

MATERIAL SAFETY DATA SHEET

LPG

1. CHEMICAL IDENTITY

Chemical Name	Liquefied Petroleum Gas	Chemical Classification	Hydrocarbon Mixture		
Synonyms	LPG, Propane, Butane, Propylene, Purofax, Bottled Gas		Trade Name	LPG	
Formula	C ₃ H ₈ & C ₄ H ₁₀ (Mixture)	C.A.S. NO.	68476-85-7	UN NO.	1075
Regulated Identification	Shipping Name	Petroleum Gases, Liquefied			
	Codes/Label	Flammable, Class 2			
	Hazardous waste I.D. No.	2 WE			
	Hazchem Code				
HAZARDOUS INGREDIENTS	C.A.S. NO.	HAZARDOUS INGREDIENTS	C.A.S. NO.		
1. Propane	74-98-6	3. Propylene	115-07-1		
2. Butane	106-97-8				

2. PHYSICAL AND CHEMICAL DATA

Boiling Point/Range °C	> -40	Physical State	Gas at 15°C and 1 atm	Appearance	Colourless
Melting/Freezing Point °C	Not Pertinent	Vapour pressure @ 35 °C, mm Hg	Not available	Odour	Mercaptan added as an odouriser
Vapour Density (Air = 1)	1.5	Solubility in water @ 30 °C	Slight	Solubility in others	Soluble in Organic Solvents, Alcohol
Specific Gravity (Water = 1)	0.51 – 0.58 at 15 °C	pH	Not pertinent		

3. FIRE AND EXPLOSION HAZARD DATA

Flammability	Yes	LEL (%V)	1.9%	Flash Point (OC) °C	
TDG Flammability	2	UEL (%V)	9.5%	Flash Point, (CC) °C	- 104.4
Auto ignition Temperature °C	466.1 Propane, 405 Butane				
Explosion Sensitivity to Impact	Not established				
Explosion Sensitivity to Static Electricity	May explode				
Hazardous Combustion products	Emits CO, CO ₂				
Hazardous Polymerization	Does not occur				
Combustible Liquid	No	Explosive Material	No	Corrosive Material	No
Flammable Material	Yes	Oxidiser	No	Others	
Pyrophoric Material	No	Organic Peroxide	No		

4. REACTIVITY DATA

Chemical Stability	Stable
Incompatibility with other material	Strong Oxidisers
Reactivity	No reaction with common materials but may react with oxidising materials
Hazardous Reaction Products	Not available

5. HEALTH HAZARD DATA

Routes of Entry Effects of Exposure/ Symptoms	Inhalation, Skin Concentration in air greater than 10% causes dizziness in few minutes. 1% conc. Gives the same symptoms in 10 mts. High concentration causes asphyxiation. Liquid on skin causes frostbite.				
Emergency Treatment	<p>Inhalation Seek medical aid immediately If inhaled, remove the victim to fresh air area. Provide artificial resuscitation.</p> <p>Contact Skin : Remove the wetted clothes & wash the affected area with plenty of water Eyes : Flush with plenty of water for 15 min.</p>				
LD ₅₀ (Oral-Rat), mg/kg	Not listed	LD ₅₀ , mg/kg			
Permissible Exposure Limit ppm	Not listed	Odor Threshold, ppm	5000 to 20000		
TLV (ACGIH) ppm	1000	STEL, ppm	Not listed		
	1800 mg/m ³		Not listed		
NFPA Hazard Signals	Health 1	Flammability 4	Reactivity/Stability 0	Special	

6. PREVENTIVE MEASURES

Personal Protective Equipment	Avoid contact with liquid or gas
Handling and Storage Precautions	Provide hand gloves, safety goggles, gas mask, protective over-clothing and shoes

7. EMERGENCY AND FIRST AID MEASURES

FIRE	Fire Extinguishing Media	CO ₂ , Dry Chemical Powder, Water spray.
	Special Procedure	Keep the containers cool by spraying water if exposed to fire or heat
	Unusual Hazards	If not cooled sufficiently, containers will explode in fire.
EXPOSURE	First Aid Measures	If inhaled, remove the victim to open air area and artificial resuscitation may be provided if required. If skin is affected with the liquid, remove the clothing & wash the affected area with plenty of water. Seek medical aid.
	Antidotes/ Dosage	Not available
SPILLS	Steps to be taken	Shut off leaks if without risk. Warn everybody that air mixture is explosive.
	Waste Disposal Method	Allow gas to burn under control

8. ADDITIONAL INFORMATION/ REFERENCES

Avoid contact with oxidisers. Olefinic impurities may lead to narcotic effect or it may act as a simple asphyxiant. A very dangerous hazard when exposed to heat or flame. If fire is big, keep surrounding areas cool by spraying water.

9. MANUFACTURER/ SUPPLIERS DATA

Name of firm :
Mailing Address :

10. DISCLAIMER

Information contained in this material safety data sheet is believed to be reliable but no representation, guarantee or warranties of any kind are made as to its accuracy, suitability for a particular application or results to be obtained from them.