

Carriage and Handling of Liquid Nitrogen in Small Containers



Prudent Practice Policy Paper

Employers are required to provide a safe workplace for employees. In the Herd Improvement Industry motor vehicles used by staff in the conduct of their duties form part of the workplace. The requirements of the Occupational Health and Safety Act (1985) and the Dangerous Goods Act (1985) must always be paramount in determining what comprises a safe workplace .

Liquid nitrogen has a temperature reading of minus 196 degrees centigrade and, as such, is a highly dangerous substance. It is colourless, odourless and tasteless. It can cause severe burns (frostbite) if it comes into contact with the skin or eyes. In its gaseous form it can rapidly reduce the oxygen content of air in confined spaces thereby creating a high risk situation in which both asphyxiation and death are possible outcomes.

Personnel engaged in working with liquid nitrogen should be informed of the dangers involved and be trained to, at all times, apply safe and prudent practices when working with this dangerous substance.

The carriage and handling of liquid nitrogen in small containers has the potential to expose those involved in such activities to certain levels of risk and, as a consequence, employers and staff undertaking such activities should be aware of their obligations under the OH&S Act and the Dangerous Goods Act.

■ Prudent Practice for the Carriage and Handling of Liquid Nitrogen in Small Containers

- Never carry containers of liquid nitrogen in cars or station wagons.
- Always carry the container on the tray of a truck or utility.
- Never fill containers with liquid nitrogen above the neck tube.
- Always secure liquid nitrogen containers in an upright position.
- Always ensure that the neck plug on a liquid nitrogen container is fitted and is vented to permit the escape of gaseous nitrogen.
- Always ensure that the lid on a liquid nitrogen container is clipped shut during transport.
- Never place anything on top of a liquid nitrogen container.
- Always ensure adequate ventilation when liquid nitrogen is stored in a room or enclosed area.
- Never provide, or hand over, a container of liquid nitrogen to a customer when it is known the customer proposes to carry the container in the passenger compartment of a vehicle.
- Always warn customers of the hazardous nature of liquid nitrogen.

The Victorian WorkCover Authority, or the appropriate organisation in other States, should be contacted for further advice/clarification with regard to matters discussed in this paper.