



Employee Training Manual

Compressed Gas Safety

Compressed Gas Safety

- Compressed gases are hazardous because they are stored in cylinders and pressure tanks at high pressures. They can also be flammable, poisonous, corrosive or any combination of these.



Compressed Gas Safety

- How can they hurt me?
- Mishandling of compressed gases has been responsible for fatalities, serious injuries and property damage that has amounted to millions of dollars.
 - 1. Flammable compressed gases can:
 - A. Explode if handled roughly or exposed to heat.
 - B. Ignite by heat, sparks or flames.
 - C. Flash back if vapors travel to a source of ignition.
 - D. Produce irritating or poisonous gas when burning.
 - 2. Non-flammable compressed gases can:
 - A. Explode when in a mixture of fuels.

Compressed Gas Safety

- Health Effects of Compressed Gases
 - 1. Compressed Gases:
 - A. Are harmful if inhaled.
 - B. Have extremely irritating vapors.
 - C. Can cause cryogenic burns to skin and eyes.
 - D. Produces irritating or poisonous gas when burning.
 - E. Causes dizziness, unconsciousness or suffocation.

Compressed Gas Safety

- Handling Compressed Gas Cylinders
 - Compressed gas cylinders require careful handling to prevent damage. When handling cylinders:
 - 1. Move cylinders (securely fastened, in as near an upright position as possible) on special hand trucks.
 - 2. Don't drop or bang cylinders together.
 - 3. Don't roll, drag or slide cylinders and never use cylinders as rollers or supports.
 - 4. Don't lift cylinders by their caps.
 - 5. Don't use magnets to lift cylinders.
 - 6. Cradles or platforms can be used to lift cylinders only if the cylinder was manufactured with lifting attachments.

Compressed Gas Safety

- Compressed Gas Storage
 - Some general guidelines in storing compressed gas cylinders include:
 - 1. Store cylinders in an upright position.
 - 2. Store the cylinders in a safe, dry, well-ventilated place that is clean and free of combustible material.
 - 3. Avoiding areas where cylinders can be knocked down or damaged.
 - 4. Store the cylinders in a position that ensures that the safety relief device is always in direct contact with the cylinder's vapor space.
 - 5. Store oxygen compressed gas canisters at least 20 feet from flammable and combustibles or separate them by a 5 foot fire-resistant barrier.