

GIBSON ENERGY ULC
MATERIAL SAFETY DATA SHEET
ETHANE



1. PRODUCT INFORMATION

NAME: ETHANE
SYNONYMS: Ethane Gas, Spec Ethane, Spec C2
APPLICATIONS AND USE: Used as a miscible flood solvent, chemical feedstock and heating fuel.
PRODUCT DESCRIPTION: A colourless, odourless gas with traces of C3 and C4 hydrocarbons.

REGULATORY CLASSIFICATION:

WHMIS: Class B, Division 1, Flammable Gas

TRANSPORTATION OF DANGEROUS GOODS INFORMATION: (CANADA)

Shipping Name: Ethane
Primary TDG: 2.1
Secondary TDG: None
P.I.N.: UN1035
Packing Group: X
Guide Number: 115

EMERGENCY TELEPHONE NUMBERS:

Name of MFG/SUPPLIER:

Gibson Energy ULC
1700, 440 – 2nd Ave. SW
Calgary, Alberta T2P 5E9

(403) 206-4000
Canutec (613) 993-6666 or Cellular *666

2. HAZARDOUS INGREDIENTS

The following components are defined in accordance with subparagraph 13(a), (l) to (iv) or paragraph 14(a) of the Hazardous Product Act.

<u>Component</u>	<u>%</u>	<u>CAS #</u>
Methane	<2.5	74-82-8
Ethane	<100	74-84-0
Propanes	<1.0	74-98-6
Carbon Dioxide	<5.0	124-38-9

3. TYPICAL PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE: Gas @ 25 °C
DENSITY: 0.374 @ 15.5 °C
RELATIVE DENSITY: Liquid 0.446 @ 0° C;
Vapour 1.04 @ 20° C
BOILING POINT/RANGE: -88.6° C
SOLUBILITY IN WATER: Insoluble
VAPOUR PRESSURE: 4052 kPa @ 24° C
APPEARANCE/ODOUR: Odourless gas; colourless
ODOUR THRESHOLD: Not available
EVAPORATION RATE: Not applicable
FREEZING/MELTING PT.: -172° C
VISCOSITY: Not applicable
pH: Not available
VOLATILE BY VOL.: 100%
CO-EFFICIENT OF WATER/ OIL DISTRIBUTION: Not available
MOLECULAR FORMULA: C2-H6
MOLECULAR WEIGHT: 30.1

4. HEALTH HAZARD INFORMATION

NATURE OF HAZARD

INHALATION:

High vapour concentrations are irritating to the eyes, nose, throat and lungs, may cause headaches and dizziness, may be anesthetic and may cause other central nervous system effects. Causes suffocation (asphyxiant) if allowed to accumulate to concentrations that reduce oxygen below safe breathing levels.

EYE CONTACT: Not considered to be a hazard.

SKIN CONTACT: Low toxicity.
Exposure to rapidly expanding gas or vapourizing liquid may cause frostbite (cold burn).

INGESTION: Not considered to be a hazard.

TOXICITY DATA: Toxicity data not available for product.

OCCUPATIONAL EXPOSURE LIMITS (OEL's) RECOMMENDED:

Medical Division Recommends:

Ethane - 1000 ppm recommended based on composition.

5. FIRST AID MEASURES

INHALATION:

In emergency situations use proper respiratory protection to immediately remove the affected victim from exposure. Administer artificial respiration if breathing has stopped. Keep at rest. Call for prompt medical attention.

EYE CONTACT: First aid is normally not required.

SKIN CONTACT: In case of cold burns caused by rapidly expanding gas or vapourizing liquid, get prompt medical attention.

INGESTION: First aid not applicable.

6. PREVENTATIVE AND CORRECTIVE MEASURES

PERSONAL PROTECTION:

The selection of personal protective equipment varies, depending upon conditions of use.

Where the skin and eye contact is unlikely, but may occur as a result of short and/or periodic exposures, wear long sleeves, chemical resistant gloves and face shield.

Where prolonged and/or repeated skin and eye contact is likely to occur, wear chemical resistant gloves, a chemical suit, rubber boots and a face shield.

Where concentration in air may exceed the occupational exposure limits given in Section 4 and where engineering, work practices or other means of exposure reduction are not adequate, approved respirators may be necessary to prevent overexposure by inhalation.

ENGINEERING CONTROL:

The use of mechanical ventilation is recommended whenever this material is used in confined space to maintain airborne concentrations below recommended occupational exposure limits. Use explosion-proof ventilation equipment.

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HANDLING, STORAGE AND SHIPPING:

Keep containers closed. Handle and open containers with care. Store in a cool, well ventilated place away from incompatible materials. In keeping with good personal hygiene practices, wash hands thoroughly after handling the material. Avoid frequent or prolonged skin contact. Do not breathe gas, vapour or mist. Empty containers may contain product residue. Do not pressure, cut, heat or weld empty containers. Do not reuse empty containers without commercial cleaning or reconditioning. Material will accumulate static charge which may cause a spark. Static charge build-up could become an ignition source. Use proper grounding procedure.

SPILL CONTROL AND DISPOSAL:

Consult an expert on disposal of recovered material. Ensure disposal in compliance with government requirements and ensure conformity to local disposal regulations. Notify the appropriate authority immediately. Take additional action necessary to prevent and remedy the adverse effects of the spill.

LAND SPILLS:

Eliminate source of ignition. Keep public away. Prevent additional discharge of material, if possible to do so without hazard. Vapours or dust may be harmful or fatal. Warn occupants of downwind areas. Allow to evaporate.

WATER SPILLS:

Eliminate all sources of ignition. Vapours or dust may be harmful or fatal. Warn occupants and shipping in downwind areas. Allow to evaporate from surface.

7. FIRE AND EXPLOSION HAZARD

Flash-point (Test Method):- -152° C
Auto ignition: 515° C
Flammable Limits(% volume): LEL: 3.2 UEL: 12.5

GENERAL HAZARDS:

Extremely flammable; material will readily ignite at normal temperatures. Auto refrigeration; drains may become plugged and valves may become inoperable because of the formation of ice due to expanding vapours or vaporizing liquids. Toxic gases will form upon combustion. Decomposes; flammable/toxic gases will form at elevated temperatures (thermal decomposition).

FIREFIGHTING:

Use water spray to cool fire exposed surfaces and to protect personnel. Shut off fuel to fire if possible to do so without hazard. If a leak or spill has not ignited use water spray to disperse the vapours. Do not extinguish flames at leak because possibility of uncontrolled explosive re-ignition exists. Cut off fuel and/or allow fire to burn out. Extinguish small residual fires with dry chemical powder or water spray. Try to cover liquid spills with foam. Remove compressed gas cylinders from fire area if possible. Respiratory and eye protection required for fire fighting personnel. A self-contained breathing apparatus (SCBA) should be used for all indoor fires and any significant outdoor fires. For small outdoor fires, which may easily be extinguished with a portable fire extinguisher, use of an SCBA may not be required.

HAZARDOUS COMBUSTION PRODUCTS:

Carbon Monoxide, Carbon Dioxide

8. REACTIVITY DATA

This material is stable. Hazardous polymerization will not occur.

INCOMPATIBLE MATERIALS AND CONDITIONS TO AVOID:

Strong oxidizers, nitric acid.

HAZARDOUS DECOMPOSITION:

Oxides of Carbon

9. NOTES

10. PREPARATION INFORMATION

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