

Compressed Gas Safety

Types of gases in our department



Non-flammable, non-toxic gases

Causes asphyxiation by displacing O₂. Can explode if heated.

N₂, Ar, He, CO₂



Toxic/corrosive gases

Harmful/fatal if inhaled or in contact with skin. Chemical asphyxiant.

NH₃, HCl, H₂S, CO



Flammable gases

Gases or gas mixtures that are ignitable. Lighter than air, low flash point (sensitive to static spark).

CO, H₂, C₂H₂ (acetylene)



Oxidizing gases

Any gas which causes or contributes to the combustion of other materials; some of these gases decompose exothermically.

O₂, NO, NO₂

Use and storage of compressed gas cylinders



When using a cylinder, ALWAYS:

- Use a proper carrier or cart with a restraining device
- Use the buddy system when changing hazardous gas cylinders
- Use an empty, in use, full tag
- Use regulators approved for the specific gas you're using

When using a cylinder, NEVER:

- Move more than 5 ft. without a carrier
- Use Teflon tape or thread sealant on cylinders
- Try to catch a falling cylinder
- Get in an elevator with a full/in use cylinder



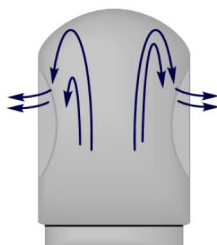
When storing a cylinder, ALWAYS:

- Have a cylinder cap in place unless in use
- Secure all cylinders to a wall in designated areas with chains and/or straps
- Position tanks so labels are visible

When storing a cylinder, NEVER:

- Keep incompatible gases together (e.g. flammable and oxidizing)
- Expose the cylinders to corrosive materials
- Store cylinders more than 3 years
- Expose to temps above 52°C

Closing Caps can prevent a cylinder from becoming a **Torpedo!**



The joint between the gas valve and the body is **the weak part** of cylinders and the most vulnerable to impacts. In the case of an impact, having a closed cap will release the gas from the tank evenly through two opposing holes without creating a dangerous projectile. It's **a simple rule** that can easily prevent a serious accident!