



LP GAS INDUSTRIAL MATERIAL SAFETY DATA SHEET

EMERGENCY SERVICES: DIAL 000

**NOT CLASSIFIED AS HAZARDOUS ACCORDING TO NOHSC CRITERIA
CLASSIFIED AS A DANGEROUS GOOD BY THE CRITERIA OF THE ADG CODE**

Product Name: L.P. Gas (Industrial)
Chemical Name: Mixture propane and propylene
Manufacturer's Code:
UN Number: 1978 Petroleum Gases, Liquified
DG Class: 2.1 Flammable Gas
Packaging Group: Not applicable
Subsidiary Risk(s): None
Hazchem Code: 2 W E
EPG No: Petroleum Gases, Liquified or 2A2
Poisons Schedule: None assigned
Uses: As a fuel, as a process gas.

PHYSICAL DESCRIPTION & PROPERTIES:

Appearance: Colourless gas
Insoluble in water
Boiling Point: -42°C
Melting Point: -188°C
Vapour Pressure: $>1,000\text{mm Hg @ }25^{\circ}\text{C}$
Volatiles: 100%
Evaporation Rate: No data
Odour: Characteristic odour of LPG.
(Propane is odourless and propylene is almost odourless, but small quantities of a mercaptan -usually butyl mercaptan - are added so that the mixture may be detected by smell, even at very low concentrates).
Vapour Density: Heavier than Air
Weight per ml: 0.6g as the liquid
Flash Point: -104°C
Flammability Limits: 2.0 – 11.0%
Auto-Ignition Temperature: 450°C (Propane)
 455°C (Propylene)

OTHER PROPERTIES:

Soluble in some organic solvents such as benzene, chloroform, diethyl ether, ethanol. Highly flammable gas. Burns with a yellow, sooty flame, or with a blue flame, depending on burner design. Becomes very cold when allowed to evaporate; skin contact may cause "cold burns" or frostbite. May react vigorously with halogens. Contact with strong oxidisers may cause fire.

INGREDIENTS:

Variable Mixture
Propane (74-98-6) 90-100%
Ethane (74-84-0) 1-5%

HEALTH EFFECTS

Acute: Swallowed: An unlikely route for the gas. Contact with the liquid may cause frostbite.
Skin: Practically non-irritant. Skin contact with the liquid may cause frostbite.
Eyes: Practically non-irritant. Contact with the liquid may cause frostbite; risk of serious eye injury.
Inhaled: Non-toxic at low concentrations. Propane may be narcotic at higher concentrations. At higher concentrations there is a real risk of asphyxia (lack of oxygen) which may lead to shortness of breath, dizziness, lightheadedness,

headache, vomiting, loss of consciousness and death. Propylene is reported to cause irregular heartbeat.

Chronic: Exposure to propylene is reported to cause liver damage.

LD50: No data.

Swallowed: Not applicable.

Skin: If cold burn or frostbite occurs, immerse affected area in warm (but not hot) water for 30 to 60 minutes. Obtain medical attention.

Eyes: If in eyes, hold eyes open, flood with water for a least 15 minutes and see a doctor.

Inhaled: Remove from exposure immediately, rest and keep warm. If breathing has stopped, apply artificial respiration, with supplemental oxygen if available while sending for medical attention.

If poisoning occurs, contact a doctor or Poisons Information Centre. **Ph: 13 11 26**

FIRST AID FACILITIES

Recommended: Eye wash.

Advice to Doctor: Product is liquid petroleum gas. Simple asphyxiant. Skin contact with the liquid may cause frostbite.

Contact Poisons Information Centre.

EXPOSURE LIMITS

National Occupational Health & Safety Commission (NOHSC)

TLV-TWA: None assigned by NOHSC, but see:

Maximum Allowable Concentration (MAK – Germany) Propane 1,000 ml/m³,
1,800 mg/m³

TLV-STEL: None assigned by NOHSC

Engineering Controls: Use only flame proof equipment. Ensure adequate ventilation (same as outdoors) when using.

Consider local mechanical exhaust/extraction to keep airborne contamination as low as possible. Ensure equipment is designed to prevent gas from escaping into the workplace. Where possible, insulate metal fittings to prevent skin contact.

Fixed tanks, fittings and piping should be electrically bonded and earthed.

Personal Protection: Do not breathe gas. Prevent contact with the liquid and cold fittings. Personal protection to be selected from those recommended below, as appropriate to mode of use, quantity handled and degree of hazard:

Self contained breathing apparatus

Face shield/chemical goggles/safety glasses

Gloves, thermally insulated

Safety shoes

Flammability: Highly flammable gas, flash point -104°C. Mixtures with air may be flammable or explosive. Gas heavier than air, risk of remote ignition. Contact with strong oxidisers may cause fire.

STORAGE AND TRANSPORT

Storage Temperature: Room Temperature

UN Class: 2.1 Flammable gas

Packaging Group: Not applicable

UN Number: 1978 Liquified petroleum gas

EPG Number: Liquified Petroleum Gas or 2A2

Correct Shipping Name: Liquified Petroleum Gas

Observe requirements of The Australian Code for the Transport of Dangerous Goods by Road and Rail. Observe the requirements of State Dangerous Goods (Storage and Handling) Regulations. Observe State and Federal LPG regulations.

STORAGE ADVICE

Store cylinders in a cool, well-ventilated place, out of direct sunlight. Keep cylinders tightly closed. Keep away from naked flames and other sources of ignition. No smoking. Prevent gases collecting in enclosed or low-lying spaces. Take precautions against static discharge. Keep away from halogens and oxidisers. Protect from physical damage, especially to valves and regulators.

SPILLS AND DISPOSAL

Disposal of small spillages only...

CAUTION: Before dealing with spillage take the necessary protective measures, inform others to keep at a safe distance and, for flammable materials, shut off all possible sources of ignition. Extinguish all naked flames. **No Smoking.** Switch off or shut down all non-flameproof equipment. Close valves, if safe to do so. Disconnect cylinder or tank. Remove leaking cylinder to safe, open area. If necessary, disperse leaking gas with fine water spray. Unless leak is minor, contact emergency services.

FIRE/EXPLOSION HAZARD

Highly flammable gas, flash point -104OC. Mixtures with air may be flammable or explosive. Gas heavier than air, risk of remote ignition. Contact with strong oxidisers may cause fire.

DECOMPOSITION PRODUCTS

Carbon Dioxide, Water Vapour, Black Smoke. Incomplete combustion may generate Carbon Monoxide.

In case of small fire/explosion use: Water Spray

In case of major emergency...

Hazchem Code: 2 W E

Extinguishant: Water fog or fine water spray.

Danger of violent reaction or explosion? Yes

Protective Clothing: Breathing apparatus and protective gloves.

Appropriate Measures: Contain

Evacuate? Yes

OTHER INFORMATION

Prevent spillages from entering drains or sewers.

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