BUTANE

Safety Data Sheet

according to SOR/2015-17, Hazardous Products Regulations (HPR) , as amended by SOR/2022-272
Issue date: 04/07/2026 Version: 1.0

SECTION 1 Identification

1.1. GHS Product identifier

Product form : Mixture
Trade name : BUTANE

1.2. Other means of identification

Other means of identification : 2705-AES

1.3. Recommended use of the chemical and restrictions on use

Recommended use : Commercial Grade Butane; Liquefied Petroleum Gas, Mixed Butane, Non--Commercial
Restrictions on use : None known

1.4. Supplier's details

Supplier
Alliance Energy Services
1828 Swift St. Suite 401
North Kansas City, MO 64116
T 816-421-5192
info@allianceC3.com

Distributor
Alliance Energy Services
30 Cushman Rd
St. Catharines, ON L2M 6S8
Canada

1.5. Emergency phone number

Emergency number : For Hazardous Materials or Dangerous Goods Incident Spill, Leak, Fire, Exposure, or Accident
Call CHEMTREC Day or Night: 1-800-424-9300 (Toll Free, USA) / 703-527-3887 (Virginia, USA)
CCN 612383
Back-up Emergency Number: +1 703-741-5970 (Washington, DC)

SECTION 2 Hazard identification

2.1. Classification of the substance or mixture

Classification (GHS CA)

Flammable gases, Category 1A	H220	Extremely flammable gas.
Gases under pressure: Liquefied gas	H280	Contains gas under pressure; may explode if heated.
Germ cell mutagenicity, Category 1B	H340	May cause genetic defects.
Carcinogenicity, Category 1A	H350	May cause cancer.
Simple asphyxiant, Category 1		May displace oxygen and cause rapid suffocation.

Full text of H-statements: see section 16

2.2. GHS label elements, including precautionary statements

GHS CA labelling

Hazard pictograms (GHS CA) :

Signal word (GHS CA) : Danger
Hazard statements (GHS CA) : Extremely flammable gas
Contains gas under pressure; may explode if heated
May cause genetic defects.

Precautionary statements (GHS CA)	:	May cause cancer. May displace oxygen and cause rapid suffocation Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Wear protective gloves, protective clothing, eye and face protection. IF exposed or concerned: Get medical advice or attention. Leaking gas fire: Do not extinguish, unless leak can be stopped safely. In case of leakage, eliminate all ignition sources. Store locked up. Protect from sunlight. Store in a well-ventilated place. Dispose of contents and/or container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulations.

2.3. Other hazards which do not result in classification

No additional information available

SECTION 3 Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Chemical name / Synonyms	Product identifier	%	Classification (GHS CA)
Butane (and CAS 75-28-5)	Butane	CAS-No.: 106-97-8	75 – 99	Flam. Gas 1A, H220 Press. Gas (Comp.), H280 Simple Asphy. 1
Isobutane (containing < 0,1 % butadiene)	Isobutane	CAS-No.: 75-28-5	< 25	Flam. Gas 1, H220 Press. Gas (Comp.), H280
Propane	Propane	CAS-No.: 74-98-6	< 5	Flam. Gas 1A, H220 Press. Gas (Comp.), H280 Simple Asphy. 1
Hydrocarbons, C≥5, C5-6-rich; Low boiling point naphtha	Hydrocarbons, C≥5, C5-6-rich; Low boiling point naphtha - unspecified	CAS-No.: 68476-50-6	< 5	Muta. 1B, H340 Carc. 1B, H350 Asp. Tox. 1, H304 Aquatic Chronic 2, H411
1,3-Butadiene	1,3-butadiene; buta-1,3-diene	CAS-No.: 106-99-0	< 0.5	Flam. Gas 1, H220 Muta. 1B, H340 Carc. 1A, H350 Aquatic Chronic 3, H412
Ethanethiol	ethanethiol; ethyl mercaptan	CAS-No.: 75-08-1	< 0.1	Flam. Liq. 1, H224 Acute Tox. 4 (Oral), H302 Acute Tox. 3 (Inhalation:vapour), H331 STOT RE 2, H373 Aquatic Acute 1, H400 Aquatic Chronic 1, H410

SECTION 4 First-aid measures

4.1. Description of necessary first-aid measures

First-aid measures after inhalation : If the victim is unconscious: Lay in a stable manner on victim's side. Give oxygen or artificial respiration if necessary. Induce artificial respiration with mask fitted with one-way valve or other suitable device; not mouth-to-mouth. Call a physician immediately.

First-aid measures after skin contact : Remove affected clothing and wash all exposed skin areas with mild soap and water, followed by warm water rinse. Wash contaminated clothing before reuse. If skin irritation occurs: Get medical advice/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.

First-aid measures after ingestion : Ingestion is not considered a potential route of exposure.

First-aid measures general : First aider: Pay attention to self-protection. Never give anything by mouth to an unconscious person. Give artificial respiration if necessary. Induce artificial respiration with mask fitted with one-way valve or other suitable device but, not mouth-to-mouth. Call a physician immediately.

4.2. Most important symptoms/effects, acute and delayed

Symptoms/effects after inhalation : In high concentrations may cause asphyxiation. Depression of the central nervous system, headaches, dizziness, drowsiness, loss of coordination.

Symptoms/effects after skin contact : Contact with the liquefied gas may cause frostbite.

Symptoms/effects after eye contact : Contact with the liquefied gas may cause severe ocular lesions.

Symptoms/effects after ingestion : Ingestion is not a likely route of exposure.

Chronic symptoms : May cause cancer. May cause genetic defects.

4.3. Indication of immediate medical attention and special treatment needed, if necessary

Other medical advice or treatment : IF exposed or concerned: Get medical advice/attention. If inhaled, remove to fresh air. If necessary, supply oxygen.

SECTION 5 Fire-fighting measures

5.1. Suitable extinguishing media

Suitable extinguishing media : Use extinguishing agent suitable for surrounding fire. Dry chemical, CO2, or water spray or regular foam.

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

5.2. Specific hazards arising from the chemical

Fire hazard : Extremely flammable gas.

Explosion hazard : Chemical under pressure: May explode if heated.

Reactivity in case of fire : Toxic and corrosive vapours may be released.

Hazardous decomposition products in case of fire : Toxic fumes may be released. Carbon monoxide. Carbon dioxide.

5.3. Special protective actions for fire-fighters

Firefighting instructions : Evacuate area. Fight fire from safe distance and protected location. Eliminate all ignition sources if safe to do so. Small fires: Do not extinguish a leaking gas flame unless absolutely necessary. Contain and let burn. If fire must be fought, water spray or fog is recommended. Move containers from fire area if it can be done without personal risk. Large fires: Fight fire from maximum distance or use unmanned hose holders or monitor nozzles. Cool containers with water from unmanned hose holder or monitor nozzles until well after fire is out. Do not direct water at source of leak or at safety devices as freezing could occur. Withdraw immediately in case of rising sound from venting devices or discolouration from tank. ALWAYS stay away from tanks engulfed in fire. Prevent fire fighting water from entering the environment.

Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

SECTION 6 Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Evacuate area. Do not enter without an appropriate protective equipment. Avoid all personal contact including breathing in the gas, vapours. Absorb spillage to prevent material damage. Stop leak if safe to do so. Prevent from entering sewers, basements and workpits, or any place where its accumulation can be dangerous.

Environmental precautions : Avoid release to the environment. Notify authorities if the product reaches soil, drains, sewers, surface waters or groundwater.

6.2. Methods and materials for containment and cleaning up

For containment : Stop leak without risks if possible. If the leak cannot be stopped, allow the gas to release in place or remove to a safe, well-ventilated area and allow the release. For large spills, use water spray to disperse vapors, flush spill area.

Methods for cleaning up : Ventilate spillage area. Do not touch or walk on the spilled product.

Other information : Damaged cylinders should be handled by specialists only. Dispose of collected material as soon as possible in accordance with applicable local/regional/national/international regulations.

For further information refer to section 8: "Exposure controls/personal protection",For further information refer to section 13

SECTION 7 Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Keep valves and fittings free from oil and grease. Do not breathe fume, gas, vapours. Use only outdoors or in a well-ventilated area. Wear personal protective equipment. Avoid contact with skin, eyes and clothing.

Hygiene measures : Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

Additional hazards when processed : Containers should be stored in the vertical position and properly secured to prevent toppling. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Do not pierce or burn, even after use. Use self-contained breathing apparatus and chemically protective clothing.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures : Ground/bond container and receiving equipment. Take precautionary measures against static discharge.

Storage conditions : Always keep container in upright position. Keep away from heat, sparks and flame. Protect from sunlight. Store in a well-ventilated place. Containers should be kept dry. Keep container closed when not in use. Protect from physical damage.

Incompatible materials : Reducing agents. Oxidizing agents. Alkalis. Acids.

SECTION 8 Exposure controls/personal protection

8.1. Control parameters

Propane (74-98-6)

Canada (Alberta) - Occupational Exposure Limits

Local name	Propane

Propane (74-98-6)	
OEL TWA	1000 ppm
Regulatory reference	Alberta Regulation 191/2021
Canada (Quebec) - Occupational Exposure Limits	
Local name	Propane
Notations and remarks	Simple asphyxiant. EX
Regulatory reference	S-2.1, r. 13 - Regulation respecting occupational health and safety
Canada (British Columbia) - Occupational Exposure Limits	
Local name	Propane
Notations and remarks	Simple asphyxiant. EX (the substance is a flammable asphyxiant or excursions above the exposure limit could approach 10% of the lower explosive limit)
Regulatory reference	OHS Guidelines Part 5: Chemical Agents and Biological Agents (WorkSafe BC)
Canada (Manitoba) - Occupational Exposure Limits	
Local name	Propane
Notations and remarks	TLV® Basis: Asphyxia
Regulatory reference	ACGIH 2025
Canada (Newfoundland and Labrador) - Occupational Exposure Limits	
Local name	Propane
Notations and remarks	TLV® Basis: Asphyxia
Regulatory reference	ACGIH 2025
Canada (Nova Scotia) - Occupational Exposure Limits	
Local name	Propane
Notations and remarks	TLV® Basis: Asphyxia
Regulatory reference	ACGIH 2025
Canada (Nunavut) - Occupational Exposure Limits	
Local name	Propane
OEL TWA	1000 ppm
OEL STEL	1250 ppm
Regulatory reference	Occupational Health and Safety Regulations, Nu Reg 003-2016 (Amendment R-044-2021)
Canada (Northwest Territories) - Occupational Exposure Limits	
Local name	Propane
OEL TWA	1000 ppm
OEL STEL	1250 ppm
Regulatory reference	Occupation Health and Safety Regulations R-039-2015 (R-090-2024)
Canada (Ontario) - Occupational Exposure Limits	
Local name	Propane
Notations and remarks	See Appendix F: Minimal Oxygen Content

Propane (74-98-6)	
Regulatory reference	Occupational Health and Safety Act, R.S.O. 1990, c. O.1 - R.R.O. 1990, Reg. 833: Control of exposure to biological or chemical agents
Canada (Prince Edward Island) - Occupational Exposure Limits	
Local name	Propane
Notations and remarks	TLV® Basis: Asphyxia
Regulatory reference	ACGIH 2025
Canada (Saskatchewan) - Occupational Exposure Limits	
Local name	Propane
OEL TWA	1000 ppm
OEL STEL	1250 ppm
Regulatory reference	The Occupational Health and Safety Regulations, 2020. Chapter S-15.1 Reg 10

Butane (and CAS 75-28-5) (106-97-8)	
Canada (Alberta) - Occupational Exposure Limits	
Local name	Butane
OEL TWA	1000 ppm
Regulatory reference	Alberta Regulation 191/2021
Canada (Quebec) - Occupational Exposure Limits	
Local name	Butane
VEMP (OEL TWAEV)	1900 mg/m³
	800 ppm
Regulatory reference	S-2.1, r. 13 - Regulation respecting occupational health and safety
Canada (British Columbia) - Occupational Exposure Limits	
Local name	Butane, all isomers: n-butane
OEL STEL	1000 ppm
Notations and remarks	EX (the substance is a flammable asphyxiant or excursions above the exposure limit could approach 10% of the lower explosive limit)
Regulatory reference	OHS Guidelines Part 5: Chemical Agents and Biological Agents (WorkSafe BC)
Canada (Manitoba) - Occupational Exposure Limits	
Local name	Butane
OEL STEL	2370 mg/m³ (EX - Explosion hazard)
	1000 ppm (EX - Explosion hazard)
Notations and remarks	TLV® Basis: CNS impair
Regulatory reference	ACGIH 2025
Canada (Newfoundland and Labrador) - Occupational Exposure Limits	
Local name	Butane
OEL STEL	2370 mg/m³ (EX - Explosion hazard)

Butane (and CAS 75-28-5) (106-97-8)	
	1000 ppm (EX - Explosion hazard)
Notations and remarks	TLV® Basis: CNS impair
Regulatory reference	ACGIH 2025
Canada (Nova Scotia) - Occupational Exposure Limits	
Local name	Butane
OEL STEL	2370 mg/m³ (EX - Explosion hazard)
	1000 ppm (EX - Explosion hazard)
Notations and remarks	TLV® Basis: CNS impair
Regulatory reference	ACGIH 2025
Canada (Nunavut) - Occupational Exposure Limits	
Local name	Butane, All isomers
OEL TWA	1000 ppm
OEL STEL	1250 ppm
Regulatory reference	Occupational Health and Safety Regulations, Nu Reg 003-2016 (Amendment R-044-2021)
Canada (Northwest Territories) - Occupational Exposure Limits	
Local name	Butane, All isomers
OEL TWA	1000 ppm
OEL STEL	1250 ppm
Regulatory reference	Occupation Health and Safety Regulations R-039-2015 (R-090-2024)
Canada (Ontario) - Occupational Exposure Limits	
Local name	Butane, All isomers
OEL TWAEV	1000 ppm
Regulatory reference	Occupational Health and Safety Act, R.S.O. 1990, c. O.1 - R.R.O. 1990, Reg. 833: Control of exposure to biological or chemical agents
Canada (Prince Edward Island) - Occupational Exposure Limits	
Local name	Butane
OEL STEL	2370 mg/m³ (EX - Explosion hazard)
	1000 ppm (EX - Explosion hazard)
Notations and remarks	TLV® Basis: CNS impair
Regulatory reference	ACGIH 2025
Canada (Saskatchewan) - Occupational Exposure Limits	
Local name	Butane. All isomers
OEL TWA	1000 ppm
OEL STEL	1250 ppm
Regulatory reference	The Occupational Health and Safety Regulations, 2020. Chapter S-15.1 Reg 10

Isobutane (containing < 0,1 % butadiene) (75-28-5)	
Canada (Quebec) - Occupational Exposure Limits	
Local name	Isobutane
VECD (OEL STEV)	1000 ppm
Regulatory reference	S-2.1, r. 13 - Regulation respecting occupational health and safety
Canada (British Columbia) - Occupational Exposure Limits	
Local name	Butane, all isomers: isobutane
OEL STEL	1000 ppm
Notations and remarks	EX (the substance is a flammable asphyxiant or excursions above the exposure limit could approach 10% of the lower explosive limit)
Regulatory reference	OHS Guidelines Part 5: Chemical Agents and Biological Agents (WorkSafe BC)
Canada (Manitoba) - Occupational Exposure Limits	
Local name	Isobutane
OEL STEL	2370 mg/m³ (EX - Explosion hazard)
	1000 ppm (EX - Explosion hazard)
Notations and remarks	TLV® Basis: CNS impair
Regulatory reference	ACGIH 2025
Canada (New Brunswick) - Occupational Exposure Limits	
Local name	Butane, all isomers
OEL STEL	1000 ppm
Canada (Newfoundland and Labrador) - Occupational Exposure Limits	
Local name	Isobutane
OEL STEL	2370 mg/m³ (EX - Explosion hazard)
	1000 ppm (EX - Explosion hazard)
Notations and remarks	TLV® Basis: CNS impair
Regulatory reference	ACGIH 2025
Canada (Nova Scotia) - Occupational Exposure Limits	
Local name	Isobutane
OEL STEL	2370 mg/m³ (EX - Explosion hazard)
	1000 ppm (EX - Explosion hazard)
Notations and remarks	TLV® Basis: CNS impair
Regulatory reference	ACGIH 2025
Canada (Nunavut) - Occupational Exposure Limits	
Local name	Butane, All isomers
OEL TWA	1000 ppm
OEL STEL	1250 ppm
Regulatory reference	Occupational Health and Safety Regulations, Nu Reg 003-2016 (Amendment R-044-2021)

Isobutane (containing < 0,1 % butadiene) (75-28-5)	
Canada (Northwest Territories) - Occupational Exposure Limits	
Local name	Butane, All isomers
OEL TWA	1000 ppm
OEL STEL	1250 ppm
Regulatory reference	Occupation Health and Safety Regulations R-039-2015 (R-090-2024)
Canada (Ontario) - Occupational Exposure Limits	
Local name	Butane, All isomers
OEL TWAEV	1000 ppm
Regulatory reference	Occupational Health and Safety Act, R.S.O. 1990, c. O.1 - R.R.O. 1990, Reg. 833: Control of exposure to biological or chemical agents
Canada (Prince Edward Island) - Occupational Exposure Limits	
Local name	Isobutane
OEL STEL	2370 mg/m³ (EX - Explosion hazard)
	1000 ppm (EX - Explosion hazard)
Notations and remarks	TLV® Basis: CNS impair
Regulatory reference	ACGIH 2025
Canada (Saskatchewan) - Occupational Exposure Limits	
Local name	Butane. All isomers
OEL TWA	1000 ppm
OEL STEL	1250 ppm
Regulatory reference	The Occupational Health and Safety Regulations, 2020. Chapter S-15.1 Reg 10

Ethanethiol (75-08-1)	
Canada (Alberta) - Occupational Exposure Limits	
Local name	Ethyl mercaptan (Ethanethiol)
OEL TWA	1.3 mg/m³
	0.5 ppm
Regulatory reference	Alberta Regulation 191/2021
Canada (Quebec) - Occupational Exposure Limits	
Local name	Ethyl mercaptan (Ethanethiol)
VEMP (OEL TWAEV)	1.3 mg/m³
	0.5 ppm
Regulatory reference	S-2.1, r. 13 - Regulation respecting occupational health and safety
Canada (British Columbia) - Occupational Exposure Limits	
Local name	Ethyl mercaptan
OEL TWA	0.5 ppm
Regulatory reference	OHS Guidelines Part 5: Chemical Agents and Biological Agents (WorkSafe BC)

Ethanethiol (75-08-1)	
Canada (Manitoba) - Occupational Exposure Limits	
Local name	Ethyl mercaptan
OEL TWA	1 mg/m³
	0.5 ppm
Notations and remarks	TLV® Basis: URT irr; CNS impair
Regulatory reference	ACGIH 2025
Canada (New Brunswick) - Occupational Exposure Limits	
Local name	Ethyl mercaptan
OEL TWA	0.5 ppm
Notations and remarks	URT irr; CNS impair
Canada (Newfoundland and Labrador) - Occupational Exposure Limits	
Local name	Ethyl mercaptan
OEL TWA	1 mg/m³
	0.5 ppm
Notations and remarks	TLV® Basis: URT irr; CNS impair
Regulatory reference	ACGIH 2025
Canada (Nova Scotia) - Occupational Exposure Limits	
Local name	Ethyl mercaptan
OEL TWA	1 mg/m³
	0.5 ppm
Notations and remarks	TLV® Basis: URT irr; CNS impair
Regulatory reference	ACGIH 2025
Canada (Nunavut) - Occupational Exposure Limits	
Local name	Ethyl mercaptan
OEL TWA	0.5 ppm
OEL STEL	1.5 ppm
Regulatory reference	Occupational Health and Safety Regulations, Nu Reg 003-2016 (Amendment R-044-2021)
Canada (Northwest Territories) - Occupational Exposure Limits	
Local name	Ethyl mercaptan
OEL TWA	0.5 ppm
OEL STEL	1.5 ppm
Regulatory reference	Occupation Health and Safety Regulations R-039-2015 (R-090-2024)
Canada (Ontario) - Occupational Exposure Limits	
Local name	Ethyl mercaptan
OEL TWAEV	0.5 ppm

Ethanethiol (75-08-1)	
Regulatory reference	Occupational Health and Safety Act, R.S.O. 1990, c. O.1 - R.R.O. 1990, Reg. 833: Control of exposure to biological or chemical agents
Canada (Prince Edward Island) - Occupational Exposure Limits	
Local name	Ethyl mercaptan
OEL TWA	1 mg/m³
	0.5 ppm
Notations and remarks	TLV® Basis: URT irr; CNS impair
Regulatory reference	ACGIH 2025
Canada (Saskatchewan) - Occupational Exposure Limits	
Local name	Ethyl mercaptan
OEL TWA	0.5 ppm
OEL STEL	1.5 ppm
Regulatory reference	The Occupational Health and Safety Regulations, 2020. Chapter S-15.1 Reg 10

1,3-Butadiene (106-99-0)	
Canada (Alberta) - Occupational Exposure Limits	
Local name	1,3-Butadiene
OEL TWA	4.4 mg/m³
	2 ppm
Notations and remarks	Carcinogenicity A2
Regulatory reference	Alberta Regulation 191/2021
Canada (Quebec) - Occupational Exposure Limits	
Local name	1,3-Butadiene
VEMP (OEL TWAEV)	4.4 mg/m³
	2 ppm
Notations and remarks	C2, EM
Regulatory reference	S-2.1, r. 13 - Regulation respecting occupational health and safety
Canada (British Columbia) - Occupational Exposure Limits	
Local name	1,3-Butadiene
OEL TWA	2 ppm
Notations and remarks	ACGIH Carcinogenicity category A2; IARC group 1 carcinogen
Regulatory reference	OHS Guidelines Part 5: Chemical Agents and Biological Agents (WorkSafe BC)
Canada (Manitoba) - Occupational Exposure Limits	
Local name	1,3-Butadiene
OEL TWA	4.4 mg/m³
	2 ppm
Notations and remarks	TLV® Basis: Cancer. Notations: A2 (Suspected Human Carcinogen); BEI

1,3-Butadiene (106-99-0)	
Regulatory reference	ACGIH 2025
Canada (Newfoundland and Labrador) - Occupational Exposure Limits	
Local name	1,3-Butadiene
OEL TWA	4.4 mg/m³
	2 ppm
Notations and remarks	TLV® Basis: Cancer. Notations: A2 (Suspected Human Carcinogen); BEI
Regulatory reference	ACGIH 2025
Canada (Nova Scotia) - Occupational Exposure Limits	
Local name	1,3-Butadiene
OEL TWA	4.4 mg/m³
	2 ppm
Notations and remarks	TLV® Basis: Cancer. Notations: A2 (Suspected Human Carcinogen); BEI
Regulatory reference	ACGIH 2025
Canada (Nunavut) - Occupational Exposure Limits	
Local name	1,3-Butadiene
OEL TWA	2 ppm
OEL STEL	4 ppm
Notations and remarks	Designated substance
Regulatory reference	Occupational Health and Safety Regulations, Nu Reg 003-2016 (Amendment R-044-2021)
Canada (Northwest Territories) - Occupational Exposure Limits	
Local name	1,3-Butadiene
OEL TWA	2 ppm
OEL STEL	4 ppm
Notations and remarks	Designated substance
Regulatory reference	Occupation Health and Safety Regulations R-039-2015 (R-090-2024)
Canada (Ontario) - Occupational Exposure Limits	
Local name	1,3-Butadiene
OEL TWAEV	2 ppm
Regulatory reference	Occupational Health and Safety Act, R.S.O. 1990, c. O.1 - R.R.O. 1990, Reg. 833: Control of exposure to biological or chemical agents
Canada (Prince Edward Island) - Occupational Exposure Limits	
Local name	1,3-Butadiene
OEL TWA	4.4 mg/m³
	2 ppm
Notations and remarks	TLV® Basis: Cancer. Notations: A2 (Suspected Human Carcinogen); BEI
Regulatory reference	ACGIH 2025

1,3-Butadiene (106-99-0)	
Canada (Saskatchewan) - Occupational Exposure Limits	
Local name	1,3-Butadiene
OEL TWA	2 ppm
OEL STEL	4 ppm
Notations and remarks	Designated Chemical Substance
Regulatory reference	The Occupational Health and Safety Regulations, 2020. Chapter S-15.1 Reg 10

8.2. Appropriate engineering controls

Appropriate engineering controls : Ensure good ventilation of the work station. Gas detectors should be used when flammable gases/vapours may be released. Use general ventilation, local exhaust ventilation, or process enclosure to keep the airborne concentrations below the permissible exposure limits. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure.

Environmental exposure controls : Avoid release to the environment. Take measures to reduce or limit air emissions and releases to soil and the aquatic environment.

8.3. Individual protection measures, such as personal protective equipment (PPE)

Personal protective equipment:
Personal protective equipment should be chosen according to national standards and in discussion with the supplier of the protective equipment. Wear recommended personal protective equipment.

Materials for protective clothing:
Chemically resistant materials and fabrics. Wear fire/flame resistant/retardant clothing.

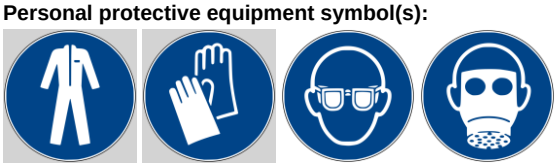
Hand protection:
Wear chemical resistant gloves.

Eye protection:
Chemical goggles or safety glasses

Skin and body protection:
Wear suitable protective clothing. Wear safety shoes while handling containers.

Respiratory protection:
In case of inadequate ventilation, wear respiratory protection. Self-contained breathing apparatus

Personal protective equipment symbol(s):



SECTION 9 Physical and chemical properties

9.1. Basic physical and chemical properties

Physical state	:	Gas
Appearance	:	Liquefied compressed gas.
Colour	:	Colorless
Odour	:	Faint May have natural gas odorant added.
Odour threshold	:	No data available
pH	:	No data available
Relative evaporation rate (butylacetate=1)	:	No data available
Relative evaporation rate (ether=1)	:	No data available
Melting point	:	No data available
Freezing point	:	-138 °C / -216 °F
Boiling point	:	-0.5 °C / -31 °F
Flash point	:	-60 °C / -76 °F
Auto-ignition temperature	:	287 °C / 550 °F
Decomposition temperature	:	Evaporation or ignition likely before decomposition will occur.
Flammability (solid, gas)	:	Extremely flammable gas.
Vapour pressure	:	207 kPa @ 21 °C / 70 °F
Relative vapour density at 20°C	:	2
Relative density	:	No data available
Solubility	:	Insoluble.
Partition coefficient n-octanol/water (Log Pow)	:	No data available
Viscosity, kinematic	:	No data available
Explosive limits	:	1.9 – 8.5 Vol-%
Particle characteristics	:	No data available

Propane

Particle characteristics	No data available

Butane (and CAS 75-28-5)

Particle characteristics	No data available

Isobutane (containing < 0,1 % butadiene)

Particle characteristics	No data available

Hydrocarbons, C≥5, C5-6-rich; Low boiling point naphtha

Particle characteristics	No data available

Ethanethiol

Particle characteristics	No data available

1,3-Butadiene

Particle characteristics	No data available

9.2. Data relevant with regard to physical hazard classes (supplemental)

No additional information available

SECTION 10 Stability and reactivity

Reactivity	:	Extremely flammable gas.
Chemical stability	:	Contains gas under pressure; may explode if heated.
Possibility of hazardous reactions	:	Polymerisation may occur at elevated temperatures.
Conditions to avoid	:	Incompatible materials. Sparks, heat, open flame and other sources of ignition.
Incompatible materials	:	Reducing agents. Oxidizing agents. Alkalis. Acids.
Hazardous decomposition products	:	Thermal decomposition generates: toxic and corrosive vapours. Carbon monoxide. Carbon dioxide.
Hardening time:	:	No additional information available

SECTION 11 Toxicological information

11.1. Likely routes of exposure

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

Butane (and CAS 75-28-5)	
LC50 Inhalation - Rat	658 mg/l/4h

Hydrocarbons, C≥5, C5-6-rich; Low boiling point naphtha	
LD50 oral rat	> 5000 mg/kg bodyweight

Ethanethiol	
LD50 oral rat	682 mg/kg bodyweight
LD50 oral	682 mg/kg
LD50 dermal rat	> 2000 mg/kg bodyweight
LD50 dermal	2500 mg/kg
LC50 Inhalation - Rat	11.23 mg/l air
LC50 Inhalation - Rat (Vapours)	7.04 mg/l/4h

1,3-Butadiene	
LC50 Inhalation - Rat [ppm]	129000 ppm

Skin corrosion/irritation	:	Not classified
Serious eye damage/irritation	:	Not classified
Respiratory or skin sensitization	:	Not classified
Germ cell mutagenicity	:	May cause genetic defects.
Carcinogenicity	:	May cause cancer.

1,3-Butadiene	
IARC group	1 - Carcinogenic to humans
National Toxicity Program (NTP) Status	Known Human Carcinogens

Reproductive toxicity	:	Not classified
STOT-single exposure	:	Not classified
STOT-repeated exposure	:	Not classified

Ethanethiol	
NOAEL (oral, rat, 90 days)	≥ 200 mg/kg bodyweight

Ethanethiol	
NOAEC (inhalation, rat, vapour, 90 days)	0.55 mg/l air
STOT-repeated exposure	May cause damage to organs through prolonged or repeated exposure.

Aspiration hazard : Not applicable

Hydrocarbons, C≥5, C5-6-rich; Low boiling point naphtha	
Viscosity, kinematic	< 1 mm²/s Temp.: 'other:' Parameter: 'kinematic viscosity (in mm²/s)'

Symptoms/effects after inhalation : In high concentrations may cause asphyxiation. Depression of the central nervous system, headaches, dizziness, drowsiness, loss of coordination.
Symptoms/effects after skin contact : Contact with the liquefied gas may cause frostbite.
Symptoms/effects after eye contact : Contact with the liquefied gas may cause severe ocular lesions.
Symptoms/effects after ingestion : Ingestion is not a likely route of exposure.
Chronic symptoms : May cause cancer. May cause genetic defects.

SECTION 12 Ecological information

12.1. Toxicity

Hazardous to the aquatic environment, short–term (acute) : Harmful to aquatic life
Hazardous to the aquatic environment, long–term (chronic) : Harmful to aquatic life with long lasting effects.

Hydrocarbons, C≥5, C5-6-rich; Low boiling point naphtha	
EC50 72h - Algae [1]	6.5 mg/l

Ethanethiol	
LC50 - Fish [1]	2.4 mg/l
EC50 - Crustacea [1]	< 0.1 mg/l
EC50 72h - Algae [1]	0.75 mg/l
EC50 72h - Algae [2]	3 mg/l
EC50 96h - Algae [1]	0.35 mg/l
NOEC chronic crustacea	0.009 mg/l

1,3-Butadiene	
LC50 - Fish [1]	45 mg/l
LC50 - Fish [2]	41.5 mg/l
EC50 - Crustacea [1]	33 mg/l
EC50 72h - Algae [1]	33 mg/l

12.2. Persistence and degradability

BUTANE	
Persistence and degradability	Not established.

Propane	
Persistence and degradability	Not rapidly degradable

Butane (and CAS 75-28-5)	
Persistence and degradability	Not rapidly degradable

Isobutane (containing < 0,1 % butadiene)	
Persistence and degradability	Not rapidly degradable

Hydrocarbons, C≥5, C5-6-rich; Low boiling point naphtha	
Persistence and degradability	Not rapidly degradable

Ethanethiol	
Persistence and degradability	Not rapidly degradable

1,3-Butadiene	
Persistence and degradability	Not rapidly degradable

12.3. Bioaccumulative potential

Hydrocarbons, C≥5, C5-6-rich; Low boiling point naphtha	
Partition coefficient n-octanol/water (Log Pow)	2.1

Ethanethiol	
Partition coefficient n-octanol/water (Log Pow)	1.27

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

Ozone : Not classified

Fluorinated greenhouse gases : No

SECTION 13 Disposal considerations

Regional waste regulation : Disposal must be done according to official regulations.
Waste treatment methods : Dispose of contents/container in accordance with licensed collector’s sorting instructions.
Sewage disposal recommendations : Disposal must be done according to official regulations.
Product/Packaging disposal recommendations : Disposal must be done according to official regulations. Dispose of this material and its container at hazardous or special waste collection point. Refer to all applicable national, international and local regulations or provisions.
Additional information : Do not re-use empty containers.
Ecological waste information : Avoid release to the environment.

SECTION 14 Transport information

In accordance with TDG / IMDG / IATA

TDG	IMDG	IATA
14.1. UN Number		
UN1075	1075	1075

TDG	IMDG	IATA
14.2. UN Proper Shipping Name		
LIQUEFIED PETROLEUM GASES	PETROLEUM GASES, LIQUEFIED	Petroleum gases, liquefied
14.3. Transport hazard class(es)		
2.1	2.1	2.1
		
14.4. Packing group, if applicable		
Not applicable	Not applicable	Not applicable
14.5. Environmental hazards		
Dangerous for the environment: No	Dangerous for the environment: No Marine pollutant: No	Dangerous for the environment: No
No supplementary information available		

14.6. Special precautions for user

TDG

UN-No. (TDG)	:	UN1075
ERAP Index	:	3000
Explosive Limit and Limited Quantity Index	:	0.125 L
Excepted quantities (TDG)	:	E0
Passenger Carrying Vessel Index	:	110 kg
Passenger Carrying Road Vehicle or Passenger Carrying Railway Vehicle Index	:	Forbidden
Emergency Response Guide (ERG) Number	:	115

IMDG

Special provisions (IMDG)	:	392
Limited quantities (IMDG)	:	0
Excepted quantities (IMDG)	:	E0
Packing instructions (IMDG)	:	P200
Tank instructions (IMDG)	:	T50
EmS-No. (Fire)	:	F-D - FIRE SCHEDULE Delta - FLAMMABLE GASES
EmS-No. (Spillage)	:	S-U - SPILLAGE SCHEDULE Uniform - GASES (FLAMMABLE, TOXIC OR CORROSIVE)
Stowage category (IMDG)	:	E
Stowage and handling (IMDG)	:	SW2
Properties and observations (IMDG)	:	Flammable hydrocarbon gases or mixtures obtained from natural gas or by distillation of mineral oils or coal, etc. May contain propane, cyclopropane, propylene, butane, butylene, etc., in varying proportions. Heavier than air.

IATA

PCA Excepted quantities (IATA)	:	E0
PCA Limited quantities (IATA)	:	Forbidden
PCA limited quantity max net quantity (IATA)	:	Forbidden
PCA packing instructions (IATA)	:	Forbidden
PCA max net quantity (IATA)	:	Forbidden
CAO packing instructions (IATA)	:	200
CAO max net quantity (IATA)	:	150kg
ERG code (IATA)	:	10L

14.7. Transport in bulk according to Annex II of MARPOL 73/78[9] and the IBC Code[10]

Not applicable

SECTION 15 Regulatory information

Propane (74-98-6)

Listed on the Canadian DSL (Domestic Substances List)

Butane (and CAS 75-28-5) (106-97-8)

Listed on the Canadian DSL (Domestic Substances List)

Isobutane (containing < 0,1 % butadiene) (75-28-5)

Listed on the Canadian DSL (Domestic Substances List)

Hydrocarbons, C≥5, C5-6-rich; Low boiling point naphtha (68476-50-6)

Listed on the Canadian NDSL (Non-Domestic Substances List)

Ethanethiol (75-08-1)

Listed on the Canadian DSL (Domestic Substances List)

1,3-Butadiene (106-99-0)

Listed on the Canadian DSL (Domestic Substances List)

BUTANE

Not listed on the United States TSCA (Toxic Substances Control Act) inventory

Propane (74-98-6)

Listed on the United States TSCA (Toxic Substances Control Act) inventory - Status: Active
Listed on INSQ (Mexican National Inventory of Chemical Substances)

Butane (and CAS 75-28-5) (106-97-8)

Listed on the United States TSCA (Toxic Substances Control Act) inventory - Status: Active
Listed on INSQ (Mexican National Inventory of Chemical Substances)

Isobutane (containing < 0,1 % butadiene) (75-28-5)

Listed on the United States TSCA (Toxic Substances Control Act) inventory - Status: Active
Listed on INSQ (Mexican National Inventory of Chemical Substances)

Hydrocarbons, C≥5, C5-6-rich; Low boiling point naphtha (68476-50-6)

Listed on the United States TSCA (Toxic Substances Control Act) inventory - Status: Active

Ethanethiol (75-08-1)

Listed on the United States TSCA (Toxic Substances Control Act) inventory - Status: Active
Listed on INSQ (Mexican National Inventory of Chemical Substances)

1,3-Butadiene (106-99-0)

Listed on the United States TSCA (Toxic Substances Control Act) inventory - Status: Active
Listed on INSQ (Mexican National Inventory of Chemical Substances)

SECTION 16 Other Information

Issue date : 04/07/2026

Full text of hazard classes and H-statements:	
H220	Extremely flammable gas
H224	Extremely flammable liquid and vapour
H280	Contains gas under pressure; may explode if heated
H302	Harmful if swallowed
H304	May be fatal if swallowed and enters airways
H331	Toxic if inhaled
H340	May cause genetic defects.
H350	May cause cancer.
H373	May cause damage to organs through prolonged or repeated exposure.
H400	Very toxic to aquatic life
H410	Very toxic to aquatic life with long lasting effects
H411	Toxic to aquatic life with long lasting effects
H412	Harmful to aquatic life with long lasting effects

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.