

**Methane**  
**Material Safety**  
**Data Sheet**

**BOGGS GASES**

620 Main Street  
 Titusville, FL 32796  
 Phone: (321) 267-4110  
 FAX: (321) 267-7171

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<b>EMERGENCY PHONE #:</b> Chemtrec: 1-800-424-9300		<b>Created:</b> January 01, 2003   <b>Revised:</b> January 01, 2007	
<b>MANUFACTURER'S NAME:</b> BOGGS GASES 620 Main Street Titusville, FL 32796-3488 Ph: (321) 267-4110 FAX: (321) 267-7171		<b>TRADE NAME AND SYNONYMS:</b> Methane, Methyl Hydride, Swamp Gas	<b>CHEMICAL NAME AND SYNONYMS:</b> Methane
		<b>FORMULA</b> CH4 MW: 16.043	<b>CHEMICAL FAMILY:</b> Aliphatic Hydrocarbon CAS #74-82-8

**HEALTH HAZARD DATA**

**EXPOSURE LIMITS:**

Methane is classified as a simple asphyxiant and has no threshold limit value (TLV).

**SYMPTOMS IF INGESTED, CONTACTED WITH SKIN, OR VAPOR INHALED:**

Symptoms such as headaches, dizziness, shortness of breath, and loss of consciousness may occur if the gas is present in quantities sufficient to dilute the oxygen concentration in air. Symptoms of anoxia occur only when the gas concentrations are within the flammable range and the mixture has not ignited. (DO NOT ENTER AREAS WITHIN THE FLAMMABLE RANGE DUE TO THE IMMEDIATE FIRE AND EXPLOSION HAZARD.) Use a suitable flammable gas meter (explosimeter) calibrated for Methane to measure concentrations of gas in air.

**TOXICOLOGICAL PROPERTIES:**

Methane is a simple asphyxiant. Methane is inactive biologically and essentially nontoxic. The major hazard of overexposure is asphyxiation. There is no experimental evidence of chronic harmful effects. Methane is not listed in the IARC, NTP, or OSHA as a carcinogen or potential carcinogen or potential carcinogen

**RECOMMENDED FIRST AID TREATMENT**

First degree and minor second degree thermal burns from fires should be immersed in cool water for 30 minutes. Major second and third degree burns should be covered in the cleanest material available. Seek immediate aid of a physician. Persons suffering from lack of oxygen should be moved to areas with normal atmosphere. Assisted respiration and supplemental oxygen should be given if the victim is not breathing.

**FIRE AND EXPLOSION HAZARD DATA**

<b>FLASH POINT (Method Used)</b> -306F (-188C) (C.C.)	<b>AUTO IGNITION TEMP</b> 1076F (580C)	<b>FLAMMABLE LIMITS</b> In air @ 1 atm	<b>LEL</b> 5%	<b>UEL</b> 15%
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<b>EXTINGUISHING MEDIA</b> Water, Carbon dioxide, dry chemical	<b>ELECTRICAL CLASSIFICATION GROUP</b> Class 1, Group D
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**SPECIAL FIRE FIGHTING PROCEDURES**

Stop gas flow and fight fire conventionally. Use water spray to keep cylinders or other containers cool if exposed to fire. Keep personnel well away since containers can rupture violently when exposed to fire. For additional information, see Compressed Gas Association Safety Bulletin SB-4.

**UNUSUAL FIRE AND EXPLOSION HAZARDS**

Should flame be extinguished and flow of gas continue, increase ventilation to prevent flammable or explosive mixture formation. Cylinder exposed to heat or flame may vent rapidly or explode.

**PHYSICAL DATA**

<b>BOILING POINT (F)</b> @ 1 atm -258.6F (-161.4C)	<b>FREEZING POINT (F)</b> @ 1 atm -296.45F (-182.47C)
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<b>VAPOR PRESSURE (psia)</b> @ 70F (21.1C) - n/a	<b>SOLUBILITY IN WATER</b> Negligible	<b>VAPOR DENSITY (lb/cu ft)</b> @ 70F (21.1C), 1 atm 0.042
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<b>SPECIFIC GRAVITY (AIR=1)</b> @ 68F (20C), 1 atm 0.906	<b>LIQUID DENSITY (lb/cu ft)</b> @ boiling point 26.4	<b>SPECIFIC GRAVITY (H2O=1)</b> @ boiling point, 1 atm 0.138
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**APPEARANCE AND ODOR**

Pure Methane is colorless and odorless.

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REACTIVITY DATA			
STABILITY	UNSTABLE		CONDITIONS TO AVOID None
	STABLE	X	
<b>INCOMPATIBILITY (Materials to avoid)</b> Oxidizers such as oxygen and halogens.			
<b>HAZARDOUS DECOMPOSITION PRODUCTS</b> None			
HAZARDOUS POLYMERIZATION	MAY OCCUR		CONDITIONS TO AVOID None
	WILL NOT OCCUR	X	
SPILL OR LEAK PROCEDURES			
<b>STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED</b> Ventilate area to prevent flammable mixture from forming. Remove sources of ignition, heat, sparks, etc. Avoid entering area of flammable atmosphere. Carefully remove cylinders with slow leaks to a remote outdoor location. Contact Boggs Gases for assistance.			
<b>WASTE DISPOSAL METHOD</b> Do not attempt to dispose of residual gaseous Methane in cylinders. Return to Boggs Gases for disposal.			
SPECIAL PROTECTION INFORMATION			
<b>RESPIRATORY PROTECTION (Specify type)</b> Positive pressure air line with mask or self-contained breathing apparatus should be available for emergency use.			
VENTILATION Natural or mechanical where gas is present	LOCAL EXHAUST		SPECIAL Mechanical ventilation for enclosed storage areas must meet National Electric Code requirements for Class 1, Group D.
	MECHANICAL (General)		
<b>PROTECTIVE GLOVES</b> Ordinary leather work gloves are recommended for cylinder handling. Plastic or rubber recommended for use.			
<b>EYE PROTECTION</b> Safety glasses are recommended when handling cylinders.			
<b>OTHER PROTECTIVE EQUIPMENT</b> Safety shoes, safety shower, eyewash "fountain"			
SPECIAL PRECAUTIONS*			
<b>SPECIAL LABELING INFORMATION</b> DOT Shipping Name: Methane DOT Hazard Class: Flammable Gas DOT Shipping Label: Flammable Gas I.D. Number: UN 1971			
<b>SPECIAL HANDLING RECOMMENDATIONS</b> Methane shipments must be in accordance with Department of Transportation (DOT) regulations using the DOT "FLAMMABLE GAS" label. Consult DOT regulations for details on the shipping of hazardous materials.			
<b>SPECIAL STORAGE RECOMMENDATIONS</b> Use only in well ventilated areas. Methane gas cylinders contain gas at high pressure and should be handled with care. Use a pressure reducing regulator when connecting to lower pressure system. Always keep Methane cylinders upright and secured. Never expose and Methane cylinder to heat. Always open and close Methane valves slowly. Return cylinders to Boggs Gases with positive pressure and cylinder valve closed. Avoid dragging, rolling, or sliding cylinders, even for a short distance. Use a suitable handtruck. For additional handling recommendations on compressed gas cylinders, consult Compressed Gas Association Pamphlet P-1. is not in use. Avoid exposure to areas where salt or other corrosive chemicals are present. See Compressed Gas Association Pamphlet P-1 for additional storage recommendations. Full and empty cylinders should be segregated. There should be no sources of ignition in area. Storage of 2500 cubic feet or less is permissible within buildings. Storage in excess of 2500 cubic feet must be outdoors or in well ventilated special rooms or buildings. Keep cylinders away from sources of heat. Storage should not be in heavy traffic areas to			
<b>OTHER RECOMMENDATIONS OR PRECAUTIONS</b> Earth-ground and bond all lines and equipment associated with methane system. Electrical equipment should be non-sparking or explosion-proof.			
* Various Government agencies (i.e., Department of Transportation, Occupational Safety and Health Administration, Food and Drug Administration and others) may have specific regulations concerning the transportation handling, storage or use of this product which will not be reflected in this data sheet. The customer should review these regulations to ensure that s/he is in full compliance.			