

butane, liquefied, under pressure

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

1.1. Product identifier

Product name	: butane, liquefied, under pressure
Synonyms	: bottled gas (=butane); bottogas; butagas; butane; butane, pure; butyl hydride; calor gas; diethyl; glogas; kosangas; liquefied petroleum gas (=normal-butane); LPG (=liquefied petroleum gas (=butane)); methylethylmethane; n-methylethylmethane; normal-butane; normal-methylethylmethane; R600; rural gas
Registration number REACH	: 01-2119474691-32
Product type REACH	: Substance/mono-constituent
CAS number	: 106-97-8
EC index number	: 601-004-00-0
EC number	: 203-448-7
RTECS number	: EJ4200000
Molecular mass	: 58.12 g/mol
Formula	: C4H10

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

1.2.1 Relevant identified uses

Industrial and professional use. Before use: carry out a risk assessment

1.2.2 Uses advised against

No uses advised against known

1.3. Details of the supplier of the safety data sheet

Supplier of the safety data sheet

CHEMOGAS NV
Westvaartdijk 85
B-1850 Grimbergen Belgium
☎ +32 2 251 60 87
☎ +32 2 252 17 51
info@chemogas.com

Distributor of the product

CHEMOGAS NV
Westvaartdijk 85
B-1850 Grimbergen Belgium
☎ +32 2 251 60 87
☎ +32 2 252 17 51
info@chemogas.com

1.4. Emergency telephone number

24h/24h (Telephone advice: English, French, German, Dutch):

+32 14 58 45 45 (BIG)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classified as dangerous according to the criteria of Regulation (EC) No 1272/2008

Class	Category	Hazard statements
Flam. Gas	category 1	H220: Extremely flammable gas.
Press. Gas	Liquefied gas	H280: Contains gas under pressure; may explode if heated.

2.2. Label elements



Signal word

Danger

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H-statements

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

P-statements

- P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P381 Eliminate all ignition sources if safe to do so.
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

- May build up electrostatic charges: risk of ignition
May be ignited by sparks
Gas/vapour spreads at floor level: ignition hazard
Odour threshold is well above the exposure limit
May cause frostbites
Large spills/in enclosed spaces: risk of oxygen deficiency
Toxic to invertebrates (Daphnia)
Toxic to algae

SECTION 3: Composition/information on ingredients

3.1. Substances

Name REACH Registration No	CAS No EC No	Conc. (C)	Classification according to CLP	Note	Remark
butane 01-2119474691-32	106-97-8 203-448-7	C>99 %	Flam. Gas 1; H220 Press. Gas - Liquefied gas; H280	(1)(10)(2)	Mono-constituent

- (1) For H-statements in full: see heading 16
(2) Substance with a Community workplace exposure limit
(10) Subject to restrictions of Annex XVII of Regulation (EC) No. 1907/2006

3.2. Mixtures

Not applicable

SECTION 4: First aid measures

4.1. Description of first aid measures

General:

Check the vital functions. Unconscious: maintain adequate airway and respiration. Respiratory arrest: artificial respiration or oxygen. Cardiac arrest: perform resuscitation. Victim conscious with laboured breathing: half-seated. Victim in shock: on his back with legs slightly raised. Vomiting: prevent asphyxia/aspiration pneumonia. Prevent cooling by covering the victim (no warming up). Keep watching the victim. Give psychological aid. Keep the victim calm, avoid physical strain. Depending on the victim's condition: doctor/hospital.

After inhalation:

Remove the victim into fresh air. Respiratory problems: consult a doctor/medical service.

After skin contact:

In case of frostbites: Wash immediately with lots of water (15 minutes)/shower. Do not apply (chemical) neutralizing agents. Remove clothing while washing. Do not remove clothing if it sticks to the skin. Cover wounds with sterile bandage. Consult a doctor/medical service. If burned surface > 10%: take victim to hospital.

After eye contact:

Rinse immediately with plenty of water for 15 minutes. Do not apply neutralizing agents. Take victim to an ophthalmologist.

After ingestion:

Not applicable.

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

4.2.1 Acute symptoms

After inhalation:

EXPOSURE TO HIGH CONCENTRATIONS: Headache. Vomiting. Nausea. Feeling of weakness. Rapid respiration. Accelerated heart action. Central nervous system depression. Coordination disorders. Emotional instability. Respiratory difficulties. Disturbances of consciousness. Cramps/uncontrolled muscular contractions.

After skin contact:

Frostbites.

After eye contact:

Frostbites.

After ingestion:

Not applicable.

4.2.2 Delayed symptoms

No effects known.

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

If applicable and available it will be listed below.

SECTION 5: Firefighting measures

5.1. Extinguishing media

5.1.1 Suitable extinguishing media:

Water spray. Polyvalent foam. BC powder. Carbon dioxide.

5.1.2 Unsuitable extinguishing media:

Solid water jet ineffective as extinguishing medium.

5.2. Special hazards arising from the substance or mixture

Upon combustion: CO and CO₂ are formed.

5.3. Advice for firefighters

5.3.1 Instructions:

If no hazard for/from the surroundings: controlled burning. If hazardous substances are nearby: consider extinguishment. Extinguish only if gas supply/leak can be shut afterwards. Cool tanks/drums with water spray/remove them into safety. Physical explosion risk: extinguish/cool from behind cover. Do not move the load if exposed to heat. After cooling: persistent risk of physical explosion.

5.3.2 Special protective equipment for fire-fighters:

Insulating gloves. Protective clothing. Large spills/in enclosed spaces: compressed air apparatus. Heat/fire exposure: compressed air/oxygen apparatus.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Keep upwind. Seal off low-lying areas. Close doors and windows of adjacent premises. Stop engines and no smoking. No naked flames or sparks. Spark- and explosionproof appliances and lighting equipment. Avoid ingress of water in the containers.

6.1.1 Protective equipment for non-emergency personnel

See heading 8.2

6.1.2 Protective equipment for emergency responders

Insulating gloves. Protective clothing. Large spills/in enclosed spaces: compressed air apparatus.

Suitable protective clothing

See heading 8.2

6.2. Environmental precautions

Contain released substance, pump into suitable containers. Plug the leak, cut off the supply. Dam up the liquid spill. Tip the container on one side to stop the leakage. Try to reduce evaporation. Prevent spreading in sewers.

6.3. Methods and material for containment and cleaning up

Liquid spill: cover with foam or sand/earth. Scoop absorbed substance into closing containers. Carefully collect the spill/leftovers. Damaged/cooled tanks must be emptied. Do not use compressed air for pumping over spills. Clean contaminated surfaces with an excess of water. Take collected spill to manufacturer/competent authority. Wash clothing and equipment after handling.

6.4. Reference to other sections

See heading 13.

SECTION 7: Handling and storage

The information in this section is a general description. If applicable and available, exposure scenarios are attached in annex. Always use the relevant exposure scenarios that correspond to your identified use.

7.1. Precautions for safe handling

Use spark-/explosionproof appliances and lighting system. Take precautions against electrostatic charges. Keep away from naked flames/heat. Keep away from ignition sources/sparks. Gas/vapour heavier than air at 20°C. Observe normal hygiene standards.

7.2. Conditions for safe storage, including any incompatibilities

7.2.1 Safe storage requirements:

Storage temperature: <50 °C. Keep out of direct sunlight. Ventilation at floor level. Fireproof storeroom. Provide for an automatic sprinkler system. Provide for a tub to collect spills. Provide the tank with earthing. Under a shelter/in the open. Aboveground. Meet the legal requirements.

7.2.2 Keep away from:

Heat sources, ignition sources, combustible materials, oxidizing agents, (strong) acids, highly flammable materials, halogens, gases.

7.2.3 Suitable packaging material:

Steel, stainless steel, monel steel, carbon steel, aluminium, iron, copper, polyethylene.

7.2.4 Non suitable packaging material:

No data available

7.3. Specific end use(s)

If applicable and available, exposure scenarios are attached in annex. See information supplied by the manufacturer.

SECTION 8: Exposure controls/personal protection

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8.1. Control parameters

8.1.1 Occupational exposure

a) Occupational exposure limit values

If limit values are applicable and available these will be listed below.

The Netherlands

n-Butaan	Time-weighted average exposure limit 8 h (Private occupational exposure limit value)	592 ppm
	Time-weighted average exposure limit 8 h (Private occupational exposure limit value)	1430 mg/m ³

Belgium

Hydrocarbures aliphatiques sous forme gazeuse : (Alcanes C1-C4)	Time-weighted average exposure limit 8 h	1000 ppm
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USA (TLV-ACGIH)

Butane, all isomers	Short time value (TLV - Adopted Value)	1000 ppm
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Germany

Butan	Time-weighted average exposure limit 8 h (TRGS 900)	1000 ppm
	Time-weighted average exposure limit 8 h (TRGS 900)	2400 mg/m ³

France

n-Butane	Time-weighted average exposure limit 8 h (VL: Valeur non réglementaire indicative)	800 ppm
	Time-weighted average exposure limit 8 h (VL: Valeur non réglementaire indicative)	1900 mg/m ³

UK

Butane	Time-weighted average exposure limit 8 h (Workplace exposure limit (EH40/2005))	600 ppm
	Time-weighted average exposure limit 8 h (Workplace exposure limit (EH40/2005))	1450 mg/m ³
	Short time value (Workplace exposure limit (EH40/2005))	750 ppm
	Short time value (Workplace exposure limit (EH40/2005))	1810 mg/m ³

b) National biological limit values

If limit values are applicable and available these will be listed below.

8.1.2 Sampling methods

Product name	Test	Number
n-Butane	OSHA	2010

8.1.3 Applicable limit values when using the substance or mixture as intended

If limit values are applicable and available these will be listed below.

8.1.4 DNEL/PNEC values

If applicable and available it will be listed below.

8.1.5 Control banding

If applicable and available it will be listed below.

8.2. Exposure controls

The information in this section is a general description. If applicable and available, exposure scenarios are attached in annex. Always use the relevant exposure scenarios that correspond to your identified use.

8.2.1 Appropriate engineering controls

Use spark-/explosionproof appliances and lighting system. Take precautions against electrostatic charges. Keep away from naked flames/heat. Keep away from ignition sources/sparks. Measure the concentration in the air regularly. Work under local exhaust/ventilation.

8.2.2 Individual protection measures, such as personal protective equipment

Observe normal hygiene standards. Do not eat, drink or smoke during work.

a) Respiratory protection:

Bij mogelijke overschrijding van de grenswaarde: ademluchttoestel.

b) Hand protection:

Insulated gloves.

- materials (good resistance)

Chlorosulfonated polyethylene, leather, nitrile rubber, polyurethane, tetrafluoroethylene.

- materials (less resistance)

Nitrile rubber, viton, neoprene/SBR, nitrile rubber/PVC.

- materials (poor resistance)

Butyl rubber, chloroprene rubber, natural rubber, PVC, styrene-butadiene rubber.

c) Eye protection:

Protective goggles.

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d) Skin protection:

Protective clothing.

8.2.3 Environmental exposure controls:

See headings 6.2, 6.3 and 13

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical form	Liquefied gas
Odour	Pure substance is odourless
	Commercial/unpurified substance:
	Mild odour Unpleasant odour
Odour threshold	1247 - 5048 ppm
Colour	Colourless
Particle size	Not applicable (gas)
Explosion limits	1.8 - 8.4 vol %
	37 - 210 g/m ³
Flammability	Extremely flammable gas.
Log Kow	2.89 ; Experimental value
Dynamic viscosity	0.007 mPa.s - 0.011 mPa.s ; 27 °C ; Test data
Kinematic viscosity	No data available
Melting point	-159 °C
Boiling point	-0.5 °C
Flash point	-87 °C ; 1013 hPa
Evaporation rate	No data available
Relative vapour density	2.03
Vapour pressure	2100 hPa ; 20 °C
	4900 hPa ; 50 °C
Solubility	water ; 0.0061 g/100 ml ; 20 °C
	ethanol ; > 10 g/100 ml
	ether ; > 10 g/100 ml
	chloroform ; soluble
Relative density	0.58 ; 0 °C
Decomposition temperature	No data available
Auto-ignition temperature	287 °C ; 1013 hPa
Explosive properties	No chemical group associated with explosive properties
Oxidising properties	No chemical group associated with oxidising properties
pH	Not applicable

9.2. Other information

Minimum ignition energy	0.25 mJ
Specific conductivity	< 10000 pS/m
Critical temperature	152 °C
Critical pressure	37970 hPa
Surface tension	< 0.1 N/m ; 0 °C
Absolute density	579 kg/m ³ ; 0 °C

SECTION 10: Stability and reactivity

10.1. Reactivity

May build up electrostatic charges: risk of ignition. May be ignited by sparks. Gas/vapour spreads at floor level: ignition hazard. Substance has neutral reaction.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

Reacts with (strong) oxidizers: (increased) risk of fire/explosion. Reacts with (some) halogens.

10.4. Conditions to avoid

Use spark-/explosionproof appliances and lighting system. Take precautions against electrostatic charges. Keep away from naked flames/heat. Keep away from ignition sources/sparks.

10.5. Incompatible materials

Combustible materials, oxidizing agents, (strong) acids, highly flammable materials, halogens, gases.

10.6. Hazardous decomposition products

Upon combustion: CO and CO₂ are formed.

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SECTION 11: Toxicological information

11.1. Information on toxicological effects

11.1.1 Test results

Acute toxicity

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Route of exposure	Parameter	Method	Value	Exposure time	Species	Value determination	Remark
Oral						Data waiving	
Dermal						Data waiving	
Inhalation (gases)	LC50		539600 ppm	2 h	Mouse (male)	Read-across	
Inhalation (gases)	Dose level		1000 ppm	8 h	Human	Read-across	

Conclusion

Not classified for acute toxicity

Corrosion/irritation

butane, liquefied, under pressure

Route of exposure	Result	Method	Exposure time	Time point	Species	Value determination	Remark
Eye						Data waiving	
Skin						Data waiving	

Conclusion

Not classified as irritating to the skin

Not classified as irritating to the eyes

Not classified as irritating to the respiratory system

Respiratory or skin sensitisation

butane, liquefied, under pressure

Route of exposure	Result	Method	Exposure time	Observation time point	Species	Value determination	Remark
Skin						Data waiving	
Inhalation						Data waiving	

Conclusion

Not classified as sensitizing for skin

Not classified as sensitizing for inhalation

Specific target organ toxicity

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Route of exposure	Parameter	Method	Value	Organ	Effect	Exposure time	Species	Value determination
Oral								Data waiving
Dermal								Data waiving
Inhalation (gases)	NOAEC systemic effects	OECD 422	4000 ppm	General	No effect	6 weeks (6h/day, 7 days/week)	Rat (male/female)	Experimental value
Inhalation (gases)	LOAEC	OECD 422	12000 ppm	General	Body weight reduction	6 weeks (6h/day, 7 days/week)	Rat (male/female)	Experimental value

Conclusion

Not classified for subchronic toxicity

Mutagenicity (in vitro)

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Result	Method	Test substrate	Effect	Value determination
Negative with metabolic activation, negative without metabolic activation	OECD 471	Bacteria (S.typhimurium)	No effect	Experimental value
Negative with metabolic activation, negative without metabolic activation	OECD 473	Human lymphocytes	No effect	Experimental value

Mutagenicity (in vivo)

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Result	Method	Exposure time	Test substrate	Organ	Value determination
Negative	OECD 474	13 weeks (6h/day, 5 days/week)	Rat (male/female)	Bone marrow	Read-across

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Carcinogenicity

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Route of exposure	Parameter	Method	Value	Exposure time	Species	Value determination	Organ	Effect
Inhalation						Data waiving		
Dermal						Data waiving		
Oral						Data waiving		

Reproductive toxicity

butane, liquefied, under pressure

	Parameter	Method	Value	Exposure time	Species	Effect	Organ	Value determination
Developmental toxicity	NOAEC	OECD 422	9000 ppm	6 weeks (6h/day, 7 days/week)	Rat (male/female)	No effect		Read-across
	NOAEC	OECD 422	21394 mg/m ³ air	6 weeks (6h/day, 7 days/week)	Rat (male/female)	No effect		Read-across
	NOAEC	OECD 414	10426 ppm	2 weeks (6h/day, 7 days/week)	Rat (female)	No effect		Read-across
Maternal toxicity	NOAEC	OECD 414	10426 ppm	2 weeks (6h/day, 7 days/week)	Rat (female)	No effect		Read-across
Effects on fertility	NOAEC	OECD 422	9000 ppm	6 weeks (6h/day, 7 days/week)	Rat (male/female)	No effect		Read-across

Conclusion CMR

- Not classified for carcinogenicity
- Not classified for mutagenic or genotoxic toxicity
- Not classified for reprotoxic or developmental toxicity

Toxicity other effects

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No (test) data available

Chronic effects from short and long-term exposure

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No effects known.

SECTION 12: Ecological information

12.1. Toxicity

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	Parameter	Method	Value	Duration	Species	Test design	Fresh/salt water	Value determination
Acute toxicity fishes	LC50		> 1000 mg/l	96 h	Pimephales promelas			QSAR
Acute toxicity invertebrates	LC50		4.2 mg/l - 8.4 mg/l	48 h	Daphnia magna			QSAR
	ECO		0.6 mg/l - 0.9 mg/l	504 h	Daphnia magna			QSAR
Toxicity algae and other aquatic plants	EC50		5.3 mg/l - 5.5 mg/l	72 h	Algae			QSAR

Conclusion

- Not harmful to fishes
- Toxic to invertebrates (Daphnia)
- Toxic to algae
- Not classified as dangerous for the environment according to the criteria of Regulation (EC) No 1272/2008

12.2. Persistence and degradability

butane, liquefied, under pressure

Biodegradation water

Method	Value	Duration	Value determination
OECD 301E: Modified OECD Screening Test	≥ 70 %		Experimental value

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Half-life soil (t_{1/2} soil)

Method	Value	Primary degradation/mineralisation	Value determination
			Not applicable (gas)

Conclusion

Readily biodegradable in water

12.3. Bioaccumulative potential

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Log Kow

Method	Remark	Value	Temperature	Value determination
		2.89		Experimental value

Conclusion

Low potential for bioaccumulation (Log Kow < 4)

12.4. Mobility in soil

Not applicable (gas)

12.5. Results of PBT and vPvB assessment

Substance does not meet the criteria of PBT, nor the criteria of vPvB according to Annex XIII of Regulation (EC) No 1907/2006, so is neither PBT nor vPvB.

12.6. Other adverse effects

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Global warming potential (GWP)

Not included in the list of fluorinated greenhouse gases (Regulation (EC) No 517/2014)

Ozone-depleting potential (ODP)

Not classified as dangerous for the ozone layer (Regulation (EC) No 1005/2009)

SECTION 13: Disposal considerations

The information in this section is a general description. If applicable and available, exposure scenarios are attached in annex. Always use the relevant exposure scenarios that correspond to your identified use.

13.1. Waste treatment methods

13.1.1 Provisions relating to waste

Waste material code (Directive 2008/98/EC, Decision 2000/0532/EC).

16 05 04* (gases in pressure containers and discarded chemicals: gases in pressure containers (including halons) containing dangerous substances).

Depending on branch of industry and production process, also other waste codes may be applicable. Hazardous waste according to Regulation (EU) No 1357/2014.

13.1.2 Disposal methods

Refer to manufacturer/supplier for information on recovery/ recycling. Remove waste in accordance with local and/or national regulations. Hazardous waste shall not be mixed together with other waste. Different types of hazardous waste shall not be mixed together if this may entail a risk of pollution or create problems for the further management of the waste. Hazardous waste shall be managed responsibly. All entities that store, transport or handle hazardous waste shall take the necessary measures to prevent risks of pollution or damage to people or animals.

13.1.3 Packaging/Container

Waste material code packaging (Directive 2008/98/EC).

15 01 10* (packaging containing residues of or contaminated by dangerous substances).

SECTION 14: Transport information

Road (ADR)

14.1. UN number

UN number	1011
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14.2. UN proper shipping name

Proper shipping name	Butane
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14.3. Transport hazard class(es)

Hazard identification number	23
Class	2
Classification code	2F

14.4. Packing group

Packing group	
Labels	2.1

14.5. Environmental hazards

Environmentally hazardous substance mark	no
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14.6. Special precautions for user

Special provisions	652
Special provisions	657

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Special provisions	660
Special provisions	
Special provisions	662
Limited quantities	none.

Rail (RID)

14.1. UN number	
UN number	1011
14.2. UN proper shipping name	
Proper shipping name	Butane
14.3. Transport hazard class(es)	
Hazard identification number	23
Class	2
Classification code	2F
14.4. Packing group	
Packing group	
Labels	2.1 (+13)
14.5. Environmental hazards	
Environmentally hazardous substance mark	no
14.6. Special precautions for user	
Special provisions	657
Special provisions	660
Special provisions	662
Limited quantities	none.

Inland waterways (ADN)

14.1. UN number	
UN number	1011
14.2. UN proper shipping name	
Proper shipping name	Butane
14.3. Transport hazard class(es)	
Class	2
Classification code	2F
14.4. Packing group	
Packing group	
Labels	2.1
14.5. Environmental hazards	
Environmentally hazardous substance mark	no
14.6. Special precautions for user	
Special provisions	657
Special provisions	660
Special provisions	662
Limited quantities	none.

Sea (IMDG/IMSBC)

14.1. UN number	
UN number	1011
14.2. UN proper shipping name	
Proper shipping name	Butane
14.3. Transport hazard class(es)	
Class	2.1
14.4. Packing group	
Packing group	
Labels	2.1
14.5. Environmental hazards	
Marine pollutant	-
Environmentally hazardous substance mark	no
14.6. Special precautions for user	
Special provisions	
Limited quantities	none.
14.7. Transport in bulk according to Annex II of Marpol and the IBC Code	
Annex II of MARPOL 73/78	Not applicable

Air (ICAO-TI/IATA-DGR)

14.1. UN number	
UN number	1011
14.2. UN proper shipping name	
Proper shipping name	Butane
14.3. Transport hazard class(es)	

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Class	2.1
14.4. Packing group	
Packing group	
Labels	2.1
14.5. Environmental hazards	
Environmentally hazardous substance mark	no
14.6. Special precautions for user	
Special provisions	A1
Passenger and cargo transport: limited quantities: maximum net quantity per packaging	

SECTION 15: Regulatory information

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

European legislation:

VOC content Directive 2010/75/EU

VOC content	Remark
100 %	

REACH Annex XVII - Restriction

Subject to restrictions of Annex XVII of Regulation (EC) No. 1907/2006: restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles.

	Designation of the substance, of the group of substances or of the mixture	Conditions of restriction
butane	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 that Regulation or not.	1. Shall not be used, as substance or as mixtures in aerosol dispensers where these aerosol dispensers are intended for supply to the general public for entertainment and decorative purposes such as the following: — metallic glitter intended mainly for decoration, — artificial snow and frost, — “whoopee” cushions, — silly string aerosols, — imitation excrement, — horns for parties, — decorative flakes and foams, — artificial cobwebs, — stink bombs.2. Without prejudice to the application of other Community provisions on the classification, packaging and labelling of substances, suppliers shall ensure before the placing on the market that the packaging of aerosol dispensers referred to above is marked visibly, legibly and indelibly with: “For professional users only”.3. By way of derogation, paragraphs 1 and 2 shall not apply to the aerosol dispensers referred to Article 8 (1a) of Council Directive 75/ 324/EEC.4. The aerosol dispensers referred to in paragraphs 1 and 2 shall not be placed on the market unless they conform to the requirements indicated.

National legislation The Netherlands

Waste identification (the Netherlands)	LWCA (the Netherlands): KGA category 06
Waterbezwaarlijkheid	7

National legislation Germany

Schwangerschaft Gruppe	D
WGK	nwg; Classification non-water polluting in compliance with Verwaltungsvorschrift wassergefährdender Stoffe (VwVwS) of 27 July 2005 (Anhang 1)
TA-Luft	5.2.5

National legislation France

No data available

National legislation Belgium

No data available

Other relevant data

No data available

15.2. Chemical safety assessment

A chemical safety assessment has been performed.

SECTION 16: Other information

Full text of any H-statements referred to under headings 2 and 3:

H220 Extremely flammable gas.

H280 Contains gas under pressure; may explode if heated.

(*) = INTERNAL CLASSIFICATION BY BIG

PBT-substances = persistent, bioaccumulative and toxic substances

CLP (EU-GHS) Classification, labelling and packaging (Globally Harmonised System in Europe)

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The information in this safety data sheet is based on data and samples provided to BIG. The sheet was written to the best of our ability and according to the state of knowledge at that time. The safety data sheet only constitutes a guideline for the safe handling, use, consumption, storage, transport and disposal of the substances/preparations/mixtures mentioned under point 1. New safety data sheets are written from time to time. Only the most recent versions may be used. Old versions must be destroyed. Unless indicated otherwise word for word on the safety data sheet, the information does not apply to substances/preparations/mixtures in purer form, mixed with other substances or in processes. The safety data sheet offers no quality specification for the substances/preparations/mixtures in question. Compliance with the instructions in this safety data sheet does not release the user from the obligation to take all measures dictated by common sense, regulations and recommendations or which are necessary and/or useful based on the real applicable circumstances. BIG does not guarantee the accuracy or exhaustiveness of the information provided and cannot be held liable for any changes by third parties. This safety data sheet is only to be used within the European Union, Switzerland, Iceland, Norway and Liechtenstein. Any use outside of this area is at your own risk. Use of this safety data sheet is subject to the licence and liability limiting conditions as stated in your BIG licence agreement or when this is failing the general conditions of BIG. All intellectual property rights to this sheet are the property of BIG and its distribution and reproduction are limited. Consult the mentioned agreement/conditions for details.

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