

GIBSON ENERGY ULC
MATERIAL SAFETY DATA SHEET
FIELD GRADE BUTANE



1. PRODUCT INFORMATION

NAME: FIELD GRADE BUTANE

APPLICATIONS AND USE: Gasoline or chemicals feedstock.

PRODUCT DESCRIPTION: Colourless, odourless gases composed mainly of C4 hydrocarbons, stored and handled as liquids under pressure.

REGULATORY CLASSIFICATION:

WHMIS: Class A - Compressed gas
Class B, Division 1: Flammable Gases

**TRANSPORTATION OF DANGEROUS GOODS INFORMATION:
(CANADA)**

Shipping Name: Liquefied Petroleum Gases
Class: Flammable Gas 2.1
PIN Number: UN1075
Packing Group: Not applicable
Guide Number: 115

Please be aware that other regulations may apply.

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>
Normal Butane	50-99 v/v	106-97-8
Isobutane	25-99 v/v	75-28-5

3. TYPICAL PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE: Gas
DENSITY: 0.56 g/cc @ 15° C
VAPOUR DENSITY: 2.01 VAP
BOILING POINT/RANGE: -12° C
SOLUBILITY IN WATER: 0%
VAPOUR PRESSURE: 84-110 kPa @ 15° C
APPEARANCE/ODOUR: Colourless odourless gas

4. HEALTH HAZARD INFORMATION

NATURE OF HAZARD

INHALATION: Low toxicity

Causes suffocation (asphyxiant) if allowed to accumulate to concentrations that reduce oxygen below safe breathing levels.

EYE CONTACT: Exposure to rapidly expanding gas or vaporizing liquid may cause frostbite (cold burn).

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

INGESTION: Not considered to be a hazard.

OCCUPATIONAL EXPOSURE LIMITS (OELs):

Manufacturer recommends: For Isobutane, 800 ppm.

THRESHOLD LIMIT VALUES:

ACGIH recommends: Butane, 800 ppm (1900 mg/m³)

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

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

6. PREVENTATIVE AND CORRECTIVE MEASURES

PERSONAL PROTECTION

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

Gloves and safety glasses should be worn.

Where concentrations 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 CONTROLS:

The use of mechanical ventilation is recommended whenever this material is used in a confined space to maintain airborne concentrations below recommended occupational exposure limits.

Use explosion-proof ventilation equipment.

HANDLING, STORAGE AND SHIPPING:

Keep containers closed. Handle and open containers with care. Store in a cool, well ventilated place away from incompatible materials. Store and load the container at normal (up to 38° C) temperature and at atmospheric pressure. Store as pressurized liquid in a pressure vessel.

LAND SPILL:

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 in downwind areas.

Allow to evaporate.

Consult a an expert on disposal of recovered material. Ensure disposal is in compliance with government requirements and ensure conformity to local disposal regulation. Notify the appropriate authorities immediately.

Take all additional action necessary to prevent and remedy the adverse effects of the spill.

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7. FIRE AND EXPLOSION HAZARD

Flash-point and Method: < 60° C
Auto-ignition: 287° C
Flammable Limits (% volume): LEL: 1.8% UEL: 8.4%

GENERAL HAZARDS:

Extremely flammable; material will readily ignite at normal temperatures.

Flammable gas; may readily form flammable mixtures at or above the flash-point.

Toxic gases will form upon combustion.

Static discharge; material may accumulate static charges which may cause an electrical fire.

Auto-refrigeration; drains may become plugged and valves may become inoperable because of the formation of ice due to expanding vapours or vaporizing liquids.

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.

Either allow fire to burn out under controlled conditions or extinguish with foam or dry chemical. Try to cover liquid spills with foam.

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:

Smoke, carbon monoxide, carbon dioxide.

8. REACTIVITY DATA

STABILITY

This product is stable. Hazardous polymerization will not occur.

INCOMPATIBLE MATERIALS AND CONDITIONS TO AVOID:

Strong oxidizing agents.

9. NOTES

10. PREPARATION INFORMATION

Prepared by: GIBSON ENERGY ULC
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Issued by: HEALTH, SAFETY & ENVIRONMENT DEPT.

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