



Material Safety Data Sheet (Canada) Natural Gas (Sweet)

Section 1 – Material Identification and Use

Material Name: NATURAL GAS (SWEET)
Use: Process stream, sales gas
WHMIS Classification: Class A; Class B, Div. 1
TDG: UN: 1971 **Class:** 2.1 **Packing Group:** N.Av.
Shipping Name: METHANE, COMPRESSED
Manufacturer/Supplier: ENCANA CORPORATION
500 Centre Street SE
CALGARY, ALBERTA, T2P 2S5
Emergency Telephone: CANUTEC: 1-613-996-6666
Chemical Family: Mixture of light paraffin hydrocarbon gases

Section 2 – Hazardous Ingredients of Materials

Hazardous Ingredients	Approximate Concentrations %	C.A.S. Nos.	LD50/LC50 Specify Species & Route	Exposure Limits
Methane	70 - 90	74-82-8	N.Av.	1000 ppm (BC)
Ethane	<1 - 15	74-8-40	N.Av.	1000 ppm (AB & BC)
Butane	<1 - 10	106-97-8	LC50, rat, 4 hrs., 658 g/m ³	1000/600 (750) ppm (AB & TLV/ BC (STEL))
Propane	<1 - 10	74-9-86	N.Av.	1000 ppm (AB & BC)

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: Gas
Specific Gravity: 0.3 - 0.5
Vapour Density (air=1): 0.5 - 0.94
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: Gas (usually 300-600 psi in pipeline)
Odour Threshold (ppm): N.Av.
Evaporation Rate: N.Av.
Boiling Pt. (deg.C): -150
Freezing Pt. (deg.C): -180
Odour & Appearance: colorless, rotten eggs 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): <-150 to 190
Upper Explosive Limit (% by vol.): 46
Lower Explosive Limit (% by vol.): 3
Auto-Ignition Temp. (deg.C): 285-537
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: No

Skin Contact: Yes

Eye Contact: Yes

Inhalation: Acute: Yes

Chronic: Yes

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: Skin and eyes

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 overexposure may occur. Use approved gas detectors.

Gloves: Insulated gloves

Respiratory: SCBA or SABA

Eye: Full facepiece SCBA or SABA

Footwear: As per safety policy **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 appropriate personal protective equipment. Contact applicable regulatory authorities.

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

Handling Procedures & Equipment: Avoid inhalation. Bond and ground all transfers. Avoid sparking conditions.

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: Ensuring own safety, remove victim to fresh air. Give oxygen, artificial respiration, or CPR if needed. Seek immediate medical attention.

Ingestion: N.App.

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