

Liquified Petroleum Gas

SAFETY DATA SHEET

(SDS Number – PGC LPG042017)

Effective Date: July 2022

1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

1.1 Product Identifier

PRODUCT NAME: Liquified Petroleum Gas, LP Gas

SYNONYMS: LPG, LP Gas, Propane

1.2 Uses and uses advised against

Uses: Fuel, Process Gas

1.3 Details of the supplier of the product

Pacific Gas Pty Limited,
22-26 Cumberland Drive
Seaford, VIC, 3198
Contact Telephone: (61) 408 350 180
Email: info@pacgas.com.au

1.4 Emergency telephone number(s)

Contact Telephone: (61) 408 350 180

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

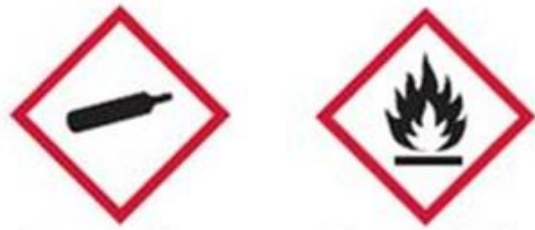
CLASSIFIED AS HAZARDOUS ACCORDING TO SAFE WORK AUSTRALIA CRITERIA

GHS classification(s) Flammable Gases: Category 1
Gases Under Pressure: Liquefied gas

2.2 Label elements

Signal word: DANGER

Pictogram(s)



Hazard statement(s)

H220: Extremely flammable gas.

H280: Contains gas under pressure; may explode if heated

AUH006: Explosive with or without contact with air

Prevention statement(s)

P210: Keep away from heat/sparks/open flames / hot surfaces. No smoking.

Response statement(s)

P377: Leaking gas fire: Do not extinguish, unless leak can be stopped safely

P381: Eliminate all ignition sources if safe to do so.

Storage Statement(s)

P410 and P403: Protect from sunlight. Store in a well-ventilated place

Disposal Statement(s)

None allocated

2.3 Other hazards

Asphyxiant, this product may displace oxygen and cause suffocation.

3. COMPOSITION / INFORMATION ON INGREDIENTS

3.1 Substances / Mixtures

Ingredient	CAS No	EC Number	Percentage
Propane	74-98-6	200-827-9	>95%

4. FIRST AID MEASURES

4.1 Description of First Aid Measures

EYE CONTACT: Cold burns: Immediately flush with tepid water or with sterile saline solution. Hold eyelids apart and irrigate for 15 minutes. Seek medical attention

SKIN CONTACT: Cold burns: Remove contaminated clothing and gently flush affected areas with warm water (30°C) for 15 minutes. It is recommended that warm water is applied to clothing before removing it so as to prevent further skin damage. Apply sterile dressing and treat as for a thermal burn. For large burns, immerse in warm water for 15 minutes. DO NOT apply any form of direct heat. Seek immediate medical attention

INHALATION: If inhaled, remove from contaminated area. To protect rescuer, use an Air-line respirator or Self Contained Breathing Apparatus (SCBA). Be aware of possible explosive atmospheres. Apply artificial respiration if not breathing. Give oxygen if available.

INGESTION: Considered unlikely.

FIRST AIDE FACILITIES: Eye wash facilities and safety shower should be available.

4.2 Most important symptoms and effects, both acute and delayed

In high concentrations may cause asphyxiation. Symptoms may include loss of mobility / consciousness. Victim may not be aware of asphyxiation. In low concentrations may cause narcotic effects. Symptoms may include dizziness, headache, nausea and loss of co-ordination.

4.3 Immediate medical attention and special treatment needed

Treat for asphyxia

5. FIRE FIGHTING MEASURES

5.1 Extinguishing Media:

Shut off source of gas if possible. Extinguish fire only if flow of acetylene can be stopped. Keep adjacent cylinders cool by spraying large amounts of water until the fire burns itself out and the cylinders are cool. If a flame is extinguished and gas continues to escape, an explosive re-ignition could occur.

5.2 SPECIAL HAZARDS ARISING FROM SUBSTANCE OR MIXTURE:

Extremely flammable. Eliminate all ignition sources including cigarettes, open flames, spark producing switches/tools, heaters, naked lights, pilot lights, mobile phones etc. when handling.

5.3 Advice for Firefighters

Temperatures in a fire may cause cylinders to rupture and internal pressure relief devices to be activated. Cool cylinders or containers exposed to fire by applying water from a protected location. Do not approach cylinders or containers suspected of being hot.

5.4 Hazchem Code

2YE

2	Fine Water Spray
Y	Risk of violent reaction or explosion. Wear full fire kit and breathing apparatus. Contain spill and run-off. Risk of violent reaction or explosion. Wear full fire kit and breathing apparatus. Contain spill and run-off.
E	Evacuation of people in and around the immediate vicinity of the incident should be considered.

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Evacuate immediate area. Eliminate any possible sources of ignition, and provide maximum explosion-

proof ventilation. Shut off source of gas, if possible. Isolate any leaking cylinder. If leaking from cylinder, valve or pressure relief device, contact your supplier. Use of PPE as detailed in Section 8.

6.2 Environmental precautions

Prevent from entering sewers, basements and workpits, or any place where its accumulation can be dangerous.

6.3 Methods of cleaning up

Carefully move material to a well ventilated remote area, then allow to discharge if safe to do so. Do not attempt to repair leaking valve or cylinder safety devices.

7. HANDLING AND STORAGE

7.1 Precautions for Safe Handling

Use of safe work practices are recommended to avoid inhalation. Protect cylinders from physical damage; do not drag, roll, slide, or drop. Use a suitable hand truck for cylinder movement. Post "No Smoking" or 'Open Flames' signs in the storage or use areas.

7.2 Conditions for safe storage, including any incompatibilities

Store and use with adequate ventilation in a secure area; below 45°C, in an area constructed of non-combustible material with firm level floor. Cylinders should be stored upright with valve protection cap in place and firmly secured to prevent falling or being knocked over. There should be no sources of ignition. All electrical equipment should be explosion-proof in the storage and use areas.

7.3 Specific end use(s)

No information provided

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Ingredient	Reference	TWA		STEL		
		ppm	mg/m ³	ppm	mg/m ³	
Propane	SWA (AUS)	Asphyxiant				

Biological limits

No biological limit values have been entered for this product

8.2 Exposure controls

Provide adequate natural or explosion-proof mechanical ventilation to ensure acetylene does not accumulate and reach its lower explosive limit of 2.5%. Confined areas (e.g. tanks) should be adequately ventilated or gas tested.

PPE

Eye / Face	Wear a faceshield and splash-proof goggles or safety glasses
Hands Wear	leather or cotton gloves
Body Wear	coveralls and safety boots
Respiratory	If in a confined area, wear an Air-fed respirator or similar approved Apparatus.



9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Appearance	Colourless Odourless, Liquefied under pressure
ODOUR Odour	CHARACTERISTIC ODOUR, Ethyl Mercaptan added to give distinctive odour
Flammability	EXTREMELY FLAMMABLE
Flash point	-104°C
Boiling point	-42°
Melting point	-187°
Evaporation rate	Not Applicable
pH	Not Applicable
Vapour density	> 1 (Air = 1)
Specific gravity	NOT AVAILABLE
Solubility (water)	INSOLUBLE
Vapour pressure	> 1000 mm Hg @ 25°C
Upper explosion limit	9.5%
Lower explosion limit	2.1%
Partition coefficient	Not Available
Autoignition temperature	Not Available

Decomposition temperature	Not Available
Viscosity	Not Available
Explosive properties	Not Available
Oxidising properties	Not Available
Odour threshold	Not Available

9.2 Other information

% Volatiles	100%
Liquid density	0.5 g/ml

10. STABILITY AND REACTIVITY

10.1 Reactivity

Forms explosive acetylides with copper, silver and mercury. Do not use alloys containing more than 65% copper.

10.2 Chemical stability

Unstable. Stable as shipped. Do not use at pressure above 103 kPa (15 psig).

10.3 Possibility of hazardous reactions

Polymerizes with evolution of heat. Avoid contact with curing agents, accelerators, and/or initiators.

10.4 Conditions to avoid

Avoid shock, friction, heavy impact, heat, sparks, open flames and other ignition sources.

10.5 Incompatible materials

Incompatible with oxidising agents (e.g. hypochlorites), acids (e.g. nitric acid), heat and ignition sources. Do not use natural rubber flexible hoses. Also incompatible (potentially violently) with oxygen, halogens and metal halides.

10.6 Hazardous decomposition products

This material will not decompose to form hazardous products other than that already present.

11. TOXICOLOGICAL INFORMATION

Ingredient	Inhalation Toxicity (LC50)
Propane	> 800000 ppm/15M (rat)

11.1 Information on toxicological effects

Acute toxicity	Based on available data, the classification criteria are not met
Skin	Not classified as a skin irritant
Eye	Not classified as an eye irritant
Sensitisation	Not classified as causing skin or respiratory sensitisation
Mutagenicity	Not classified as a mutagen

Carcinogenicity	Not classified as a carcinogen
Reproductive	Not classified as a reproductive toxin
STOT – single exposure	Asphyxiant. Effects are proportional to oxygen displacement. Over exposure may result in dizziness, drowsiness, weakness, fatigue, breathing difficulties and unconsciousness.
STOT – repeated exposure	Not classified as causing organ damage from repeated exposure
Aspiration	Not classified as causing aspiration

12. ECOLOGICAL INFORMATION

12.1 Toxicity

No adverse ecological effects are expected.

12.2 Persistence and degradability

No information provided

12.3 Bioaccumulative potential

This product is not expected to bioaccumulate

12.4 Mobility in soil

Because of its high volatility, the product is unlikely to cause ground or water pollution.

12.5 Other adverse effects

No known effects from this product

13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Waste disposal: Do not attempt to dispose of residual or unused quantities. Return cylinder to supplier. Unserviceable cylinders should be returned to the supplier for safe and proper disposal.

Legislation: Dispose of in accordance with relevant local legislation

14. TRANSPORT INFORMATION

CLASSIFIED AS A DANGEROUS GOOD BY THE CRITERIA OF THE ADG CODE



	LAND TRANSPORT (ADG)	SEA TRANSPORT (IMDG / IMO)	AIR TRANSPORT (IATA / ICAO)
UN Number	1075	1075	1075
Proper Shipping Name	Petroleum Gases, Liquified	Petroleum Gases, Liquified	Petroleum Gases, Liquified
Transport Hazard Class	2.1	2.1	2.1
Packing Group	None allocated	None allocated	None allocated

14.5 Environmental hazards

No information provided.

14.6 Special precautions for user

Hazchem code: 2YE

GTEPG: 2A2

EMS: F-D, S-U

Other information: Cylinders should be transported in a secure position, in a well ventilated vehicle. The transportation of compressed gas cylinders in automobiles or in closed-body vehicles can present serious safety hazards and should be discouraged.

15. REGULATORY INFORMATION

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

Poison Schedule	A poison schedule number has not been allocated to this product using the criteria in the Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP).
Classifications	Safework Australia criteria is based on the Globally Harmonised System (GHS) of Classification and Labelling of

	Chemicals. The classifications and phrases listed below are based on the Approved Criteria for Classifying Hazardous Substances [NOHSC: 1008(2004)].	
Hazard Codes	F+	Extremely flammable
Risk Phrases	R12	Extremely Flammable
Safety Phrases	S9 S16 S18 S26 S33	Keep container in a well ventilated place Keep away from sources of ignition - No smoking Handle and open container with care. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice Take precautionary measures against static discharges
Inventory Listings	AUSTRALIA: AICS (Australian Inventory of Chemical Substances) All components are listed on AICS, or are exempt	

16. OTHER INFORMATION

Other Information	<p>ASPHYXIANTS (1): When present in the atmospheres in high concentrations, asphyxiants reduce the oxygen concentration by displacement. Atmospheres deficient in oxygen do not provide adequate sensory warning of danger and most simple asphyxiants are odourless. Therefore it is not appropriate to recommend an exposure standard for each asphyxiant, but to maintain oxygen concentrations. However, some asphyxiants may be given an exposure standard due to the potential for narcotic effects at high concentrations or an explosion hazard.</p> <p>ASPHYXIANTS (2): There is a significant hazard associated with workers entering poorly ventilated areas (e.g. tanks) where oxygen may be deficient. An air supplied breathing apparatus may be required if adequate ventilation is not ensured.</p> <p>PERSONAL PROTECTIVE EQUIPMENT GUIDELINES: The recommendation for protective equipment contained within this report is provided as a guide only.</p>
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	<p>Factors such as form of product, method of application, working environment, quantity used, product concentration and the availability of engineering controls should be considered before final selection of personal protective equipment is made.</p>
	<p>HEALTH EFFECTS FROM EXPOSURE: It should be noted that the effects from exposure to this product will depend on several factors including: form of product; frequency and duration of use; quantity used; effectiveness of control measures; protective equipment used and method of application. Given that it is impractical to prepare a report which would encompass all possible scenarios, it is anticipated that users will assess the risks and apply control methods where appropriate.</p>

INFORMATION PREPARED BY:

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