



## MATERIAL SAFETY DATA SHEET

### 1. Product and Company Identification

<b>Material name</b>	<b>Natural Gas (Sour)</b>
<b>Version #</b>	01
<b>Revision date</b>	November 2, 2016
<b>CAS #</b>	Mixture
<b>Product Use</b>	Fuel
<b>Synonym(s)</b>	Marsh Gas, compressed methane, sour gas, acid gas, wellhead gas, Petroleum gas, raw natural gas
<b>Manufacturer/Supplier</b>	Cleo Energy Corp. 200 - 117 8th Ave. SW Calgary, AB T2P 1B4
<b>Emergency #</b>	1-866-512-7662

### 2. Hazards Identification

<b>Physical state</b>	Gas
<b>Appearance</b>	Colorless
<b>Emergency overview</b>	<b>DANGER!</b> Flammable gas - may cause flash fire.  Hydrogen sulfide, a highly toxic gas, is present. Signs and symptoms of overexposure to hydrogen sulfide include respiratory and eye irritation, dizziness, nausea, coughing, a sensation of dryness and pain in the nose, and loss of consciousness. Odor does not provide a reliable indicator of the presence of hazardous levels in the atmosphere. May cause lung edema. May contain high concentration of hydrogen sulfide, respiratory paralysis and death may occur. Contains n-hexane. Prolonged and/or repeated exposures may cause damage to the peripheral nervous system (e.g. fingers, feet, arms etc.). Contains benzene. May cause cancer. May cause heritable genetic damage. Gas reduces oxygen available for breathing. May cause drowsiness, dizziness, loss of consciousness and death.
<b>OSHA regulatory status</b>	This preparation is not classified as dangerous according to Directive 1999/45/EC and its amendments. This product is considered hazardous under 29 CFR 1910.1200 (Hazard Communication).

#### Potential health effects

<b>Routes of exposure</b>	Inhalation
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<b>Eyes</b>	Direct contact with concentrated gas may cause minor irritation. Pressurized gas can cause mechanical injury to the eye.
<b>Skin</b>	Not likely to cause a problem due to high volatility of the product. Contact with rapidly expanding gas may cause burns or frostbite. Human and animal studies show that benzene is absorbed through the skin. However, absorption through the skin is normally low because benzene evaporates rapidly. In most cases, any skin contact would also involve significant inhalation exposure.
<b>Inhalation</b>	Natural gas (Sour) will contain H <sub>2</sub> S above the recommended exposure limit which is harmful or fatal if inhaled. Inhalation of H <sub>2</sub> S gas concentrations above the recommended exposure limits causes eye, throat, and nose irritations, headaches, drowsiness, dizziness, loss of equilibrium, and nausea, and may lead to unconsciousness or death. The offensive odor of H <sub>2</sub> S is unreliable as a warning signal for hazardous exposure concentrations due to rapid onset of olfactory fatigue. Natural Gas with or without H <sub>2</sub> S will displace oxygen resulting in oxygen deficiency. Symptoms include headache, dizziness, loss of mental alertness and coordination, drowsiness, nausea and vomiting. Unconsciousness, coma, convulsions and death may occur with severe oxygen deprivation. Natural Gas contains benzene which may cause cancer and cause blood disorders and also contains n-hexane which may cause peripheral nerve damage.
<b>Ingestion</b>	This material is a gas under normal atmospheric conditions and ingestion is unlikely.
<b>Target organs</b>	Respiratory system. Cardiovascular system. Central nervous system. Blood. Peripheral Nervous System.
<b>Chronic effects</b>	Contains benzene. Human epidemiology studies indicate that prolonged and/or repeated overexposure to benzene may cause damage to the blood-producing system and serious blood disorders, including leukemia. Animal tests suggest that prolonged and/or repeated overexposure to benzene may damage the embryo/fetus. The relevance of these animal studies to humans has not been fully established. May cause cancer. Contains n-hexane. Prolonged and/or repeated exposures may cause damage to the peripheral nervous system (e.g. fingers, feet, arms etc.). Possible risk of impaired fertility.
<b>Signs and symptoms</b>	Narcosis. Decrease in motor functions.
<b>Potential environmental effects</b>	The product contains a substance which is very toxic to aquatic organisms.



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### 3. Composition / Information on Ingredients

Components	CAS #	Percent
Natural gas	8006-14-2	100
Contains:	-	-
Methane	74-82-8	70-85
Carbon dioxide	124-38-9	0-21
Nitrogen	7727-37-9	0-12
Ethane	74-84-0	4-9
Propane	74-98-6	3-8
Butane	106-97-8	<3
Hexane	110-54-3	<2
Pentane	109-66-0	<1
Hydrogen sulfide	7783-06-4	>0.001
Benzene	71-43-2	0-0.2

#### Composition comments

All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume. Natural Gas is generally referred as to "sour" if they have hydrogen sulfide at a hazardous level. The amount of H<sub>2</sub>S can vary considerably with the natural gas source. Some sour natural gas has appreciable percentage of H<sub>2</sub>S. Natural Gas (Sour) is a raw natural gas, as found in nature, or a gaseous combination of hydrocarbons.

### 4. First Aid Measures

#### Eye contact

In case of contact, immediately flush eyes with fresh water for at least 15 minutes while holding the eyelids open. Remove contact lenses if worn. Get medical attention if irritation persists.

#### Skin contact

Not expected to be absorbed through the skin but may cause slight irritation. High pressure injection through the skin requires immediate medical attention. Treat frostbite area of skin by immersing the affected area in warm water (between 100F/38C and 110F/43C, not exceeding 112F/44C). Keep immersed for 20 to 40 minutes. Seek medical assistance.

#### Inhalation

Immediately remove from further exposure. Get immediate medical assistance. For those providing assistance, avoid exposure to yourself or others. Use adequate respiratory protection. Give supplemental oxygen, if available. If breathing has stopped, assist ventilation with a mechanical device or use mouth-to-mouth resuscitation. Be aware that symptoms of lung edema (shortness of breath) may develop up to 24 hours after exposure.

#### Ingestion

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



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### Notes to physician

Provide general supportive measures and treat symptomatically. Be aware that symptoms of lung edema (shortness of breath) may develop up to 24 hours after exposure.

### General advice

Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

## 5. Fire Fighting Measures

### Flammable properties

Extremely flammable gas. Gas forms mixtures with air which can catch fire and burn with explosive violence. Vapors are heavier than air and invisible mixture spreads easily and may accumulate in low or confined areas, travel considerable distance to source of ignition and flash back. Runoff to sewer may create fire or explosion hazard.

### Extinguishing media

#### Suitable extinguishing media

Extinguish with carbon dioxide, dry powder or water fog.

#### Unsuitable extinguishing media

Not applicable.

### Protection of firefighters

#### Specific hazards arising from the chemical

Fire may produce irritating, corrosive and/or toxic gases.

#### Protective equipment and precautions for firefighters

Do not extinguish fires unless gas flow can be stopped safely; explosive re-ignition may occur. Promptly isolate the scene by removing all persons from the vicinity of the incident. No action shall be taken involving any personal risk or without suitable training. For fires involving this material, do not enter any enclosed or confined fire space without proper protective equipment, including self-contained breathing apparatus. Stop flow of material. Use water to keep fire exposed containers cool and to protect personnel effecting shutoff. If a leak or spill has not ignited, use water spray to disperse the vapors and to protect personnel attempting to stop leak. Prevent runoff from fire control or dilution from entering streams, sewers or drinking water supply.

### Special protective equipment for firefighters

Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with full face-piece operated in positive pressure mode. Use approved gas detectors in confined spaces.

### Specific methods

In the event of fire and/or explosion do not breathe fumes. Evacuate area. Check oxygen content before entering area. Water spray should be used to cool containers. Remove pressurized gas cylinders from the immediate vicinity. Turn leaking cylinder with the leak up to prevent escape of gas in liquid state. Containers can burst violently when heated, due to excess pressure build-up.

### Hazardous combustion products

Normal combustion forms carbon dioxide, water vapor and may produce oxides of sulfur. Incomplete combustion can produce carbon monoxide.



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### 6. Accidental Release Measures

<b>Personal precautions</b>	Eliminate all sources of ignition in vicinity of released vapors. Evacuate all non-essential personnel to an area upwind. Stop leak if possible without any risk. Ventilate enclosed areas to prevent formation of toxic, flammable or oxygen deficient atmospheres. Water spray may be used to reduce vapors. Avoid vapor cloud even with proper respiratory protective equipment. Use suitable protective equipment (section 8). Follow all fire-fighting procedures (section 5).
<b>Environmental precautions</b>	Prevent further leakage or spillage if safe to do so. Prevent material from entering drains, sewers or low lying areas. See section 13 for waste disposal information.
<b>Methods for containment</b>	Stop leak if you can do so without risk. Prevent entry into waterway, sewers or confined areas.
<b>Methods for cleaning up</b>	Stop the flow of gas. Allow to dissipate with adequate ventilation.
<b>Other information</b>	These gases may be used as an auxiliary fuel or disposed of by burning in a properly designed flare or incinerator in accordance with federal or local requirements.

### 7. Handling and Storage

<b>Handling</b>	Put on appropriate personal protective equipment (see section 8). Special precautions should be taken when entering or handling equipment in this type of gas service because of possible radioactive contamination. All equipment should be checked for radioactivity or opened to the atmosphere and have forced ventilation applied for at least 4 hours prior to entry or handling. Avoid direct skin contact with any surface. Avoid generation of dust, smoke, fumes, etc. in the work area, or if they cannot be avoided, a tested and certified radionuclide dust respirator should be worn. Smoking, eating, or drinking should be prohibited when working with the equipment. Employees should wash thoroughly with soap and water and discard contaminated clothing after entering or handling the equipment. Workers should wash hands and face before eating, drinking and smoking. Do not breathe gas it contains hydrogen sulfide, benzene and n-hexane. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter enclosed areas and confined space unless adequately ventilated. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Pumping and transferring operations must be electrically grounded and bonded to dissipate static build up.
<b>Storage</b>	Keep away from heat, spark, and open flame. Store storage containers in cool, well-ventilated areas away from direct sunlight, heat or flame. thoroughly test gas lines for leakage before use, especially in confined spaces. Store away from strong oxidizing materials. Gas containing hydrogen sulfide may accumulate during storage and transport. Vapors containing benzene may accumulate during storage or transport.



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### 8. Exposure Controls / Personal Protection

#### Occupational exposure limits

<b>ACGIH Components</b>	<b>Type</b>	<b>Value</b>
Benzene (71-43-2)	STEL	2.5 ppm
	TWA	0.5 ppm
Butane (106-97-8)	TWA	1000 ppm
Carbon dioxide (124-38-9)	STEL	30000 ppm
	TWA	5000 ppm
Ethane (74-84-0)	TWA	1000 ppm
Hexane (110-54-3)	TWA	50 ppm
Hydrogen sulfide (7783-06-4)	STEL	15 ppm
	TWA	10 ppm
Methane (74-82-8)	TWA	1000 ppm
Natural gas (8006-14-2)	TWA	1000 ppm
Pentane (109-66-0)	TWA	600 ppm
Propane (74-98-6)	TWA	1000 ppm
<b>US – OSHA Components</b>	<b>Type</b>	<b>Value</b>
Benzene (71-43-2)	Ceiling	25 ppm
	STEL	5 ppm
	TWA	1 ppm
	TWA	1900 mg/m3
Butane (106-97-8)	PEL	800 ppm
		5000 ppm
Carbon dioxide (124-38-9)	PEL	9000 mg/m3
		500 ppm
Hexane (110-54-3)	TWA	1800 mg/m3
		50 ppm
Hydrogen sulfide (7783-06-4)	Ceiling	180 mg/m3
Pentane (109-66-0)	PEL	20 ppm
		1000 ppm
	STEL	2950 mg/m3
		2250 mg/m3
		750 ppm
	TWA	600 ppm
		1800 mg/m3
Propane (74-98-6)	PEL	1800 mg/m3
		1000 ppm
	TWA	1000 ppm
		1800 mg/m3



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Canada - Alberta Components	Type	Value
Benzene (71-43-2)	STEL	8 mg/m <sup>3</sup> 2.5 ppm
	TWA	1.6 mg/m <sup>3</sup> 0.5 ppm
Butane (106-97-8)	TWA	1000 ppm
Carbon dioxide (124-38-9)	STEL	54000 mg/m <sup>3</sup> 30000 ppm
	TWA	9000 mg/m <sup>3</sup> 5000 ppm
Ethane (74-84-0)	TWA	1000 ppm
Hexane (110-54-3)	TWA	50 ppm 176 mg/m <sup>3</sup>
Hydrogen sulfide (7783-06-4)	Ceiling	15 ppm 21 mg/m <sup>3</sup>
	TWA	10 ppm 14 mg/m <sup>3</sup>
Pentane (109-66-0)	TWA	600 ppm 1770 mg/m <sup>3</sup>
Propane (74-98-6)	TWA	1000 ppm
Canada – British Columbia Components	Type	Value
Benzene (71-43-2)	STEL	2.5 ppm
	TWA	0.5 ppm
Butane (106-97-8)	STEL	750 ppm
	TWA	600 ppm
Carbon dioxide (124-38-9)	STEL	15000 ppm
	TWA	5000 ppm
Ethane (74-84-0)	TWA	1000 ppm
Hexane (110-54-3)	TWA	20 ppm
Hydrogen sulfide (7783-06-4)	Ceiling	10 ppm
Methane (74-82-8)	TWA	1000 ppm
Natural gas (8006-14-2)	TWA	1000 ppm
Pentane (109-66-0)	TWA	600 ppm
Propane (74-98-6)	TWA	1000 ppm

**Additional exposure data**

OSHA: The acceptable max. peak above the ceiling concentration for an 8-hour shift is: 50 ppm. The acceptable duration of the peak above the ceiling concentration is: 10 minutes once, only if no other measurable exposure occurs

**Engineering controls**

Explosion proof exhaust ventilation should be used. Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels

**Personal protective equipment**

below recommended exposure limits. Provide adequate ventilation and minimize the risk of inhalation of gas.



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<b>Eye / face protection</b>	If eye contact is likely, safety glasses with side shields or chemical type goggles should be worn.
<b>Skin protection</b>	No special requirements under ordinary conditions of use.
<b>Respiratory protection</b>	Wear approved respiratory protection when working with this material unless ventilation is adequate to keep airborne concentrations below recommended exposure standards. Note: If any of the applicable hydrogen sulfide standards are likely to be exceeded, positive supplied-air respiratory protection must be used. The ACGIH TWA for hydrogen sulfide is 10 ppm. The OSHA STEL is 15 ppm.
<b>General hygiene considerations</b>	Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Observe any medical surveillance requirements.

### 9. Physical & Chemical Properties

<b>Appearance</b>	Colorless
<b>Color</b>	Clear, colorless.
<b>Odor</b>	Rotten-egg like. The offensive odor of hydrogen sulfide is unreliable as a warning signal for hazardous exposure concentrations due to rapid onset of olfactory fatigue.
<b>Odor threshold</b>	Not available.
<b>Physical state</b>	Gas.
<b>Form</b>	Compressed gas.
<b>pH</b>	Not available.
<b>Melting point</b>	Not available.
<b>Freezing point</b>	Not available.
<b>Boiling point</b>	-258.7 °F (-161.5 °C)
<b>Flash point</b>	Not available.
<b>Evaporation rate</b>	Not available.
<b>Flammability</b>	Not available.
<b>Flammability limits in air, upper, % by volume</b>	15 %
<b>Flammability limits in air, lower, % by volume</b>	5 %





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<b>Vapor pressure</b>	5.33 kPa
<b>Vapor density</b>	0.55
<b>Specific gravity</b>	Not available.
<b>Solubility (water)</b>	Insoluble in water.
<b>Partition coefficient (n-octanol/water)</b>	No data available.
<b>Auto-ignition temperature</b>	1004 °F (540 °C)
<b>Decomposition temperature</b>	Not available.

### 10. Chemical Stability and Reactivity Information

<b>Chemical stability</b>	Stable under normal temperature conditions.
<b>Conditions to avoid</b>	Heat, flames and sparks.
<b>Incompatible materials</b>	Strong oxidizing agents.
<b>Hazardous decomposition Products</b>	Carbon dioxide (CO <sub>2</sub> ). Carbon monoxide. Sulfur dioxide.
<b>Possibility of hazardous reactions</b>	Hazardous polymerization does not occur.

### 11. Toxicological Information

<b>Toxicological data Components</b>	<b>Test Results</b>
Butane (106-97-8)	Acute Inhalation LC50 Rat: 658 mg/l 4 Hours Acute Inhalation LC50 Rat: 364 mg/l 4 Hours
Pentane (109-66-0)	Acute Other LD50 Mouse: 446 mg/kg Acute Inhalation LC50 Mouse: 9980 mg/l
Benzene (71-43-2)	Acute Inhalation LC50 Rat: 10000 mg/l 7 Hours Acute Oral LD50 Mouse: 4700 mg/kg Acute Oral LD50 Rat: 3306 mg/kg Acute Other LD50 Mouse: 340 mg/kg Acute Other LD50 Mouse: 0.000001 ml/kg Acute Other LD50 Rat: 2.89 mg/kg
Propane (74-98-6)	Acute Inhalation LC50 Rat: > 1442.847 mg/l 15 Minutes
Hydrogen sulfide (7783-06-4)	Acute Inhalation LC50 Mouse: > 0.024 mg/l 960 Minutes Acute Inhalation LC50 Rat: > 0.38 mg/l 960 Minutes



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### Toxicological information

This product may contain detectable but varying quantities of the naturally occurring radioactive substance radon 222. The amount in the gas itself is not hazardous, but since radon rapidly decays ( $t_{1/2} = 3.82$  days) to form other radioactive elements including lead 210, polonium 210, and bismuth 210, equipment may be radioactive. The radon daughters are solids and therefore may attach to dust particles or form films and sludges in equipment. Inhalation, ingestion or skin contact with radon daughters can lead to the deposition of radioactive material in the lungs, bone, blood forming organs, intestinal tract, kidney and colon. Occupational exposure to radon and radon daughters has been associated with an increased risk of lung cancer in underground uranium miners. Follow the special precautions listed in handling and storage section of this document (see section 7).

### Acute effects

Contact with liquefied gas can cause damage (frostbite) due to rapid evaporative cooling. Gas reduces oxygen available for breathing.

### Sensitization

Not a skin sensitizer.

### Chronic effects

Contains benzene. Human epidemiology studies indicate that prolonged and/or repeated overexposure to benzene may cause damage to the blood-producing system and serious blood disorders, including leukemia. Animal tests suggest that prolonged and/or repeated overexposure to benzene may damage the embryo/ fetus. The relevance of these animal studies to humans has not been fully established. Contains n-hexane. Prolonged and/or repeated exposures may cause damage to the peripheral nervous system (e.g. fingers, feet, arms etc.). Contains hydrogen sulfide. May rapidly cause irritation, breathing failure, coma, and death without necessarily any warning odor being sensed.

### Carcinogenicity

May also contain benzene, a known human carcinogen, which may cause leukemia.

### ACGIH Carcinogens

Benzene (CAS 71-43-2)

A1 Confirmed human carcinogen.

### IARC Monographs. Overall Evaluation of Carcinogenicity

Benzene (CAS 71-43-2)

1 Carcinogenic to humans.

### US NTP Report on Carcinogens: Known carcinogen

Benzene (CAS 71-43-2)

Known carcinogen.

### US OSHA Specifically Regulated Substances: Cancer hazard

Benzene (CAS 71-43-2)

Cancer hazard.

### Mutagenicity

May cause heritable genetic damage.

### Neurological effects

Central and/or peripheral nervous system damage.

### Reproductive effects

Possible risk of impaired fertility.

### Teratogenicity

None known.



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### 12. Ecological Information

#### Ecotoxicological data Components

#### Test Results

Hexane (110-54-3)	LC50 Fathead minnow ( <i>Pimephales promelas</i> ): 2.101 - 2.981 mg/l 96 hours
Benzene (71-43-2)	EC50 Water flea ( <i>Daphnia magna</i> ): 8.76 - 15.6 mg/l 48 hours
	EC50 Water flea ( <i>Daphnia magna</i> ): 8.76 - 15.6 mg/l 48 Hours
	LC50 Rainbow trout, donaldson trout ( <i>Oncorhynchus mykiss</i> ): 5 mg/l 96 Hours
Hydrogen sulfide (7783-06-4)	LC50 Lake whitefish ( <i>Coregonus clupeaformis</i> ): 0.002 mg/l 96 hours

#### Ecotoxicity

The product contains a substance which is very toxic to aquatic organisms. The product is a volatile organic compound which has a photochemical ozone creation potential.

#### Persistence and degradability

No data available.

#### Bioaccumulation / Accumulation

No data available.

#### Partition coefficient (n-octanol/water)

No data available.

#### Mobility in environmental media

The product is a volatile substance, which may spread in the atmosphere.

### 13. Disposal Considerations

#### Waste codes

D001: Waste Flammable material with a flash point <140 °F

#### Disposal instructions

This material and its container must be disposed of as hazardous waste. Do not dispose of waste into sewer. This product, in its present state, when discarded or disposed of, is not a hazardous waste according to Federal regulations (40 CFR 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.

### 14. Transport Information

#### DOT

##### Basic shipping requirements:

UN number	UN1971
Proper shipping name	Natural gas, compressed
Hazard class	2.1
Subsidiary hazard class	6.1
Labels required	2.1

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**Additional information:**  
**Packaging exceptions** 306  
**Packaging non bulk** 302  
**Packaging bulk** 302  
**ERG number** 115

**IATA**

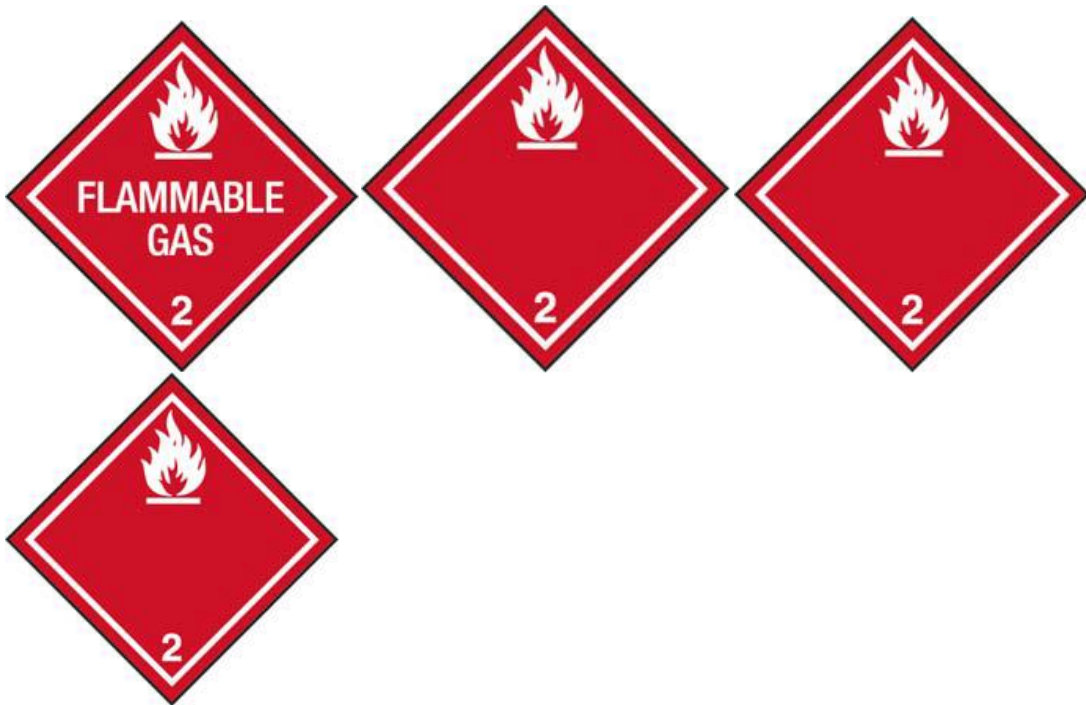
**Basic shipping requirements:**  
**UN number** 1971  
**Proper shipping name** Natural gas, compressed  
**Hazard class** 2.1  
**Subsidiary hazard class** 6.1

**IMDG**

**Basic shipping requirements:**  
**UN number** 1971  
**Proper shipping name** Natural gas, compressed  
**Hazard class** 2.1  
**Subsidiary hazard class** 6.1  
**EmS No.** F-D, S-U

**TDG**

**Basic shipping requirements:**  
**Proper shipping name** Natural gas, compressed  
**Hazard class** 2.1  
**Subsidiary hazard class** 6.1  
**UN number** UN1971





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### 15. Regulatory Information

#### US Federal Regulations

This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.  
All components are on the U.S. EPA TSCA Inventory List.

#### US EPCRA (SARA Title III) Section 302 - Extremely Hazardous Spill: Reportable quantity

Hydrogen sulfide (CAS 7783-06-4) 100 LBS

#### US EPCRA (SARA Title III) Section 302 - Extremely Hazardous Substance: Threshold Planning Quantity

Hydrogen sulfide (CAS 7783-06-4) 500 LBS

#### US EPCRA (SARA Title III) Section 313 - Toxic Chemical: De minimis concentration

Benzene (CAS 71-43-2) 0.1 %

Hexane (CAS 110-54-3) 1.0 %

#### US EPCRA (SARA Title III) Section 313 - Toxic Chemical: Listed substance

Benzene (CAS 71-43-2) Listed.

Hexane (CAS 110-54-3) Listed.

#### US TSCA Section 12(b) Export Notification: Export Notification requirement/De minimis concentration

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

#### CERCLA (Superfund) reportable quantity (lbs)

Natural gas 100

Methane 100

Ethane 100

Propane 100

Butane 100

Hexane 100

Pentane 100

Hydrogen sulfide 100

Benzene 10

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

<b>Hazard categories</b>	Immediate Hazard - Yes Delayed Hazard - Yes Fire Hazard - Yes Pressure Hazard - No Reactivity Hazard - No
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<b>Section 302 extremely hazardous substance</b>	No
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<b>Section 311 hazardous chemical</b>	No
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<b>Drug Enforcement Agency (DEA)</b>	Not controlled
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<b>Canadian regulations</b>	This product has been classified in accordance with the hazard criteria of the CPR and the MSDS contains all the information required by the CPR.
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<b>WHMIS status</b>	Controlled
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### WHMIS classification

B1 - Flammable/Combustible  
D2A - Other Toxic Effects-VERY TOXIC

### WHMIS labeling



### State regulations

This product does not contain a chemical known to the State of California to cause cancer, birth defects or other reproductive harm.

### US - California Hazardous Substances (Director's): Listed substance

Benzene (CAS 71-43-2)	Listed.
Butane (CAS 106-97-8)	Listed.
Carbon dioxide (CAS 124-38-9)	Listed.
Hexane (CAS 110-54-3)	Listed.
Hydrogen sulfide (CAS 7783-06-4)	Listed.
Pentane (CAS 109-66-0)	Listed.

### US - California Proposition 65 - Carcinogens & Reproductive Toxicity (CRT): Listed substance

Benzene (CAS 71-43-2)	Listed.
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### US - California Proposition 65 - CRT: Listed date/Carcinogenic substance

Benzene (CAS 71-43-2)	Listed: February 27, 1987 Carcinogenic.
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### US - California Proposition 65 - CRT: Listed date/Developmental toxin

Benzene (CAS 71-43-2)	Listed: December 26, 1997 Developmental toxin.
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### US - California Proposition 65 - CRT: Listed date/Male reproductive toxin

Benzene (CAS 71-43-2)	Listed: December 26, 1997 Male reproductive toxin.
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### US - Massachusetts RTK - Substance: Listed substance

Benzene (CAS 71-43-2)	Listed.
Carbon dioxide (CAS 124-38-9)	Listed.
Hexane (CAS 110-54-3)	Listed.
Hydrogen sulfide (CAS 7783-06-4)	Listed.
Methane (CAS 74-82-8)	Listed.
Natural gas (CAS 8006-14-2)	Listed.
Nitrogen (CAS 7727-37-9)	Listed.
Pentane (CAS 109-66-0)	Listed.
Propane (CAS 74-98-6)	Listed.

### US - New Jersey Community RTK (EHS Survey): Reportable threshold

Benzene (CAS 71-43-2)	500 LBS
Butane (CAS 106-97-8)	500 LBS
Ethane (CAS 74-84-0)	500 LBS
Hexane (CAS 110-54-3)	500 LBS
Hydrogen sulfide (CAS 7783-06-4)	500 LBS
Methane (CAS 74-82-8)	500 LBS
Pentane (CAS 109-66-0)	500 LBS
Propane (CAS 74-98-6)	500 LBS



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### US - New Jersey RTK - Substances: Listed substance

Benzene (CAS 71-43-2)	Listed.
Carbon dioxide (CAS 124-38-9)	Listed.
Hydrogen sulfide (CAS 7783-06-4)	Listed.
Methane (CAS 74-82-8)	Listed.
Natural gas (CAS 8006-14-2)	Listed.
Nitrogen (CAS 7727-37-9)	Listed.
Pentane (CAS 109-66-0)	Listed.
Propane (CAS 74-98-6)	Listed.

### US - Pennsylvania RTK - Hazardous Substances: Listed substance

Benzene (CAS 71-43-2)	Listed.
Carbon dioxide (CAS 124-38-9)	Listed.
Hexane (CAS 110-54-3)	Listed.
Hydrogen sulfide (CAS 7783-06-4)	Listed.
Methane (CAS 74-82-8)	Listed.
Natural gas (CAS 8006-14-2)	Listed.
Nitrogen (CAS 7727-37-9)	Listed.
Pentane (CAS 109-66-0)	Listed.
Propane (CAS 74-98-6)	Listed.

### US - Pennsylvania RTK - Hazardous Substances: Special hazard

Benzene (CAS 71-43-2)	Special hazard.
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## 16. Other Information

### Further information

HMIS® is a registered trade and service mark of the NPCA.

### HMIS® ratings

Health: 4\*  
Flammability: 1  
Physical hazard: 0

### NFPA ratings

Health: 4  
Flammability: 1  
Instability: 0

### Disclaimer

This information is provided without warranty. The information is believed to be correct. This information should be used to make an independent determination of the methods to safeguard workers and the environment.

### Issue date

November 3, 2016