



Ethane

Safety Data Sheet

According to the Hazard Communication Standard (CFR29 1910.1200) HazCom 2012 and the Hazardous Products Regulations (HPR) WHMIS 2015

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SECTION 1: Identification

1.1. Identification

Product form : Mixture
Product name : Ethane
Synonyms : Ethyl Hydride

1.2. Recommended use and restrictions on use

Use of the substance/mixture : Used in chemical industry mainly in the production of ethylene.
Restrictions on use : For professional use only

1.3. Supplier

Supplier

NGL Supply Co., Ltd.
1420, 225 - 6th Avenue SW
Calgary, Alberta - Canada T2P 1N2
T 403-265-1977

Distributor

NGL Supply Terminal Company
720 South Colorado Blvd. Suit 720N
Denver, CO 80246 - USA
T 303-839-1806

1.4. Emergency telephone number

Emergency number : CHEMTREC 1 (800) 424-9300; ERAC Emergency Response 1-800-265-0212

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS classification

Flam. Gas 1
Press. Gas (Liq.)
Simple Asphy

2.2. GHS Label elements, including precautionary statements

GHS labelling

Hazard pictograms (GHS) :



Signal word (GHS) :

Danger

Hazard statements (GHS) :

Extremely flammable gas.
Contains gas under pressure; may explode if heated.
May displace oxygen and cause rapid suffocation

Precautionary statements (GHS) :

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
Leaking gas fire: Do not extinguish, unless leak can be stopped safely.
Eliminate all ignition sources if safe to do so.
Store in a well-ventilated place.
Protect from sunlight. Store in a well-ventilated place.

2.3. Other hazards which do not result in classification

2.4. Unknown acute toxicity

Not applicable

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SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Chemical name / Synonyms	Product identifier	%
Ethane	Ethane	CAS-No.: 74-84-0	80 - 100
Methane	Methane	CAS-No.: 74-82-8	1 – 5

*Chemical name, CAS number and/or exact concentration have been withheld as a trade secret

SECTION 4: First-aid measures

4.1. Description of first aid measures

First-aid measures after inhalation	: If inhaled and if breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. Give oxygen or artificial respiration if necessary. Call a POISON CENTER/doctor if you feel unwell.
First-aid measures after skin contact	: If skin irritation occurs: Wash skin with plenty of water. If frostbite or freezing occurs, immediately flush with plenty of lukewarm water to GENTLY warm the affected area. Do not use hot water. Do not rub affected area. Get immediate medical attention.
First-aid measures after eye contact	: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention. If frostbite occurs thaw frosted parts with lukewarm water. Do not rub affected area. Do not use hot water.
First-aid measures after ingestion	: Not expected to be a primary route of exposure. Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person. Get medical advice/attention if you feel unwell.

4.2. Most important symptoms and effects (acute and delayed)

Symptoms/effects after inhalation	: May cause irritation to the respiratory tract. Vapours are heavier than air and can cause suffocation by reducing oxygen available for breathing. Symptoms of oxygen deficiency include respiratory difficulty, headache, dizziness, nausea, unconsciousness or death.
Symptoms/effects after skin contact	: May cause skin irritation. Repeated exposure may cause skin dryness or cracking. May cause frostbite on contact with the liquefied gas.
Symptoms/effects after eye contact	: May cause eye irritation. Symptoms may include discomfort or pain, excess blinking and tear production, with possible redness and swelling. May cause frostbite on contact with the liquefied gas.
Symptoms/effects after ingestion	: Not a normal route of exposure. May be harmful if swallowed. May cause gastrointestinal irritation, nausea, vomiting and diarrhea.

4.3. Immediate medical attention and special treatment, if necessary

Symptoms may be delayed. In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media	: Use extinguishing media appropriate for surrounding fire. carbon dioxide, water spray, dry extinguishing powder.
Unsuitable extinguishing media	: Do not use water jet.

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5.2. Specific hazards arising from the chemical

- Fire hazard : Extremely flammable gas. Products of combustion may include, and are not limited to: oxides of carbon. Irritating vapours.
- Explosion hazard : May form flammable/explosive vapour-air mixture. Heat may build pressure, rupturing closed containers, spreading fire and increasing risk of burns and injuries. Ruptured cylinders may rocket.

5.3. Special protective equipment and precautions for fire-fighters

- Firefighting instructions : In case of fire: Evacuate area. Fight fire remotely due to the risk of explosion. Leaking gas fire: Do not extinguish, unless leak can be stopped safely. Eliminate all ignition sources if safe to do so. Move containers away from the fire area if this can be done without risk. Cool closed containers exposed to fire with water spray.
- Protection during firefighting : Keep upwind of fire. Wear full fire fighting turn-out gear (full Bunker gear) and respiratory protection (SCBA).

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

- General measures : Use personal protection recommended in Section 8. Isolate the hazard area and deny entry to unnecessary and unprotected personnel. Use special care to avoid static electric charges. Eliminate every possible source of ignition. Isolate from fire, if possible, without unnecessary risk.

6.1.1. For non-emergency personnel

No additional information available

6.1.2. For emergency responders

No additional information available

6.2. Environmental precautions

Prevent entry to sewers and public waters.

6.3. Methods and material for containment and cleaning up

- For containment : Remove all sources of ignition. Contact competent authorities after a spill. 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.
- Methods for cleaning up : Provide ventilation.

6.4. Reference to other sections

For further information refer to section 8: "Exposure controls/personal protection".

SECTION 7: Handling and storage

7.1. Precautions for safe handling

- Additional hazards when processed : Handle empty containers with care because residual vapours are flammable. Hazardous waste due to potential risk of explosion.
- Precautions for safe handling : Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Do not pierce or burn, even after use.. Avoid contact with skin and eyes. Avoid breathing gas and vapours. Do not swallow. Handle and open container with care. When using do not eat, drink or smoke. Use only outdoors or in a well-ventilated area.
- Hygiene measures : Wash contaminated clothing before reuse. Always wash hands after handling the product.

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7.2. Conditions for safe storage, including any incompatibilities

Technical measures	: Proper grounding procedures to avoid static electricity should be followed.
Storage conditions	: Keep out of the reach of children. Keep container tightly closed. Store in a dry, cool and well-ventilated place. Store in a well-ventilated place. Protect from sunlight. Do not expose to temperatures exceeding 50 °C/ 122 °F. Protect containers from physical damage. Store away from direct sunlight or other heat sources.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Ethane	
No additional information available	
Ethane (74-84-0)	
USA - ACGIH - Occupational Exposure Limits	
ACGIH chemical category	Simple asphyxiant See Appendix F: Minimal Oxygen Content
Methane (74-82-8)	
USA - ACGIH - Occupational Exposure Limits	
ACGIH chemical category	Simple asphyxiant See Appendix F: Minimal Oxygen Content

8.2. Appropriate engineering controls

Appropriate engineering controls	: Ensure good ventilation of the work station. Gas detectors should be used when flammable gases or vapors may be released. Oxygen detectors should be used when asphyxiating gases may be released.
Environmental exposure controls	: Avoid release to the environment.

8.3. Individual protection measures/Personal protective equipment

Hand protection:
Wear suitable gloves. Consult glove manufacturer's product information on material suitability and material thickness.
Eye protection:
Safety glasses or goggles are recommended when using product.
Skin and body protection:
Wear suitable protective clothing. Flame retardant and anti-static material recommended.
Respiratory protection:
In case of insufficient ventilation, wear suitable respiratory equipment. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator. SDSs cannot provide detailed and complete respiratory protection guidelines. Selection of respiratory protection must be done by a qualified person who has assessed the work environment.

Other information:

Handle in accordance with good industrial hygiene and safety procedures. Do not eat, drink or smoke when using this product.

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SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Gas
Appearance	: Clear, colorless gas.
Colour	: Colorless
Odour	: Odourless
Odour threshold	: No data available
pH	: No data available
Melting point	: No data available
Freezing point	: -134.4 °C (-209.92 °F)
Boiling point	: No data available
Flash point	: No data available
Relative evaporation rate (butylacetate=1)	: No data available
Flammability	: Extremely flammable gas.
Vapour pressure	: No data available
Relative vapour density at 20°C / 68 °F	: No data available
Relative density	: No data available
Solubility	: No data available
Partition coefficient n-octanol/water	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive limits	: Lower explosion limit: 3 vol % Upper explosion limit: 12.4 vol %
Explosive properties	: Chemical under pressure: May explode if heated.
Oxidising properties	: No data available

9.2. Other information

Gas group : Liquefied gas

SECTION 10: Stability and reactivity

10.1. Reactivity

No dangerous reactions known under normal conditions of use.

10.2. Chemical stability

Stable under normal conditions. Extremely flammable gas. Contains gas under pressure; may explode if heated.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

Heat. Sources of ignition. Direct sunlight. Incompatible materials.

10.5. Incompatible materials

Flourinated compounds. Halogenated compounds. Reactive metals. Strong acids. Strong bases. Strong oxidizers.

10.6. Hazardous decomposition products

May include, and are not limited to: oxides of carbon. Irritating vapours.

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SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral) : Not classified.
Acute toxicity (dermal) : Not classified.
Acute toxicity (inhalation) : Not classified.

Ethane (74-84-0)	
LC50 inhalation rat	> 800000 ppm/4h

Methane (74-82-8)	
LD50 dermal rat	> 2000 mg/kg (Source: ECHA_API)
LC50 inhalation rat	539600 ppm (Exposure time: 2 h Source: ECHA_API)
ATE CA (Gases)	539600 ppmv/4h

Skin corrosion/irritation : Not classified.
Serious eye damage/irritation : Not classified.
Respiratory or skin sensitisation : Not classified.
Germ cell mutagenicity : Not classified.
Carcinogenicity : Not classified.
Reproductive toxicity : Not classified.
STOT-single exposure : Not classified.
STOT-repeated exposure : Not classified.

Methane (74-82-8)	
LOAEC (inhalation, rat, gas, 90 days)	12000 ppm Animal: rat, Guideline: OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test), Guideline: other:

Aspiration hazard : Not applicable

Ethane	
Vaporizer	Chemical under pressure

Symptoms/effects after inhalation : May cause irritation to the respiratory tract. Vapours are heavier than air and can cause suffocation by reducing oxygen available for breathing. Symptoms of oxygen deficiency include respiratory difficulty, headache, dizziness, nausea, unconsciousness or death.

Symptoms/effects after skin contact : May cause skin irritation. Repeated exposure may cause skin dryness or cracking. May cause frostbite on contact with the liquefied gas.

Symptoms/effects after eye contact : May cause eye irritation. Symptoms may include discomfort or pain, excess blinking and tear production, with possible redness and swelling. May cause frostbite on contact with the liquefied gas.

Symptoms/effects after ingestion : Not a normal route of exposure. May be harmful if swallowed. May cause gastrointestinal irritation, nausea, vomiting and diarrhea.

Other information : Likely routes of exposure: ingestion, inhalation, skin and eye.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : May cause long-term adverse effects in the aquatic environment.

12.2. Persistence and degradability

Ethane	
Persistence and degradability	Not established.

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12.3. Bioaccumulative potential

Ethane

Bioaccumulative potential : Not established.

Ethane (74-84-0)

Partition coefficient n-octanol/water : 1.09 – 2.8 (at 20 °C (at pH 7))

Methane (74-82-8)

Partition coefficient n-octanol/water : 1.09

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

Effect on global warming : No known effects from this product.
Other information : No other effects known.

SECTION 13: Disposal considerations

13.1. Disposal methods

Product/Packaging disposal recommendations : Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation. Container under pressure. Do not drill or burn even after use.
Additional information : Handle empty containers with care because residual vapours are flammable. Hazardous waste due to potential risk of explosion.

SECTION 14: Transport information

In accordance with DOT / TDG

14.1. UN number

UN-No.(DOT) : UN1035
UN-No. (TDG) : UN1035

14.2. UN proper shipping name

Proper Shipping Name (DOT) : Ethane (Mixture)
Proper Shipping Name (TDG) : ETHANE (Mixture)

14.3. Transport hazard class(es)

DOT

Transport hazard class(es) (DOT) : 2.1
Hazard labels (DOT) : 2.1



TDG

Transport hazard class(es) (TDG) : 2.1
Hazard labels (TDG) : 2.1

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14.4. Packing group

Packing group (DOT) : Not applicable
Packing group (TDG) : Not applicable

14.5. Environmental hazards

Other information : No supplementary information available.

14.6. Special precautions for user

Special transport precautions : Do not handle until all safety precautions have been read and understood.

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

SECTION 15: Regulatory information

15.1 Federal regulations

All components of this product are listed, or excluded from listing, on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory.

All components of this product are listed, or excluded from listing, on the Canadian DSL (Domestic Substances List) and NDSL (Non-Domestic Substances List) inventories.

15.2. International regulations

No additional information available

15.3. US State regulations

California Proposition 65 - This product does not contain any substances known to the state of California to cause cancer, developmental and/or reproductive harm

SECTION 16: Other information

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Revision date : 07/05/2024
Other information : None.
Prepared by : Nexreg Compliance Inc.
www.Nexreg.com



Full text of hazard classes and H-statements

Flam. Gas 1	Flammable gases, Category 1
Press. Gas (Liq.)	Gases under pressure : Liquefied gas
Simple Asphy	Simple Asphyxiant

SDS HazCom 2012 - WHMIS 2015 (Nexreg) 2023

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