

University of Delaware
Environmental Health and Safety Protocol

Section: Laboratory Safety

Protocol Name: Compressed Gas Cylinders

Origination Date: February 2021

Revisions:

Protocol Number: L-06

I. SCOPE OF PROTOCOL

This policy addresses the safe use of compressed gases and applies to all university departments, faculty, staff, and students involved in laboratory operations.

II. DEFINITIONS

- A. Compressed Gases refers to any gas or mixture of gases exerting in a container, a pressure exceeding 40.6 psi (280 kPa, abs) at 68°F (20°C).

III. PROTOCOL STATEMENT

- A. University of Delaware researchers/users working with compressed gases must follow the University's Chemical Hygiene Plan (CHP), Guidelines for the Safe Use of Compressed Gases, and applicable codes and standards NFPA 55 and ICC.
- B. Laboratory personnel are responsible for the prior approval of procedures applying to highly toxic, toxic, corrosive, and reactive gases. Including written emergency procedures, equipment to safely use the gas, and must know how to contact emergency response personnel trained to deal with leaks from the cylinder valve, pressure relief devices, pressurized equipment, and cylinder valves stuck open.
- C. Laboratory personnel and other users must know the contents of the cylinder and be familiar with the chemical and physical properties of that gas before it is used.
- D. Personnel should order the smallest volume cylinder needed to minimize the gas volume in the laboratory.

IV. PROTOCOL STANDARDS AND PROCEDURES

- A. Deans, directors, chairpersons, principal investigators, laboratory instructors, and line supervisors shall ensure compliance with this policy. Individuals responsible for ensuring compliance with this policy shall correct infractions upon detection. Disciplinary actions shall be taken as needed.

For more information regarding this program, contact the Department of Environmental Health and Safety at 302-831-8475.