

# MEDICAL OXYGEN CYLINDER SAFETY



## TOP TEN STEPS

1. Read labels and Product Safety Data Sheet (SDS) before use.
2. Store upright and use in well ventilated, secure areas away from pedestrian or vehicle thoroughfare.
3. Guard cylinders against being knocked violently or allowed to fall.
4. Wear safety shoes when handling cylinders.
5. Always move cylinders securely with an appropriate trolley.
6. Keep in a cool, well-ventilated area, away from heat sources, sources of ignition and combustible materials, especially flammable gases.
7. Keep full and empty cylinders separate.
8. Keep oil and grease away from cylinders and valves.
9. Never force when opening or closing valves, do not use tools to open or close.
10. Do not repaint or disguise cylinder markings. If damaged return to Nitrogenx immediately.

Safety is of paramount importance to Nitrogenx, there is no higher priority for us than the health and safety of our employees, customers, suppliers and the community. This information card provides important information on the safe handling and storage of gas cylinders. Please display it prominently near your cylinder storage area. Remember, always read the label & Product Safety Data Sheet (SDS) before use.

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## STORAGE OF CYLINDERS

All cylinders should be considered and treated as full, regardless of their content. This means:

- Keep cylinders away from artificial heat sources (eg. flames or heaters).
- Do not store cylinders near combustible materials or flammable liquids.
- Keep flammable gases away from sources of ignition.
- Keep cylinders in well drained areas, out of water pools or ponds.
- The storage area should be kept well ventilated and clean at all times. Ideally do not store in confined spaces.
- There should very good access to the storage area for delivery vehicles. The ground surface should be reasonably level and firm (preferably concrete).
- Storage area should be designed to prevent unauthorized entry, to protect untrained people from hazards and guard cylinders from theft.
- Different types of gases must be stored separately, in accordance with Dangerous Goods regulations. Also refer to AS4332 (The Storage and Handling of Gases in Cylinders).
- Stores must clearly show signage in accordance with Dangerous Goods regulations. This includes Class Diamonds; HAZCHEM; no smoking and naked flame warning signs.
- Full and empty cylinders should be kept separate.
- Toxic and corrosive gases should be stored separately from all other gases.
- Liquefied flammable cylinders must be stored upright on a firm, level floor (ideally concrete). This is also preferable for most other gas cylinders.
- Store cylinders away from heavy traffic and emergency exits.
- Rotate stock of full cylinders, and use cylinders on a 'first in, first out' basis.
- Never repaint or obscure cylinder label, even if cylinder is rusty, dirty or damaged. This can result in unsafe situations.
- Never apply any unauthorised labels or marking to cylinders, unless advised by Nitrogenx to identify faulty cylinders.

- Avoid storing cylinders below 0°C. Some mixtures may separate below this.
- Regularly check for leaks and faults.
- Keep oil and grease away from cylinders and valves.
- Never use force when opening or closing valves.

## HANDLING

When handling gas cylinders, and in line with current manual handling regulations, it is advisable that the following precautions are followed:

- Larger cylinders are heavy. Manual handling risk assessments and training should be undertaken.
- Safety shoes and gloves should be worn when handling cylinders.
- Cylinders should be handled with care and not knocked violently or allowed to fall.
- Cylinders should be moved with the appropriate size and type of trolley.
- Cylinder valves must be closed when moving cylinders and equipment should be detached.
- Only people trained in cylinder manual handling should move cylinders over short distance.
- Over longer distances, use appropriate trolleys or pallets, and firmly secure cylinders into them.
- Never roll cylinders along the ground as this may cause the valve to open accidentally. It may also damage the cylinder, label and paintwork.

## PLAN FOR EMERGENCIES

- If a cylinder is damaged contact Nitrogenx immediately on 0800 22 33 85.
- Those people with a responsibility for storing or using gas cylinders should be trained and familiar with the procedures to be followed in case of an emergency.
- Storage layouts and emergency procedures should be carefully planned, recognising the possibility of an emergency arising.