



WARNING



DANGER

Safety Data Sheet

SDS ID NO: 002

Revision date: April 2014

Section 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product name: Ethane
Synonyms: Dimethyl, methyl methane
Chemical family: Natural gas
Formula: CH₃CH₃
Producer: EnLink Midstream, L.P.
2501 Cedar Springs Road
Suite 100
Dallas, TX 75201
www.EnLink.com

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

Section 2. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

DANGER: Ethane is extremely flammable and explosive. Ethane can be an asphyxiant, displacing oxygen. Skin, eye and mucous membrane contact with rapidly expanding gas or liquid can cause burns, severe injury or frostbite upon contact. Ethane is a colorless gas or liquid with a slight hydrocarbon odor. Ethane is typically transported as a liquid gas under pressure.

OSHA-GHS Hazard Statements:

DANGER — Extremely Flammable Gas (*category 1*)

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

Inhalation: Asphyxiant. High concentrations of this gas can produce dizziness, headaches, confusion and incoordination. At extreme concentrations, asphyxiation and death can occur due to lack of oxygen.

Ingestion: An unlikely route of exposure. This product is a gas at normal temperature and pressure, but frostbite of the lips and mouth may result from contact with the liquid.

Skin contact: No harm expected from gas. Liquid may cause frostbite.

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 that are 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

Ethane is an aliphatic petroleum hydrocarbon.

Material information:

Name	CAS No.	Weight %
Ethane	74-84-0	95-99
Methane	74-82-8	1-5
Propane	74-98-6	0.3-3

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

Section 4. FIRST AID MEASURES

- Inhalation:** Move exposed persons to fresh air. If the person is not breathing or breathing is irregular, provide artificial respiration or oxygen by trained personnel. Seek immediate medical attention.
- Skin contact:** For exposure to liquid, immediately warm frostbite area with warm water not to exceed 105°F (41°C). In case of massive exposure, remove contaminated clothing while showering with warm water. Call a physician.
- Ingestion:** Ingestion is considered unlikely. If accidentally swallowed, obtain immediate medical attention.
- Eye contact:** Check for and remove any contact lenses. Immediately consult physician after flushing eyes with tepid water for at least 15 minutes.

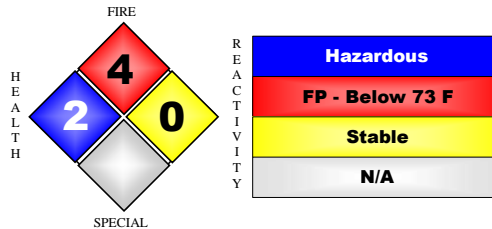
Section 5. FIREFIGHTING MEASURES

Suitable extinguishing media: Small fires — Class B fire-extinguishing media including CO₂ or dry chemical can be used. Larger fires — water spray, fog. Use of extinguishers should be undertaken only by adequately trained personnel.

Specific hazards: Firefighting may result in potential exposure to high heat, smoke or toxic byproducts of combustion. A self-contained breathing apparatus (SCBA) with full-face piece and full protective firefighting clothing should be worn. Refer to NFPA 30 or North American Emergency Response Guide 115.

Special protective equipment for firefighters: If possible, stop product flow and allow it to burn out. The fire should not be extinguished unless flow of gas can be immediately stopped. 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. Prevent runoff from fire control or dilution from entering streams, sewers or drinking water supply. **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: Immediately contact emergency personnel. Evacuate any potentially affected area and isolate personnel from entry. Isolate the area until gas has dispersed. Use suitable personal protective equipment (section 8). Shut off source if possible and if safe. Use spark-proof tools and explosion-proof equipment. Ventilate the area if the spill is indoors. Prevent entry into waterways, sewers, basements and confined areas.

Section 7. HANDLING AND STORAGE

Handling: Ensure proper grounding methods are used in the handling of this product. Comply with 29 CFR 1910.110, "Storage and Handling of Liquefied Petroleum Gases," and all other applicable guidelines and regulatory requirements related to environmental, health, and safety.

Storage: Hydrocarbon liquids, including this product, can act as a non-conductive flammable liquid (or static accumulator), and may form ignitable vapor-air mixtures in storage tanks or other containers. For more information on precautions to prevent static-initiated fire or explosion, see NFPA 77, "Recommended Practice, Protection Against Static Electricity."

Section 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Occupational exposure limits:

Name	CAS No.	OSHA PEL (TWA) (ppm)	ACGIH® TLV® (ppm)	NIOSH REL (ppm)
Ethane	74-84-0	None	1000ppm TWA ^A	None
Methane	74-82-8	None	1000ppm TWA ^A	None
Propane	74-98-6	1000 1800 mg/m ³	1000ppm TWA ^A	1000 TWA ^B 1800 mg/m ³ TWA

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

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

^A Time Weighted Average (TWA) aliphatic hydrocarbon gas (alkane C₁-C₄)

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

^B Federal OSHA 1989 PELs were vacated but are in use and enforced by many state OSHA plans.

Engineering measures: Ensure proper ventilation and methods of exhaust are operating to reduce potential hazards. Ensure all equipment is intrinsically safe or explosion-proof and approved for classified areas.

PERSONAL PROTECTIVE EQUIPMENT

Respiratory protection: If product levels are detected in the applicable ranges, use NIOSH/MSHA-approved positive pressure supplied air respirators.

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: Avoid repeated or prolonged skin exposure. Wash hands before eating, drinking, smoking, or using toilet facilities. Promptly remove contaminated clothing and laundry before reuse.

Section 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Colorless gas
Physical state (solid/liquid/gas): Gas
Substance type (pure/mixture): Mixture
Color: Colorless
Odor: Hydrocarbon
Molecular weight: 16-30
pH: N/A
Boiling point/range (5-95%): -259° to -43°F
Melting point/range: N/A
Critical temperature: 90°F (32°C)
Decomposition temperature: N/A
Specific gravity: 0.35 / 0.70 liquid
Vapor density: (AIR = 1) 1.04
Vapor pressure: 558 PSIA at 70°F (21.1°C), 1,000 PSIA at 122°F (50°C)
Evaporation rate: N/A
Flash point: -211°F (-149°C)
Auto-ignition temperature: 959°F (515°C)
Flammable limits in air — lower (%): 3.2
Flammable limits in air — upper (%): 12.5

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 sources

Section 11. TOXICOLOGICAL INFORMATION

Acute toxicity: No specific information is available regarding the toxic effects of this product to humans.

Product information:

Name	CAS No.	Inhalation:	Dermal:	Oral:
Ethane	74-84-0	N/A	N/A	N/A

Summary of health effect information on the product: *refer to Hazard Section 2*

Section 12. ECOLOGICAL INFORMATION

Ecotoxicity effects: No known effects. The product will dissipate quickly in atmosphere of unconfined area.

Other adverse effects: This product does not contain any Class I or Class II ozone-depleting chemicals.

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:	Ethane	UN/identification no.: UN 1035
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 (40 FR 302.4): Not regulated
SARA Title III Section 302 (40 CFR 355.30): Not regulated
SARA Title III Section 304 (40 CFR 355.40): Not regulated
SARA Title III Section 313 (40 CFR 372.65): Not regulated
OSHA Process Safety (29 CFR 1910.119): Not regulated
SARA Title III Sections 311/312 Hazardous Categories (40 CFR 370.21)

ACUTE:	HEALTH HAZARD
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

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