

# SAFETY DATA SHEET

<b>Material Name</b>	Natural Gas - Odorized
<b>SDS Number</b>	SEMCO SDS 1
<b>Product Use</b>	Fuel Gas
<b>Manufacturer/Supplier</b>	SEMCO ENERGY Gas Company (SEMCO) 1411 Third St. Suite A Port Huron, MI 48061
<b>Emergency</b>	1-888-GAS-1-GAS (1-888-427-1427)
<b>Website</b>	www.semcoenergy.com
<b>HMIS® RATINGS</b> (HMIS® is a registered trade and service mark of the NPCA)	Health: 1 Flammability: 4 Physical Hazard: 0
<b>NFPA RATINGS</b>	Health: 1 Flammability: 4 Instability: 0

## Section 2: Hazard(s) Identification

PHYSICAL STATE GAS  
 APPEARANCE COLORLESS GAS  
 ODOR GASSY, SULFUROUS, ROTTEN EGG TYPE ODOR  
 EMERGENCY OVERVIEW DANGER FLAMMABLE GAS – MAY CAUSE FLASH FIRE GAS REDUCES OXYGEN AVAILABLE FOR BREATHING  
 OSHA REGULATORY STATUS THIS PRODUCT IS HAZARDOUS ACCORDING TO OSHA 29CFR 1910.1200

**Hazard Classification:** Flammable Gas - Category 1 Gases Under Pressure - Liquefied Gas  
 Specific Target Organ Systemic Toxicity (STOT) - Single Exposure Category 2

**Signal Word(s):** DANGER

**Hazard Statements:** Extremely Flammable Gas, Contains Gas Under Pressure

**Pictograms:** Flammable/Gas Under Pressure



**Precautionary Statements:** Keep away from unintended heat, hot surfaces, sparks, open flames, and other ignition sources.

**Description of other hazards:** Leaking Gas: Do not extinguish, unless leak can be stopped safely. In case of leak eliminate all ignition sources.

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Natural Gas – Odorized  
 Issue Date 09-08-10  
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Section 3: Composition/ Information on Ingredients			
Chemical Name	Synonym	CAS#	Conc.
Natural Gas		8006-14-2	100%
Constituents			
Butane		106-97-8	Varies
Carbon Dioxide		124-38-9	Varies
Ethane		74-84-0	Varies
Methane		74-82-8	Varies
Pentane		109-66-0	Varies
Propane		74-98-6	Varies
Section 4: First-Aid Measures			
<p><b>After skin contact:</b> In case of eczema or other skin disorders: Seek medical attention and take along these instructions. Contact with gas or liquefied gas may cause burns, severe injury and/or frostbite. If frostbite occurs, immerse affected area in warm water (not exceeding 105°F/41°C). Keep immersed for 20 to 40 minutes. Get medical attention immediately.</p> <p><b>After eye contact:</b> Rinse with water. Get medical attention if irritation develops and persists.</p> <p><b>After inhalation:</b> Remove from further exposure. For those providing assistance, avoid exposure to yourself or others. Use adequate respiratory protection. If respiratory tract irritation, dizziness, nausea, or unconsciousness occurs, seek immediate medical assistance. If breathing has stopped, assist ventilation with a mechanical device or use mouth-to-mouth resuscitation. Move to fresh air. Get medical attention immediately.</p> <p><b>After swallowing:</b> Not likely, due to the form of the product.</p>			
Section 5: Fire-Fighting Measures			



**Suitable extinguishing agents:** Small Fires – Dry Chemical or CO2 Large Fires – Water Spray or Fog

**Special protective equipment for firefighters:** Firefighting Bunker Gear and Self Contained Breathing apparatus (SCBA)

### Section 6: Accidental Release Measures

Flammable Gas – Eliminate All Sources of Ignition. Stop spill/release if it can be done with minimal risk. Keep all sources of ignition and hot metal surfaces away from spill/release. The use of explosion-proof equipment is recommended. Stay up wind and away from spill/release. Notify persons down wind of the spill/release, isolate immediate hazard area and keep unauthorized personnel out. For large spills nonessential personnel should be evacuated beyond 750 meters. Wear appropriate protective equipment including respiratory protection as conditions warrant. Notify fire authorities and appropriate federal, provincial/state, and local agencies. Water spray may be useful in minimizing or dispersing vapors. Reference; North American Emergency Response Guide (NAERG): 115

### Section 7: Handling and Storage

**General:** SEMCO adheres to United States Department of Transportation (DOT) and all applicable state rules and regulations regarding the odorizing of natural gas. Decades of experience has established that the addition of chemical odorants to natural gas has proven to be safe, reliable, and effective means to warn of the presence of leaks, accidental releases, and other dangerous concentrations of natural gas. However, this odorization is only one phase of protection and so one should not rely on their sense of smell alone to determine if there is a gas leak; other practices for minimizing and locating gas leaks should be employed. Specifically, odorization provides added protection by allowing persons to detect the presence of natural gas, but is not a substitute for proper installation, use, protection, and upkeep of gas system appliances. All gas pipes should be designed, installed, and inspected as required by the applicable fire code, plumbing code, mechanical code, fuel gas code, and administrative code prior to operation. After installation, all gas pipe should be properly maintained and protected from damage because the primary cause of leakage from underground gas pipes is damage by third parties. Please see the back of the customer bill or SEMCO Energy Website located at, <http://www.semcoenergygas.com>

### Section 8: Exposure Controls/Personal Protection

Chemical Name	OSHA PEL	ACGIH OEL (TWA)
Butane CAS 106-97-8	800ppm TWA	1000ppm (Stel)

<b>Carbon Dioxide</b> <b>CAS 124-38-9</b>	5000ppm TWA	5000ppm TWA
<b>Ethane</b> <b>CAS 74-84-0</b>	Asphyxiant	Asphyxiant
<b>Methane</b> <b>CAS 74-82-8</b>	Asphyxiant	Asphyxiant
<b>Natural Gas</b> <b>CAS 8006-14-2</b>	Asphyxiant	Asphyxiant
<b>Pentane</b> <b>CAS 109-66-0</b>	1000ppm TWA	1000ppm TWA
<b>Propane</b> <b>CAS 74-98-6</b>	1000ppm TWA	Asphyxiant

**General protective and hygienic measures:** Avoid rayon or other petrochemical fabrics. Wear long sleeves and long pants. Clothing - Wear cotton clothing or clothing that is flame resistant or flame retardant

**Breathing equipment:** Respiratory Protection - In case of inadequate ventilation or in the case of pressurized gas displacing the air, use a supplied-air respirator

**Protection of hands:** Skin protection - Wear gloves. Clothing - Wear cotton clothing or clothing that is flame resistant or flame retardant

**Eye protection:** Eye/face protection - Wear safety glasses, goggles, or face shields around pressurized systems.

#### Section 9: Physical and Chemical Properties

**Form:** Colorless Gas

**Odor:** SULFUROUS, ROTTEN EGG TYPE ODOR.

**Odor threshold:** READILY DETECTABLE BY A PERSON WITH A NORMAL SENSE OF SMELL AT A CONCENTRATION IN AIR OF ONE-FIFTH OF THE LOWER FLAMMABILITY LIMIT.

**pH:** NOT RELEVANT

**Melting point/melting range:** NA

**Boiling point/boiling range:** -258.7° F (-161.5°C)

**Flash point:** -297.8° F (-183.2°C) (METHANE) CLEVELAND CLOSED CUP

**Evaporation rate:** NA

**Flammability:** NA

**Upper/lower flammability or explosive limits:** 14%-15% \_ 4%-5%

**Auto ignition temperature:** 900-1170°F (482.2 - 632.2° C)

**Danger of explosion:** Yes

**Vapor pressure:** NA

**Vapor density:** NA

**Relative density:** NA

**Solubility in/Miscibility with water:** INSOLUBLE

#### Section 10: Stability and Reactivity

**Reactivity:** NA

**Chemical stability:** Stable at Normal Conditions

**Conditions to avoid:** Heat, Flames and Sparks

**Incompatible materials:** Strong Oxidizing Agents

**Hazardous decomposition products:** Carbon Dioxide, Carbon Monoxide



### Section 11: Toxicological Information

**Acute toxicity:** BUTANE (106-97-8) ACUTE INHALATION LC50 RAT: 658 MG/L 4 HOURS  
 PENTANE (109-66-0) ACUTE INHALATION LC50 RAT: 364 MG/L 4 HOURS  
 PROPANE (74-98-6) ACUTE INHALATION LC50 RAT: > 1442.847 MG/L 15 MINUTES  
 METHANE (74-82-8) NOT AVAILABLE

**Potential routes of exposure/potential health effects**

**Skin:** Prolonged skin contact may cause temporary irritation.

**Eye:** Direct contact with eyes may cause temporary irritation.

**Inhalation:** Simple Asphyxiant

**Carcinogenic effects:** Not classifiable as to carcinogenicity to humans.

**Reproductive toxicity:** This product is not expected to cause reproductive or developmental effects.

**Sensitization:** Not a respiratory sensitizer.

**Target organs:** Not Classified

### Section 12: Ecological Information (non-mandatory)

**Ecotoxicity:** This product is volatile organic compound which as a photochemical ozone creation potential

**Mobility:** The product is a volatile substance, which may spread in the atmosphere

**Biodegradation:** The product is easily biodegradable

**Bioaccumulation:** The product is not bioaccumulating

### Section 13: Disposal Considerations (non-mandatory)

Waste Code D001 Disposal Instructions Waste Flammable material with a flash point < 140°F. This material safety data sheet concerns non-containerized natural gas that is delivered by pipeline from a SEMCO meter. See Section 16 for more information. Do not dispose of waste into sewer. This product, in its unaltered state, when discarded or disposed of, is not a hazardous waste according to Federal regulations (40CFR 261.4 (b) (4)). Under RCRA, it is the responsibility of the user of the product to determine, at the time of disposal, whether the product meets RCRA criteria for hazardous waste.

### Section 14: Transport Information (non-mandatory)

DOT

This material safety data sheet concerns non-containerized natural gas that is delivered by pipeline from a SEMCO meter. Re-transportation of natural gas by pipeline may be governed by 49CFR Part 192 and applicable pipeline safety codes.

Basic Shipping Requirements

If this product is placed into a pressurized container and offered for shipment refer to 49 CFR, Parts 171 to 185, for appropriate regulatory information.

### Section 15: Regulatory Information (non-mandatory)

**US Federal Regulations**

This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

Some components are on the US EPA TSCA Inventory List.

**US TSCA Section 12(B) Export Notification/De Minimis Concentration**

Pentane (CAS 109-66-0) 1.0% One-Time Export Notification Only

Natural gas reporting requirements are contained in 40CFR Part 311, 40 CFR Part 370, and 40 CFR Part 372 for industrial users of natural gas and for government employees of hazardous waste operations.

SEMCO has not attempted to assess the applicability of these regulations to the unique operating characteristics of the applicable employers.

**Superfund Amendments and Reauthorization Act of 1986 (SARA)**

Section 302 Extremely Hazardous Substance - No

Section 311 Hazardous Chemical - Yes

**Section 16: Other Information****Containerized Natural Gas and LNG**

This material safety data sheet concerns non-containerized natural gas that is delivered by pipeline from a SEMCO Energy Gas meter. Containerized natural gas and liquefied natural gas have their own unique hazards that are not provided for in this material safety data sheet. For example, those products require substantially different and specialized engineering controls, safe handling precautions, personal protective equipment, accidental release measures, and firefighting measures, transportation requirements, and product labeling requirements.

**Odorant Added by SEMCO**

This material safety data sheet is for natural gas that is odorized by SEMCO. Please contact SEMCO for more information about the source of the natural gas for any particular location. Some downstream users may remove the odorant from the natural gas supplied by SEMCO, or may add similar or different odorant blends.

**Disclaimer**

This product has not been tested by SEMCO to determine its specific health hazards. Therefore, the information in this material safety data sheet may be incomplete. The information includes health hazard information on the product components that was drawn from external sources. All information is provided without warranty, express or implied. The information is believed to be correct; if errors are discovered, please promptly report them to SEMCO. All information contained in this material safety data sheet is provided to allow the user to make an independent determination of the methods required to safeguard workers, the public and the environment. This document is not intended to convey legal advice: users should consult all applicable building and construction codes, occupational and process safety codes, environmental regulations, and all other applicable ordinances, rules, codes, regulations, statutes, or other law that may include different or more stringent provisions.



No effort is made to identify any transportation, environmental, or other regulatory requirements beyond the state of Michigan.

**Notice of Future Revisions**

Notices of revision to this material safety data sheet will be provided on the SEMCO website at <http://www.semcoenergygas.com>.

**Original Issue Date**

09/08/2010

**Revision Dates**

07/15/2013, 09/22/2017

**Summary of Revisions**

Refer to file: Natural Gas Odorized MSDS (2013)(SRM07-15-13)