# Field Grade Butane

## Safety Data Sheet

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

Issue date: 12/3/2015
Revision date: 1/11/2022
Version: 1.1

## SECTION 1: Identification

### 1.1. Identification

| | | |
|---|---|---|
| Product form | : | Mixture |
| Product name | : | Field Grade Butane |
| Product code | : | Not available |

### 1.2. Recommended use and restrictions on use

| | | |
|---|---|---|
| Use of the substance/mixture | : | Petroleum distillate. |

### 1.3. Supplier

**Distributor**
NGL Supply Co., Ltd.
1420, 225 - 6th Avenue SW
Calgary, Alberta 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<br>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.<br>Contains gas under pressure; may explode if heated.<br>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.<br>Leaking gas fire: Do not extinguish, unless leak can be stopped safely.<br>Eliminate all ignition sources if safe to do so.<br>Protect from sunlight. Store in a well-ventilated place. |

### 2.3. Other hazards which do not result in classification

No additional information available

### 2.4. Unknown acute toxicity

Not applicable

## SECTION 3: Composition/information on ingredients

### 3.1. Substances

Not applicable

### 3.2. Mixtures

| Name | Chemical name / Synonyms | Product identifier | % |
|---|---|---|---|
| Isobutane | Isobutane<br>2-Methylpropane / Propane, 2-methyl- / ISOBUTANE / R600a / isobutane | CAS-No.: 75-28-5 | 30 – 60 |
| n-Butane | n-Butane<br>Butane / BUTANE | CAS-No.: 106-97-8 | 30 – 60 |
| Butene | Butene<br>Butylene / Butene (all isomers) / Butylenes mixture / n-Butylene / Butenes / Butene - all isomers / Butylenes / Butene, mixed 1- and 2- isomers / 1-Butene (butylene) | CAS-No.: 25167-67-3 | 30 – 60 |

***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 breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical advice/attention if you feel unwell.

First-aid measures after skin contact : Thaw frosted parts with lukewarm water. Do not rub affected area. If irritation occurs, flush skin with plenty of water. Get medical attention if irritation persists.

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.

First-aid measures after ingestion : If swallowed, do NOT induce vomiting unless directed to do so by medical personnel. 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 respiratory tract irritation. Excessive inhalation may cause central nervous system effects (headache, dizziness, tremors, loss of consciousness). May cause asphyxiation.

Symptoms/effects after skin contact : Not a normal route of exposure. May cause frostbite burns to the skin.

Symptoms/effects after eye contact : Not a normal route of exposure. Causes frostbite burns to the eyes.

Symptoms/effects after ingestion : Not a normal route of exposure.

### 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 : Powder. Water spray. Foam. Carbon dioxide.

Unsuitable extinguishing media : Do not use a heavy water stream.

### 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.

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.

### 5.3. Special protective equipment and precautions for fire-fighters

Firefighting instructions : Leaking gas fire: Do not extinguish, unless leak can be stopped safely. Eliminate all ignition sources if safe to do so. Fight fire remotely due to the risk of explosion.

Protection during firefighting : Containers may explode when heated. Use water spray to keep fire-exposed containers cool. For large fires, flood fire area with large quantities of water, while knocking down vapours with water fog. 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 special care to avoid static electric charges. Eliminate every possible source of ignition. Ruptured cylinders may rocket. Use personal protection recommended in Section 8. Isolate the hazard area and deny entry to unnecessary and unprotected personnel.

#### 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

Many gases are heavier than air and will spread along ground and collect in low or confined areas (sewers, basements, tanks). Keep out of drains, sewers, ditches, and waterways. Minimize use of water to prevent environmental contamination. Prevent entry to sewers and public waters.

### 6.3. Methods and material for containment and cleaning up

For containment : Eliminate sources of ignition. Stop leak if safe to do so. Do not flush into surface water or sewer system. Wear recommended personal protective equipment.

Methods for cleaning up : Provide ventilation. Keep upwind. Evacuate area and remove ignition sources. Sweep or shovel spills into appropriate container for disposal.

### 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. Keep away from sources of ignition - No smoking.

Precautions for safe handling : Keep away from sources of ignition. - No smoking. Take precautionary measures against static discharge. Use explosion-proof equipment. Use only non-sparking tools. Avoid contact with skin and eyes. Do not breathe dust/fume/gas/mist/vapours/spray. Use only in well-ventilated areas. When using do not eat, drink or smoke. Handle and open container with care.

Hygiene measures : Wash contaminated clothing before reuse. Always wash hands after handling the product.

### 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. Store away from direct sunlight or other heat sources. Keep cool. Keep container tightly closed. Store in a well-ventilated place.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

| Field Grade Butane |
|---|
| No additional information available |

| Isobutane (75-28-5) | |
|---|---|
| **USA - ACGIH - Occupational Exposure Limits** | |
| Local name | Isobutane |
| ACGIH OEL STEL [ppm] | 1000 ppm (EX - Explosion hazard) |
| Remark (ACGIH) | TLV® Basis: CNS impair |
| Regulatory reference | ACGIH 2021 |
| **USA - NIOSH - Occupational Exposure Limits** | |
| NIOSH REL TWA | 1900 mg/m³ |
| NIOSH REL TWA [ppm] | 800 ppm |

| n-Butane (106-97-8) | |
|---|---|
| **USA - ACGIH - Occupational Exposure Limits** | |
| ACGIH OEL STEL [ppm] | 1000 ppm (explosion hazard (Butane, isomers) |
| **USA - IDLH - Occupational Exposure Limits** | |
| IDLH [ppm] | 1600 ppm (>10% LEL) |
| **USA - NIOSH - Occupational Exposure Limits** | |
| NIOSH REL TWA | 1900 mg/m³ |
| NIOSH REL TWA [ppm] | 800 ppm |

| Butene (25167-67-3) | |
|---|---|
| **USA - ACGIH - Occupational Exposure Limits** | |
| ACGIH OEL TWA [ppm] | 250 ppm (Butenes, all isomers) |

### 8.2. Appropriate engineering controls

Appropriate engineering controls : Use ventilation adequate to keep exposures (airborne levels of dust, fume, vapor, etc.) below recommended exposure limits. Ensure good ventilation of the work station.

Environmental exposure controls : Avoid release to the environment.

### 8.3. Individual protection measures/Personal protective equipment

| **Hand protection:** |
|---|
| Wear suitable gloves |

| **Eye protection:** |
|---|
| Safety glasses or goggles are recommended when using product. |

| **Skin and body protection:** |
|---|
| Wear suitable protective clothing |

| **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. |

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

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

| | | |
|---|---|---|
| Physical state | : | Gas |
| Appearance | : | No data available. |
| Colour | : | Colourless |
| Odour | : | Low gasoline-like odour. |
| Odour threshold | : | No data available |
| pH | : | Not applicable |
| Melting point | : | No data available |
| Freezing point | : | No data available |
| Boiling point | : | No data available |
| Flash point | : | < -20 °C (< -4 °F) |
| Relative evaporation rate (butylacetate=1) | : | No data available |
| Flammability (solid, gas) | : | Extremely flammable gas. |
| Vapour pressure | : | 2100 – 2300 hPa at 20 °C (68 °F) |
| Relative vapour density at 20 °C | : | > 1 |
| Relative density | : | No data available |
| Solubility | : | Negligible. |
| Partition coefficient n-octanol/water | : | 2.8 |
| Auto-ignition temperature | : | No data available |
| Decomposition temperature | : | No data available |
| Viscosity, kinematic | : | Not applicable |
| Viscosity, dynamic | : | No data available |
| Explosive limits | : | No data available |
| Explosive properties | : | No data available |
| Oxidising properties | : | No data available |

### 9.2. Other information

No additional information available

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

No dangerous reactions known under normal conditions of use.

### 10.2. Chemical stability

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

### 10.3. Possibility of hazardous reactions

No dangerous reaction known under conditions of normal use. Explosion hazard when exposed to nickel carbonyl/oxygen mixtures.

### 10.4. Conditions to avoid

Open flame. Overheating. Direct sunlight. Sparks. Heat. Incompatible materials. Sources of ignition.

### 10.5. Incompatible materials

Strong oxidizers.

### 10.6. Hazardous decomposition products

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

## 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.

| Field Grade Butane | |
|---|---|
| LD50 oral rat | No data available |
| LD50 dermal rabbit | No data available |
| LC50 inhalation rat | > 20 mg/l/4h |

| Isobutane (75-28-5) | |
|---|---|
| LC50 inhalation rat | > 800000 ppm (Exposure time: 15 min) |

| n-Butane (106-97-8) | |
|---|---|
| LC50 inhalation rat | 658 g/m³ (Exposure time: 4 h) |
| ATE CA (vapours) | 658 mg/l/4h |
| ATE CA (dust,mist) | 658 mg/l/4h |

| Butene (25167-67-3) | |
|---|---|
| LC50 inhalation rat | > 23 mg/l/4h |

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

| Field Grade Butane | |
|---|---|
| Viscosity, kinematic | Not applicable |

Symptoms/effects after inhalation : May cause respiratory tract irritation. Excessive inhalation may cause central nervous system effects (headache, dizziness, tremors, loss of consciousness). May cause asphyxiation.

Symptoms/effects after skin contact : Not a normal route of exposure. May cause frostbite burns to the skin.

Symptoms/effects after eye contact : Not a normal route of exposure. Causes frostbite burns to the eyes.

Symptoms/effects after ingestion : Not a normal route of exposure.

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.

| Butene (25167-67-3) | |
|---|---|
| LC50 - Fish [1] | 32471 mg/l Test organisms (species): other: |
| LC50 - Fish [2] | 19 mg/l Test organisms (species): other: |
| NOEC (chronic) | 1349 mg/l Test organisms (species): Daphnia sp. Duration: '21 d' |
| NOEC chronic fish | 2286 mg/l Test organisms (species): other: Duration: '30 d' |

### 12.2. Persistence and degradability

| Field Grade Butane | |
|---|---|
| Persistence and degradability | Not established. |

### 12.3. Bioaccumulative potential

| Field Grade Butane | |
|---|---|
| Partition coefficient n-octanol/water | 2.8 |
| Bioaccumulative potential | Not established. |

| Isobutane (75-28-5) | |
|---|---|
| BCF - Fish [1] | 1.57 – 1.97 |
| Partition coefficient n-octanol/water | 2.88 (at 20 °C) |

| n-Butane (106-97-8) | |
|---|---|
| Partition coefficient n-octanol/water | 2.89 |

| Butene (25167-67-3) | |
|---|---|
| Partition coefficient n-octanol/water | ≤ 2.8 |

### 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. The generation of waste should be avoided or minimized wherever possible.

Additional information : Handle empty containers with care because residual vapours are flammable.

## SECTION 14: Transport information

In accordance with DOT / TDG

### 14.1. UN number

DOT NA No : UN1075

UN-No. (TDG) : UN1075

### 14.2. UN proper shipping name

Proper Shipping Name (DOT/TDG) : Petroleum gases, liquiefied (see also Butane (Limited quantity))

### 14.3. Transport hazard class(es)

**DOT**

Transport hazard class(es) (DOT) : 2.1

Hazard Label (DOT)


**TDG**

Transport hazard class(es) (TDG) : 2.1

Hazard Label (TDG)


### 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.

**DOT**

UN-No.(DOT) : UN1075

DOT Special Provisions (49 CFR 172.102) : 19 - The identification number UN1011 – Limited quantity may be used in place of the identification number specified in column (4) of the 172.101 table. The identification number used must be consistent on package markings, shipping papers and emergency response information. T50 - When portable tank instruction T50 is referenced in Column (7) of the 172.101 Table, the applicable liquefied compressed gases are authorized to be transported in portable tanks in accordance with the requirements of 173.313 of this subchapter.

| | | |
|---|---|---|
| DOT Packaging Exceptions (49 CFR 173.xxx) | : | 306 |
| DOT Packaging Non Bulk (49 CFR 173.xxx) | : | 304 |
| DOT Packaging Bulk (49 CFR 173.xxx) | : | 314;315 |
| DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27) | : | Forbidden |
| DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75) | : | 150 kg |
| DOT Vessel Stowage Location | : | E - The material may be stowed ‘‘on deck’’ or ‘‘under deck’’ on a cargo vessel and on a passenger vessel carrying a number of passengers limited to not more than the larger of 25 passengers, or one passenger per each 3 m of overall vessel length, but is prohibited from carriage on passenger vessels in which the limiting number of passengers is exceeded. |
| DOT Vessel Stowage Other | : | 40 - Stow ‘‘clear of living quarters’’ |

**TDG**

| | | |
|---|---|---|
| UN-No. (TDG) | : | UN1075 |
| ERAP Index | : | 3000 |
| Explosive Limit and Limited Quantity Index | : | 0.125 L |
| Excepted quantities (TDG) | : | E0 |
| Passenger Carrying Ship Index | : | Forbidden |
| Passenger Carrying Road Vehicle or Passenger Carrying Railway Vehicle Index | : | Forbidden |
| Emergency Response Guide (ERG) Number | : | 115 |

### 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. US 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

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

| | | |
|---|---|---|
| Revision date | : | 02/14/2024 |
| Other information | : | None. |
| Prepared by | : | Nexreg Compliance Inc.<br>www.Nexreg.com |

| **Full text of H-statements** | |
|---|---|
| Flam. Gas 1 | Flammable gases, Category 1 |
| Press. Gas (Liq.) | Gases under pressure : Liquefied gas |
| Simple Asphy | Simple Asphyxiant |

| **Indication of changes:** |
|---|
| SDS update. |

SDS HazCom 2012 - WHMIS 2015 (Nexreg) 2021