

Compressed Gas Cylinder Safety Guidelines

Storage

- Ensure cap in on cylinder when not in use.
- Flammables and oxidizers must be stored separately, with a minimum distance of 6.5 metres or divided with a fire-rated wall.
- Compressed gas cylinders must not be stored within 1 metre of any exit with the exception of portable fire extinguishers.
- Cylinders must be accessible at all times, but stored away from elevators, staircases, or main traffic routes where cylinders may be dangerous obstacles.

Handling

- All compressed gas cylinders are labelled and in good condition.
- All laboratories must have appropriate hazard signage.
- Compressed gas cylinders must be secure at the site of use.
- When discharging a particular gas, appropriate equipment must be used.
- Cylinder valve outlets, fittings, and regulator threads must not be lubricated or jointing compounds/tape used.
- Cylinder valves must always be opened slowly and without excessive force.
- Cylinder valves must be closed when not in use, and user must ensure appropriate pressure on regulator.
- While transporting/not in use, cap must be placed on cylinder.
- A proper regulator and flow meter must be used.
- Proper Personal Protective Equipment (PPE) must be used for cylinder handling.
- Flammable compressed gases must be stored and used in well ventilated areas away from open flames, sparks, flammable liquids, and oxidizers.
- Oxidizing compressed gases must be stored away from oils, grease, organic materials, flammable gases, and combustible materials.
- Asphyxiant compressed gases must be used in a well-ventilated areas and an oxygen monitor is recommended to be used if the volume of room is less than 5X volume of container.
- Corrosive and toxic gases exposure limits must be below permissible limits, according to the SDS. They must also only be handled by trained personnel, in combination with an emergency response plan. Corrosive/toxic gases must be stored outside, or in a separate, non-combustible compartment or gas cabinet and monitors are recommended for use.
- When transporting compressed gas cylinders, carts specifically designed for cylinder transport must be used and the device must have a way of securing the cylinders.