



Material Safety Data Sheet (Canada) Liquefied Petroleum Gas (LPG)

Section 1 – Material Identification and Use

Material Name: LIQUEFIED PETROLEUM GAS (LPG)
Use: Feedstock, fuel
WHMIS Classification: Class A; Class B, Div. 2 and 3
TDG: UN: 1075 **Class:** 2.1 **Packing Group:** N.Av.
Shipping Name: LIQUEFIED PETROLEUM GASES
Manufacturer/Supplier: ENCANA COPORATION
500 Centre Street SE
CALGARY, ALBERTA, T2P 2S5
Emergency Telephone: CANUTEC: 1-613-996-6666
Chemical Family: Liquefied aliphatic paraffinic hydrocarbons

Section 2 – Hazardous Ingredients of Materials

Hazardous Ingredients	Approximate Concentrations %	C.A.S. Nos.	LD50/LC50 Specify Species & Route	Exposure Limits
Butane	50-60	106-97-8	LC50, rate, 4 hrs, 658 g/m ³	1000/ 600 (750) ppm (AB & TLV/ BC (STEL))
Propane	40 - 50	74-98-6	N.Av.	1000 ppm (AB & BC)
Ethane	<5	74-84-0	N.Av.	1000 ppm (AB & BC)

This product may contain trace quantities of Naturally Occurring Radioactive Material (NORM) in the form of radon gas. All exposure levels are 8-hour time-weighted exposure limits unless otherwise indicated. STEL is a short-term exposure limit over a 15 minute time-weighted average.

Section 3 – Physical Data for Material

Physical State: Liquefied gas
Specific Gravity: 0.53
Vapour Density (air=1): 1.6 – 2.0
Percent Volatiles, by volume: 100
pH: N.App.
Coefficient of Water/Oil Distribution: <0.1
(N.AV. = not available N.App. = not applicable)

Vapour Pressure (kPa): 1100 @ 20 C
Odour Threshold (ppm): N.Av.
Evaporation Rate: N.Av.
Boiling Pt. (deg.C): -27
Freezing Pt. (deg.C): -170
Odour & Appearance: colourless, odourless
(or may have mercaptan odour)

Section 4 – Fire and Explosion

Flammability: Yes **Conditions:** Product will ignite at normal temperatures.
Means of Extinction: Foam, CO₂, dry chemical. Explosive accumulations can build up in areas of poor ventilation.
Special Procedures: Use water spray to cool fire-exposed containers, and to disperse gas if leak has not ignited. If safe to do so, cut off fuel and allow flame to burn out.
Flash Point (deg.C): <-134 to -11
Upper Explosive Limit (% by vol.): 12.4
Lower Explosive Limit (% by vol.): 1.8
Auto-Ignition Temp. (deg.C): N.Av.
Hazardous Combustion Products: Carbon monoxide and carbon dioxide

Sensitivity to Impact: No
Sensitivity to Static Discharge: Yes, may ignite
TDG Flammability Classification: 2.1

Section 5 – Reactivity Data

Chemical Stability: Yes **Conditions:** N.App.
Incompatibility: Yes **Substances:** Chlorine and other strong oxidizing agents.
Reactivity: Yes **Conditions:** Heat, strong sunlight
Hazardous Decomposition Products: Carbon monoxide and carbon dioxide



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Section 6 – Toxicological Properties of Product

Routes of Entry:

Skin Absorption: N.Av.

Skin Contact: Yes (liquid)

Eye Contact: Yes

Inhalation: Acute: Yes

Chronic: N.Av.

Ingestion: No

Effects of Acute Exposure: Inhalation can cause headache, disorientation, dizziness, drowsiness and possibly unconsciousness at concentrations that cause oxygen deficiency and asphyxiation. Rapidly expanding gas or vaporized liquid may cause frostbite to skin and eyes.

Effects of Chronic Exposure: N.Av.

Sensitization to Product: No.

Irritancy: N.Av.

Synergistic Materials: None reported

Carcinogenicity: N.Av.

Reproductive Effects: N.Av.

Teratogenicity: N.Av.

Mutagenicity: N.Av.

Section 7 – Preventative Measures

Personal Protective Equipment: Use a NIOSH-approved positive pressure self-contained breathing apparatus or supplied air breathing apparatus when entering areas where high concentrations may be present. Use approved gas detectors.

Gloves: Insulated gloves

Respiratory Protection: SCBA or SABA

Eye: Splash goggles and face shield if SCBA or SABA not worn.

Footwear: Covered footwear such as steel-toed boots.

Clothing: Fire retardant garments that meet NFPA 2112.

Engineering Controls: Use only in well ventilated areas. Mechanical ventilation recommended in confined areas.

Equipment must be explosion proof.

Leaks & Spills: If safe to do so, stop gas flow. Remove all ignition sources. Provide clearing ventilation if possible.

Prevent from entering confined spaces. Use personal protective equipment.

Waste Disposal: Controlled burning or venting in accordance with regulatory requirements.

Handling Procedures & Equipment: Avoid contact with liquid or liquid cooled equipment. Avoid inhalation.

Bond and ground all transfers. Avoid sparking conditions. The potential presence of radon gas may result in the presence of elevated gamma radiation outside storage containers as well as the deposition of the radioisotope Lead-210 on the internal components of equipment used to store or transport LPG. As a result, NORM measurements are recommended. Special controls to prevent the ingestion or inhalation of this radioactive lead may be required if these internal surfaces are disturbed.

Storage Requirements: Store in a cool, dry, well ventilated area away from heat, strong sunlight, and ignition sources.

Special Shipping Information: N.Av.

Section 8 – First aid Measures

Skin: If freeze burn occurs, gently bathe affected area in warm water (38 – 43) deg.C. Do not rub. Get medical attention.

Eye: Immediately flush with large amounts of luke warm water for 15 minutes, lifting upper and lower lids at intervals. Seek medical attention if irritation persists.

Inhalation: Remove to fresh air. Give oxygen, artificial respiration, or CPR if needed. Seek medical attention.

Ingestion: Usually no effect by this route.

Section 9 – Preparation Date of MSDS

Prepared By: Encana Environment, Health and Safety (EH&S)

Phone Number: (403) 645-2000 Preparation Date: July 1, 2014

Expiry Date: July 1, 2017