



WARNING



DANGER

## Safety Data Sheet

MSDS ID NO: 004

Revision date: April 2014

### Section 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

**Product name:** Methane  
**Synonyms:** Gas plant methane, gas, inlet gas, residual gas  
**Chemical family:** Petroleum hydrocarbon  
**Formula:** CH<sub>4</sub>  
**Producer:** EnLink Midstream, L.P.  
2501 Cedar Springs Road  
Suite 100  
Dallas, TX 75201  
[www.EnLink.com](http://www.EnLink.com)

<b>Emergency Line</b>	<b>866-394-9839</b>	<b>Available 24 hours</b>	
<b>CHEMTREC</b>	<b>800-424-9300</b>		
<b>EnLink</b>	<b>214-953-9500</b>	<b>Available during normal business hours</b>	<b>**Ask for Compliance Dept**</b>

### Section 2. HAZARDS IDENTIFICATION

#### EMERGENCY OVERVIEW

Methane does not have any color and has a slight hydrocarbon odor. Some methane products have an odorant added to signal their presence in an atmosphere. Methane is typically stored under pressure and is extremely flammable and explosive. In higher concentrations, methane acts as a simple asphyxiant, displacing oxygen.

#### OSHA-GHS Hazard Statements:

**DANGER — Extremely Flammable Gas**

**WARNING — Contains gas under pressure; may explode if heated**

**Inhalation:** This product is considered to have low toxicity by inhalation and is a simple asphyxiant. Signs of asphyxiation will be noticed when oxygen is reduced to below 16%, and may occur in several stages. At this concentration, the product can produce symptoms of rapid breathing and pulse rate, dizziness, headaches, confusion and incoordination. At extreme concentrations, asphyxiation and death can occur due to lack of oxygen.

**Chronic:** Currently, no known adverse health effects are associated with chronic exposure. However, some animal studies indicate weak cardiac sensitization to Iso-butane. See Section 11 (Toxicological Information) for additional information.

**Ingestion:** Ingestion is not likely.

**Skin contact:** Generally, no major irritation occurs unless there are unusual conditions.

**Eye contact:** Some slight irritation can occur on mucous membranes. However, greater hazard may be due to pressure issues of material storage.

**Carcinogenic evaluation:** Natural gas components present at concentrations greater than 0.1% are not considered carcinogenic, according to OSHA, the IARC and the NTP.

### Section 3. COMPOSITION / INFORMATION ON INGREDIENTS

**Methane is a colorless, odorless gas with a wide distribution in nature. It is the principal component of natural gas, a mixture containing about 75% CH<sub>4</sub>, 15% ethane (C<sub>2</sub>H<sub>6</sub>) and 5% other hydrocarbons, such as propane (C<sub>3</sub>H<sub>8</sub>) and butane (C<sub>4</sub>H<sub>10</sub>).**

**Material information:**

Name	CAS No.	Weight %
Methane	74-82-8	75-99
Carbon dioxide	124-38-9	1-2.5
Nitrogen	7727-37-9	0.1-0.5

*Note: The above are represented in ranges as estimates. Due to sources, components of methane may vary due to variations produced by a natural product.*

### Section 4. FIRST AID MEASURES

**Inhalation:** Move affected person(s) to fresh air. If not breathing, breathing is difficult, or no heartbeat, give artificial respiration and cardiopulmonary resuscitation (CPR) and/or administer oxygen as needed by trained personnel. Immediately call a physician.

**Skin contact:** Consult with a physician if any unusual symptoms are noted.

**Ingestion:** N/A

**Eye contact:** Consult with a physician if any unusual symptoms are noted.

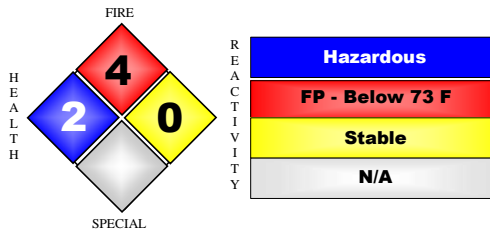
### Section 5. FIREFIGHTING MEASURES

**Suitable extinguishing media:** Small fires — Class B fire-extinguishing media including CO<sub>2</sub> or dry chemical can be used. Larger fires — water spray, fog. Use of extinguishers should be undertaken only by adequately trained personnel.

**Specific hazards:** Refer to NFPA 30 or North American Emergency Response Guide 115.

**Special protective equipment for firefighters:** If possible, immediately stop product flow and allow it to burn out. Product can produce both internal/external explosions in any vessel if Bleve's point is reached. Extinguishing flame may lead to formation of other dangerous mixtures. **CAUTION — Contact with water and other liquefied product can cause increased vaporization.**

**NFPA rating:**  
**Health:** 2  
**Flammability:** 4  
**Instability/reactivity:** 0  
**Other:** N/A



## Section 6. ACCIDENTAL RELEASE MEASURES

**Personal precautions:** Evacuate any potentially affected area and isolate personnel from entry. Shut off source if possible and if safe.

## Section 7. HANDLING AND STORAGE

**Handling:** Ensure proper grounding methods are used in the handling of this product. Comply with all applicable regulatory agencies related to environmental, health and safety.

## Section 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

### Occupational Exposure Limits:

Name	CAS No.	Weight %	Federal OSHA PEL (ppm)	ACGIH® TLV® (ppm)	OSHA PEL – 1989 <sup>B</sup> and NIOSH REL (ppm)
<b>Methane</b>	74-82-8	75-99	Not established	1000 <sup>A</sup>	Not established
<b>Carbon dioxide</b>	124-38-9	1-2.5	5000 ppm	5000 30000 STEL	10000 ppm <sup>B</sup> 30000 ppm STEL <sup>B</sup> 5000 ppm 30000 ppm STEL
<b>Nitrogen</b>	7727-37-9	0.1-0.5	Not established	Not established	Not established

All exposure limits listed are 8-hour time weighted average (TWA) — except where noted otherwise.

<sup>A</sup> Aliphatic hydrocarbon gas — (alkane C<sub>1</sub>-C<sub>4</sub>)

<sup>B</sup> Federal OSHA 1989 PELs were vacated but are in use and enforced by many state OSHA plans.

TWA — Time Weighted Average is an average value of exposure over the course of an 8-hour work shift.

PEL — Permissible Exposure Limit is the maximum amount or concentration of a chemical that a worker may be exposed to under OSHA regulations.

STEL — Short Term Exposure Limit — typically a 15-minute exposure period of time

**Engineering measures:** Ensure proper ventilation and methods of exhaust are operating to reduce potential hazards. Use mechanical ventilation equipment that is intrinsically safe or explosion-proof.

### PERSONAL PROTECTIVE EQUIPMENT

**Respiratory protection:** Use a NIOSH/MSHA-approved positive-pressure supplied air respirator with escape bottle or self-contained breathing apparatus (SCBA) for gas concentrations above occupational exposure limits, if exposure levels are not known, or in an oxygen-deficient atmosphere.

**Skin and body protection:** Cover exposed skin areas with appropriate personal protection coverings.

**Eye protection:** Ensure proper use of goggles and/or face shields in the handling of any pressurized gases or materials.

**Hygiene measures:** Ensure proper exhaust methods are explosion-proof.

## Section 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Colorless gas
Physical state (solid/liquid/gas):	Gas
Substance type (pure/mixture):	Mixture
Color:	Colorless
Odor:	Odorless
Molecular weight:	16
pH:	Neutral
Boiling point/range (5-95%):	-259°F
Melting point/range:	N/A
Decomposition temperature:	N/A
Critical temperature:	-82.7°C
Specific gravity:	0.42 liquid
Vapor density:	(AIR = 1) 0.6
Vapor pressure:	Not determined
Evaporation rate:	N/A
Flash point:	-306°F
Auto-ignition temperature:	NO DATA
Flammable limits in air — lower (%):	5.3 %
Flammable limits in air — upper (%):	14 %

## Section 10. STABILITY AND REACTIVITY

Stability:	This product is stable at 70°F, 760 mm pressure.
Polymerization:	Will not occur.
Hazardous decomposition products:	Carbon monoxide/carbon dioxide
Materials to avoid:	Strong oxidizers such as nitrates, perchlorates, chlorine, fluorine
Conditions to avoid:	Heat/ignition

## Section 11. TOXICOLOGICAL INFORMATION

Acute toxicity:

Product information:

Name	CAS No.	Inhalation:	Dermal:	Oral:
Methane	74-82-8	LC <sub>50</sub> = 900,000ppm (Cats)	N/A	N/A

**Sensitization:** Methane is not known to cause sensitization in humans; however, some animal studies indicate that exposure to iso-butane can cause weak cardiac sensitization.

## Section 12. ECOLOGICAL INFORMATION

**Ecotoxicity effects:** Product will dissipate quickly in atmosphere of unconfined area.

## Section 13. DISPOSAL CONSIDERATIONS

**Cleanup considerations:** Disposal of this material must be done in accordance with federal, state and/or local regulations. The material destined for disposal must be characterized properly and may differ from the product described in this MSDS if mixed with other wastes.

## Section 14. TRANSPORT INFORMATION

Please refer to 40 CFR 172.101:

DOT:

Transport information:	This material is regulated under DOT when transported via U.S. commerce routes.
Proper shipping name:	Methane, compressed
UN/identification no.:	UN 1971
Hazard class:	2.1
Packing group:	N/A
DOT reportable quantity (lbs):	N/A

## Section 15. REGULATORY INFORMATION

U.S. federal regulatory information:

State and community right-to-know regulations:

*The following component(s) of this material are identified on the regulatory lists below:*

CERCLA Sections 102a/103: N/A

SARA Title III Section 302: N/A

SARA Title III Section 304: N/A

SARA Title III Section 313: N/A

OSHA Process Safety: N/A

SARA Title III Sections 311/312 Hazardous Categories (40 CFR 370.21)

ACUTE:	NO
CHRONIC:	NO
FIRE:	FIRE HAZARD
REACTIVE:	NO
SUDDEN RELEASE:	SUDDEN RELEASE OF PRESSURE

**NOTE:** User must consult with applicable state and local agencies for special specifics, determinations or compliance obligations regarding this product.

## Section 16. OTHER INFORMATION

The information and recommendations contained herein are based upon tests, data, and information resources believed to be reliable. However, EnLink Midstream, L.P., and its related operations or divisions (EnLink) do not guarantee the accuracy or completeness, nor shall any of this information constitute a warranty, whether expressed or implied, as to the safety of goods, the merchantability of the goods or the fitness of the goods for a particular purpose. Adjustment to conform to actual conditions of usage may be required. EnLink assumes no responsibility for results obtained or for incidental or consequential damages, including lost profits, arising from the use of this data. No warranty against infringement of any patent, copyright or trademark is made or implied.