

Safe Work Practices for Compressed Gas Cylinders

- Handle cylinders of compressed gases as high-energy sources and therefore as potential explosives.
- Prior to working with any chemical review the Material Safety Data sheet and understand the chemical and physical hazards associated with this chemical
- Restrain cylinders of all sizes, whether empty or full. Use straps, chains, or a suitable stand to prevent them from falling.
- When storing or moving cylinders, have the protective caps securely in place to protect the valve stems.
- When moving compressed gas cylinders, strap them to properly designed, wheeled carts to ensure stability.
- Do not store compressed oxidizers and flammables together.
- Do not expose cylinders to temperatures higher than about 50 C. Some rupture devices on cylinders will release at about 65 C. Some small cylinders, such as lecture bottles, are not fitted with rupture devices and may explode if exposed to high temperature.
- Never use cylinders if their contents cannot be identified positively.
- Never lubricate, modify, force, or tamper with cylinder valves.
- Use toxic, flammable, or reactive gases in fume hoods only.
- Never direct high-pressure gases at a person.
- Do not use compressed gas or compressed air to blow away dust or dirt, the resultant flying particles are dangerous.
- Be aware that rapid release of a compressed gas will cause an unsecured gas hose to whip dangerously and also may build up a static charge that could ignite a combustible gas.
- Close the main cylinder valves tightly when not in use.
- Promptly remove the regulators from empty cylinders and replace the protective caps at once. Label the cylinder empty.
- Use the appropriate regulator on each gas cylinder. The threads on the regulators are designed to avoid improper use.
- Never use adaptors or homemade modifications.
- Do not put oil or grease on the high-pressure side of the oxygen, chlorine, or other oxidizing agent cylinder. A fire or explosion can result.
- Always wear personal protective equipment when handling and using compressed gases.