



Safety Data Sheet

1. IDENTIFICATION

Seneca Resources Corporation
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Phone Number: (713)654-2600
Emergency Number - East: (800) 526-2608
Emergency Number – West: (888)595-8595

Product Name: Natural Gas
SDS Number: NATGAS 111

Synonyms: Fuel Gas
Dry Natural Gas

Product Description: Fuel

2. HAZARDS IDENTIFICATION

Classification:

H220 – Flammable Gases – Category 1
H280 – Gases under pressure – Compressed gas

Hazards not Otherwise Classified:

May displace oxygen and cause rapid suffocation

Label Elements:



DANGER

H220: Extremely flammable gas

H280: Contains gas under pressure; may explode if heated

Gas may reduce oxygen in confined spaces

Precautionary Statements: Keep away from heat/sparks/open flames/hot surfaces - no smoking. Leaking gas fire: Do not extinguish, unless leak can be stopped safely. Eliminate all ignition sources if it is safe to do so. Protect from sunlight. Store in a well ventilated place.

3. COMPOSITION & INFORMATION ON INGREDIENTS

Product/ Components	CAS No.	Wt. % ⁽¹⁾	Occupational Exposure Limits			Units
			OSHA ⁽²⁾	ACGIH ⁽²⁾	NIOSH ⁽³⁾	
Natural Gas	68410-63-9	0-10%	N/A	1000 ⁽⁴⁾	N/A	ppm

⁽¹⁾ Normal composition ranges are shown. Exceptions may occur depending upon the source.

⁽²⁾ 8-hour Total Weight Average (TWA) unless otherwise specified

⁽³⁾ 10-hour TWA unless otherwise specified

⁽⁴⁾ ACGIH classifies these as "Aliphatic hydrocarbon gases: Alkanes (C1-C4)"

N/A = Not Applicable

4. FIRST AID MEASURES

Potential Health Effects from Overexposure:

Recommended Treatments:

Eyes: Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention if irritation occurs.

Skin: Wash contaminated skin with soap and water. Remove contaminated clothing and shoes. To avoid the risk of static discharges and gas ignition, soak contaminated clothing thoroughly with water before removing it. Get medical attention if symptoms occur. Wash clothing before reuse. Clean shoes thoroughly before reuse.

Inhalation: Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if adverse health effects persist or are severe. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Ingestion: This material is a gas under normal atmospheric conditions and ingestion is unlikely.

Medical Providers: Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been inhaled or ingested.

5. FIRE FIGHTING MEASURES

Flash Point: -76 °F, may vary depending on exact composition

Flammable Limits in Air, % by Volume: Lower: 5.0, Upper: 15

Autoignition Temperature: 998.6 °F, may vary depending on exact composition

Extinguishing Media: Dry chemical or carbon dioxide is recommended. Carbon dioxide can displace oxygen. Use caution when applying carbon dioxide in confined spaces.

NFPA Ratings: Health: 1, Flammability: 4, Reactivity: 0.



General Hazard: Contains gas under pressure. Extremely flammable gas. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. The vapor/gas is heavier than air and will spread along the ground. Gas may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back, causing fire or explosion.

Fire Fighting Instructions: For fires beyond the initial stage, emergency responders in the immediate hazard area should wear protective clothing. When the potential chemical hazard is unknown, in enclosed or confined spaces, a self-contained breathing apparatus should be worn. In addition, wear other appropriate protective equipment as conditions warrant.

Isolate immediate hazard area and keep unauthorized personnel out. Stop spill/release if it can be done safely. If this cannot be done, allow fire to burn. Move undamaged containers from immediate hazard area if it can be done safely. Stay away from ends of container. Water spray may be useful in minimizing or dispersing vapors and to protect personnel. Cool equipment exposed to fire with water, if it can be done safely.

Hazardous Combustion Products: Combustion may yield smoke, carbon monoxide, and other products of incomplete combustion. Oxides of nitrogen and sulfur may also be formed.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures: Extremely flammable. Spillages of liquid product will create a fire hazard and may form an explosive atmosphere. Keep all sources of ignition and hot metal surfaces away from spill/release if safe to do so. The use of explosion-proof electrical equipment is recommended. Beware of accumulation of gas in low areas or contained areas, where explosive concentrations may occur. Prevent from entering drains or any place where accumulation may occur. Ventilate area and allow to evaporate. Stay upwind and away from

spill/release. Avoid direct contact with material. For large spillages, notify persons down wind of the spill/release, isolate immediate hazard area and keep unauthorized personnel out. Wear appropriate protective equipment, including respiratory protection, as conditions warrant. See Sections 2 and 7 for additional information on hazards and precautionary measures.

Environmental Precautions: Stop spill/release if it can be done safely. Water spray may be useful in minimizing or dispersing vapors. If spill occurs on water notify appropriate authorities and advise shipping of any hazard.

Methods and material for containment and cleaning up: Notify relevant authorities in accordance with all applicable regulations.

Recommended measures are based on the most likely spillage scenarios for this material; however local conditions and regulations may influence or limit the choice of appropriate actions to be taken.

7. HANDLING & STORAGE

Handle in accordance with good industrial hygiene and safety practices. These practices include, but are not limited to, avoiding unnecessary exposure and prompt removal of material from eyes, skin, and clothing. If needed, take first aid actions as indicated in Section 4.

H₂S and other hazardous vapors may evolve and collect in the headspace of storage tanks or other enclosed vessels. H₂S is an extremely flammable and highly toxic gas.

Handling: Keep away from ignition sources such as heat/sparks/open flame—No smoking. Take precautionary measures against static discharge. Use good personal hygiene practices and wear appropriate personal protective equipment (see section 8).

Extremely Flammable. Contents under pressure. Gas can accumulate in confined spaces and limit oxygen available for breathing. Use only with adequate ventilation. The use of explosion-proof electrical equipment is recommended and may be required (see appropriate fire codes). Refer to NFPA-70 and/or API RP 2003 for specific bonding/grounding requirements. Electrostatic charge may accumulate and create a hazardous condition when handling or processing this material. To avoid fire or explosion, dissipate static electricity during transfer by grounding and bonding containers and equipment before transferring material. Do not enter confined spaces such as tanks or pits without following proper entry procedures such as ASTM D-4276 and 29CFR 1910.146. Cold burns may occur during filling operations. Containers and delivery lines may become cold enough to present cold burn hazard.

Storage: Keep container(s) tightly closed and properly labeled. Use and store this material in cool, dry, well-ventilated areas away from heat, direct sunlight, hot metal surfaces, and all sources of ignition. Store only in approved containers. Post area "No Smoking or Open Flame." Keep away from any incompatible material (see Section 10). Protect container(s) against physical damage. Outdoor or detached storage is preferred. Indoor storage should meet OSHA standards and appropriate fire codes.

"Empty" containers retain residue and may be dangerous. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose such containers to heat, flame, sparks, or other sources of ignition. They may

explode and cause injury or death. Avoid exposing any part of a compressed-gas cylinder to temperatures above 125F(51.6C). Gas cylinders should be stored outdoors or in well ventilated storerooms at no lower than ground level and should be quickly removable in an emergency.

8. EXPOSURE CONTROLS & PERSONAL PROTECTION

Product/ Components	CAS No.	Wt. % ⁽¹⁾	Occupational Exposure Limits			Units
			OSHA ⁽²⁾	ACGIH ⁽²⁾	NIOSH ⁽³⁾	
Methane	68410-63-9	0-10%	N/A	1000 ⁽⁴⁾	N/A	ppm

⁽¹⁾ Normal composition ranges are shown. Exceptions may occur depending upon the source.

⁽²⁾ 8-hour Total Weight Average (TWA) unless otherwise specified

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Engineering controls: If current ventilation practices are not adequate to maintain airborne concentrations below the established exposure limits, additional engineering controls may be required.

Eye Protection: The use of eye protection (such as splash goggles) that meets or exceeds ANSI Z.87.1 is recommended when there is potential liquid contact to the eye. Depending on conditions of use, a face shield may be necessary.

Skin Protection: Wear thermal insulating gloves and face shield or eye protection when working with materials that present thermal hazards (hot or cold).

Respiratory Protection: A NIOSH approved, self-contained breathing apparatus (SCBA) or equivalent operated in a pressure demand or other positive pressure mode should be used in situations of oxygen deficiency (oxygen content less than 19.5 percent), unknown exposure concentrations, or situations that are immediately dangerous to life or health (IDLH).

Ventilation: Work in well ventilated areas. Use non-sparking tools where liquids or vapors from the may be generated at flammable concentrations. Note: This product may release gases or vapors that can displace oxygen in enclosed areas.

9. PHYSICAL & CHEMICAL PROPERTIES

Boiling Point @760 mmHg: -257.8°F

Freezing Point: -297.4 °F

Vapor Pressure @100°F: 1557 mmHg at 20 °C

Vapor Density (Air=1): approx. 0.5

% Solubility in H₂O @ 68°F: 3.3
pH at 25°C: N/A
Specific Gravity 60/60F: .57
Evaporation Rate: Gas at normal ambient conditions
% Volatile by Volume: 100%
Odor: No distinct odor
Viscosity (method, temp.): N/A
Appearance: Colorless gas

10. STABILITY & REACTIVITY

Stability: Stable under normal conditions of use.

Hazardous Polymerization: Not anticipated

Conditions to Avoid/Incompatibilities: Avoid all possible sources of ignition. Heat will increase pressure in the storage tank.

Incompatible Materials: Avoid contact with acids, aluminum chloride, chlorine, chlorine dioxide, halogens and oxidizing agents.

Hazardous Decomposition Products: Not anticipated under normal conditions of use.

11. TOXICOLOGICAL INFORMATION

Methane is a simple asphyxiant.

IDLH level: 2,000 ppm.

Skin Sensitization: Skin contact is not anticipated.

Respiratory Sensitization: Not expected to be a respiratory sensitizer.

Specific Target Organ Toxicity (Single Exposure): Not expected to cause organ effects from single exposure.

Specific Target Organ Toxicity (Repeated Exposure): Not expected to cause organ effects from repeated exposure.

Carcinogenicity: Not expected to cause cancer. This substance is not listed as a carcinogen by IARC, NTP or OSHA.

Reproductive toxicity: No adverse reproductive or developmental effects were observed in rats exposed to butane in concentrations as high as 9,000 ppm.

No data concerning development or mutagenic effects was found.

12. ECOLOGICAL INFORMATION

GHS Classification: No classified hazards.

Toxicity: Petroleum gases will readily evaporate from the surface and would not be expected to have significant adverse effects in the aquatic environment.

Persistence and Degradability: The hydrocarbons in this material are expected to be inherently biodegradable. In practice, hydrocarbon gases are not likely to remain in solution long enough for biodegradation to be a significant loss process. Hydrogen sulfide, if present in refinery gas streams, will be rapidly oxidized in water and insoluble sulfides precipitated from water when metallic radicals are present.

Bio accumulative Potential: Since the log Kow values measured for constituents are below 3, they are not regarded as having the potential to bioaccumulate.

Mobility in Soil: Due to the extreme volatility of petroleum gases, air is the only environmental compartment in which they will be found. In air, these hydrocarbons undergo photodegradation by reaction with hydroxyl radicals with half-lives ranging from 3.2 days for n-butane to 7 days for propane.

Other adverse effects: None anticipated.

13. DISPOSAL CONSIDERATIONS

This material is a gas and would not typically be managed as a waste.

14. TRANSPORT INFORMATION

UN Number:	UN1971
Proper Shipping Name:	Natural Gas, Compressed UN 1971
Hazard Class:	2.1
Packing Group:	N/A
Non-bulk Package Labeling:	Flammable Gas
Emergency Response Guide:	115
Passenger Aircraft/Railcar Quantity Limitations:	Forbidden
Cargo Aircraft Only Quantity Limitations:	150kg

15. REGULATORY INFORMATION

Section 311/312 Hazard Categorization:

<i>Acute:</i>	<i>Chronic:</i>	<i>Fire:</i>	<i>Pressure:</i>	<i>Reactive:</i>
Yes	No	Yes	Yes	No

Federal Regulatory Summary

Chemical Name	CAS	CAA Accidental Release Prevention Substance	RCRA Hazardous Waste	SARA Extremely Hazardous Substance	SARA Toxic Release Chemical
Methane	68410-63-9	YES	N/A	N/A	N/A

TQ = Threshold Quantity

Pennsylvania Regulatory Summary

Chemical Name	% Vol	CAS	Hazardous Substance
Methane	0-10%	68410-63-9	YES

California Regulatory Summary

Proposition 65 Warning: N/A

16. OTHER INFORMATION

Date of Issue: 25-September-2017
Status: Final
Previous Issue Date: N/A
Revised Sections or Basis for Revision: New SDS

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KEY / LEGEND

ACGIH - American Conference of Governmental Industrial Hygienists
ADR - Agreement on Dangerous Goods by Road
CAA - Clean Air Act
CAS - Chemical Abstracts Service Registry Number
CDG - Carriage of Dangerous Goods By Road and Rail Manual
CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act
CFR - Code of Federal Regulations
EINECS - European Inventory of Existing Chemical Substances Registry Number
ERG - Emergency Response Guidebook
EPCRA - Emergency Planning and Community Right-to-Know Act
GHS - Globally Harmonized System of Classification and Labeling of Chemicals

IARC - International Agency for Research on Cancer
IATA - International Air Transport Association
ICAO - International Civil Aviation Organization
IMDG - International Maritime Dangerous Goods Code
IMO - International Maritime Organization
N/E - Not Established
NTP - National Toxicology Program
OSHA - Occupational Safety and Health Administration
PEL - Permissible Exposure Limit
PPE - Personal Protective Equipment
RCRA - Resource Conservation and Recovery Act
RID - Regulations Concerning the International Transport of Dangerous Goods by Rail
RQ - Reportable Quantities
SARA - Superfund Amendments and Reauthorization Act of 1986
SDS - Safety Data Sheet
TCC - Tag Closed Cup
TDG - Transportation of Dangerous Goods
TLV - Threshold Limit Value
TSCA - Toxic Substance Control Act
TWA - Total Weight Average
UN/NA - United Nations / North American Number
UNECE - United Nations Economic Commission for Europe
US DOT - United States Department of Transportation
US EPA - United States Environmental Protection Agency
Vol. - Volume
WHMIS - Workplace Hazardous Materials Information System