

Material Safety Data Sheet

Natural Gas

Product Identification

Chemical name	Methane, Ethane, Buthane, Propane, Pentane
Chemical Formula	CH ₄
Composition	Methane (99%), Ethane (1%), Buthane (<1%)
WHMIS (Canada)	Not Available
Personal Protection	Eye protection not required, but recommended; Protective clothing is not required; Wear appropriate chemical resistant gloves.
Protective Equipment	Not Available
Storage	Subject to storage regulations: U.S. OSHA 29 CFR 1910.101. Keep separated from incompatible substances

First Aid Measures

Eye Contact	Flush eyes with plenty of water.
Skin Contact	Wash exposed skin with soap and water
Serious Skin Contact	Not Available
Inhalation	If adverse effects occur, remove to uncontaminated area. Give artificial respiration if not breathing. If breathing is difficult, oxygen should be administered by qualified personnel. Get immediate medical attention.
Serious Inhalation	Note to Physicians: For inhalation, consider oxygen
Ingestion	If a large amount is swallowed, get medical attention.
Serious Ingestion	Not Available

Hazards Identification

Potential Acute Health Effects	Hazardous in case of inhalation
Potential Chronic Health Effects	No

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Fire and Explosion Data

Flammability	Flamable
Auto-Ignition Temperature	537
Flash Points	-233
Flammable Limits	0
Products of Combustion	Carbon monoxide and carbon dioxide
Fire Hazards in Presence of Various Substances	Product will ignite at normal temperatures
Explosion Hazards in Presence of Various Substances	Vapor/air mixtures are explosive above flash point. Electrostatic discharges may be generated by flow or agitation resulting in ignition or explosion
Fire Fighting Media and Instructions	Move container from fire area if it can be done without risk. For fires in cargo or storage area: Cool containers with water from unmanned hose holder or monitor nozzles until well after fire is out. If this is impossible then take the following precautions: Keep unnecessary people away, isolate hazard area and deny entry. Let the fire burn. Withdraw immediately in case of rising sound from venting safety device or any discoloration of tanks due to fire. For tank, rail car or tank truck: Stop leak if possible without personal risk. Let burn unless leak can be stopped immediately. For smaller tanks or cylinders, extinguish and isolate from other flammables. Evacuation radius: 800 meters (1/2 mile). Stop flow of gas
Special Remarks on Fire Hazards	NFPA Ratings: Health: 1 Fire: 4 Reactivity: 0; Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe
Special Remarks on Explosion Hazards	Not Available

Accidental Release Measures

Small Spill	Avoid heat, flames, sparks and other sources of ignition. Stop leak if possible without personal risk. Reduce vapors with water spray.
Large Spill	Keep unnecessary people away, isolate hazard area and deny entry. Remove sources of ignition. Ventilate closed spaces before entering.

Handling and Storage

Precautions	Store and handle in accordance with all current regulations and standards. Grounding and bonding required.
Storage	Subject to storage regulations: U.S. OSHA 29 CFR 1910.101. Keep separated from incompatible substances

Exposure Controls and Personal Protection

Engineering Controls	Mechanical ventilation
Personal Protection	Eye protection not required, but recommended; Protective clothing is not required; Wear appropriate chemical resistant gloves.
Personal Protection in Case of a Large Spill	Under conditions of frequent use or heavy exposure, respiratory protection may be needed. Respiratory protection is ranked in order from minimum to maximum. Consider warning properties before use.
Exposure Limits	0

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Physical and Chemical Properties

Physical state and appearance	Colourless gas at room temperature and pressure	
Odor	Odourless unless odourized with Mercaptan (skunky smell)	
Taste	tasteless	
Molecular Weight		16.04
Color	colorless	
pH	Neutral	
Boiling Point		-162
Melting Point		-183
Critical Temperature		0
Specific Gravity		0
Vapor Pressure	760 mmHg @ -161 °C	
Vapor Density	0.555 (Air = 1)	
Volatility	Not available.	
Odor Threshold	Not Available	
Water/Oil Dist. Coeff.	Not available.	
Ionicity (in Water)	Not available.	
Dispersion Properties	Not available.	
Solubility	724.44 (estimated from water solubility)	

Stability and Reactivity Data

Stability	Stable at normal temperatures and pressure
Instability Temperature	Not available.
Conditions of Instability	Heat, flames, sparks and other sources of ignition. Containers may rupture or explode if exposed to heat
Incompatibility with various substances	Halogens, oxidizing materials, combustible materials
Corrosivity	Not corrosive
Special Remarks on Reactivity	Decomposition products: oxides of carbon
Special Remarks on Corrosivity	Not Available
Polymerization	Will not occur.

Toxicological Information

Routes of Entry	Inhalation
Toxicity to Animals	Inhalation LC50 Mouse: 326 g/m3/2H
Chronic Effects on Humans	Not Available
Other Toxic Effects on Humans	Not Available
Special Remarks on Toxicity to Animals	Slightly Toxic: inhalation
Special Remarks on Chronic Effects on Humans	Not Available
Special Remarks on other Toxic Effects on Humans	None of this product's components are listed by ACGIH, IARC, NTP, OSHA or DFG.

Ecological Information

Ecotoxicity	Not Available
BOD5 and COD	Not Available
Products of Biodegradation	Not Available
Toxicity of the Products of Biodegradation	Not Available
Special Remarks on the Products of Biodegradation	No LOLI ecotoxicity data are available for this product's components

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Disposal Considerations

Waste Disposal	Dispose in accordance with all applicable regulations. Subject to disposal regulations: U.S. EPA 40 CFR 262. Hazardous Waste Number(s): D001
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Transport Information

DOT Classification	UN/NA #: UN1971 Hazard Class: 2.1
Identification	Shipping Name: Methane
Special Provisions for Transport	Labels Required: Combustible gas 2.1

Other Regulatory Information

Federal and State Regulations	None of this products components are listed under SARA Sections 302/304 (40 CFR 355 Appendix A), SARA Section 311/312 (40 CFR 370.21), SARA Section 313 (40 CFR 372.65), CERCLA (40 CFR 302.4), TSCA 12(b), or require an OSHA process safety plan; Not regulated under California Proposition 65
Other Regulations	Not Available
WHMIS (Canada)	Not Available
DSCL (EEC)	Not Available
HMIS (U.S.A.)	Not Available
National Fire Protection Association (U.S.A.)	Not Available
Protective Equipment	Not Available

Other Information

References	Not Available
Other Special Considerations	Not Available
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