



# SAFETY DATA SHEET

[in accordance with the criteria of Regulation no 1907/2006 (REACH) as amended]

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

- 1.1. Product identifier  
Container [cartridge] with propane-butane gas
- 1.2. Relevant identified uses of the substance or mixture and uses advised against  
Relevant identified uses: a gas container [cartridge] intended as a fuel for stoves and other gas-powered appliances used during caravanning or camping.  
Uses advised against: not determined.
- 1.3. Details of the supplier of the safety data sheet  
Supplier: Unilight Polska Sp. z o.o.  
Address: ul. Strzelińska 69; 55-010 Żerniki Wrocławskie, Poland  
Telephone: +48 71 74 000 25  
E-mail address for a competent person responsible for SDS: unilight@unilight.pl
- 1.4. Emergency telephone number  
112

## SECTION 2: Hazards identification

- 2.1. Classification of the substance or mixture  
Flam. Gas 1 H220, Press. Gas H280  
Extremely flammable gas. Contains gas under pressure; may explode if heated.

- 2.2. Label elements\*

Hazard pictograms and signal words



DANGER

Names of substances mentioned on the label

None.

Hazard statements

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

Precautionary statements

P102 Keep out of reach of children.  
P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.  
P243 Take action to prevent static discharges.  
P377 Leaking gas fire: Do not extinguish, unless leak can be stopped safely.  
P381 In case of leakage, eliminate all ignition sources.

\* The product in the form of a n-butane gas container should be labeled in accordance with the requirements of EN 417.

- 2.3. Other hazards

The components of the mixture do not meet the PBT or vPvB criteria according to Annex XIII of the REACH Regulation.



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The product does not contain substances included in the list established in accordance with Article 59(1) for having endocrine disrupting properties, and whether the substance is a substance identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 (3) or Commission Regulation (EU) 2018/605.

Substance is easily explosive when mixed with air (mixture of air and gas) and when there are sources of ignition in the vicinity or a direct contact of the container with flames. Gas substance is heavier than air, accumulates by the ground and depressions, lower parts of premises. There is a possibility of its inflammation. In high concentrations it may cause nausea, headaches and dizziness, in extreme cases symptoms lead to unconsciousness and death. The liquid phase may cause frostbite in contact with skin.

## SECTION 3: Composition/information on ingredients

### 3.1 Substances

Not applicable.

### 3.2 Mixtures

A complex combination of hydrocarbons produced by the distillation of crude oil. It consists of hydrocarbons having carbon numbers predominantly in the range of C<sub>3</sub> through C<sub>7</sub> and boiling in the range of approximately – 40 °C to 80 °C.

CAS number: 68476-85-7 EC number: 270-704-2 Index number: 649-202-00-6 REACH number: 01-2119485911-31-XXXX	<u>Petroleum gases, liquefied</u> <i>(contains less than 0,1% wt. of 1,3-butadiene)</i> Flam. Gas 1 H220, Press. Gas H280	> 99%
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Full text of each relevant H phrase is in chapter 16.

## SECTION 4: First aid measures

### 4.1 Description of first aid measures

**Skin contact:** take off contaminated clothes and wash them before next use. Before removing contaminated clothing, wet it with water due to the fire hazard. In case of a quick release of the product, it may cause frostbite. Rinse frostbitten places with cool water. Take off all clothing, if possible. Do not take off if it cannot be removed easily. Warm frostbitten areas slowly. Cover with a sterile dressing. Do not use ointments and powders.

**Eye contact:** wash out with plenty of water (10-15 minutes) with the eyelid hold wide open. Protect non-irritated eye, remove contact lenses. Use sterile dressing in case of a frostbite. Consult a doctor immediately.

**Ingestion:** exposure by this route does not occur.

**Inhalation:** remove to fresh air. Keep warm and calm. Consult a doctor, if disturbing symptoms persist.

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

**Skin contact:** contact with liquefied gas can cause frostbite.

**Eye contact:** contact with liquefied gas can cause frostbite, cornea damage.

**Inhalation:** low concentration of gas in the air causes tearing, cough, narcosis, high concentration of gas causes dizziness, nausea, vomiting, dyspnea, clouding of consciousness, drowsiness, loss of consciousness.

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

Physician makes a decision regarding further medical treatment after thoroughly examination of the injured.

## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

**Suitable extinguishing media:** small fire: outdoors - leave the gas to burn out. In confined areas - extinguish with dry chemical or foam fire extinguisher.



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Large fire: isolate a source of gas and use water spray.

Unsuitable extinguishing media: water jet – risk of the propagation of the flame.

## 5.2 Special hazards arising from the substance or mixture

May produce toxic gases of carbon oxide if burning. Do not inhale combustion products, they can be dangerous for human health. Overheated containers with gas may explode.

## 5.3 Advice for firefighters

Personal protection typical in case of fire. Do not stay in the fire zone without self-contained breathing apparatus and protective clothing resistant to chemicals. Extremely flammable gas. Forms explosive mixture with air; the gas is heavier than air, accumulates by the ground and depressions, lower parts of premises. It displaces oxygen from the air. In case of fire or high temperature, cool endangered containers with water spray (danger of explosion), remove them from endangered zone, if possible. Collect used extinguishing media.

## SECTION 6: Accidental release measures

### 6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel: limit the access of the outsiders into the breakdown area, until the suitable cleaning operations are completed. Evacuate the bystanders from the danger zone. Prohibit smoking or using naked flame. Take precautionary measures against static discharges. Use personal protective equipment. Avoid contact with skin and eyes. Do not breathe gas.

For emergency responders: ensure that removing the problem and its results is conducted by a trained personnel only. Wear safety clothing.

### 6.2 Environmental precautions

Do not empty into drains, basements (danger of explosion). Notify relevant emergency services.

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

Small spillage: let the gas evaporate and ventilate the exposed area.

Large spillage: eliminate a source of the leakage if possible (close down the gas supply, seal the container), try to disperse the gas e.g. by using water mist or safety curtain.

### 6.4 Reference to other sections

Appropriate conduct with waste product – see section 13. Personal protective equipment – see section 8.

## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

Handle in accordance with good occupational hygiene and safety practices. When using do not eat, drink or smoke. Avoid contact of gas with skin, eyes and clothing. Do not pierce or burn, even after use. Use only in well-ventilated areas. Do not breath vapours. Protect from sources of ignition – do not smoke during filling. The product's vapours may form explosive mixture with air. Use personal protective equipment.

### 7.2 Conditions for safe storage, including any incompatibilities

Keep in dry, cool and well-ventilated areas. Keep away from sources of ignition. Avoid temperature above 50°C. Protect from direct exposure of sunlight. Do not store with food, beverages or feed for animals. Do not smoke, use open flame and sparking tools in the storage area. Ensure explosion-proof ventilation. Containers must be used in the upright position.

### 7.3 Specific end use(s)

Fuel for N-butane stoves and other appliances used during caravanning or camping.



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## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

The product does not contain any components with occupational exposure limit values established at the Community level.

Legal Basis: Commission Directive 2006/15/EC, 2000/39/EC, 2009/161/EC, 2017/164/EU, 2019/1831/EU.

Please check any national occupational exposure limit values in your country.

### 8.2 Exposure controls

#### Appropriate engineering controls

Use the product in accordance with good occupational hygiene and safety practices. When working, do not eat, drink or smoke. Before break and after work wash hands carefully. Ensure adequate ventilation. Avoid contact of liquefied gas with skin, eyes and clothing.

#### Individual protection measures, such as personal protective equipment

##### Skin protection

Use protective gloves made of neoprene or nitril rubber (according to EN 374). Gloves should be flexible at a temperature below the atmospheric boiling point of the gas. It may be necessary to increase the frequency of changing gloves in case of immersion or prolonged contact with the product. Use protective clothing.

When using protective gloves during work with chemical products, it should be noted that the efficacy levels and corresponding breakthrough times do not indicate actual times of protection at a particular workplace, because the protection can be affected by many factors, e.g. temperature, other substances etc. If there are any signs of degradation, damage or change in appearance (colour, flexibility, shape), it is recommended to replace the gloves with a new pair. Please follow the manufacturer's instructions, not only in terms of gloves' usage, but also in terms of their cleaning, maintenance and storage. It is also important to know how to take off the gloves in order to avoid hands contamination.

##### Eye/face protection

Use protective glasses (according to EN 166) if there is a risk of spraying liquefied gas.

##### Respiratory protection

Not required in normal conditions of use, in case of exposure to high concentrations of gas or in emergency situations, use respiratory protection. If concentration of oxygen is  $\leq 19\%$  and/or maximal concentration of gas in the air is  $\geq 1\%$  vol., self-contained breathing apparatus should be used.

##### Thermal hazards

Use protective gloves in accordance with EN 511 to protect against the cold if there is a risk of contact with the liquid gas (possible frostbite).

Personal protective equipment must meet requirements of regulation (EU) 2016/425. Employer is obliged to ensure equipment adequate to activities carried out, with quality demands, cleaning and maintenance.

##### Environmental exposure controls

Gas evaporates very quickly after releasing to the environment. Do not empty into drains. Possible emissions from the ventilation systems and processing equipment should be controlled in order to determinate their compatibility with environmental protection regulations.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

Physical state	liquefied gas
Colour	colourless
Odour	characteristic, weak
Melting point/freezing point	not applicable
Boiling point or initial boiling point and boiling range	-42-0 °C
Flammability	extremely flammable gas.
Lower and upper explosion limit	1,9 % vol./9,6 % vol.



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Flash point	-96 to -60 °C
Auto-ignition temperature	> 287 °C
Decomposition temperature	not determined
pH	not applicable
Kinematic viscosity	not determined
Solubility	< 0,1 g/l in water
Partition coefficient n-octanol/water (log value)	not determined
Vapour pressure (20 °C):	1200-7500 hPa
Density and/or relative density	0,5-0,58 g/cm <sup>3</sup>
Relative vapour density	1,55-2,08 (air=1)
Particle characteristics	not applicable

## 9.2 Other information

### Information with regard to physical hazard classes

None.

### Other safety characteristics

None.

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

Product is feebly reactive. Product does not undergo a dangerous polymerization.

### 10.2 Chemical stability

The product is stable under normal conditions of storage and use.

### 10.3 Possibility of hazardous reactions

Gas forms explosive mixture with air. It reacts explosively with chlorine oxide and strong oxidizing agents and barium peroxide at high temperature.

### 10.4 Conditions to avoid

Avoid direct exposure to sunlight, sources of heat and fire, temperatures above 50°C and static discharges.

### 10.5 Incompatible materials

Strong oxidizing agents.

### 10.6 Hazardous decomposition products

Not known.

## SECTION 11: Toxicological information

### 11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

Information regarding acute and/or delayed results of the exposure was defined on the basis of the information on product's classification and/or toxicological studies as well as the experience and knowledge of the manufacturer.

#### Acute toxicity

Based on available data, the classification criteria are not met.

#### Skin corrosion/irritation

Based on available data, the classification criteria are not met.

#### Serious eye damage/irritation

Based on available data, the classification criteria are not met.

#### Respiratory or skin sensitisation

Based on available data, the classification criteria are not met.



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## Germ cell mutagenicity

Based on available data, the classification criteria are not met.

## Carcinogenicity

Based on available data, the classification criteria are not met.

## Reproductive toxicity

Based on available data, the classification criteria are not met.

## STOT-single exposure

Based on available data, the classification criteria are not met.

## STOT-repeated exposure

Based on available data, the classification criteria are not met.

## Aspiration hazard

Based on available data, the classification criteria are not met.

## Symptoms related to the physical, chemical and toxicological characteristics

Due to the displacement of oxygen from the surrounding air, when inhaled, the symptoms of drowsiness, shortness of breath, rapid breathing, breathing difficulties may occur. Disorientation, nausea, vomiting, and loss of consciousness may occur at a high concentration of the mixture and if the oxygen content in the air is below 18%.

## 11.2 Information on other hazards

### Endocrine disrupting properties

None.

### Other information

None.

## SECTION 12: Ecological information

### 12.1 Toxicity

No specific data concerning toxicity. Product is not classified as dangerous for environment.

### 12.2 Persistence and degradability

Fast oxidation in photochemical reaction in air.

### 12.3 Bioaccumulative potential

Does not accumulate.

### 12.4 Mobility in soil

Product evaporates very quickly from soil and water. It disperses quickly in air.

### 12.5 Results of PBT and vPvB assessment

The substances contained in the product do not meet the PBT or vPvB criteria according to Annex XIII of the REACH Regulation.

### 12.6 Endocrine disrupting properties

The product does not contain substances included in the list established in accordance with Article 59(1) for having endocrine disrupting properties, and whether the substance is a substance identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 (3) or Commission Regulation (EU) 2018/605.

### 12.7 Other adverse effects

The mixture is not classified as hazardous to the ozone layer. Consider other harmful effects of individual components of the mixture on the environment (eg, endocrine disrupting potential, global warming potential).



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## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods

Disposal methods for the product: taking into account the nature and the use of the product, the need of removing it is rare. Recommended method of disposal: burning. Recommended waste code: 16 05 04\*.

Disposal methods for used packing: reuse/recycle/eliminate empty containers in accordance with the local legislation. Only completely empty containers may be recycled. Do not pierce or burn used containers.

Legal basis: Directive 2008/98/EC as amended, 94/62/EC as amended.

## SECTION 14: Transport information

### 14.1 UN number or ID number

UN 2037

### 14.2 UN proper shipping name

RECEPTACLES, SMALL, CONTAINING GAS (GAS CARTRIDGES)

### 14.3 Transport hazard class(es)

2

### 14.4 Packing group

Not applicable.

### 14.5 Environmental hazards

Mixture is not hazardous to the environment.

### 14.6 Special precautions for user

Packages shall not be thrown or subjected to impact. Receptacles shall be so stowed in the vehicle or container that they cannot overturn or fall.

### 14.7 Maritime transport in bulk according to IMO instruments

Not applicable.



## SECTION 15: Regulatory information

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

Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorization and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC as amended.

Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006 as amended.

Commission Regulation (EU) 2015/830 of 28 May 2015 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH).

Commission Regulation (EU) No 2016/425 of the European Parliament and of the Council of 9 March 2016 on personal protective equipment and repealing Council Directive 89/686/EEC.

European Parliament and of Council Directive 2008/98/EC of 19 November 2008 on waste and repealing certain Directives as amended.

European Parliament and Council Directive 94/62/EC of 20 December 1994 on packaging and packaging waste as amended.

Commission Regulation (EU) No 2020/878 of 18 June 2020 amending Annex II to Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH).



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European Agreement concerning the International Carriage of Dangerous Goods by Road (ADR).

Commission Directive 2000/39/EC of 8 June 2000 establishing a first list of indicative occupational exposure limit values in implementation of Council Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work.

Commission Directive 2006/15/EC of 7 February 2006 establishing a second list of indicative occupational exposure limit values in implementation of Council Directive 98/24/EC and amending Directives 91/322/EEC and 2000/39/EC.

Commission Directive 2009/161/EU of 17 December 2009 establishing a third list of indicative occupational exposure limit values in implementation of Council Directive 98/24/EC and amending Commission Directive 2000/39/EC.

Commission Directive 2017/164/EU of 31 January 2017 establishing a fourth list of indicative occupational exposure limit values pursuant to Council Directive 98/24/EC, and amending Commission Directives 91/322/EEC, 2000/39/EC and 2009/161/EU.

Commission Directive 2019/1831/EU of 24 October 2019 establishing a fifth list of indicative occupational exposure limit values pursuant to Council Directive 98/24/EC and amending Commission Directive 2000/39/EC.

## 15.2 Chemical safety assessment

It is not necessary to carry out a chemical safety assessment for the mixture.

### SECTION 16: Other information

#### Full text of indicated H phrases mentioned in chapter 3

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

#### Clarification of aberrations and acronyms

PBT                Persistent, Bioaccumulative and Toxic substance  
vPvB              very Persistent, very Bioaccumulative substance  
Flam. Gas 1      Flammable gas, category 1  
Press. Gas        Gases under pressure

#### Trainings

Before commencing working with the product, the user should learn the Health & Safety regulations, regarding handling chemicals, and in particular, undergo a proper workplace training. Persons related to the transportation of the dangerous goods in compliance with the ADR Agreement should be properly trained within the scope of performed tasks (general training, on-the-job training and training related to the safety issues).

#### Key literature references and sources of data

The data sheet was prepared on the basis of the safety data sheet provided by the manufacturer, literature data, internet databases as well as our knowledge and experience, taking into account current legislation.

#### Classification and procedures used to classify the mixture according to EC 1272/2008

Flam. Gas 1 H220, Press. Gas H280 – based on test results

#### Other data

Safety Data Sheet made by:               „THETA“ Technical Consulting

The information above is based on a current available data concerning the product, but also on the experience and knowledge in this field of the producer. They are neither a quality description of the product nor a guarantee of particular features. They are to be treated as aid to safety in transport, storage and usage of the product. That does not free the user from the responsibility of improper usage of the information above and also of improper compliance with the law norms in the field.