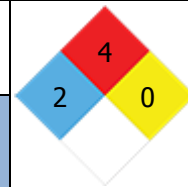




Safety Data Sheet

Liquefied Petroleum Gas



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1 Identification of the substance or mixture and of the supplier

1.1. Product name or GHS product identifier

1.1.1. Common name :	Liquefied Petroleum Gas
1.1.2. Chemical formula :	
1.1.3. Commercial name :	Liquefied Petroleum Gas (LPG)
1.1.4. CAS number :	68476-85-7
1.1.5. Molecular weight :	N/A g/mol
1.2. Other product identifier :	
1.2.1. UN Number :	1075
1.2.2. Annex I, EU directive 67/948/EC :	N/A
1.2.3. EC number :	270-704-2

1.3. Recommendation for use and other prohibitions for use

N/A

1.4. Manufacturer or Supplier Details

1.4.1. Manufacturer or Supplier	1.4.2. Address
PTT Global Chemical Public Company Limited	8, I-8 Road, Map Ta Phut Industrial Estate, Map Ta Phut, Mueang Rayong, Rayong 21150 Thailand.
1.4.3. Telephone number :	66(0) 3897-1000 ext. 1190,1191
1.5. Emergency telephone number :	038-971191

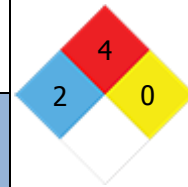
1.6. Other information

1.6.1. Hazardous substance	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
1.6.2. Hazardous category	N/A	
1.6.3. Max quantity storage		
1.6.4. Uses	product	
1.6.5. Other		



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Hazards identification

2.1. GHS classification of the substance/mixture and any national or regional information

2.1.1. Hazard classification according to the GHS

Flammable gases - Category 1
Germ Cell Mutagenicity - Hazard category 2
Carcinogenicity - Hazard category 2
Long Term Hazards To The Aquatic Environments - HazardCategory4

2.2. GHS label elements, including precautionary statements

2.2.1. Chemical name :

N/A

2.2.2. Product name or GHS product identifier :

Liquefied Petroleum Gas

2.2.3. Symbol and Hazard pictograms



2.2.4. Signal words :

Danger

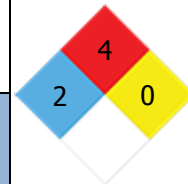
2.2.5. Hazard statement

Extremely flammable gas
Suspected of causing genetic defects (state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard)
Suspected of causing cancer (state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard)
May cause long lasting harmful effects to aquatic life



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Hazards identification (cont.)

2.2.6. Precautionary information

- Keep only in the original container
- Avoid contact with heat and ignition sources [and oxidizers] [- No Smoking]
- Store in a cool/low-temperature, well-ventilated [dry] place [away from heat and ignition sources]
- Use CO₂, dry chemical, or foam
- Do not eat, drink or smoke during work
- Wear suitable [protective clothing] [gloves] [and eye/face protection]
- Use non-sparking equipment when picking up flammable spill, [remove all ignition sources]

2.2.7. Supplemental information

N/A

2.3. Other hazards which do not result in classification or are not covered by the GHS

N/A

2.3.1. Potential Chronic Health Effects

2.3.1.1. Carcinogen effects

- Maybe-Carcinogen Carcinogen Non-Carcinogen N/A

2.3.1.2. Mutagenic effects

- Mutagenic Non-Mutagenic N/A

N/A

2.3.1.3. Other information

N/A

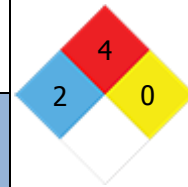
2.4. Environmental Hazards

N/A



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4

First-aid measures

4.1. First-aid

4.1.1. Inhalation

Remove from area of exposure immediately. Be aware of possible explosive atmospheres.

4.1.2. Skin contact

Cold burns: Remove contaminated clothing and gently flush affected areas with warm water (30 C) for 15 minutes. Apply non-adhesive sterile dressing and treat as for a thermal burn.

4.1.3. Eyes contact

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

4.1.4. Ingestion

For advice, contact a Poisons Information Centre on 13 11 26 (Australia Wide) or a doctor. Ingestion is considered unlikely due to product form.

4.2. Most important symptoms/effects

4.2.1. Acute Effects

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 coordination.

4.2.2. Delayed effects

Treat symptomatically. Severe inhalation over exposure may sensitise the heart to catecholamine induced arrhythmias. Do not administer catecholamines to an overexposed person.

4.3. Indication of immediate medical attention

4.4. Special treatment needed, if necessary.

N/A

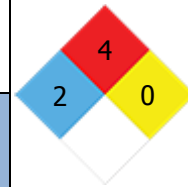
4.5. Other

N/A



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5

Firefighting measures

- 5.1. Unsuitable extinguishing media : directly jet of water to fire
- 5.2. Suitable extinguishing media : use only a dry chemical powder extinguisher.
- 5.3. Specific hazards arising from the chemical.
Carbon oxides (CO, CO2) fumes may be produced should burning occur especially within an enclosed space
- 5.4. Special protective equipment and precautions for fire-fighters.
Fire fighters should wear full protective clothing and be aware of the risk of possible explosion (especially in a confined space) . Flashback may occur along vapour trail. Breathing apparatus is required in confined spaces
- 5.5. Precautions for fire fighters.
Highly flammable. Temperatures in a fire may cause cylinders or pressure vessels to rupture and pressure relief devices to be activated (venting) .Cool cylinders and vessels exposed to fire by applying water from a protected location
- 5.6. Other.
Where possible, remove cool cylinders from the path of the fire. Do not re-use a fire-exposed vessel or cylinder – seek advice of supplier

6

Accidental release measures

6.1. Personal precautions
If the cylinder is leaking, eliminate all potential ignition sources and evacuate area of personnel. Inform manufacturer / supplier of leak. If safe to enter the area, wear appropriate PPE as detailed in Section 8 of the SDS.

6.2. Protective equipment



6.3. Emergency procedures

- | | |
|---|--------------------|
| 6.3.1. Large Spill | 6.3.2. Small Spill |
| Stop the flow of material, if this is without risk. If the leak is irreparable, move the cylinder to a safe and well ventilated area, and allow to discharge. Keep area evacuated and free from ignition sources until any leaked | - |

6.4. Environmental precautions

As this product has a very low flash point, any spillage or leak is a fire and / or explosion hazard. If a leak has not ignited, stop gas flow, isolate sources of ignition and evacuate personnel.

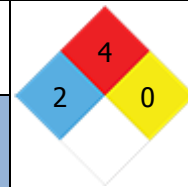
6.5. Methods and materials for containment and cleaning up.

Store and use only in equipment / containers designed for use with this product. Store and dispense only in well ventilated areas away from heat and sources of ignition. Do not store in unventilated buildings.



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7

Handling and storage

7.1. Precautions for safe handling.

Avoid inhalation of vapour. Avoid contact with liquid and cold storage containers. Avoid contact with eyes. When handling cylinders wear protective footwear and suitable gloves.

7.2. Incompatibility.

7.2.1. Safe storage condition.

Do not transport in unventilated vehicle compartments. Do not enter storage vessels. If entry to a vessel is necessary, contact the supplier. Cylinders and vessels must be properly labelled. Do not remove warning labels. LPG cylinders shall be stored in accordance with the requirements of AS/NZS 1596 and AS 4332.

7.2.2. Incompatible chemicals condition.

Do not store in pits and basements where vapour may collect.

7.3. Storage area :

GC6

7.4. Incompatible chemicals condition.

No data available

7.5. Hazard Class by UN :

2

7.6. Classification :

class 2a

8

Exposure controls/personal protection

8.1. Occupational exposure limit values or biological limit values

Name	TLV-TWA	TLV-STEL	TLV-C	PEL	IDLH	Thai	biological limit values
OSHA				PEL-TWA 1000 pp			
ACGIH	TLV-TWA 1000 pp						
niosh	TLV-TWA 1000 pp						

8.2. Appropriate engineering controls

No data available

8.3. Personal protective equipment



8.4. Personal hygiene

No data available

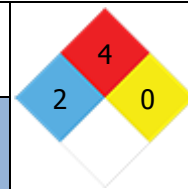
8.5. Other protection

No data available



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Physical and chemical properties

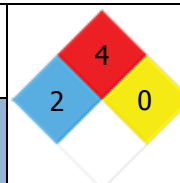
9.1. Appearance :	Gas Colourless		
9.2. Odour :	Characteristic Odour		
9.3. Odour threshold limit :	N/A ppm		
9.4. pH-value :	N/A		
9.5. Melting point &Freezing point :	Melting point	N/A °C	
	Freezing point	N/A °C	
9.6. Initial boiling point/Boiling range	Boiling/condensation point	-42 °C	
	Evaporation rate	N/A °C –	
9.7. Flash point :	-104 °C (Close cup)		
9.8. Evaporation rate :	N/A mg/sec		
9.9. Flammability (solid, gas) :	Burning time	N/A sec	
	Burning Rate	N/A mm/sec	
9.10. Upper/lower flammability or explosive limits :	2.2 % LEL and/or 9.5 %UEL		
9.11. Vapour pressure :	1930 kPa at 25 °C		
9.12. Vapour density :	Respect to air	1.56 kPa	
9.13. Relative density :	0.52 at 1		
9.14. Solubility(ies) :			
9.15. Partition coefficient : n-octanol/water :	2.3		
9.16. Auto-ignition temperature :	405-466 °C		
9.17. Decomposition temperature :	N/A °C		
9.18. Viscosity :	N/A		
9.19. Heat of Combustion :	N/A °C		
9.20. The ignition distance test :	N/A cm		
9.21. The enclosed space ignition test	N/A s/m ³		
9.22. The foam test :	Vapor density	N/A	cm
	Flames burning up	N/A	sec

Detail	Type of Substance		Unit
	Other substance	Powders or dusts	
Use water spray to blanket fire, cool fire exposed containers, to stop leak, and burn	N/A	-	minute
Burning time	N/A	-	sec
Burning rate	N/A	-	mm/s



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Stability and reactivity

10.1. Reactivity

Extremely flammable. Reacts violently with oxidising agents.

10.2. Chemical Stability :

- Stability Instability and emit gas N/A

10.3. Possibility of Hazardous reaction : none

10.4. Conditions to avoid :

Avoid heat, sparks, open flames and other ignition sources

10.5. Incompatible materials :

Incompatible with oxidising agents, acids, heat and ignition sources. Do not use natural rubber flexible hoses. Also incompatible (potenti

10.6. Hazardous decomposition products : Heating to decomposition produces acrid smoke and irritating fumes.

10.7. Corrosively : N/A

11

Toxicological information

11.1. Route of Exposure Inhalation Ingestion Skin contact Eye contact

11.2. Symptoms related to the physical, chemical and toxicological characteristics

11.2.1. Symptom related with physical characteristic

N/A

11.2.2. Symptom related with chemical characteristic

n/a

11.2.3. Symptom related with toxicology

N/A

11. The impact of acute and delayed (delayed and immediate effects) including chronic (chronic effects) exposure (Contact delayed, immediate and chronic effects)

n/a

11.4. Numerical measures of toxicity

11.4.1. Acute oral toxicity : N/A

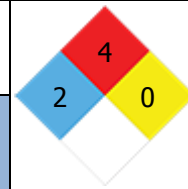
11.4.2. Acute dermal toxicity : N/A

11.4.3. Acute toxic of the vapour : LC50 Inhalation - rat : >20 mg/l 4 h



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Ecological information

12.1. Eco toxicity (aquatic and terrestrial, where available)

12.1.1. Toxicity to fish : No data available

12.1.2. Crustaceans / Toxicity to crustaceans : No data available

12.1.3. Algae / Toxicity to algae : No data available

12.2. Degradability and persistence

No data available

12.3. Bio-accumulative potential : Log kow ; 2.3

12.4. Mobility in soil : No data available

12.5. Other adverse effects :

No data available

13

Disposal considerations

13.1. Waste information : No data available

13.2. Remain materials : No data available

13.3. Waste disposal : local regulation

13.4. Package contaminated disposal : Hazard warning labels are a guide to the safe handling of empty packaging and should not be removed.

14

Transport information

14.1. UN Number : 1075

14.2. UN Proper Shipping Name : PETROLEUM GASES, LIQUEFIED

14.3. Transport Class/Division : 2.1

14.4. Package group (if any) :

14.5. Marine pollution : Yes No N/A

14.6. Special precautionary for user : N/A

14.7. Transport in bulk : N/A

14.8. Classification code :

14.9. Other :

N/A

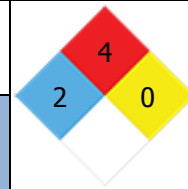
Pictogram





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Regulatory information

15.1. Safety, health and environmental regulations

N/A

16

Other information

16.1. Date of latest issue

2/12/2021

16.2. Description of point of Safety Data Sheet changing

N/A

16.3. Abbreviation explanation

N/A

NFPA Hazard Code	HMIS Hazard	Rating System
Hazardous decomposition products Health hazard Possibility of hazardous reactions Specific hazards arising from the chemical	2 Health	0 = No hazard 1 = Slight hazard 2 = Moderate hazard 3 = Serious hazard 4 = Severe hazard
	4 Flammability	
	0 Reactivity	

16.4. Information Safety Data Sheet files

Primary Reference : [Liquefied Petroleum Gas \(LPG\).pdf](#)

Secondary Reference :

16.5. Local Legislation Related

16.6. Reference

16.7. Other details

()

Liquefied Petroleum Gas

NFPA Rating



Emergency Call

038-971191

UN Number : 1075

CAS Number : 68476-85-7

Flash point : -104°C

Auto-ignition : 405-466°C

TLV-
TWA
1000

TWA-TLV :

pp,
TLV-
TWA
1000
pp

Classification :

Hazard Statement

Extremely flammable gas, Suspected of causing genetic defects (state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard), Suspected of causing cancer (state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard), May cause long lasting harmful effects to aquatic life



Health Effects

Fatal if swallowed, Toxic if swallowed, Harmful if swallowed, May be harmful if swallowed, Fatal in contact with skin, Toxic in contact with skin, Harmful in contact with skin, May be harmful in contact with skin, Fatal if inhaled, Toxic if inhaled, Harmful if inhaled, May be harmful if inhaled, Causes severe skin burns and eye damage, Causes skin irritation, Causes mild skin irritation, Causes serious eye damage, Causes serious eye irritation, Causes eye irritation, May cause allergy or asthma

Protective equipment

Protective clothing must be worn, Respirators must be used where appropriate, Foot protection must be worn where appropriate, Use hand protection in this area, Safety helmets must be worn where appropriate, Face mask



first aid

Remove from area of exposure immediately. Be aware of possible explosive atmospheres., Cold burns: Remove contaminated clothing and gently flush affected areas with warm water (30 C) for 15 minutes. Apply non-adhesive sterile dressing and treat as for a thermal burn., Treatment for cold burns: Immediately flush with tepid water or with sterile saline solution. Hold eyelids apart and irrigate for 15 minutes. Seek medical attention., For advice, contact a Poisons Information Centre on 13 11 26 (A)



Unsuitable extinguishing media

use only a dry chemical powder extinguisher., directly jet of water to fire



Hazardous Materials Handling and Storage

Avoid inhalation of vapour. Avoid contact with liquid and cold storage containers. Avoid contact with eyes. When handling cylinders wear protective footwear and suitable gloves., Do not transport in unventilated vehicle compartments. Do not enter storage vessels. If entry to a vessel is necessary, contact the supplier. Cylinders and vessels must be properly labelled. Do not remove warning labels. LPG cylinders shall be stored in accordance with the requirements of AS/NZS 1506 and AS 4332. Do not



Methods and materials for containment and cleaning up

If the cylinder is leaking, eliminate all potential ignition sources and evacuate area of personnel. Inform manufacturer / supplier of leak. If safe to enter the area, wear appropriate PPE as detailed in Section 8 of the SDS., Stop the flow of material, if this is without risk. If the leak is irreparable, move the cylinder to a safe and well ventilated area, and allow to discharge. Keep area evacuated and free from ignition sources until any leaked, As this product has a very low flash point, any

For more information please contact :

Code No. 10060025

Number of Revision :

6

Warning :

Liquefied Petroleum Gas

UN No : 1075

CAS No : 68476-85-7



Signal words : Danger

Hazard statement :

Extremely flammable gas, Suspected of causing genetic defects (state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard), Suspected of causing cancer (state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard), May cause long lasting harmful effects to aquatic life



First Aid :

Remove from area of exposure immediately. Be aware of possible explosive atmospheres., Cold burns: Remove contaminated clothing and gently flush affected areas with warm water (30 C) for 15 minutes. Apply non-adhesive sterile dressing and treat as for a thermal burn., Treatment for cold burns: Immediately flush with tepid water or with sterile saline solution. Hold eyelids apart and irrigate for 15 minutes. Seek medical attention., For advice, contact a Poisons Information Centre on 13 11 26 (A)

Precautionary information :

- Keep only in the original container
- Avoid contact with heat and ignition sources [and oxidizers] [- No Smoking]
- Store in a cool/low-temperature, well-ventilated [dry] place [away from heat and ignition sources]
- Use CO2, dry chemical, or foam
- Do not eat, drink or smoke during work
- Wear suitable [protective clothing] [gloves] [and eye/face protection]
- Use non-sparking equipment when picking up flammable spill, [remove all ignition sources]

Emergency number :

038-971191

Manufacturer or Supplier Details

Company : PTT Global Chemical Public Company Limited

Address : 8, I-8 Road, Map Ta Phut Industrial Estate, Map Ta Phut, Mueang Rayong, Rayong 21150 Thailand.

Telephone number : 66(0) 3897-1000 ext. 1190,1191

Protective equipment

