

SAFETY ALERT

LIQUID NITROGEN TRANSPORT IN ELEVATORS

Liquid Nitrogen has the potential to displace oxygen in the event of a leak, or in the event of vent-gassing in confined and poorly ventilated areas.

Liquid nitrogen is often transported in various types of portable containers (including dewars and portable liquid vessels), through public and private areas for delivery to their point of use, whether for industrial or medical purposes. If these portable containers leak or vent gas in confined areas, the surrounding atmosphere can become saturated with nitrogen gas, displacing oxygen, and creating an asphyxiation hazard. Asphyxiation can result in loss of consciousness, suffocation, and even death. The risk of asphyxiation is greatly increased in confined and poorly ventilated areas where oxygen displacement can occur, rapidly reaching dangerously low levels. Oxygen concentrations below 19.5 vol% in air create a hazardous environment increasing the risk of asphyxiation.

The movement of liquid nitrogen in portable containers often involves the need to travel in lifts in commercial buildings to reach the delivery point.

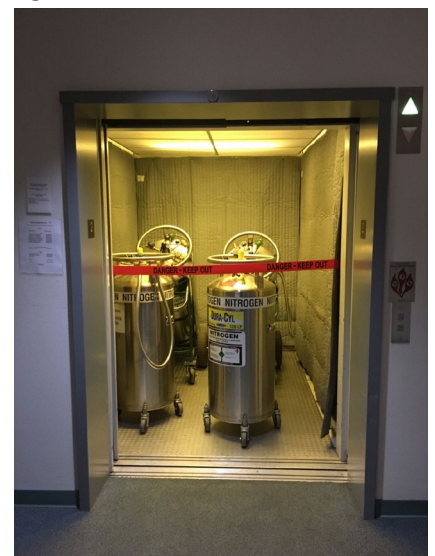
Lifts are confined spaces and a leak from a portable liquid nitrogen container could quickly displace oxygen in the enclosed lift cabin.

As such, portable liquid nitrogen containers **must never be accompanied in lifts by third parties due to the risk of asphyxiation**. When portable liquid nitrogen containers need to be transported in lifts, a clear procedure shall be in place, known and available to all persons involved, and adequate precautions taken to alert persons of the hazards and control access to those wanting to use the lifts during this time.

Principles

ANZIGA has developed the following principles for the transport of liquid nitrogen dewars in lifts:

- If a lift is used to transport the dewar flask then the lift must be closed to all passengers.
- Service Lifts should be utilized if available
- **Signage must be displayed prohibiting access to the lift**
- The lift should be locked to ensure it cannot be entered until it opens at the destination. If this is not possible entry to the lift should be restricted with tape or a barrier alerting people not to enter.
- Where possible a sign should be displayed on each floor the lift must pass. (See picture & attached sample sign)



If the conditions outlined cannot be met your supplier may refuse to deliver the product.

Australia and New Zealand Industrial Gas Association (ANZIGA)

ANZIGA is the peak industry group for the manufacture and distribution of gases in Australia and New Zealand. As a leading industry association, ANZIGA promotes the highest standards of safety, quality, and reliability.

A Safety Alert developed by ANZIGA is intended to provide information and relevant recommendations on a safety concern relating to the production, transportation, storage, handling, and use of gases.

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CAUTION

**DO NOT
ENTER
ELEVATOR**

CRYOGENIC LIQUIDS BEING MOVED

