



# Cold Room Use and Care

Cold rooms are an integral or essential part of many research programs, but like all equipment, they need to be maintained and treated properly to prevent or mitigate hazards and ensure proper function.

Hazard	Potential Consequences	Easy Fix
Mold	Contamination of experiments Allergic reaction in sensitive individuals Respiratory infection in immuno-compromised individuals	Remove all cardboard and do not permit it cold rooms. Use fresh 10% bleach to wipe down all surfaces monthly until gone.
Corrosion	Contamination of experiments Damage to equipment	Do not store corrosives Remove all corrosive residue
Orphaned Samples	Lost samples Wasted time, effort Regulatory non-compliance	Ensure all samples in cold room thoroughly labeled
Flammables or Explosives	Property damage Injury or Death <sup>1</sup>	Do not store flammable or explosive substances in cold rooms
Asphyxiant (e.g. dry ice, liquid nitrogen)	Brain damage Death <sup>2</sup>	No dry ice in cold rooms No liquid nitrogen or compressed gases in cold rooms
Blocked Egress	Entrapment in an emergency	Keep cold room floors and doors free of obstructions

1: Cold rooms are small, enclosed spaces with low ventilation rates. Build-up of explosive or flammable gasses is possible in this environment. For more information, go to [www.uth.edu/safety](http://www.uth.edu/safety)

2: Gill, J. R., Ely, S. F., & Hua, Z. (2002). Environmental Gas Displacement: Three Accidental Deaths in the Workplace. The American Journal of Forensic Medicine and Pathology, 23(1), 26–30.