

Compressed Gas Cylinder Storage Guidelines

All cylinders must be stored vertical, top up across the upper half the cylinder but below the shoulder. Small cylinder stands or other methods may be appropriate to ensure that the cylinders are secured from movement. Boxes, cartons, and other items used to support small cylinders must not allow water to accumulate and possible cause corrosion.

- Avoid corrosive chemicals including salt and fumes – keep away from direct sunlight and keep objects away that could fall on them.
- Use Gas pressure regulators that have been inspected in the last 5 years.
- Cylinders that contain fuel gases whether full or empty must be stored away from oxidizer cylinders at a minimum of 20 feet. In the event they are stored together, they must be separated by a wall 5 feet high with a fire resistive barrier of at least one half hour. If the cylinders are stored inside the area must be fully sprinkled. Examples of oxidizers are fluorine, nitrogen oxide, and nitrogen dioxide. Examples of fuel gases are hydrogen and propane.
- Flammable compressed gas cylinders stored inside of buildings must be stored at least 20 feet from flammable and combustible liquids and easily ignited materials such as wood, paper, oil, and grease.
- Toxic gas cylinders must be stored separately in well-ventilated fully sprinkled areas. Separation distance between toxic gas cylinders and fuel gases must be 20 feet or a mounted non combustible partition extending the full height and width of the cylinders it separates. Ventilation rates must be maintained per ESH Manual Chapter 13.2.
- Storage areas for compressed gas cylinders must not contain any unnecessary combustible materials or uncontrolled ignition sources.
- All cylinders must be stored with valve cover caps, if so equipped.
- Storage cylinders must be segregated into “FULL” or “EMPTY” groups at locations or in racks for each category.
- Flammable gas cylinders whether full or empty must not be located near an exit or any location which could block an exit.
- All cylinders whether full or empty must comply with NFPA and DOT labeling requirements and OSHA hazard communication requirements. Contents of cylinders should be readily identifiable during inspection. A materials safety data sheet (msds) must be available for all gases and gas mixtures.
- There must be adequate space for personnel and carts to allow delivery and removal of cylinders. Floor surfaces must be in good condition. Cylinders that are moved to allow access to other cylinders must be secured to prevent accidental falling or damage.

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