or wood inside the cold room. If any of these items need to be stored in the cold room, they should be placed in a sealed, plastic container. If performing assays on an absorbent pad or Benchkote, a clean pad should be used each time and disposed of properly outside of the cold room when work has finished.
 - 2.2. All trash should be removed from the cold room after completion of work.
3. Regularly removing dirt and decontaminating surfaces will reduce the number of mold spores.
 - 3.1. Anything that becomes contaminated with mold should be disposed or decontaminated with an EPA registered disinfectant specific for mold.
 - 3.2. Monthly surface decontamination of the cold room should be performed using an approved EPA-registered disinfectant for mold to clean walls, shelves (including the underside of shelves), flooring, ceiling, inside of drawers/cabinets, equipment, and any other surfaces. Water and/or 70% ethanol can be used to rinse metal surfaces. All areas and surfaces should be dried after cleaning to remove any excess water.
 - 3.3. Mold remediation may be performed by a qualified company should issues persist.

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4. Do not store compressed gasses, flammables, dry ice, or any highly toxic chemical due to the limited amount of fresh, outside air being brought into the cold room.
5. Never store food or beverages for human consumption inside the cold room.

WARM ROOMS, GREENHOUSE ENCLOSURES, AND HUMIDITY CONTROLLED ROOMS

1. Due to the limited amount of fresh air being brought into a small room, working with compressed gasses, hazardous chemicals, or flammable chemicals is not permitted. Oxygen deficiencies may be experienced or vapors from flammable liquids may reach explosive ranges.
2. Never store food or beverages for human consumption inside the environmental rooms.