

HEALTH HAZARD INFORMATION

HEALTH EFFECTS:

Acute:

Inhaled: Exposure to vapours may cause irritation of the respiratory tract. May also cause headaches or dizziness at moderate exposures. Vapours are asphyxiating at high temperatures, causing unconsciousness and respiratory arrest.

Eye: Irritating if the liquid gets into the eyes, with a possible hazard from freezing due to evaporation. Vapours in high concentrations may also be irritating.

Skin: Prolonged contact to the liquid can cause skin irritation. Frostbite may be caused by rapid evaporation.

Swallowed: Unlikely to be a problem, owing to high evaporation rate.

Chronic: No effects reported from long term industrial exposure to this product.

FIRST AID:

Take a copy of this MSDS to medical advisers if signs or symptoms of overexposure occur and medical attention is needed. The primary route of exposure is considered to be by **Inhalation**.

Inhaled: Avoid breathing vapour and fumes as much as possible. If someone is overcome by fumes, remove them to fresh air immediately. However, rescuers should avoid becoming a casualty by wearing suitable respiratory protection. If the affected individual is not breathing, administer cardio-pulmonary resuscitation. Seek medical advice promptly in serious cases of over-exposure.

Eye: Avoid skin contact with the product. Do not remove any contact lenses as these may be frozen to the front of the eye. Hold eyelids open and wash eyes with fresh tepid water for fifteen minutes. Seek medical advice immediately for all eye contact.

Skin: Avoid skin contact with the liquid. Remove contaminated clothing and wash the exposed areas with plenty of soap and water. Seek medical advice if irritation or frostbite (see below) occurs.

Swallowed: Unlikely to be a problem, owing to high evaporation rate.

Frostbite: Obtain medical assistance. If medical advice is not available immediately, place casualty in a warm location as soon as possible and allow the injured area to warm gradually (further damage can occur if the area of injury warms too quickly). **DO NOT EXPOSE THE INJURED AREA TO EXCESS HEAT OR COLD** (such as heat lamps, hot water, snow or ice). Gently cover or drape the injured area with clean material, such as a dressing or sheet. To relieve pain, immerse the injured area in water which is near or at body temperature (35-40°C). If possible get the casualty to exercise the injured area gradually. Give the casualty something warm to drink, **BUT NO ALCOHOL**. Seek medical advice as soon as possible.

FIRST AID FACILITIES:

It is advisable to ensure that an eye-wash station and a deluge shower is kept close to the area where splashing from the product is possible.

ADVICE TO DOCTOR: No specific treatment recommended. Treat symptomatically.

PRECAUTIONS FOR USER

EXPOSURE STANDARDS:

Two ingredients in this product have exposure standards established by Worksafe Australia:

- Propane:** Simple asphyxiant.
Butane: A recommended concentration in air of 800 ppm (1900 mg/m³) averaged over an eight hour work shift.

ENGINEERING CONTROLS:

Ensure there is good ventilation of the area in which the product is used to keep concentrations below the lower explosive limit. While dilution of air may be sufficient in most cases, mechanical exhaust ventilation may be required. In such cases, spark proof equipment should be used if possible. A ventilation velocity of at least 0.3 m/s is recommended.

PERSONAL PROTECTION:

- Clothing:** Overalls or a long sleeved shirt and closed in shoes or safety footwear as a general requirement.
- Skin:** Impervious oil and cold resistant protective gloves should be worn when using this product. Gloves made of PVC are preferred, though gloves made of nitrile and chloroprene should also be satisfactory. Any such gloves should comply with AS 2161.
- Eye Protection:** Eye protection is required (faceshield, chemical safety glasses or side shield glasses). Such eye protection should comply with AS 1336/1337.
- Respirator:** If ventilation of the area is not sufficient, respiratory protection may be required. This should be at least an approved air supplied or self-contained breathing apparatus where the exposure standard is likely to be exceeded or if work is required close to large gas leaks. The selection, use and maintenance of such respiratory protection should comply with AS 1517/1716.

FLAMMABILITY:

Fictitious LPG is gaseous and highly flammable at normal temperatures and pressures. The gas is normally stored under pressure as a liquid. Release of pressure is associated with rapid cooling, the intensity of which is dependent on the rate of release. Containers of LPG are explosive hazards.

SAFE HANDLING INFORMATION

STORAGE AND TRANSPORT

- Storage:** LPG is classified under the Australian Dangerous Goods (ADG) code as a HIGHLY FLAMMABLE GAS (Class 2.1). It must be stored in approved containers and if above regulated exemption limits, in approved/licensed areas in accordance with AS 1596. Keep away from sources of ignition and oxidising substances. Keep containers closed and upright when not in use.
- Transport** LPG must be transported in accordance with the ADG Code. Large volumes must be transported in approved tankers, and smaller volumes in pressurised containers.

SPILLS AND DISPOSAL

Spills: Cut off sources of leak. If the release is large, cut off all ignition sources and evacuate all non-essential personnel from the area. If possible, ventilate the area. If the incident is significant, seek immediate assistance from local fire authorities and police. If possible, monitor the vapour concentration until it has dissipated.

Disposal: If possible, allow to evaporate. Large volumes should be removed by tanker or by controlled burning. LPG in pressurised containers can be disposed by approved incineration methods. Contact the state/territory Environmental Protection Agency for further advice on disposal..

FIRE/EXPLOSION HAZARD

Hazchem Code : 2WE

Extinguishers: Water spray or BC fire extinguisher

Procedures: If possible, stay out of gas or vapour. Use water to disperse unignited gas or vapour. Allow to burn out, if possible.

Special Precautions: Fire fighters should wear full protection and breathing apparatus. LPG is heavier than air, and vapours will tend to flow downwards and accumulate in low lying areas, such as sumps or pits. For fire fighters, the greatest danger is at ground level.

Containers: Cool fire exposed containers with water spray. If ignition has occurred and water is not available, tank metal may weaken from overheating.

Incompatibilities: Oxidisers

Combustion Products: Hazardous combustion products of carbon dioxide (carbon monoxide under poor conditions of combustion) and smoke may be produced.

Hazardous Polymerisation:
Will not occur

Reactivity: Stable

US NFPA Classification: Health: 1 Flammability: 3 Reactivity: 0

OTHER INFORMATION

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