

Safety in Handling of Specialty Gases.

Safety is of utmost importance to Air Liquide, both for our customers and the employees who routinely handle our products.



Many of our Specialty Gas products have properties that can cause serious accidents, injuries, or even death if proper precautions and safety practices are not followed. Before using any of our products, please consult the Material Safety Data Sheets (MSDS) as well as other safety reference materials that may be available. When in doubt, please contact your local Air Liquide Representative before using the product. Also it is important that only appropriate gas equipment be used with our products and that the instructions for operating this equipment are carefully followed.

Air Liquide would like to offer these 10 simple procedures that should be observed whenever handling either compressed gas cylinders or liquefied gas containers.

1. **Read the label on all cylinders or containers before use to identify their contents.** If the label is illegible or missing, do not assume what the contents are. Return the cylinder to your supplier. Also, never rely on the cylinder color or type of CGA valve to identify its contents since neither are definitive indicators of the cylinder contents.
2. **Observe all warnings and safety precautions set forth on the cylinder label.** If more information is needed, consult the MSDS sheets or other recommended literature.
3. **Never remove the protective valve cap until the cylinder is secured and ready for use.** Cylinders should be securely chained or placed in storage racks when not being moved. Hazardous gases, in particular, should only be used in specially designed gas cabinets.
4. **Never attempt to lift a cylinder by its protective valve cap.** Also, devices like electromagnets should not be used to lift cylinders.
5. **Always use a recommended pressure reducing regulator when withdrawing any gaseous product from a cylinder or other high pressure source.** Many Specialty Gases require specially engineered regulators to insure the integrity of the gas and the safety of its use. To minimize the chance of injury, stand to one side of the regulator away from the discharge side when opening the cylinder valve.
6. **Never use an adaptor to connect a regulator to a cylinder valve having a different fitting.** Specific valve outlet connections have been designed for most gases to prevent their misuse or contamination. For more information, see the pamphlet V-1 published by the Compressed Gas Association (CGA)/ANSI (American National Standards Institute) titled "Compressed Cylinder Outlet and Inlet Connections".
7. **Never attempt to transfer any gas from one cylinder to another or mix any gases in a cylinder.**
8. **Containers of liquefied compressed gases must be kept in an upright position and secured to prevent them from being knocked over.** For certain products which are liquid at ambient temperatures like carbon dioxide or nitrous oxide, special cylinders having dip tubes on their valves allow for liquid withdrawal in the upright position. For gaseous withdrawal from these cylinders, only specially designed invertors that securely hold the cylinder should be used.
9. **Always use a cart when moving cylinders or liquefied gas containers.** Do not roll cylinders even for short distances.
10. **When handling cryogenic liquids always use properly designed safety equipment.** Protective gloves, face shields, and clothing can prevent contact burns or "frost-bite". Also, any piping or equipment that comes in contact with these extremely cold liquids should be designed for service at very low temperatures.