

Safetygram #36

Recommendations to Air Products' Customers for the Transportation of Hazardous Chemicals

What is the preferred method for transport?

The preferred method for the transport of hazardous chemicals is with a supplier's truck or the vehicles used by contract carriers, which are designed specifically to transport these materials. However, transport by these vehicles is not always readily available and alternate means of transport have been substituted, which on occasion has resulted in an accident or even a fatality. The purpose of this document is to provide guidance as to the precautions that should be taken when the preferred method of transport is not readily available.

What is a hazardous chemical?

Within the scope of this document, a hazardous chemical is any chemical with an associated hazard that requires the assignment of a hazard class for transport.

Can I transport chemicals in passenger vehicles?

Under most circumstances, transport of chemicals in passenger vehicles is forbidden. However, there are certain products that may be transportable in passenger vehicles if the chemical meets one of the following conditions:

- The product does not require a hazard class for shipping.
- The chemical is not a toxic, corrosive or flammable, and the quantity of product is <math>< 150 \text{ ft}^3</math> (4.25 m³) for a gas, $\leq 1 \text{ gal}$ (4 liters) for a liquid, and <math>< 2.2 \text{ lb}</math> (1 kg) for a solid.
- The product is intended for consumer use.

What can I do to eliminate the chance of accidents?

By adhering to the following general guidelines, your chance of having a chemical emergency is greatly reduced.

General requirements for transporting compressed gas cylinders, cryogenic liquid containers or chemical containers:

- All compressed gas cylinders, cryogenic liquid containers, or chemical containers must be adequately secured before transporting. Adequately secured means the cylinder or container is not free to move when the vehicle is in motion.
- Specialized vehicles, e.g., ambulances, home care delivery vans or trucks, may be used to transport the products for which they have been designed or modified to handle.
- Products and the containers in which they are shipped must meet applicable transportation regulation requirements in their labeling, marking, container specifications, shipping papers, and other shipping requirements.
- No hazardous materials may be transported without:
 - A hazardous materials shipping paper.
 - Emergency response information, i.e., MSDS or a recognized substitute such as the North American Emergency Guide Book.
 - Appropriate vehicle placards, as required.
 - Proper labeling and marking, as required.
- Containers carrying flammables, corrosives or oxidizers may be transported in commercial vans, provided they can be adequately secured (preferably upright) and adequate ventilation can be provided.



- Portable vessels containing cryogenic liquids or products that are inert, flammable, toxic, corrosive or pyrophoric may be transported in trucks or tractor/trailer vehicles where the driver or passenger compartment is separate from the storage area.

Driver responsibility

Transportation regulations may require the driver to be trained and certified to transport these materials. The following are recommendations for minimizing your risk during transport.

- Read the product label to confirm it is the proper product and to identify the related safety hazards prior to loading the container.
- Check containers prior to loading to determine their condition and verify that no leaks are present.

- Make sure the container is secured adequately so that it will not move during transit.
- Avoid sudden starts and stops.
- Maintain adequate ventilation in the area where the container is stored.
- **Do not smoke** when handling or transporting these products.
- Take the most direct route to your destination with no intermediate stops. If necessary, choose a longer route to avoid traffic.
- When the destination is reached, immediately remove the container from the vehicle. Inspect the vehicle for signs of leaks or spills. Clean any contamination thoroughly before continued general use of the vehicle.
- Follow the supplier's instructions for the proper handling and storage of the container.

- Have required emergency response information with the shipment.

While these precautions are based on portions of transportation regulations and industry practices, they should not be considered complete interpretations of all applicable regulations.

We recognize that some home care patients may need to transport oxygen in their personal vehicles. Please follow the instructions provided by your oxygen supplier when transporting oxygen.

Emergency Response System

- Call: +1-800-523-9374 (Continental U.S. and Puerto Rico)
- Call: +1-610-481-7711 (other locations)
- 24 hours a day, 7 days a week
- For assistance involving Air Products and Chemicals, Inc. products

Product Safety Information

- For MSDS www.airproducts.com/msds/search.asp
- For Saftygrams www.airproducts.com/ehs/safetygrams.asp
- For Product Safety Information www.airproducts.com/ehs/productsafety.asp

For More Information

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Technical Information Center

- Call: +1-800-752-1597 (U.S.)
- Call: +1-610-481-8565 (other locations)
- Fax: +1-610-481-8690
- E-mail: gasinfo@apci.com
- Monday–Friday, 8:00 a.m.–5:00 p.m. EST

Information Sources

- Compressed Gas Association (CGA) www.cganet.com
- European Industrial Gas Association (EIGA) www.eiga.org
- Japanese Industrial Gas Association (JIGA) www.jiga.gr.jp/english
- American Chemistry Council www.americanchemistry.com

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