



ITS DIVISIONS AND SUBSIDIARIES

Material Safety Data Sheet

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SECTION 1: CHEMICAL IDENTIFICATION

Product Name: ... UNPROCESSED NATURAL GAS (SOUR)
CAS Registry #: .. 8006-14-2
Chemical Family: . Hydrocarbon Mixture
DOT Number: UN 1971

Chemical Synonyms or Aliases

SOUR NATURAL GAS
SOUR FIELD SALES GAS
SOUR GAS

SECTION 2: HAZARDOUS INGREDIENTS

Components	Mol. Percent		OSHA PEL	OSHA Ceiling	OSHA Excursion	ACGIH TLV	ACGIH STEL
	Lower %age	Upper %age					
METHANE	10.00	100.00	NA	NA	NA	Asphyx.	NA
ETHANE	0.00	30.00	NA	NA	NA	Asphyx.	NA
PROPANE	0.00	30.00	1,000 ppm	NA	NA	Asphyx.	NA
ISOBUTANE	0.00	20.00	NA	NA	NA	NA	NA
N-BUTANE	0.00	20.00	NA	NA	NA	800 ppm	NA
PENTANES	0.00	20.00	1,000 ppm	NA	NA	600 ppm	750 ppm
HEXANES & HEAVIER	0.00	10.00	NA	NA	NA	NA	NA
ISOHEXANE	ND	ND	NA	NA	NA	500 ppm	1,000 ppm
N-HEXANE	ND	ND	500 ppm	NA	NA	50 ppm	NA
HEPTANE	ND	ND	500 ppm	NA	NA	400 ppm	500 ppm
OCTANE	ND	ND	500 ppm	NA	NA	300 ppm	375 ppm
NONANE	ND	ND	NA	NA	NA	200 ppm	NA
HYDROGEN SULFIDE	0.00	50.00	NA	20 ppm	50 ppm	10 ppm	15 ppm
CARBON DIOXIDE	0.00	50.00	5,000 ppm	NA	NA	5,000 ppm	30,000 ppm
NITROGEN	0.00	50.00	NA	NA	NA	Asphyx.	NA
BENZENE*	0.00	0.10	10 ppm	25 ppm	50 ppm	10 ppm	NA
OXYGEN	0.00	20.00	NA	NA	NA	NA	NA

* Lower exposure limits apply to industries covered by 29 CFR 1910.1028.

SECTION 3: PHYSICAL DATA

(Properties Vary Widely. Values Given are Typical)

Boiling Range: -259 to -200 °F
 Melting Point: NA
 Specific Gravity (H₂O=1): NA
 Vapor Pressure: Gas
 Relative Density (Air=1): 0.56 - 1.10
 Solubility in Water: 0.4 % @ 20 °C
 pH Information: NA
 % Volatiles: 100
 Evaporation Rate (Ethyl ether=1): ... Gas
 Appearance: Colorless gas
 Odor: Rotten egg odor. Sense of smell may diminish with exposure.

NA = Not Applicable

ND = Not Determined

SECTION 4: FIRE AND EXPLOSION HAZARD DATA

(Properties Vary Widely. Values Given are Typical)

Flammability Class: Flammable gas

Flash Point: Gas

Autoignition Temp: 900 to 1170 °F

Lower Flammable Limit (LFL): 3.8% by volume

Upper Flammable Limit (UFL): 17.0% by volume

Special Hazard: None

<u>NFPA CLASS</u>		<u>HAZARD RATING</u>	
HEALTH	3	0 - Least	3 - High
FIRE	4	1 - Slight	4 - Extreme
REACTIVITY .	0	2 - Moderate	
OTHER	0		

Extinguishing Media

Dry chemical . Carbon dioxide.

Fire Fighting Instructions

Shut off source. Allow fire to burn itself out if no risk to surroundings. Only extinguish if ignition sources in hazard area are eliminated. Cool heat exposed surfaces with water fog. Wear appropriate protective equipment when fire fighting. This material contains H₂S, a poisonous gas. Toxic sulfur dioxide is produced from burning hydrogen sulfide. Refer to DOT Emergency Response Guidebook for first response information.

SECTION 5: REACTIVITY HAZARD INFORMATION

Stability: Stable

Hazardous Polymerization: .. No

Incompatible Materials: Strong oxidizers

Hazardous Decomposition

Products: Complete combustion produces carbon dioxide and water. Incomplete combustion produces carbon monoxide and asphyxiants. Toxic sulfur dioxide is also produced due to H₂S content. May form pyrophoric iron sulfide due to H₂S content.

SECTION 6: EXPOSURE CONTROL INFORMATION

Ventilation

Use only with adequate ventilation. Ventilate as needed to comply with acceptable exposure limit.
(See Sections 2 and 7)

Protective Equipment

Eye: Full face shield recommended to protect against mechanical injury from pressurized gas.

Gloves: None normally needed.

Respirator: Concentration-in-air determines protection needed. Use only NIOSH certified respiratory protection.

Other: None normally needed.

SECTION 7: HEALTH HAZARD INFORMATION

Routes of Exposure and Effects

Inhalation: Excessive exposure may cause central nervous system effects; dizziness; loss of balance and coordination; unconsciousness; coma; and death.

DANGER! Hydrogen sulfide gas may accumulate in confined spaces or areas of limited circulation. Concentration may be immediately dangerous to life and health (IDLH) on a single exposure.

DANGER! Benzene has been shown to cause cancer and is listed as a carcinogen by the International Agency for Research on Cancer (IARC), the National Toxicology Program (NTP), and the Occupational Safety and Health Administration (OSHA).

Skin: Generally non-irritating.

Eye: Generally non-irritating. Pressurized gas can cause mechanical injury to eyes.

Ingestion: Cannot reasonably be ingested.

SECTION 8: FIRST AID INFORMATION

First Aid Procedures

Inhalation: Move person to fresh air. If not breathing, give artificial respiration and obtain medical assistance.

Skin: If irritation occurs, obtain medical attention.

Eye: Flush with large amounts of lukewarm water for at least 15 minutes. If irritation or other eye symptoms persist, obtain medical assistance.

Ingestion: None normally needed. Small amounts which accidentally enter mouth should be rinsed out until taste of it is gone.

SECTION 9: SPILL OR LEAK PROCEDURES

Environmental Impact

Report releases as required to appropriate authorities. U.S. Coast Guard regulations require reporting of spills that could reach any waterway.

Cleanup Procedures

Prevent ignition; stop leak; ventilate area. Keep upwind of leak. Evacuate until gas has dispersed. Enter only with appropriate protective equipment. (See Section 6)

Waste Disposal Method

Vent to atmosphere until vapors are dispersed.

SECTION 10: SPECIAL PRECAUTIONS / OTHER INFORMATION

Storage and Handling Conditions

Flammable, poisonous gas. Keep away from heat, sparks, and flame. Keep equipment, piping, and containers free of leaks and enclosures well ventilated. Consult NFPA and OSHA standards. Closed system required for handling. Gas is lighter than air and may accumulate in unventilated roof areas and unventilated spaces.

Special Precautions

Hydrogen sulfide, a poisonous gas, may be present at concentrations which are immediately dangerous to life in unprocessed natural gas (sour). Routine testing for hydrogen sulfide is highly recommended to determine proper precautions and safeguards. Unprocessed natural gas (sour) is highly flammable and may be lighter than air. Gas may travel considerable distances to a source of ignition and flames may flash back. Consult appropriate NFPA codes before handling. Refer to U.S. Dept. of Transportation regulations for transportation and placarding requirements. State and local codes may apply to use and handling of this material.

Other Information

DANGER! This product contains hydrogen sulfide, a poisonous gas. Use appropriate procedures and protective equipment to avoid exposure.

DANGER! This product may contain benzene, a known carcinogen. Use appropriate procedures and protective equipment to avoid exposure.

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