



Transport of Gases General Advice

The transporting of compressed and liquefied gases must be done with caution. The gas pressure can be very high, and a ruptured cylinder or valve can cause serious injury or damage.

The safest and recommended method for transporting cylinders is by using the transport services provided by your gas supplier.

ANZIGA has prepared the following general advice, however your gas supplier can provide further information on the medical gas products you wish to transport and appropriate safety precautions.

Hazards

Compressed and liquefied gases are potentially hazardous for the following reasons:

- Heat may cause any safety device fitted to operate and release contents
- When a liquefied gas is released, it vaporises and creates large amounts of gas
- Cryogenic liquids are very cold and can cause severe cold skin burns and brittle fracture of materials
- Some gases are very flammable, and any leakage can create an explosive atmosphere in a vehicle
- Oxygen enrichment causes material to ignite easily and will increase the intensity of the fire. Nitrous oxide has similar properties.
- Inert gases can cause oxygen deficiency and asphyxiation Toxic or corrosive gases are hazardous to health
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- Due to their size, weight and shape, moving gas cylinders creates manual handling risks.

Caution: Unrestrained or inadequately restrained cylinders pose a risk to people and/or damage to vehicles due to the hazards outlined above. When transporting gas cylinders always ensure that they are adequately restrained.

Information on the hazards can be found on the cylinder label, and in the Material Safety Data Sheet that is freely available from your gas supplier.

General Requirements

The safest and recommended method for transporting cylinders (e.g. gas cylinders and cryogenic receptacles) is by using the transport services provided by your gas supplier.

Occasionally, there may be a need to use other transport methods in which case it is then essential to follow safety instructions for full and empty gas cylinders:

- Restrain all cylinders against moving during transport (consider the forces generated in a traffic accident);
- Always transport liquefied, refrigerated and flammable gas cylinders in an upright position;
- Limit the number of cylinders to be transported;
- Use open vehicles or trailers in preference to any enclosed vehicles or trailers. Do not cover the gas cylinders with a tarpaulin;
- Ensure that the contents label on the cylinder can be clearly read;
- Never drop gas cylinders, or submit them to shock;
- Where possible, use mechanical lifting devices and trolleys to move gas cylinders;
- Wear safety shoes or boots and leather protective gloves when handling gas cylinders, consider the need for safety glasses or goggles;
- Smoking is strictly forbidden when loading, transporting, and unloading any gas cylinder.

Enclosed Vehicles

Ventilation is the key to reducing the risk of a fire or explosion.

Trades Vehicles

- Use an open vehicle such as a utility as this provides the best ventilation and avoids the risks of gas accumulation.
- If you are transporting the gas cylinder inside a trade vehicle:
 - keep the gas cylinder in a purpose-built sealed compartment or cabinet that provides adequate ventilation of any leaking gas to the outside of the vehicle;
 - A side-mounted sealed compartment with its own door, ventilated externally is best practice.
- Do close the gas cylinder valve and disconnect the regulator, hoses and torch prior to transport;
- Do regularly check for leaks from valves;
- Do secure the gas cylinders and keep them upright;
- Do ensure the vehicle is well ventilated;
- Do unload the cylinder from inside the vehicle immediately on reaching your destination, unless the vehicle has a purpose-built sealed compartment vented externally.

Transporting gas cylinders in the passenger compartment of any vehicle, due to the difficulty of providing appropriate load restraint, is never recommended.

Gas Suppliers may refuse to load certain vehicles based on their assessment of the risk associated with the product to be loaded, the particular vehicle and the method of loading and restraining the product.

Regulation and Legislation

Transportation of compressed and liquefied gas must be complied with the relevant legislation in your jurisdiction.

The relevant agencies that must be consulted are:

National Transport Commission (NTC)

The National Transport Commission (NTC) is a body established with a charter to develop, monitor, and maintain uniform or nationally consistent regulatory and operational reforms relating to road, rail and intermodal transport.

Load Restraint Guide

The NTC publishes the Load Restraint Guide which contains the basic principles which should be followed for the safe carriage of loads on road transport. This guide is referenced in State/Territory legislation, and can be found on the NTC website

Dangerous Goods

The States and Territories have legislative responsibility for the road and rail transport of Dangerous Goods and the National Transport Commission (NTC) has a role in maintaining and updating the Australian Dangerous Goods Code (Road and Rail) (ADG Code) and its associated model legislation.

Australian Dangerous Goods Code (ADG Code)

This Code is a reference document setting out detailed technical and procedural requirements for a range of activities performed in the day-to-day preparation for and transportation of dangerous goods by either road or rail. This Code also contains a number of non-mandatory provisions or guidelines and a small number of exemptions. The purpose of this Code is to ensure uniformity and consistency in technical requirements across jurisdictions applying to the land transport task. The code can be found on the NTC website.

The contact details for the relevant authorities can be found on the ANZIGA website under 'Useful Contacts' .

The ANZIGA Publications outlining common Load Restraint scenarios for gas cylinders can also be found under on the website.

Your gas supplier can provide further information on the medical gas products you wish to transport and appropriate safety precautions.

Contact details

Australia New Zealand Industrial Gas Association (ANZIGA)

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Member Companies

<p>Air Liquide Australia Limited Level 12, 600 St Kilda Road, Melbourne VIC 3004 Adelaide: (08) 8209 3600 Brisbane: (07) 3246 6363 Darwin: (08) 8947 1184 Launceston: (03) 6334 9666 Melbourne: (03) 9290 1100 Perth: (08) 9312 9111 Sydney: (02) 9892 9777</p> <p>Air Liquide Healthcare Telephone: 1300 360 202</p> <p>Emergency Number: 1800 812 588</p> <p>Air Liquide New Zealand Limited 19 Maurice Road, Penrose Auckland, New Zealand Telephone: (09) 622 3888</p> <p>BOC Limited 10 Julius Avenue, North Ryde NSW 2113 Telephone: 131 262 Facsimile: 132 427 Emergency Number: 1800 653 572</p> <p>BOC Limited (New Zealand) 988 Great South Road, Penrose Auckland, New Zealand Telephone: 0800 111 333</p>	<p>Coregas Pty Ltd 66 Loftus Road, Yennora NSW 2161 Telephone: 1800 807 203 Emergency Number: 1300 657 070</p> <p>Coregas New Zealand 141 Roscommon Road PO Box 76-351 Manukau 2241 Auckland, New Zealand</p> <p>Associate Member</p> <p>Supagas 5 Benson Road, Ingleburn NSW 2565 Telephone (02) 8788 4444 Emergency 1300 275 021</p>
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