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SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product form : Mixture
Trade name/designation : Butane Mix
Product group : Trade product

1.2. Relevant identified uses of the substance or mixture and uses advised against

1.2.1. Relevant identified uses

Main use category : Professional use, Industrial use

1.2.2. Uses advised against

No data available

1.3. Details of the supplier of the safety data sheet

Trafigura Ventures V.B.V.
Evert van de Beekstraat 1-82
The Base, Tower B - 5th Floor
1118 CL Schiphol - The Netherlands
T +31 20 504 1800
TrafiguraReach@trafigura.com

1.4. Emergency telephone number

Emergency number : +32 3 575 03 30
This telephone number is available 24 hours per day, 7 days per week.

Country	Official advisory body	Address	Emergency number
Ireland	National Poisons Information Centre Beaumont Hospital	Beaumont Hospital Beaumont Road 9 Dublin	+353 1 809 21 66 (public, 8am - 10pm, 7/7) +353 01 809 2566 (Professionals, 24/7)
United Kingdom	National Poisons Information Service (Newcastle Centre) Regional Drugs and Therapeutics Centre, Wolfson Unit	Claremont Place Newcastle-upon-Tyne NE1 4LP Newcastle	0844 892 0111 (UK only, 24/7, healthcare professionals only)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Flam. Gas 1 H220


Press. Gas (Liq.) H280

Full text of H statements : see section 16

Classification according to Directive 67/548/EEC [DSD] or 1999/45/EC [DPD]

F+; R12

Full text of R-phrases: see section 16

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2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP) :



GHS04

GHS02

Signal word :

Danger

Hazard statements (CLP) :

H220 - Extremely flammable gas.
H280 - Contains gas under pressure; may explode if heated.

Precautionary statements (CLP) :

P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P377 - Leaking gas fire: Do not extinguish, unless leak can be stopped safely.
P410+P403 - Protect from sunlight. Store in a well-ventilated place.

2.3. Other hazards

Other hazards :

PBT/vPvB data : This mixture contains no substance considered to be persistent, bioaccumulating nor toxic (PBT). This mixture contains no substance considered to be very persistent nor very bioaccumulating (vPvB).

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Substance name	Product identifier	%	Classification according to Directive 67/548/EEC	Classification according to Regulation (EC) No. 1272/2008 [CLP]
butane	(CAS-No.) 106-97-8 (EC-No.) 203-448-7 (EC Index) 601-004-00-0	20 - 69	Not classified	Flam. Gas 1, H220 Press. Gas (Liq.), H280
isobutane	(CAS-No.) 75-28-5 (EC-No.) 200-857-2 (EC Index) 601-004-00-0	20 - 69	Not classified	Flam. Gas 1, H220 Press. Gas (Liq.), H280
propane	(CAS-No.) 74-98-6 (EC-No.) 200-827-9 (EC Index) 601-003-00-5	24 - 31	Not classified	Flam. Gas 1, H220 Press. Gas (Liq.), H280

Full text of R- and H-statements: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

Additional advice :


First aider: Pay attention to self-protection. See also section 8 . Treat symptomatically. Never give anything by mouth to an unconscious person. Show this safety data sheet to the doctor in attendance. In case of doubt or persistent symptoms, consult always a physician.

Inhalation :

Keep at rest. Provide fresh air. If unconscious place in recovery position and seek medical advice. Give oxygen or artificial respiration if necessary. Get medical advice/attention.

Skin contact :

In case of frostbite, wash with plenty of water; do not remove clothing. Cover wound with sterile dressing. Get medical advice/attention.

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Eyes contact : Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical advice/attention.

Ingestion : Ingestion is not considered a potential route of exposure.

4.2. Most important symptoms and effects, both acute and delayed

Inhalation : May be irritating.

Skin contact : Contact with liquid or refrigerated gas can cause cold burns and frostbite.

Eyes contact : Causes frostbite burns to eyes.

Ingestion : Ingestion unlikely.

4.3. Indication of any immediate medical attention and special treatment needed

No data available

SECTION 5: Firefighting measures

5.1. Extinguishing media

No data available

5.2. Special hazards arising from the substance or mixture

Specific hazards : Extremely flammable gas. Contains gas under pressure; may explode if heated. Vapours may form explosive mixture with air. Vapours are heavier than air and may spread along floors. Vapours are heavier than air and may travel considerable distance to an ignition source and flash back to source of vapours. Heating causes rise in pressure with risk of bursting. Container may explode if heated.

Hazardous decomposition products in case of fire : Carbon oxides (CO, CO₂).

5.3. Advice for firefighters

No data available

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

No data available

6.1.2. For emergency responders

For emergency responders : Ensure procedures and training for emergency decontamination and disposal are in place. Concerning personal protective equipment to use, see section 8.

6.2. Environmental precautions

Do not allow to enter into surface water or drains.

6.3. Methods and material for containment and cleaning up

No data available

6.4. Reference to other sections

Concerning personal protective equipment to use, see section 8. Concerning disposal elimination after cleaning, see section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling


No data available

7.2. Conditions for safe storage, including any incompatibilities

No data available

7.3. Specific end use(s)


Not applicable.

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SECTION 8: Exposure controls/personal protection

8.1. Control parameters


butane (106-97-8)		
Austria	MAK (mg/m ³)	1900 mg/m ³
Austria	MAK (ppm)	800 ppm
Austria	MAK Short time value (mg/m ³)	3800 mg/m ³
Austria	MAK Short time value (ppm)	1600 ppm
Belgium	Limit value (ppm)	1000 ppm (gas)
Bulgaria	OEL TWA (mg/m ³)	1900 mg/m ³
Croatia	GVI (granična vrijednost izloženosti) (mg/m ³)	1450 mg/m ³ 22 mg/m ³ (containing >=0.1% 1,3-Butadiene)
Croatia	GVI (granična vrijednost izloženosti) (ppm)	600 ppm 10 ppm (containing >=0.1% 1,3-Butadiene)
Croatia	KGVI (kratkotrajna granična vrijednost izloženosti) (mg/m ³)	1810 mg/m ³
Croatia	KGVI (kratkotrajna granična vrijednost izloženosti) (ppm)	750 ppm
Denmark	Grænseværdie (langvarig) (mg/m ³)	1200 mg/m ³
Denmark	Grænseværdie (langvarig) (ppm)	500 ppm
Estonia	OEL TWA (mg/m ³)	1500 mg/m ³
Estonia	OEL TWA (ppm)	800 ppm
Finland	HTP-arvo (8h) (mg/m ³)	1900 mg/m ³
Finland	HTP-arvo (8h) (ppm)	800 ppm
Finland	HTP-arvo (15 min)	2400 mg/m ³
Finland	HTP-arvo (15 min) (ppm)	1000 ppm
France	VME (mg/m ³)	1900 mg/m ³
France	VME (ppm)	800 ppm
Germany	TRGS 900 Occupational exposure limit value (mg/m ³)	2400 mg/m ³
Germany	TRGS 900 Occupational exposure limit value (ppm)	1000 ppm
Greece	OEL TWA (mg/m ³)	2350 mg/m ³
Greece	OEL TWA (ppm)	1000 ppm
Hungary	AK-érték	2350 mg/m ³
Hungary	CK-érték	9400 mg/m ³
Ireland	OEL (8 hours ref) (ppm)	1000 ppm
Ireland	OEL (15 min ref) (ppm)	3000 ppm (calculated)
Latvia	OEL TWA (mg/m ³)	300 mg/m ³
Poland	NDS (mg/m ³)	1900 mg/m ³
Poland	NDSch (mg/m ³)	3000 mg/m ³
Slovenia	OEL TWA (mg/m ³)	2400 mg/m ³ (containing >=0.1% Butadiene)
Slovenia	OEL TWA (ppm)	1000 ppm (containing >=0.1% Butadiene)
Slovenia	OEL STEL (mg/m ³)	9600 mg/m ³ (containing >=0.1% Butadiene)
Slovenia	OEL STEL (ppm)	4000 ppm (containing >=0.1% Butadiene)

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butane (106-97-8)		
United Kingdom	WEL TWA (mg/m ³)	1450 mg/m ³
United Kingdom	WEL TWA (ppm)	600 ppm
United Kingdom	WEL STEL (mg/m ³)	1810 mg/m ³
United Kingdom	WEL STEL (ppm)	750 ppm
Norway	Grenseverdier (AN) (mg/m ³)	600 mg/m ³
Norway	Grenseverdier (AN) (ppm)	250 ppm
Norway	Grenseverdier (Korttidsverdi) (mg/m ³)	750 mg/m ³ (value calculated)
Norway	Grenseverdier (Korttidsverdi) (ppm)	312,5 ppm (value calculated)
Switzerland	MAK (mg/m ³)	1900 mg/m ³
Switzerland	MAK (ppm)	800 ppm
Switzerland	KZGW (mg/m ³)	7600 mg/m ³
Switzerland	KZGW (ppm)	3200 ppm
Australia	TWA (mg/m ³)	1900 mg/m ³
Australia	TWA (ppm)	800 ppm
Canada (Quebec)	VEMP (mg/m ³)	1900 mg/m ³
Canada (Quebec)	VEMP (ppm)	800 ppm
USA - ACGIH	ACGIH STEL (ppm)	1000 ppm (explosion hazard)
USA - IDLH	US IDLH (ppm)	1600 ppm (>10% LEL)
USA - NIOSH	NIOSH REL (TWA) (mg/m ³)	1900 mg/m ³
USA - NIOSH	NIOSH REL (TWA) (ppm)	800 ppm
propane (74-98-6)		
Austria	MAK (mg/m ³)	1800 mg/m ³
Austria	MAK (ppm)	1000 ppm
Austria	MAK Short time value (mg/m ³)	3600 mg/m ³
Austria	MAK Short time value (ppm)	2000 ppm
Belgium	Limit value (ppm)	1000 ppm (gas)
Bulgaria	OEL TWA (mg/m ³)	1800 mg/m ³
Denmark	Grænseværdie (langvarig) (mg/m ³)	1800 mg/m ³
Denmark	Grænseværdie (langvarig) (ppm)	1000 ppm
Estonia	OEL TWA (mg/m ³)	1800 mg/m ³
Estonia	OEL TWA (ppm)	1000 ppm
Finland	HTP-arvo (8h) (mg/m ³)	1500 mg/m ³
Finland	HTP-arvo (8h) (ppm)	800 ppm
Finland	HTP-arvo (15 min)	2000 mg/m ³
Finland	HTP-arvo (15 min) (ppm)	1100 ppm
Germany	TRGS 900 Occupational exposure limit value (mg/m ³)	1800 mg/m ³
Germany	TRGS 900 Occupational exposure limit value (ppm)	1000 ppm
Greece	OEL TWA (mg/m ³)	1800 mg/m ³
Greece	OEL TWA (ppm)	1000 ppm
Ireland	OEL (8 hours ref) (ppm)	1000 ppm
Ireland	OEL (15 min ref) (ppm)	3000 ppm (calculated)

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propane (74-98-6)		
Latvia	OEL TWA (mg/m ³)	1800 mg/m ³
Latvia	OEL TWA (ppm)	1000 ppm
Poland	NDS (mg/m ³)	1800 mg/m ³
Portugal	OEL TWA (ppm)	1000 ppm
Romania	OEL TWA (mg/m ³)	1400 mg/m ³
Romania	OEL TWA (ppm)	778 ppm
Romania	OEL STEL (mg/m ³)	1800 mg/m ³
Romania	OEL STEL (ppm)	1000 ppm
Slovenia	OEL TWA (mg/m ³)	1800 mg/m ³
Slovenia	OEL TWA (ppm)	1000 ppm
Slovenia	OEL STEL (mg/m ³)	7200 mg/m ³
Slovenia	OEL STEL (ppm)	4000 ppm
Norway	Grenseverdier (AN) (mg/m ³)	900 mg/m ³
Norway	Grenseverdier (AN) (ppm)	500 ppm
Norway	Grenseverdier (Korttidsverdi) (mg/m ³)	1125 mg/m ³ (value calculated)
Norway	Grenseverdier (Korttidsverdi) (ppm)	625 ppm (value calculated)
Switzerland	MAK (mg/m ³)	1800 mg/m ³
Switzerland	MAK (ppm)	1000 ppm
Switzerland	KZGW (mg/m ³)	7200 mg/m ³
Switzerland	KZGW (ppm)	4000 ppm
Canada (Quebec)	VEMP (mg/m ³)	1800 mg/m ³
Canada (Quebec)	VEMP (ppm)	1000 ppm
USA - IDLH	US IDLH (ppm)	2100 ppm (10% LEL)
USA - NIOSH	NIOSH REL (TWA) (mg/m ³)	1800 mg/m ³
USA - NIOSH	NIOSH REL (TWA) (ppm)	1000 ppm
USA - OSHA	OSHA PEL (TWA) (mg/m ³)	1800 mg/m ³
USA - OSHA	OSHA PEL (TWA) (ppm)	1000 ppm
isobutane (75-28-5)		
Austria	MAK (mg/m ³)	1900 mg/m ³
Austria	MAK (ppm)	800 ppm
Austria	MAK Short time value (mg/m ³)	3800 mg/m ³
Austria	MAK Short time value (ppm)	1600 ppm
Belgium	Limit value (ppm)	1000 ppm (gas)
Estonia	OEL TWA (mg/m ³)	1900 mg/m ³
Estonia	OEL TWA (ppm)	800 ppm
Finland	HTP-arvo (8h) (mg/m ³)	1900 mg/m ³
Finland	HTP-arvo (8h) (ppm)	800 ppm
Finland	HTP-arvo (15 min)	2400 mg/m ³
Finland	HTP-arvo (15 min) (ppm)	1000 ppm
Germany	TRGS 900 Occupational exposure limit value (mg/m ³)	2400 mg/m ³

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isobutane (75-28-5)		
Germany	TRGS 900 Occupational exposure limit value (ppm)	1000 ppm
Slovenia	OEL TWA (mg/m ³)	2400 mg/m ³
Slovenia	OEL TWA (ppm)	1000 ppm
Slovenia	OEL STEL (mg/m ³)	9600 mg/m ³
Slovenia	OEL STEL (ppm)	4000 ppm
Switzerland	MAK (mg/m ³)	1900 mg/m ³
Switzerland	MAK (ppm)	800 ppm
Switzerland	KZGW (mg/m ³)	7600 mg/m ³
Switzerland	KZGW (ppm)	3200 ppm
USA - ACGIH	ACGIH STEL (ppm)	1000 ppm (explosion hazard)
USA - NIOSH	NIOSH REL (TWA) (mg/m ³)	1900 mg/m ³
USA - NIOSH	NIOSH REL (TWA) (ppm)	800 ppm


8.2. Exposure controls

Engineering measure(s)	: Closed system. Provide adequate ventilation. Use only in area provided with appropriate exhaust ventilation. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Take precautionary measures against static discharge. Provide adequate precautions, such as electrical grounding and bonding, or inert atmospheres. Use only explosion-proof equipment. Organisational measures to prevent /limit releases, dispersion and exposure. See also section 7.
Personal protective equipment	: The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.
Hand protection	: The selection of specific gloves for a specific application and time of use in a working area, should also take into account other factors on the working space, such as (but not limited to): other chemicals that are possibly used, physical requirements (protection against cutting/drilling, skill, thermal protection), and the instructions/specification of the supplier of gloves. cold insulating gloves (EN 511). NBR (Nitrile rubber) (>0.3mm, >480min).
Eye protection	: During splash contact: face shield (EN166)
Body protection	: Overalls, apron and boots recommended.
Respiratory protection	: Use self-contained respiratory apparatus for rescue and maintenance work in storage vessels. Self-contained open-circuit compressed air breathing apparatus (EN 137). O ₂ - Deficiency : Wear a positive-pressure supplied-air respirator.
Thermal hazard protection	: Use dedicated equipment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Gas
Appearance	: Press. Gas (Liq.).
Colour	: Colourless.
Odour	: No data available.
Odour threshold	: No data available
pH	: study technically not feasible
Relative evaporation rate (butylacetate=1)	: No data available

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Melting / freezing point	: -183 - -20 °C
Freezing point	: No data available
Initial boiling point and boiling range	: -162 - -0,5 °C
Flash point	: < -56 °C (estimated value)
Auto-ignition temperature	: 410 - 540 °C
Decomposition temperature	: No data available
Flammability (solid, gas)	: No data available
Vapour pressure	: 60 - 3900 kPa (@ 20°C)
Vapour density	: No data available
Relative density	: No data available
Density	: 0,506 - 0,583 g/cm ³ (@ 15°C)
Solubility	: Water: 0,024 - 0,061 g/l (@ 20°C)
Partition coefficient n-octanol/water	: ≤ 2,8
Kinematic viscosity	: No data available
Dynamic viscosity	: No data available
Explosive properties	: The study does not need to be conducted because there are no chemical groups associated with explosive properties present in the molecule.
Oxidising properties	: The classification procedure needs not to be applied because there are no chemical groups present in the molecule which are associated with oxidising properties.
Explosive limits	: LEL: 1,9 - 5,3 vol % -UEL: 8,5 - 15 vol % Air

9.2. Other information

No data available

SECTION 10: Stability and reactivity

10.1. Reactivity

Extremely flammable gas. Contains gas under pressure; may explode if heated. Reference to other sections: 10.5.

10.2. Chemical stability

No data available

10.3. Possibility of hazardous reactions

No data available

10.4. Conditions to avoid

Keep away from sources of heat (e.g. hot surfaces), sparks and open flames. Exposure to air. See also section 7.

10.5. Incompatible materials

Strong oxidizing agents. See also section 7.

10.6. Hazardous decomposition products


CO_x.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Not classified (Based on available data, the classification criteria are not met.)

butane (106-97-8)	
LC50/inhalation/4h/rat	658 g/m ³ (Exposure time: 4 h)
propane (74-98-6)	
LC50/inhalation/4h/rat (ppm)	> 800000 ppm (Exposure time: 15 min)

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isobutane (75-28-5)	
LD50/oral/rat	study technically not feasible
LD50/dermal/rat	study technically not feasible
LC50/inhalation/4h/rat	658 mg/l/4h

Skin corrosion/irritation	: Not classified (Based on available data, the classification criteria are not met.) pH: study technically not feasible
Serious eye damage/irritation	: Not classified (Based on available data, the classification criteria are not met.) pH: study technically not feasible
Respiratory or skin sensitisation	: Not classified (Based on available data, the classification criteria are not met.)
Germ cell mutagenicity	: Not classified (Based on available data, the classification criteria are not met.)
Carcinogenicity	: Not classified (Based on available data, the classification criteria are not met.)
Reproductive toxicity	: Not classified (Based on available data, the classification criteria are not met.)
STOT-single exposure	: Not classified (Based on available data, the classification criteria are not met.)
STOT-repeated exposure	: Not classified (Based on available data, the classification criteria are not met.)
Aspiration hazard	: Not classified (Based on available data, the classification criteria are not met.)

SECTION 12: Ecological information

12.1. Toxicity

Environmental properties : not hazardous.

isobutane (75-28-5)	
LC50 fish 1	27,98 mg/l (96h) US Environmental Protection Agency's Office of pollution Prevention (2008)
EC50 Daphnia 1	16,33 mg/l (48h) US Environmental Protection Agency's Office of pollution Prevention (2008)
ErC50 (algae)	8,57 mg/l (96h) US Environmental Protection Agency's Office of pollution Prevention (2008)

12.2. Persistence and degradability

No data available

12.3. Bioaccumulative potential

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Partition coefficient n-octanol/water	≤ 2,8
butane (106-97-8)	
Partition coefficient n-octanol/water	2,89
propane (74-98-6)	
Partition coefficient n-octanol/water	2,3
isobutane (75-28-5)	
BCF fish 1	1,57 - 1,97
Partition coefficient n-octanol/water	2,88 (at 20 °C)

12.4. Mobility in soil


No data available

12.5. Results of PBT and vPvB assessment

No data available

12.6. Other adverse effects

No data available

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SECTION 13: Disposal considerations

13.1. Waste treatment methods

No data available

SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN


ADR	IMDG	IATA	ADN	RID
14.1. UN number				
1075	1075	1075	1075	1075
14.2. UN proper shipping name				
PETROLEUM GASES, LIQUEFIED	PETROLEUM GASES, LIQUEFIED	Petroleum gases, liquefied	PETROLEUM GASES, LIQUEFIED	PETROLEUM GASES, LIQUEFIED
Transport document description				
UN 1075 PETROLEUM GASES, LIQUEFIED, 2.1, (B/D)	UN 1075 PETROLEUM GASES, LIQUEFIED, 2.1	UN 1075 Petroleum gases, liquefied, 2.1	UN 1075 PETROLEUM GASES, LIQUEFIED, 2.1	UN 1075 PETROLEUM GASES, LIQUEFIED, 2.1
14.3. Transport hazard class(es)				
2.1	2.1	2.1	2.1	2.1
				
14.4. Packing group				
Not applicable	Not 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	Dangerous for the environment : No	Dangerous for the environment : No
No supplementary information available				

14.6. Special precautions for user

Special precautions for user : No data available

- Overland transport

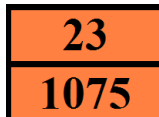
Classification code (ADR) : 2F
 Special provisions : 274, 583, 639, 660, 662
 Limited quantities (ADR) : 0
 Excepted quantities (ADR) : E0
 Packing instructions (ADR) : P200
 Mixed packing provisions (ADR) : MP9
 Portable tank and bulk container instructions (ADR) : (M), T50
 Tank code (ADR) : PxBN(M)
 Tank special provisions (ADR) : TA4, TT9
 Vehicle for tank carriage : FL
 Transport category (ADR) : 2
 Special provisions for carriage - Loading, unloading and handling (ADR) : CV9, CV10, CV36

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Special provisions for carriage - Operation (ADR) : S2, S20

Hazard identification number (Kemler No.) : 23

Orange plates :



Tunnel restriction code : B/D

EAC code : 2YE

- Transport by sea

Limited quantities (IMDG) : 0

Excepted quantities (IMDG) : E0

Packing instructions (IMDG) : P200

Tank instructions (IMDG) : T50

EmS-No. (Fire) : F-D

EmS-No. (Spillage) : S-U

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.

- Air transport

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

Special provisions (IATA) : A1

ERG code (IATA) : 10L

- Inland waterway transport

Classification code (ADN) : 2F

Special provisions (ADN) : 274, 583, 639, 660, 662

Limited quantities (ADN) : 0

Excepted quantities (ADN) : E0

Equipment required (ADN) : PP, EX, A

Ventilation (ADN) : VE01

Number of blue cones/lights (ADN) : 1


- Rail transport

Special provisions (RID) : 274, 583, 639, 660, 662

Limited quantities (RID) : 0

Excepted quantities (RID) : E0

Packing instructions (RID) : P200

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Mixed packing provisions (RID) : MP9
 Portable tank and bulk container instructions (RID) : T50(M)
 Special provisions for RID tanks (RID) : TU38, TE22, TA4, TT9, TM6
 Transport category (RID) : 2
 Special provisions for carriage - Loading, unloading and handling (RID) : CW9, CW10, CW36
 Colis express (express parcels) (RID) : CE3
 Hazard identification number (RID) : 23

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

Code: IBC : Not applicable.

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

15.1.1. EU-Regulations

The following restrictions are applicable according to Annex XVII of the REACH Regulation (EC) No 1907/2006:

40. Substances classified as flammable gases category 1 or 2, flammable liquids categories 1, 2 or 3, flammable solids category 1 or 2, substances and mixtures which, in contact with water, emit flammable gases, category 1, 2 or 3, pyrophoric liquids category 1 or pyrophoric solids category 1, regardless of whether they appear in Part 3 of Annex VI to Regulation (EC) No 1272/2008 or not.	Butane Mix - butane - propane - isobutane
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Contains no substance on the REACH candidate list

Contains no REACH Annex XIV substances

15.1.2. National regulations

Germany


Reference to AwSV : Water hazard class (WGK) nwg, Non-hazardous to water (Classification according to AwSV, Annex 1)
 German storage class (LGK) : LGK 2A - Gases
 12th Ordinance Implementing the Federal Immission Control Act - 12.BImSchV : Is not subject of the 12. BImSchV (Hazardous Incident Ordinance)

Netherlands

Waterbezwaarlijkheid : 4 - Weinig schadelijk voor in het water levende organismen B (4)
 SZW-lijst van kankerverwekkende stoffen : None of the components are listed
 SZW-lijst van mutagene stoffen : None of the components are listed
 NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Borstvoeding : None of the components are listed
 NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Vruchtbaarheid : None of the components are listed
 NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Ontwikkeling : None of the components are listed

Denmark

Class for fire hazard : Class I-1

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Store unit : 1 liter

Classification remarks : F+ <Flam. Gas 1; Press. Gas (Liq.)>; Emergency management guidelines for the storage of flammable liquids must be followed

Recommendations Danish Regulation : Young people below the age of 18 years are not allowed to use the product

15.2. Chemical safety assessment


SECTION 16: Other information

Indication of changes:

1		Modified	
2		Modified	
5		Modified	
9		Modified	
14		Modified	
15		Modified	
16		Modified	

Abbreviations and acronyms:

	ABM = Algemene beoordelingsmethodiek
	ADN = Accord Européen relatif au Transport International des Marchandises Dangereuses par voie de Navigation du Rhin
	ADR = Accord européen relatif au transport international des marchandises Dangereuses par Route
	CLP = Classification, Labelling and Packaging Regulation according to 1272/2008/EC
	IATA = International Air Transport Association
	IMDG = International Maritime Dangerous Goods Code
	LEL = Lower Explosive Limit/Lower Explosion Limit
	UEL = Upper Explosion Limit/Upper Explosive Limit
	REACH = Registration, Evaluation, Authorisation and Restriction of Chemicals
	BTT = Breakthrough time (maximum wearing time)
	DMEL = Derived Minimal Effect level
	DNEL = Derived No Effect Level
	EC50 = Median Effective Concentration
	EL50 = Median effective level
	ErC50 = EC50 in terms of reduction of growth rate
	ErL50 = EL50 in terms of reduction of growth rate
	EWC = European waste catalogue
	LC50 = Median lethal concentration
	LD50 = Median lethal dose
	LL50 = Median lethal level
	NA = Not applicable
	NOEL = no-observed-effect level
	NOEC = No observed effect concentration
	NOELR = No observed effect loading rate
	NOAEC = No observed adverse effect concentration
	NOAEL = No observed adverse effect level
	N.O.S. = Not Otherwise Specified
	OEL = Occupational Exposure Limits - Short Term Exposure Limits (STELs)
	PNEC = Predicted No Effect Concentration
	Quantitative structure-activity relationship (QSAR)
	STOT = Specific Target Organ Toxicity
	TWA = time weighted average
	VOC = Volatile organic compounds
	WGK = Wassergefährdungsklasse (Water Hazard Class under German Federal Water Management Act)

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Other information : Assessment/classification CLP. Article 9. Calculation method.

Full text of R-, H- and EUH-phrases::

Flam. Gas 1	Flammable gases, hazard category 1
Press. Gas (Liq.)	Gases under pressure : Liquefied gas
H220	Extremely flammable gas.
H280	Contains gas under pressure; may explode if heated.
R12	Extremely flammable.
F+	Extremely flammable

According to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830
 Classification according to Regulation (EC) No. 1272/2008 [CLP]
 Labelling according to Regulation (EC) No. 1272/2008 [CLP]

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