

## Compressed Gas Storage

RMI covers a great deal of health and safety hazards which includes compressed gas safety. Compressed gases are widely used in industrial settings, but improper storage can lead to serious hazards including fire, explosion, and exposure to toxic gases. These gases are stored under high pressure and can pose serious risks if not handled and stored properly.

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### Hazards Associated with Compressed Gas Cylinders:

- **Mechanical Hazards:** High internal pressures (up to 2,500 psi) can weaken cylinder walls or damage valves.
- **Chemical Hazards:** Gases may be flammable, corrosive, explosive, toxic, or inert.
- **Content Hazards:** Accidental leaks or releases can cause burns, frostbite, suffocation, chemical poisoning, and other health issues.



### Storage Guidelines:

- Store cylinders upright in well-ventilated areas, away from heat sources.
  - Avoid storing cylinders in exits or egress routes.
  - Group cylinders with the same hazard class together.
  - Inert gases are compatible with all other gases and can be stored together
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### Storage Practices

#### 1. Secure Cylinders

- Always store cylinders upright and secure them with chains or straps.
- Use proper racks or cages to prevent tipping.



#### 2. Ventilation

- Store in well-ventilated areas to prevent gas accumulation.

- Avoid enclosed or low-lying spaces.

### 3. Segregation

- Separate **full** and **empty** cylinders.
- Keep **flammable gases** away from **oxidizers** (e.g., oxygen).
- Maintain distance from heat sources and electrical equipment.



### 4. Labeling

- Ensure all cylinders are clearly labeled with contents and hazard warnings.
- Never rely on color coding alone.



### 5. Valve Protection

- Keep valve caps on when not in use.
- Never tamper with or modify valves.

### 6. Inspection

- Regularly check for leaks, rust, or damage.
- Remove and report defective cylinders immediately.

### 7. Training

- Only trained personnel should handle and store compressed gases.
- Review SDS (Safety Data Sheets) for each type of gas.

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## Conclusion

In conclusion, compressed gas cylinders are powerful tools that require respect and diligence in their storage and handling. By following these best practices—securing cylinders, ensuring ventilation, segregating incompatible gases, maintaining labeling, protecting valves, inspecting regularly, and providing thorough training—we can significantly reduce the risk of accidents and create a safer workplace for everyone.