

Knowledge that will change your world

Management of Compressed Gases and Cryogenics in Research Labs

Proper management of compressed gas cylinders is very important because of the unusual characteristics some of them possess: e.g. stored under pressure, flammability and many toxic gases don't have distinguishable odor or color. Depending on the particular gas, there is a potential for simultaneous exposure to both physical and chemical hazards.

Improper handling, storage and use could lead to catastrophic events like:

- Oxygen depleted atmosphere
- Fires
- Adverse health effects or even death

The high pressure of a leaking compressed gas cylinder can cause the cylinder to penetrate through walls just like a torpedo and can cause structural damage, severe injury, and even death.

Cryogenic liquids can cause frostbite in addition to all the above mentioned hazards.

It is the policy of UAB that special precautions are taken to assure the safe use and storage of compressed gases and cryogenics. The policy applies to all areas of campus and the hospital and is designed to minimize the risk of injury from falling cylinders and exposure to toxic chemicals.

Occupational Health and Safety has developed a new training module to address special storage, use, and handling precautions necessary to control these hazards.

This training is highly recommended for anyone who handles, uses, and/or transports compressed gas cylinders and cryogenic liquids.

Learning Objectives include:

- Recognize the dangers associated with compressed gas cylinders by examining the labels on them and in the Safety Data Sheets (SDS)
- Identify the correct Personal Protective Equipment (PPE) to wear when working with different compressed gases
- Receive, use, handle, transport, store, dispose of, and maintain compressed gas cylinders according to regulatory standards and guidelines
- Design a plan to respond to a compressed gas emergency

However, this only counts as partial training. Supervisors, Managers, and Principal Investigators (PIs) are responsible for providing the hands-on, day-to-day training for their staff.

The new training is available at UAB Learning Management System:

[Managing Compressed Gas Cylinders - OHS_OHS200](#)