

SAFETY DATA SHEET

Prepared in accordance with Commission Regulation (EC) No 1907/2006,
and Commission Regulation (EC) No 1272/2008.

SECTION 1: IDENTIFICATION OF THE SUBSTANCE AND OF THE COMPANY

1.1 Product identifier

Trade name: Butane gas cartridge 227 g

Catalogue number: 20-030

1.2 Relevant identified uses of the substance and uses advised against

Identified uses: Gas tank in cartridge form for gas burners.

Uses advised against: Not specified.

1.3 Details of the safety data sheet

Supplier:

Grupa Topex Sp. z o.o. Limited Partnership

2/4 Pograniczna Street, 02-285 Warsaw

Tel: +48 22 57 30 300

fax: +48 22 57 30 400

E- mail of the person responsible for the safety data sheet: : p.kowalski@gtxservice.pl

1.4 Emergency telephone number

Emergency telephone: 112

Date drafted/updated: 27.11.2020

SECTION 2: HAZARD IDENTIFICATION

2.1 Classification of the substance

2.1.1 Classification according to Regulation (EC) No 1272/2008 (CLP)

Flammable gases, hazard category 1 (Flam. Gas 1)

Gases under pressure (liquefied gas)

2.1.2 Classification according to directive 199/45/EC

Extremely flammable gas

2.2 Label elements

2.2.1 Labelling according to Regulation (EC) No 1272/2008 (CLP)

Symbols:



Signal word:

Danger

Hazard statements:

H220 - Extremely flammable gas.

H280 - Contains gas under pressure, may explode if heated

Precautionary statements:

P210 - Keep away from heat, hot surfaces, sparks, open flames and other sources of ignition. No smoking.

P410 + P403 - Protect from sunlight. Store in a well-ventilated place.

2.3 Other hazards

CERCLA Index (0 ~ 3)

Health = 1, Fire = 3, Reactivity = 0, Durability = 0

NFPA Index (0 ~ 4)

Health = 1, Fire = 4, Reactivity = 0

Additional information:

SAFETY DATA SHEET

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The provisions of Regulation 1272/2008 (CLP) Annex 1, section 1.3.2 apply.

"When propane, butane and liquefied petroleum gas or mixtures containing these substances, classified in accordance with the criteria of this Annex, are placed on the market in sealed reusable cylinders or as non-refillable cartridges under EN 417 as a gaseous fuel for combustion only (current edition of EN 417 relating to 'Non-refillable metallic liquid gas cartridges with or without valve, for use in portable appliances; Construction, inspection, testing and marking'), such cylinders or cartridges shall be marked only with the appropriate pictogram and hazard and flammability precautionary statements".

No information on human health and environmental impacts is required on the label. Instead, the supplier shall communicate information on human health and environmental effects to lower level users or distributors by means of a safety data sheet (SDS).

SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

3.1 Mixture

Ingredients	%	Classification
Isobutane CAS No. 75-28-5	36.0	Classification according to Regulation (EC) No 1272/2008 - Flammable gases, hazard category 1 - Gases under pressure (liquefied gas)  
Propane CAS No. 74-98-6	2.0	Classification according to Regulation (EC) No 1272/2008 - Flammable gases, hazard category 1 - Gases under pressure (liquefied gas)  
N-Butane CAS No. 106-97-8	60.0	Classification according to Regulation (EC) No 1272/2008 - Flammable gases, hazard category 1 - Gases under pressure (liquefied gas)  

SAFETY DATA SHEET

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SECTION 4: FIRST AID MEASURES

4.1 Description of first aid measures

Inhalation: comfortable	Remove the affected person from the place of exposure, place in a semi-recumbent or sitting position, ensure calmness, protect from loss of heat. If respiratory distress occurs, administer artificial breathing. If symptoms persist, call a doctor. Treat as appropriate depending on the symptoms. Take appropriate medical action.
Skin contact:	Wash off thoroughly with a soft detergent and plenty of water (15 ~ 20 minutes). If symptoms such as frostbite are present and freezing, follow these steps. Warm up the affected part water at 41.7 °C (107 °F). Gently swirl the affected part with a blanket. Take immediate medical action.
Eye contact:	Flush eyes immediately with plenty of water or saline solution, until no chemicals remain. Take immediate medical action.
Gastrointestinal tract:	Treat appropriately based on symptoms. Take immediate medical action

SECTION 5: FIREFIGHTING MEASURES

5.1 Extinguishing media

Powder extinguisher, carbon dioxide (use water or mist in case of fire).

5.2 Special hazards arising from the substance or mixture

It can burst or explode when exposed to heat or a spark.

Heavier than air, there is the possibility of ignition and backfire.

The container may explode if exposed to heat or fire.

A mixture of gas and air can explode.

Poor electrical conductivity can cause static electricity and ignition from a spark.

5.3 Advice for firefighters

If it is not dangerous, remove from the scene of the fire.

Once the fire is extinguished, spray the side of the container that is exposed to the heat with cooling water.

Evacuation during a gas leak.

Use a fire hose or appropriate type of fire extinguisher if a fire occurs in the storage area and leave it burnt out if this is difficult.

Remove immediately if the flame has grown larger or the container has discoloured due to heat.

Leave burned and isolated for more than 1 mile if we cannot stop leaks from the fuel tank and tanker truck.

Extinguish if gas leak can be stopped. Use plenty of water as a mist from a distance.

Keep away - 8.045 km diameter, if the fire gets out of control or the container is exposed to flame.

Do not inhale smoke from burning materials with your back to the wind.

5.4 Special information

No data available

SAFETY DATA SHEET

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SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Avoid heat, flame, sparks and other sources of ignition.

Do not touch spilled material.

If it is safe to do so, stop the spillage, do so.

Spray with water to reduce fumes.

Isolate the area until the gas has evaporated.

No smoking, flame or fire in the hazardous area.

Prohibition of unauthorised entry and isolation of the dangerous and restricted area.

Ventilate the enclosed area before entering.

6.2 Environmental precautions

No data available

6.3 Methods and material for containment and cleaning up

No data available

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling

Store and handle in accordance with central and local government regulations.

I recommend practical training on static electricity.

7.2 Conditions for safe storage, including any incompatibilities

Please isolate and store materials separate from other materials that should not be assembled at the same time.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Occupational exposure limit values

Exposure standard: industry health and safety regulations

Ingredients	OSHA TWA	ACGIH TWA	NIOSH TWA
Isobutane	No data	800 ppm (1900 mg/m ³)	800 ppm (1900 mg/m ³)
Propane	1000 ppm (1800 mg/m ³)	2500 ppm	1000 ppm (1800 mg/m ³)
N-Butane	800 ppm (1900 mg/m ³)	800 ppm	800 ppm (1900 mg/m ³)

8.2 Appropriate technical inspections

Configure partial ventilation or general dilution ventilation.

Install explosion protection devices for the relevant ventilation equipment if there is a possibility of explosion of the material.

The employer should install washing equipment and a shower cubicle close to the workplace, as it is possible that the worker's eye may be exposed to foreign bodies.

SAFETY DATA SHEET

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8.3 Personal protective equipment

Eye protection

For gas, eye protection is not required, but recommended.

Protective goggles are required for liquid, spray or dust to avoid direct contact with foreign bodies. Do not use a contact lens

Protective clothing

In the case of gas, protective clothing is not necessary. In the case of possible contact with the liquid, the worker must wear appropriate protective clothing and equipment to prevent skin frostbite.

Protective gloves

Wear insulated gloves and gloves to protect against cold.

Respiratory protection

If the gas concentration exceeds the limit, use an externally supplied air mask, which is recommended in the NIOSH guide or in the standard chemical hazards report established by the US Department of Health and Human Services. The specifically selected mask should be based on the density of contaminants in the workplace and not exceed the operating limit of the respirator, and ultimately approved simultaneously by NIOSH and NSHA.

SAFETY DATA SHEET

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SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Properties	Isobutane	Propane	N-Butane
State of aggregation	Liquid and vapour	Liquid and vapour	Liquid and vapour
Fragrance	Fragrance-free	Fragrance-free	Fragrance-free
Odour threshold	No data available	No data available	No data available
pH	Not applicable	Not applicable	Not applicable
Melting point/freezing point	-160 °C	-187,7 °C	-138,3 °C
Boiling point	-11,5 °C	-42,1 °C	-0,5 °C
Flash point	-88,0 °C	-104,4 °C	-73,3 °C
Evaporation rate	100 %	100 %	100 %
Flammability (solid, gas)	No possibility of measurement	No possibility of measurement	No possibility of measurement
Upper/lower flammability or explosive limits	8.4 % vol. 1.8 % vol.	9.5 % vol. 2.2 % vol.	8.4 % vol. 1.9 % vol.
Vapour pressure	0.304 MPa (20 °C)	0.75 MPa (20 °C)	0.214 MPa (21.1 °C)
Vapour density	2,595 (air=1)	1.55 (air=1)	2.1 (air=1)
Relative density	0,549 (20 °C)	0,501 (20 °C)	0,549 (20 °C)
Solubility	no way to know	0.007 g/100 mL (20 °C)	3.25 mL/100 mL (20 °C)
Partition coefficient: n-octanol / water	2.8 as log P _{OW}	2.36 as log P _{OW}	2.89 as log P _{OW}
Auto-ignition temperature	460 °C	466,1 °C	287 °C
Decomposition temperature	No possibility of measurement	No possibility of measurement	No possibility of measurement
Viscosity	No data available	No data available	No data available
Explosive properties	No data available	No data available	No data available
Oxidising properties	No data available	No data available	No data available

SECTION 10: STABILITY and REACTIVITY

10.1 Reactivity

Stable at normal pressure and temperature.

10.2 Chemical stability

No data available.

10.3 Possibility of hazardous reactions

Unknown dangerous situations.

10.4 Conditions to avoid

Avoid contact with heat, flame, sparks and other ignition sources.
The vapours are explosive.

SAFETY DATA SHEET

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Do not touch the skin.
Can cause frostbite.
Under the influence of heat, containers can burst by the effects of pressure and can therefore move to large distances.
Strong oxidant: Risk of fire, explosion.
Nitric acid, chlorine dioxide: Material to be avoided.
Nickel carbonyl and acid: Explode at (20 ~ 40) °C.
Pyrolysis product may contain toxic oxidised substance by coal.

10.5 Incompatible materials

10.6 Hazardous decomposition products

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Routes of exposure

No data available.

11.2 Information on toxicological effects

Acute toxicity:

No toxicity by inhalation.

Skin corrosion/irritation:

Contact with liquid may cause frostbite, pain and water blisters.

Serious eye damage/eye irritation:

Not irritating.

Contact with the liquid can cause frostbite, pain and loss of vision.

Respiratory or skin sensitisation:

No data available.

Mutagenic effect on germ cells:

No data available.

Carcinogenicity:

This product is or contains an ingredient that is not likely to be carcinogenic based on IARC, ACGIH, NTP or EPA classification.

Reproductive toxicity:

No data available.

Single exposure to STOT:

Simple choking agent and central nervous system inhibitor.

Multiple exposure STOT:

No data available.

Aspiration hazard:

No data available.

SECTION 12: ECOLOGICAL INFORMATION

12.1 Ecotoxicity

No data available.

12.2 Persistence and degradability

No data available.

12.3 Bioaccumulative potential

No data available.

12.4 Mobility in soil

No data available.

12.5 Other adverse effects

No data available.

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SECTION 13: WASTE TREATMENT

- 13.1 Disposal instructions** Central and local government regulations must be observed provisions for autonomous units.
Disposal will be carried out in accordance with 40 CFR 262 applicable to a hazardous waste generator.
EPA Hazardous Waste No. D001.
- 13.2 Waste from residues / unused products** No data available.
- 13.3 Contaminated packaging** No data available.

SECTION 14: TRANSPORT INFORMATION

- 14.1 UN number** UN 2037
- Propane: LPG, UN 1075
- Iso-Butane: Iso-Butane, United Nations 1999
- N-butane: mixture of N-butane or N-butane UN 1011
- 14.2 Proper shipping name** UN RECEPTACLES, SMALL, CONTAINING GAS (CARTRIDGES
WITH
GAS) without release device, disposable LQ2
- 14.3 Transport hazard class(es)** 2.1
- 14.4 Packing group** N.A.
- 14.5 Environmental risks** N.A.
- 14.6 Special precautions for users** Passenger aircraft or train: Prohibited
Transport aircraft: 150 kg

SECTION 15: REGULATORY INFORMATION

- 15.1 Legal information**
This Safety Data Sheet complies with the requirements of Regulation (EC) No 1907/2006.
- 15.2 Chemical safety assessment:**
No data available.
- 15.3 Stocks**
No data available.

SECTION 16: OTHER INFORMATION

The content and format of this safety data sheet / safety data sheet are in accordance with Regulation (EC) No 1907/2006.

- Bibliography

Other safety data sheets (TAEYANG Corporation, GS Caltex Corporation, Korea Petro Chemical Ind. Co., Ltd., Aldirch, Shell Trading International Limited, etc.).

KOSHA - Chemical information database system

ESIS (European Chemicals Information System) (<http://ecb.jrc.ec.europa.eu/>)

International Uniform Chemical Database (IUCLID) (<http://ecb.jrc.it/esis>)

SAFETY DATA SHEET

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- Abbreviation and acronyms

ACGIH - American Conference of Industrial Hygienists

CAS - Chemical Abstracts Service

CLP - Regulation on the classification, labelling and packaging of substances and mixtures. (Directive 67/548 / EEC)

EC - European Community

EEC - European Economic Community

EPA - Environmental Protection Agency

GHS - Global Harmonised System

IARC - International Agency for Research on Cancer

NIOSH - National Institute for Occupational Safety and Health

NTP - National Toxicology Programme

OSHA - Occupational Safety and Health Administration

STOT - Specific target organ toxicity

- Waiver of liability

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