

Safety Data Sheet


according to OSHA HCS (29CFR 1910.1200) and WHMIS 2015 Regulations

Revision: April 25, 2019

1 Identification

- **Product identifier**
- **Trade name:** Butane Gas Cartridge
- **Other means of identification:** No other identifiers
- **Recommended use and restriction on use**
- **Recommended use:** Fuel
- **Restrictions on use:** No relevant information available.
- **Details of the supplier of the Safety Data Sheet**
- **Manufacturer/Supplier:**
 PICO Inc.
 71 Whitmore Road, Unit 3
 Woodbridge, Ontario
 Canada
 L4L 8G5
 1-800-267-6428
- **Emergency telephone number:**
 ChemTel Inc.
 (800)255-3924 (North America)
 +1 (813)248-0585 (International)

2 Hazard(s) identification

- **Classification of the substance or mixture**
 Flam. Gas 1 H220 Extremely flammable gas.
 Press. Gas H280 Contains gas under pressure; may explode if heated.
 Simple Asphyxiant May displace oxygen and cause rapid suffocation.
- **Label elements**
- **GHS label elements**
 The product is classified and labeled according to the Globally Harmonized System (GHS).
- **Hazard pictograms:**

 GHS02 GHS04
- **Signal word:** Danger
- **Hazard statements:**
 H220 Extremely flammable gas.
 H280 Contains gas under pressure; may explode if heated.
 May displace oxygen and cause rapid suffocation.
- **Precautionary statements:**
 P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
 P377 Leaking gas fire: Do not extinguish, unless leak can be stopped safely.
 P381 Eliminate all ignition sources if safe to do so.
 P410+P403 Protect from sunlight. Store in a well-ventilated place.
- **Other hazards** There are no other hazards not otherwise classified that have been identified.

(Cont'd. on page 2)

Safety Data Sheet

according to OSHA HCS (29CFR 1910.1200) and WHMIS 2015 Regulations

Revision: April 25, 2019







Trade name: Butane Gas Cartridge

(Cont'd. of page 1)

3 Composition/information on ingredients

· **Chemical characterization: Mixtures**

· **Components:**

106-97-8	Butane	 Flam. Gas 1, H220  Press. Gas, H280 Simple Asphyxiant	55-80%
75-28-5	Isobutane	 Flam. Gas 1, H220  Press. Gas, H280 Simple Asphyxiant	20-40%
74-98-6	Propane	 Flam. Gas 1, H220  Press. Gas, H280 Simple Asphyxiant	<5%

· **Additional information:**

For the listed ingredient(s), the identity and/or exact percentage(s) are being withheld as a trade secret.

4 First-aid measures

· **Description of first aid measures**

· **After inhalation:**

Supply fresh air.

Seek medical treatment in case of complaints.

· **After skin contact:**

In cases of frostbite, rinse with plenty of water. Do not remove clothing.

Seek medical treatment in case of complaints.

· **After eye contact:**

Remove contact lenses if worn.

Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

· **After swallowing:**

Unlikely route of exposure.

Do not induce vomiting; immediately call for medical help.

· **Most important symptoms and effects, both acute and delayed:**

Breathing difficulty

Dizziness

· **Danger:** May displace oxygen and cause rapid suffocation.

· **Indication of any immediate medical attention and special treatment needed:**

If necessary oxygen respiration treatment.

5 Fire-fighting measures

· **Extinguishing media**

· **Suitable extinguishing agents:**

Carbon dioxide

Fire-extinguishing powder

Foam

Sand

Water fog / haze

(Cont'd. on page 3)

Safety Data Sheet

according to OSHA HCS (29CFR 1910.1200) and WHMIS 2015 Regulations

Revision: April 25, 2019

Trade name: Butane Gas Cartridge

(Cont'd. of page 2)

- **For safety reasons unsuitable extinguishing agents:** Water stream.
- **Special hazards arising from the substance or mixture**
Extremely flammable gas.
Danger of receptacles bursting because of high vapor pressure if heated.
- **Advice for firefighters**
- **Protective equipment:**
Wear self-contained respiratory protective device.
Wear fully protective suit.
- **Additional information:**
Eliminate all ignition sources if safe to do so.
In case of major fire and large quantities: Evacuate area. Fight fire remotely due to the risk of explosion.
Leaking gas fire: Do not extinguish, unless leak can be stopped safely.
Cool endangered receptacles with water spray.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**
Wear protective equipment. Keep unprotected persons away.
For large spills, use respiratory protective device against the effects of fumes/dust/aerosol.
Ensure adequate ventilation.
Keep away from ignition sources.
Protect from heat.
- **Environmental precautions** No special measures required.
- **Methods and material for containment and cleaning up**
Allow to evaporate.
Absorb liquid components with liquid-binding material.
- **Reference to other sections**
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

7 Handling and storage

- **Handling**
- **Precautions for safe handling:**
Use only in well ventilated areas.
Pressurized container: Do not pierce or burn, even after use.
- **Information about protection against explosions and fires:**
Keep ignition sources away - Do not smoke.
Emergency cooling must be available in case of nearby fire.
Pressurized container: May burst if heated.
- **Conditions for safe storage, including any incompatibilities**
- **Requirements to be met by storerooms and receptacles:**
Avoid storage near extreme heat, ignition sources or open flame.
- **Information about storage in one common storage facility:** Store away from oxidizing agents.
- **Further information about storage conditions:**
Store in a cool place. Heat will increase pressure and may lead to the receptacle bursting.

(Cont'd. on page 4)

Safety Data Sheet

according to OSHA HCS (29CFR 1910.1200) and WHMIS 2015 Regulations

Revision: April 25, 2019

Trade name: Butane Gas Cartridge

(Cont'd. of page 3)

· **Specific end use(s)** No relevant information available.

8 Exposure controls/personal protection

· **Control parameters**

· **Components with limit values that require monitoring at the workplace:**

106-97-8 Butane

REL (USA)	Long-term value: 1900 mg/m ³ , 800 ppm
TLV (USA)	Short-term value: 2370 mg/m ³ , 1000 ppm (EX)
EL (Canada)	Short-term value: 1000 ppm EX
EV (Canada)	Long-term value: 800 ppm revoked as of 01/01/18
LMPE (Mexico)	Long-term value: 1000 ppm

75-28-5 Isobutane

TLV (USA)	Short-term value: 2370 mg/m ³ , 1000 ppm (EX)
EL (Canada)	Short-term value: 1000 ppm EX
EV (Canada)	Long-term value: 800 ppm revoked as of 01/01/18
LMPE (Mexico)	Long-term value: 1000 ppm

74-98-6 Propane

PEL (USA)	Long-term value: 1800 mg/m ³ , 1000 ppm
REL (USA)	Long-term value: 1800 mg/m ³ , 1000 ppm
TLV (USA)	refer to Appendix F in TLVs&BEIs book; D, EX
EL (Canada)	Simple asphyxiant; EX
EV (Canada)	Long-term value: 1,000 ppm revoked as of 01/01/18
LMPE (Mexico)	Long-term value: 1000 ppm

· **Exposure controls**

· **General protective and hygienic measures:**

The usual precautionary measures for handling chemicals should be followed.

Keep away from foodstuffs, beverages and feed.

Wash hands before breaks and at the end of work.

· **Engineering controls:** No relevant information available.

· **Breathing equipment:** Not required under normal conditions of use.

· **Protection of hands:**

Not required under normal conditions of use.

Wear protective gloves to handle contents of damaged or leaking units.

· **Eye protection:** Follow relevant national guidelines concerning the use of protective eyewear.

· **Body protection:**

Protective work clothing

(Cont'd. on page 5)

Safety Data Sheet

according to OSHA HCS (29CFR 1910.1200) and WHMIS 2015 Regulations

Revision: April 25, 2019

Trade name: Butane Gas Cartridge

(Cont'd. of page 4)

Protection may be required for spills.

· **Limitation and supervision of exposure into the environment**

No relevant information available.

· **Risk management measures** No relevant information available.

9 Physical and chemical properties

· **Information on basic physical and chemical properties**

· **Appearance:**

· **Form:** Compressed liquefied gas

· **Color:** Colorless

· **Odor:** Like rotten eggs (mercaptans)

· **Odor threshold:** Not determined.

· **pH-value:** Not determined.

· **Melting point/Melting range:** Not determined.

· **Boiling point/Boiling range:** Not determined.

· **Flash point:** -60 °C (-76 °F)

· **Flammability (solid, gaseous):** Extremely flammable liquefied gas.

· **Auto-ignition temperature:** 365 °C (689 °F)

· **Decomposition temperature:** Not determined.

· **Danger of explosion:** Product is not explosive. However, formation of explosive air/vapor mixtures are possible.

· **Explosion limits**

· **Lower:** 1.5 Vol %

· **Upper:** 10 Vol %

· **Oxidizing properties:** Non-oxidizing.

· **Vapor pressure at 20 °C (68 °F):** 6.5 bar

· **Density:**

· **Relative density:** Not determined.

· **Vapor density:** Not determined.

· **Evaporation rate:** Not applicable.

· **Solubility in / Miscibility with**

· **Water:** Not miscible or difficult to mix.

· **Partition coefficient (n-octanol/water):** Not determined.

· **Viscosity**

· **Dynamic:** Not determined.

· **Kinematic:** Not determined.

· **Other information** No relevant information available.

10 Stability and reactivity

(Cont'd. on page 6)

Safety Data Sheet

according to OSHA HCS (29CFR 1910.1200) and WHMIS 2015 Regulations

Revision: April 25, 2019

Trade name: Butane Gas Cartridge

(Cont'd. of page 5)

- **Reactivity:** No relevant information available.
- **Chemical stability:** Stable under normal temperatures and pressures.
- **Thermal decomposition / conditions to be avoided:**
Danger of receptacles bursting because of high vapor pressure if heated.
- **Possibility of hazardous reactions**
Develops readily flammable gases / fumes.
Flammable.
Reacts with oxidizing agents.
Can form explosive mixtures in air if heated above flash point and/or when sprayed or atomized.
- **Conditions to avoid**
Keep ignition sources away - Do not smoke.
Store away from oxidizing agents.
- **Incompatible materials** No relevant information available.
- **Hazardous decomposition products**
Under fire conditions only:
Carbon monoxide and carbon dioxide

11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:** Based on available data, the classification criteria are not met.
- **LD/LC50 values that are relevant for classification:** None.
- **Primary irritant effect:**
- **On the skin:** Based on available data, the classification criteria are not met.
- **On the eye:** Based on available data, the classification criteria are not met.
- **Sensitization:** No sensitizing effects known.

· IARC (International Agency for Research on Cancer):
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None of the ingredients are listed.

· NTP (National Toxicology Program):

None of the ingredients are listed.

· OSHA-Ca (Occupational Safety & Health Administration):

None of the ingredients are listed.

- **Probable route(s) of exposure:**

Inhalation.
Eye contact.
Skin contact.

- **Acute effects (acute toxicity, irritation and corrosivity):**

May displace oxygen and cause rapid suffocation.

- **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.

(Cont'd. on page 7)

Safety Data Sheet

according to OSHA HCS (29CFR 1910.1200) and WHMIS 2015 Regulations

Revision: April 25, 2019

Trade name: Butane Gas Cartridge

(Cont'd. of page 6)



12 Ecological information

- **Toxicity**
- **Aquatic toxicity** No relevant information available.
- **Persistence and degradability** No relevant information available.
- **Bioaccumulative potential:** No relevant information available.
- **Mobility in soil:** No relevant information available.
- **Other adverse effects** No relevant information available.

13 Disposal considerations

- **Waste treatment methods**
- **Recommendation:**
Contact waste processors for recycling information.
The user of this material has the responsibility to dispose of unused material, residues and containers in compliance with all relevant local, state and federal laws and regulations regarding treatment, storage and disposal for hazardous and nonhazardous wastes.
- **Uncleaned packagings**
- **Recommendation:** Disposal must be made according to official regulations.

14 Transport information

- | | |
|---|----------------------------|
| · UN-Number | |
| · DOT, ADR/RID/ADN, IMDG, IATA | UN1075 |
| · UN proper shipping name | |
| · DOT, IATA | Petroleum gases, liquefied |
| · ADR/RID/ADN, IMDG | PETROLEUM GASES, LIQUEFIED |
| · Transport hazard class(es) | |
| · DOT | |
|  | |
| · Class | 2.1 |
| · Label | 2.1 |
| ----- | |
| · ADR/RID/ADN | |
|  | |
| · Class | 2 2F |
| · Label | 2.1 |

(Cont'd. on page 8)

Safety Data Sheet

according to OSHA HCS (29CFR 1910.1200) and WHMIS 2015 Regulations

Revision: April 25, 2019

Trade name: Butane Gas Cartridge

(Cont'd. of page 7)

· **IMDG, IATA**



· Class	2.1
· Label	2.1
· Packing group	This UN-number is not assigned a packing group.
· Environmental hazards	
· Marine pollutant:	No
· Special precautions for user	Warning: Gases
· Danger code (Kemler):	23
· EMS Number:	F-D,S-U
· Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable.

15 Regulatory information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **United States (USA)**
- **SARA**

· **Section 302 (extremely hazardous substances):**

None of the ingredients are listed.

· **Section 355 (extremely hazardous substances):**

None of the ingredients are listed.

· **Section 313 (Specific toxic chemical listings):**

None of the ingredients are listed.

· **TSCA (Toxic Substances Control Act)**

All ingredients are listed or exempt.

· **Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130):**

106-97-8	Butane	10000
75-28-5	Isobutane	10000
74-98-6	Propane	10000

· **Proposition 65 (California)**

· **Chemicals known to cause cancer:**

None of the ingredients are listed.

· **Chemicals known to cause developmental toxicity for females:**

None of the ingredients are listed.

· **Chemicals known to cause developmental toxicity for males:**

(Cont'd. on page 9)

Safety Data Sheet

according to OSHA HCS (29CFR 1910.1200) and WHMIS 2015 Regulations

Revision: April 25, 2019

Trade name: Butane Gas Cartridge

(Cont'd. of page 8)

None of the ingredients are listed.

· **Chemicals known to cause developmental toxicity:**

None of the ingredients are listed.

· **EPA (Environmental Protection Agency):**

None of the ingredients are listed.

· **IARC (International Agency for Research on Cancer):**

None of the ingredients are listed.

· **Canadian Domestic Substances List (DSL): (Substances not listed.)**

All ingredients are listed or exempt.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· **Abbreviations and acronyms:**

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

CAS: Chemical Abstracts Service (division of the American Chemical Society)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

OSHA: Occupational Safety & Health Administration

Flam. Gas 1: Flammable gases – Category 1

Press. Gas: Gases under pressure – Compressed gas

Press. Gas: Gases under pressure – Liquefied gas

· **Sources**

Website, European Chemicals Agency (echa.europa.eu)

Website, US EPA Substance Registry Services (ofmpub.epa.gov/sor_internet/registry/substreg/home/overview/home.do)

Website, Chemical Abstracts Registry, American Chemical Society (www.cas.org)

Patty's Industrial Hygiene, 6th ed., Rose, Vernon, ed. ISBN: 978-0-470-07488-6

Casarett and Doull's Toxicology: The Basic Science of Poisons, 8th Ed., Klaassen, Curtis D., ed., ISBN: 978-0-07-176923-5.

Safety Data Sheets, Individual Manufacturers

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