

## SECTION 1: IDENTIFICATION

### 1.1. Product Identifier

**Product Form:** Substance

**Product Name:** Natural Gas (Sour)

**CAS-No.:** 8006-14-2

**Synonyms:** Methane (Sour), Natural Gas (Sour), Wellhead Gas (Sour), Marsh Gas (Sour), Petroleum Gas (Sour)

### 1.2. Intended Use of the Product

**Use of the Substance/Mixture:** Industrial Use

### 1.3. Name, Address, and Telephone of the Responsible Party

#### Corporation

ONEOK, Inc.

100 W. Fifth Street

Tulsa, OK 74103

Tel (888) 417-6275

Fax (918) 588-7543

[www.oneok.com](http://www.oneok.com)

### 1.4. Emergency Telephone Number

#### Emergency Number

: For Chemical Emergency Spill, Leak, Fire, Exposure, or Accident

Call CHEMTREC Day or Night within USA and Canada: 1-800-424-9300 or  
+1 703-527-3887 (collect calls accepted)

## SECTION 2: HAZARDS IDENTIFICATION

### 2.1. Classification of the Substance or Mixture

#### GHS-US Classification

Flammable gases Category 1 H220

Gases under pressure Compressed gas H280

Reproductive toxicity Category 2 H361

Simple Asphyxiant SIAS

Hazardous to the aquatic environment - Acute Hazard Category 3 H402

Hazardous to the aquatic environment - Chronic Hazard Category 3 H412

### 2.2. Label Elements

#### GHS-US Labeling

#### Hazard Pictograms (GHS-US)



#### Signal Word (GHS-US)

: Danger

#### Hazard Statements (GHS-US)

: H220 - Extremely flammable gas.  
H280 - Contains gas under pressure; may explode if heated.  
H361 - Suspected of damaging fertility or the unborn child.  
H402 - Harmful to aquatic life.  
H412 - Harmful to aquatic life with long lasting effects.  
May displace oxygen and cause rapid suffocation.

#### Precautionary Statements (GHS-US)

: P201 - Obtain special instructions before use.  
P202 - Do not handle until all safety precautions have been read and understood.  
P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.  
P273 - Avoid release to the environment.  
P280 - Wear protective gloves, protective clothing, and eye protection.  
P308+P313 - If exposed or concerned: Get medical advice/attention.  
P377 - Leaking gas fire: Do not extinguish, unless leak can be stopped safely.  
P381 - Eliminate all ignition sources if safe to do so.  
P405 - Store locked up.  
P410+P403 - Protect from sunlight. Store in a well-ventilated place.  
P501 - Dispose of contents/container in accordance with local, regional, national, and international regulations.

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### 2.3. Other Hazards

Exposure may aggravate pre-existing eye, skin, or respiratory conditions. Contact with gas escaping the container can cause frostbite. If stored under heat for extended periods or significantly agitated, this material might evolve or release hydrogen sulfide, a flammable gas, which can raise and widen this material's actual flammability limits and significantly lower its auto-ignition temperature. Hydrogen sulfide is a toxic gas that can be fatal. It also has a rotten egg smell that causes odor fatigue very quickly and shouldn't be used as an indicator for the presence of gas.

### 2.4. Unknown Acute Toxicity (GHS-US)

No data available

## SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

### 3.1. Substance

Name : Natural Gas (Sour)

CAS-No. : 8006-14-2

Name	Synonyms	Product Identifier	%	GHS US classification
Methane	Marsh gas / Methyl hydride / Methane, compressed / Monomethylamine	(CAS-No.) 74-82-8	70 -99	Flam. Gas 1, H220 Press. Gas (Liq.), H280 Simple Asphy, SIAS
Ethane	Ethyl hydride / ETHANE	(CAS-No.) 74-84-0	1 - 12	Flam. Gas 1, H220 Press. Gas (Liq.), H280 Simple Asphy, SIAS
Propane	Normal propane / PROPANE / n-Propane / R290	(CAS-No.) 74-98-6	≤ 8	Flam. Gas 1, H220 Press. Gas (Liq.), H280 Simple Asphy, SIAS
n-Butane	Butane / BUTANE	(CAS-No.) 106-97-8	≤ 5	Flam. Gas 1, H220 Press. Gas (Liq.), H280 Simple Asphy, SIAS
n-Pentane	Pentane / Normal pentane / PENTANE / Pentane, n-	(CAS-No.) 109-66-0	≤ 3	Flam. Liq. 1, H224 STOT SE 3, H336 Asp. Tox. 1, H304 Aquatic Acute 2, H401 Aquatic Chronic 2, H411
Carbon dioxide	CARBON DIOXIDE / Carbonic anhydride	(CAS-No.) 124-38-9	≤ 1.5	Simple Asphy, SIAS Press. Gas (Comp.), H280
Hexane	Hexane, n- / n-Hexane / Normal hexane	(CAS-No.) 110-54-3	< 1	Flam. Liq. 2, H225 Skin Irrit. 2, H315 Repr. 2, H361 STOT SE 3, H336 STOT RE 2, H373 Asp. Tox. 1, H304 Aquatic Acute 2, H401 Aquatic Chronic 2, H411
Hydrogen	Hydrogen, compressed / Hydrogen molecule H2 / HYDROGEN	(CAS-No.) 1333-74-0	< 1	Simple Asphy, SIAS Flam. Gas 1, H220 Press. Gas (Comp.), H280
Hydrogen sulfide	Hydrogen sulfide (H2S) / Hydrogen sulphide / Sulfur hydride / Dihydrogen sulphide / hydrogen sulfide / Hydrogen sulphide, hydrogen sulfide / Sulfane	(CAS-No.) 7783-06-4	< 1	Flam. Gas 1, H220 Press. Gas (Liq.), H280 Acute Tox. 2 (Inhalation:gas), H330 Eye Irrit. 2A, H319 STOT SE 3, H335 STOT SE 1, H370 Aquatic Acute 1, H400

Full text of H-phrases: see section 16. This product has a variable composition that is based on the composition of the individual feedstocks, as well as the extraction location of each feedstock. The listed percentages represent expected variations in composition but are not absolute. If additional information is required, contact the Manufacturer in Section 1 of this SDS.

### 3.2. Mixture

Not applicable

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## SECTION 4: FIRST AID MEASURES

### 4.1. Description of First-aid Measures

**First-aid Measures General:** Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).

**First-aid Measures After Inhalation:** First, take proper precautions to ensure your own safety before attempting rescue (e.g. wear appropriate respiratory protective equipment, use the buddy system), then remove the exposed person to fresh air. Keep at rest in a position comfortable for breathing. Obtain medical attention if breathing difficulty persists. This product contains hydrogen sulfide, which is a toxic gas that can be fatal. It also has a rotten egg smell that causes odor fatigue very quickly and shouldn't be used as an indicator for the presence of gas.

**First-aid Measures After Skin Contact:** Remove contaminated clothing. Drench affected area with water for at least 5 minutes. For brief contact with a small amount: Rewarm with body heat. Get immediate medical advice/attention. For extensive contact or a large amount: Immediately call a poison center/doctor and follow their advice. Specific treatment is urgent, incorrect first-aid practices will aggravate the injury. Protect affected area with a loose cover until proper medical treatment is received. If exposed or concerned: Get medical advice/attention.

**First-aid Measures After Eye Contact:** Rinse cautiously with water for at least 5 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Seek medical attention.

**First-aid Measures After Ingestion:** Rinse mouth. Do NOT induce vomiting. Obtain medical attention.

### 4.2. Most Important Symptoms and Effects Both Acute and Delayed

**Symptoms/Injuries:** Contact with gas escaping the container can cause frostbite. Suspected of damaging fertility or the unborn child. Asphyxia by lack of oxygen: risk of death.

**Symptoms/Injuries After Inhalation:** In elevated concentrations may cause asphyxiation, central nervous system effects, and increased breathing rate. Symptoms of asphyxiation include headache, dizziness, rapid breathing, increased pulse, mood changes, tremors, cyanosis, muscular weakness, narcosis, numbness of the extremities, unconsciousness and death. This product contains hydrogen sulfide, which is a toxic gas that can be fatal. It also has a rotten egg smell that causes odor fatigue very quickly and shouldn't be used as an indicator for the presence of gas.

**Symptoms/Injuries After Skin Contact:** Contact with gas escaping the container can cause frostbite and freeze burns.

**Symptoms/Injuries After Eye Contact:** Contact with gas escaping the container can cause frostbite, freeze burns, and permanent eye damage.

**Symptoms/Injuries After Ingestion:** Not considered a potential route of exposure, but contact with gas escaping the container can cause freeze burns and frostbite.

**Chronic Symptoms:** Suspected of damaging fertility or the unborn child.

### 4.3. Indication of Any Immediate Medical Attention and Special Treatment Needed

If exposed or concerned, get medical advice and attention. If medical advice is needed, have product container or label at hand.

## SECTION 5: FIRE-FIGHTING MEASURES

### 5.1. Extinguishing Media

**Suitable Extinguishing Media:** Do not extinguish burning gas if flow cannot be shut off immediately. Extinguish secondary FIRES with appropriate materials.

**Unsuitable Extinguishing Media:** Do not use a heavy water stream. Use of heavy stream of water may spread fire.

### 5.2. Special Hazards Arising From the Substance or Mixture

**Fire Hazard:** Extremely flammable gas.

**Explosion Hazard:** May form flammable/explosive vapor-air mixture. Container may explode in heat of fire.

**Reactivity:** Hazardous reactions will not occur under normal conditions.

### 5.3. Advice for Firefighters

**Precautionary Measures Fire:** Exercise caution when fighting any chemical fire.

**Firefighting Instructions:** Use water spray or fog for cooling exposed containers. Leaking gas fire: Do not extinguish, unless leak can be stopped safely. Eliminate all ignition sources if safe to do so. Fight fire remotely due to the risk of explosion.

**Protection During Firefighting:** Do not enter fire area without proper protective equipment, including respiratory protection.

**Hazardous Combustion Products:** Carbon and sulfur oxides.

**Other Information:** Use water spray to disperse vapors. Do not allow run-off from fire fighting to enter drains or water courses.

## SECTION 6: ACCIDENTAL RELEASE MEASURES

### 6.1. Personal Precautions, Protective Equipment and Emergency Procedures

**General Measures:** Do not breathe gas. Eliminate every possible source of ignition. Do not get in eyes, on skin, or on clothing. Do not breathe vapors, mist, or spray.

#### 6.1.1. For Non-Emergency Personnel

**Protective Equipment:** Use appropriate personal protective equipment (PPE).

**Emergency Procedures:** Evacuate unnecessary personnel.

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## 6.1.2. For Emergency Personnel

**Protective Equipment:** Equip cleanup crew with proper protection.

**Emergency Procedures:** Evacuate unnecessary personnel, isolate, and ventilate area. Upon arrival at the scene, a first responder is expected to recognize the presence of dangerous goods, protect oneself and the public, secure the area, and call for the assistance of trained personnel as soon as conditions permit.

## 6.2. Environmental Precautions

Prevent entry to sewers and public waters. Avoid release to the environment.

## 6.3. Methods and Materials for Containment and Cleaning Up

**For Containment:** Stop leak, if possible without risk. As an immediate precautionary measure, isolate spill or leak area in all directions.

**Methods for Cleaning Up:** Clean up spills immediately and dispose of waste safely. Stop the source of the release, if safe to do so. Consider the use of water spray to disperse vapors. Isolate the area until gas has dispersed. Ventilate and gas test area before entering. Contact competent authorities after a spill.

## 6.4. Reference to Other Sections

See Section 8 for exposure controls and personal protection and Section 13 for disposal considerations.

## SECTION 7: HANDLING AND STORAGE

### 7.1. Precautions for Safe Handling

**Additional Hazards When Processed:** Asphyxiating gas at high concentrations. Do not pressurize, cut, or weld containers.

Ruptured cylinders may rocket. Handle empty containers with care because residual vapors are flammable.

**Precautions for Safe Handling:** Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not breathe gas. Do not get in eyes, on skin, or on clothing. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

**Hygiene Measures:** Handle in accordance with good industrial hygiene and safety procedures.

### 7.2. Conditions for Safe Storage, Including Any Incompatibilities

**Technical Measures:** Comply with applicable regulations. Proper grounding procedures to avoid static electricity should be followed.

**Storage Conditions:** Keep container closed when not in use. Keep in fireproof place. Keep/Store away from direct sunlight, extremely high or low temperatures and incompatible materials. Store in a dry, cool place. Store locked up/in a secure area. Cylinders should be stored upright with valve protection cap in place and firmly secured to prevent falling.

**Incompatible Materials:** Strong oxidizers.

### 7.3. Specific End Use(s)

Industrial Use

## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1. Control Parameters

For substances listed in section 3 that are not listed here, there are no established exposure limits from the manufacturer, supplier, importer, or the appropriate advisory agency including: ACGIH (TLV), AIHA (WEEL), NIOSH (REL), or OSHA (PEL).

Natural gas (8006-14-2)		
USA ACGIH	ACGIH chemical category	Simple asphyxiant See Appendix F: Minimal Oxygen Content
Carbon dioxide (124-38-9)		
USA ACGIH	ACGIH OEL TWA [ppm]	5000 ppm
USA ACGIH	ACGIH OEL STEL [ppm]	30000 ppm
USA NIOSH	NIOSH REL (TWA)	9000 mg/m <sup>3</sup>
USA NIOSH	NIOSH REL TWA [ppm]	5000 ppm
USA NIOSH	NIOSH REL (STEL)	54000 mg/m <sup>3</sup>
USA NIOSH	NIOSH REL STEL [ppm]	30000 ppm
USA IDLH	IDLH [ppm]	40000 ppm
USA OSHA	OSHA PEL (TWA) [1]	9000 mg/m <sup>3</sup>
USA OSHA	OSHA PEL (TWA) [2]	5000 ppm
Methane (74-82-8)		
USA ACGIH	ACGIH chemical category	Simple asphyxiant See Appendix F: Minimal Oxygen Content
Ethane (74-84-0)		
USA ACGIH	ACGIH chemical category	Simple asphyxiant See Appendix F: Minimal Oxygen Content
Propane (74-98-6)		
USA ACGIH	ACGIH chemical category	Simple asphyxiant See Appendix F: Minimal Oxygen Content

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<b>USA NIOSH</b>	NIOSH REL (TWA)	1800 mg/m <sup>3</sup>
<b>USA NIOSH</b>	NIOSH REL TWA [ppm]	1000 ppm
<b>USA IDLH</b>	IDLH [ppm]	2100 ppm (10% LEL)
<b>USA OSHA</b>	OSHA PEL (TWA) [1]	1800 mg/m <sup>3</sup>
<b>USA OSHA</b>	OSHA PEL (TWA) [2]	1000 ppm
<b>n-Butane (106-97-8)</b>		
<b>USA ACGIH</b>	ACGIH OEL STEL [ppm]	1000 ppm (explosion hazard (Butane, isomers))
<b>USA NIOSH</b>	NIOSH REL (TWA)	1900 mg/m <sup>3</sup>
<b>USA NIOSH</b>	NIOSH REL TWA [ppm]	800 ppm
<b>USA IDLH</b>	IDLH [ppm]	1600 ppm (>10% LEL)
<b>n-Pentane (109-66-0)</b>		
<b>USA ACGIH</b>	ACGIH OEL TWA [ppm]	1000 ppm (Pentane, all isomers)
<b>USA NIOSH</b>	NIOSH REL (TWA)	350 mg/m <sup>3</sup>
<b>USA NIOSH</b>	NIOSH REL TWA [ppm]	120 ppm
<b>USA NIOSH</b>	NIOSH REL (Ceiling)	1800 mg/m <sup>3</sup>
<b>USA NIOSH</b>	NIOSH REL C [ppm]	610 ppm
<b>USA IDLH</b>	IDLH [ppm]	1500 ppm (10% LEL)
<b>USA OSHA</b>	OSHA PEL (TWA) [1]	2950 mg/m <sup>3</sup>
<b>USA OSHA</b>	OSHA PEL (TWA) [2]	1000 ppm
<b>Hexane (110-54-3)</b>		
<b>USA ACGIH</b>	ACGIH OEL TWA [ppm]	50 ppm
<b>USA ACGIH</b>	ACGIH chemical category	Skin - potential significant contribution to overall exposure by the cutaneous route
<b>USA ACGIH</b>	BEI (BLV)	0.5 mg/l Parameter: 2,5-Hexanedione without hydrolysis - Medium: urine - Sampling time: end of shift
<b>USA NIOSH</b>	NIOSH REL (TWA)	180 mg/m <sup>3</sup>
<b>USA NIOSH</b>	NIOSH REL TWA [ppm]	50 ppm
<b>USA IDLH</b>	IDLH [ppm]	1100 ppm (10% LEL)
<b>USA OSHA</b>	OSHA PEL (TWA) [1]	1800 mg/m <sup>3</sup>
<b>USA OSHA</b>	OSHA PEL (TWA) [2]	500 ppm
<b>Hydrogen (1333-74-0)</b>		
<b>USA ACGIH</b>	ACGIH chemical category	Simple asphyxiant See Appendix F: Minimal Oxygen Content
<b>Hydrogen sulfide (7783-06-4)</b>		
<b>USA ACGIH</b>	ACGIH OEL TWA [ppm]	1 ppm
<b>USA ACGIH</b>	ACGIH OEL STEL [ppm]	5 ppm
<b>USA NIOSH</b>	NIOSH REL (Ceiling)	15 mg/m <sup>3</sup>
<b>USA NIOSH</b>	NIOSH REL C [ppm]	10 ppm
<b>USA IDLH</b>	IDLH [ppm]	100 ppm
<b>USA OSHA</b>	OSHA PEL C [ppm]	20 ppm
<b>USA OSHA</b>	Acceptable Maximum Peak Above The Acceptable Ceiling Concentration For An 8-Hr Shift	50 ppm Peak (10 minutes once, only if no other measurable exposure occurs)

## 8.2. Exposure Controls

### Appropriate Engineering Controls

: Suitable eye/body wash equipment should be available in the vicinity of any potential exposure. Ensure adequate ventilation, especially in confined areas. Ensure all national/local regulations are observed. Use explosion-proof equipment. Proper grounding procedures to avoid static electricity should be followed. Gas detectors should be used when flammable gases or vapors may be released. Oxygen detectors should be used when asphyxiating gases may be released.

### Personal Protective Equipment

: Gloves. Protective clothing. Protective goggles. Insufficient ventilation: wear respiratory protection. Respiratory protection of the dependent type.



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<b>Materials for Protective Clothing</b>	: Chemically resistant materials and fabrics. Wear fire/flame resistant/retardant clothing.
<b>Hand Protection</b>	: Wear protective gloves. If material is cold, wear thermally resistant protective gloves.
<b>Eye and Face Protection</b>	: Chemical safety goggles.
<b>Skin and Body Protection</b>	: Wear suitable protective clothing.
<b>Respiratory Protection</b>	: Use a NIOSH-approved self-contained breathing apparatus whenever exposure may exceed established Occupational Exposure Limits.
<b>Thermal Hazard Protection</b>	: Wear thermally resistant protective clothing.
<b>Other Information</b>	: When using, do not eat, drink or smoke.

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

### 9.1. Information on Basic Physical and Chemical Properties

<b>Physical State</b>	: Gas
<b>Appearance</b>	: Colorless, Liquefied gas
<b>Odor</b>	: Rotten egg odor
<b>Odor Threshold</b>	: No data available
<b>pH</b>	: No data available
<b>Evaporation Rate</b>	: No data available
<b>Melting Point</b>	: No data available
<b>Freezing Point</b>	: No data available
<b>Boiling Point</b>	: -162 °C (-259.6 °F)
<b>Flash Point</b>	: -187 °C (-304.6 °F)
<b>Auto-ignition Temperature</b>	: 538 °C (1000.4 °F)
<b>Decomposition Temperature</b>	: No data available
<b>Flammability</b>	: Extremely flammable gas
<b>Vapor Pressure</b>	: No data available
<b>Relative Vapor Density at 20°C</b>	: 1.19 (Air = 1)
<b>Relative Density</b>	: No data available
<b>Density</b>	: < 1 g/cm <sup>3</sup>
<b>Solubility</b>	: Negligible solubility in water (H <sub>2</sub> S is partly soluble). Soluble in hydrocarbon solvents.
<b>Partition Coefficient: N-Octanol/Water</b>	: No data available
<b>Viscosity</b>	: No data available
<b>Explosive Properties</b>	: Contains gas under pressure; may explode if heated.
<b>Lower Flammable Limit</b>	: 4 %
<b>Upper Flammable Limit</b>	: 14 %

### 9.2. Other Information

<b>Gas Group</b>	: Compressed gas
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## SECTION 10: STABILITY AND REACTIVITY

### 10.1. Reactivity

Hazardous reactions will not occur under normal conditions.

### 10.2. Chemical Stability

Contains gas under pressure; may explode if heated.

### 10.3. Possibility of Hazardous Reactions

Hazardous polymerization will not occur.

### 10.4. Conditions to Avoid

Direct sunlight, extremely high or low temperatures, open flames, sources of ignition and incompatible materials.

### 10.5. Incompatible Materials

Strong oxidizers.

### 10.6. Hazardous Decomposition Products

Carbon and sulfur oxides.

## SECTION 11: TOXICOLOGICAL INFORMATION

### 11.1. Information on Toxicological Effects

**Acute Toxicity (Oral):** Not classified

**Acute Toxicity (Dermal):** Not classified

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**Acute Toxicity (Inhalation):** Not classified

<b>Natural gas (8006-14-2)</b>	
LC50 Inhalation Rat	658 mg/l/4h
<b>Methane (74-82-8)</b>	
LD50 Dermal Rat	> 2000 mg/kg
LC50 Inhalation Rat	539600 ppm (Exposure time: 2 h)
<b>Ethane (74-84-0)</b>	
LC50 Inhalation Rat	> 800000 ppm/4h
<b>Propane (74-98-6)</b>	
LC50 Inhalation Rat	> 800000 ppm (Exposure time: 15 min)
<b>n-Butane (106-97-8)</b>	
LC50 Inhalation Rat	30957 mg/m <sup>3</sup> (Exposure time: 4 h)
LC50 Inhalation Rat	276798.8 ppm
<b>n-Pentane (109-66-0)</b>	
LD50 Oral Rat	> 2000 mg/kg
LD50 Dermal Rabbit	3000 mg/kg
LC50 Inhalation Rat	364 g/m <sup>3</sup> (Exposure time: 4 h)
LC50 Inhalation Rat	> 20 mg/l/4h
<b>Hexane (110-54-3)</b>	
LD50 Oral Rat	25 g/kg
LD50 Dermal Rabbit	3000 mg/kg
LC50 Inhalation Rat	169 mg/l/4h
LC50 Inhalation Rat	48000 ppm/4h
<b>Hydrogen (1333-74-0)</b>	
LC50 Inhalation Rat	> 15000 ppm/1h
<b>Hydrogen sulfide (7783-06-4)</b>	
LC50 Inhalation Rat	444 ppm/4h

**Skin Corrosion/Irritation:** Not classified

**Serious Eye Damage/Irritation:** Not classified

**Respiratory or Skin Sensitization:** Not classified

**Germ Cell Mutagenicity:** Not classified

**Carcinogenicity:** Not classified

**Reproductive Toxicity:** Suspected of damaging fertility or the unborn child.

**Specific Target Organ Toxicity (Single Exposure):** Not classified

**Specific Target Organ Toxicity (Repeated Exposure):** Not classified

**Aspiration Hazard:** Not classified

**Symptoms/Injuries After Inhalation:** In elevated concentrations may cause asphyxiation, central nervous system effects, and increased breathing rate. Symptoms of asphyxiation include headache, dizziness, rapid breathing, increased pulse, mood changes, tremors, cyanosis, muscular weakness, narcosis, numbness of the extremities, unconsciousness and death. This product contains hydrogen sulfide, which is a toxic gas that can be fatal. It also has a rotten egg smell that causes odor fatigue very quickly and shouldn't be used as an indicator for the presence of gas.

**Symptoms/Injuries After Skin Contact:** Contact with gas escaping the container can cause frostbite and freeze burns.

**Symptoms/Injuries After Eye Contact:** Contact with gas escaping the container can cause frostbite, freeze burns, and permanent eye damage.

**Symptoms/Injuries After Ingestion:** Not considered a potential route of exposure, but contact with gas escaping the container can cause freeze burns and frostbite.

**Chronic Symptoms:** Suspected of damaging fertility or the unborn child.

## SECTION 12: ECOLOGICAL INFORMATION

### 12.1. Toxicity

**Ecology - General** : Harmful to aquatic life with long lasting effects.

<b>n-Pentane (109-66-0)</b>	
LC50 Fish 1	9.87 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss)

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EC50 - Crustacea [1]	9.74 mg/l (Exposure time: 48 h - Species: Daphnia magna)
LC50 Fish 2	11.59 mg/l (Exposure time: 96 h - Species: Pimephales promelas)
NOEC Chronic Algae	2 mg/l
<b>Hexane (110-54-3)</b>	
LC50 Fish 1	2.1 – 2.98 mg/l (Exposure time: 96 h - Species: Pimephales promelas [flow-through])
EC50 - Crustacea [1]	3.88 mg/l
<b>Hydrogen sulfide (7783-06-4)</b>	
LC50 Fish 1	0.0448 mg/l (Exposure time: 96 h - Species: Lepomis macrochirus [flow-through])
LC50 Fish 2	0.016 mg/l (Exposure time: 96 h - Species: Pimephales promelas [flow-through])

### 12.2. Persistence and Degradability

<b>Natural Gas (Sour) (8006-14-2)</b>	
Persistence and Degradability	May cause long-term adverse effects in the environment.

### 12.3. Bioaccumulative Potential

<b>Natural Gas (Sour) (8006-14-2)</b>	
Bioaccumulative Potential	Not established.
<b>Natural gas (8006-14-2)</b>	
Partition coefficient n-octanol/water (Log Pow)	≤ 2.8
<b>Carbon dioxide (124-38-9)</b>	
BCF Fish 1	(no bioaccumulation)
Partition coefficient n-octanol/water (Log Pow)	0.83
<b>Methane (74-82-8)</b>	
Partition coefficient n-octanol/water (Log Pow)	1.09
<b>Ethane (74-84-0)</b>	
Partition coefficient n-octanol/water (Log Pow)	1.09 – 2.8 (at 20 °C (at pH 7))
<b>Propane (74-98-6)</b>	
Partition coefficient n-octanol/water (Log Pow)	1.09 (at 20 °C (at pH 7))
<b>n-Butane (106-97-8)</b>	
Partition coefficient n-octanol/water (Log Pow)	2.31 (at 20 °C (at pH 7))
<b>n-Pentane (109-66-0)</b>	
Partition coefficient n-octanol/water (Log Pow)	3.45 (at 25 °C (at pH 7))
<b>Hexane (110-54-3)</b>	
Partition coefficient n-octanol/water (Log Pow)	4 (at 20 °C (at pH 7))
<b>Hydrogen (1333-74-0)</b>	
BCF Fish 1	(no bioaccumulation expected)
<b>Hydrogen sulfide (7783-06-4)</b>	
BCF Fish 1	(no bioaccumulation expected)
Partition coefficient n-octanol/water (Log Pow)	0.45 (at 25 °C)

### 12.4. Mobility in Soil

<b>Natural Gas (Sour) (8006-14-2)</b>	
Ecology - Soil	No data available.

### 12.5. Other Adverse Effects

Other Adverse Effects	: None known.
Other Information	: Avoid release to the environment.



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## SECTION 13: DISPOSAL CONSIDERATIONS

### 13.1. Waste Treatment Methods

**Waste Treatment Methods:** Material should be recycled if possible. Incineration is also an acceptable method for disposal.

**Sewage Disposal Recommendations:** Do not dispose of waste into sewer.

**Waste Disposal Recommendations:** Dispose of contents/container in accordance with local, regional, national, and international regulations.

**Additional Information:** Handle empty containers with care because residual vapors are flammable. Do not puncture or incinerate container.

**Ecology - Waste Materials:** Avoid release to the environment. This material is hazardous to the aquatic environment. Keep out of sewers and waterways.

## SECTION 14: TRANSPORT INFORMATION

The shipping description(s) stated herein were prepared in accordance with certain assumptions at the time the SDS was authored, and can vary based on a number of variables that may or may not have been known at the time the SDS was issued.

### 14.1. In Accordance with DOT

**Proper Shipping Name** : NATURAL GAS, COMPRESSED

**Hazard Class** : 2.1

**Identification Number** : UN1971

**Label Codes** : 2.1

**ERG Number** : 115



### 14.2. In Accordance with IMDG

**Proper Shipping Name** : NATURAL GAS, COMPRESSED

**Hazard Class** : 2

**Division** : 2.1

**Identification Number** : UN1971

**Label Codes** : 2.1

**EmS-No. (Fire)** : F-D

**EmS-No. (Spillage)** : S-U



### 14.3. In Accordance with IATA

**Proper Shipping Name** : NATURAL GAS, COMPRESSED

**Identification Number** : UN1971

**Hazard Class** : 2

**Label Codes** : 2.1

**Division** : 2.1

**ERG Code (IATA)** : 10L



## SECTION 15: REGULATORY INFORMATION

### 15.1. US Federal Regulations

Natural Gas (Sour) (8006-14-2)	
SARA Section 311/312 Hazard Classes	Physical hazard - Flammable (gases, aerosols, liquids, or solids) Physical hazard - Gas under pressure Health hazard - Reproductive toxicity Health hazard - Specific target organ toxicity (single or repeated exposure) Health hazard - Simple asphyxiant
Natural gas (8006-14-2)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory - Status: Active	
Carbon dioxide (124-38-9)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory - Status: Active	
Methane (74-82-8)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory - Status: Active	
Ethane (74-84-0)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory - Status: Active	
Propane (74-98-6)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory - Status: Active	
n-Butane (106-97-8)	

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Listed on the United States TSCA (Toxic Substances Control Act) inventory - Status: Active	
<b>n-Pentane (109-66-0)</b>	
Listed on the United States TSCA (Toxic Substances Control Act) inventory - Status: Active	
<b>Hexane (110-54-3)</b>	
Listed on the United States TSCA (Toxic Substances Control Act) inventory - Status: Active Subject to reporting requirements of United States SARA Section 313	
<b>CERCLA RQ</b>	5000 lb
<b>SARA Section 313 - Emission Reporting</b>	1 %
<b>Hydrogen (1333-74-0)</b>	
Listed on the United States TSCA (Toxic Substances Control Act) inventory - Status: Active	
<b>Hydrogen sulfide (7783-06-4)</b>	
Listed on the United States TSCA (Toxic Substances Control Act) inventory - Status: Active Listed on the United States SARA Section 302 Subject to reporting requirements of United States SARA Section 313	
<b>CERCLA RQ</b>	100 lb
<b>SARA Section 302 Threshold Planning Quantity (TPQ)</b>	500 lb
<b>SARA Section 313 - Emission Reporting</b>	1 %
<b>EPA Toxic Release Inventory Information</b>	
For more information concerning the Toxic Release Inventory concerning this product, please contact the Manufacturer as noted in Section 1 and ask for the Environmental Group. Please note that there is considerable variability in this product as noted in Section 3.	

## 15.2. US State Regulations

<b>Natural gas (8006-14-2)</b>	
U.S. - Pennsylvania - RTK (Right to Know) List U.S. - Massachusetts - Right To Know List	
<b>Carbon dioxide (124-38-9)</b>	
U.S. - New Jersey - Right to Know Hazardous Substance List U.S. - Pennsylvania - RTK (Right to Know) List U.S. - Massachusetts - Right To Know List	
<b>Methane (74-82-8)</b>	
U.S. - New Jersey - Right to Know Hazardous Substance List U.S. - Pennsylvania - RTK (Right to Know) List U.S. - Massachusetts - Right To Know List	
<b>Ethane (74-84-0)</b>	
U.S. - New Jersey - Right to Know Hazardous Substance List U.S. - Pennsylvania - RTK (Right to Know) List U.S. - Massachusetts - Right To Know List	
<b>Propane (74-98-6)</b>	
U.S. - New Jersey - Right to Know Hazardous Substance List U.S. - Pennsylvania - RTK (Right to Know) List U.S. - Massachusetts - Right To Know List	
<b>n-Butane (106-97-8)</b>	
U.S. - New Jersey - Right to Know Hazardous Substance List U.S. - Pennsylvania - RTK (Right to Know) List U.S. - Massachusetts - Right To Know List	
<b>n-Pentane (109-66-0)</b>	
U.S. - New Jersey - Right to Know Hazardous Substance List U.S. - Pennsylvania - RTK (Right to Know) List U.S. - Massachusetts - Right To Know List	
<b>Hexane (110-54-3)</b>	
U.S. - New Jersey - Right to Know Hazardous Substance List U.S. - Pennsylvania - RTK (Right to Know) List U.S. - Massachusetts - Right To Know List	

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### Hydrogen (1333-74-0)

U.S. - New Jersey - Right to Know Hazardous Substance List

U.S. - Pennsylvania - RTK (Right to Know) List

U.S. - Massachusetts - Right To Know List

### Hydrogen sulfide (7783-06-4)

U.S. - New Jersey - Right to Know Hazardous Substance List

U.S. - Pennsylvania - RTK (Right to Know) List

U.S. - Massachusetts - Right To Know List

U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List

### California Proposition 65



**WARNING:** This product can expose you to Hexane, which is known to the State of California to cause birth defects or other reproductive harm. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

Chemical Name (CAS No.)	Carcinogenicity	Developmental Toxicity	Female Reproductive Toxicity	Male Reproductive Toxicity
Hexane (110-54-3)				X

## SECTION 16: OTHER INFORMATION, INCLUDING DATE OF PREPARATION OR LAST REVISION

**Date of Preparation or Latest Revision** : 01/10/2023

**Other Information** : This document has been prepared in accordance with the SDS requirements of the OSHA Hazard Communication Standard 29 CFR 1910.1200

### GHS Full Text Phrases:

H220	Extremely flammable gas
H224	Extremely flammable liquid and vapor
H225	Highly flammable liquid and vapor
H280	Contains gas under pressure; may explode if heated
H304	May be fatal if swallowed and enters airways
H315	Causes skin irritation
H319	Causes serious eye irritation
H330	Fatal if inhaled
H335	May cause respiratory irritation
H336	May cause drowsiness or dizziness
H361	Suspected of damaging fertility or the unborn child
H370	Causes damage to organs
H373	May cause damage to organs through prolonged or repeated exposure
H400	Very toxic to aquatic life
H401	Toxic to aquatic life
H402	Harmful to aquatic life
H411	Toxic to aquatic life with long lasting effects
H412	Harmful to aquatic life with long lasting effects

*This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.*

SDS US (GHS HazCom)