

SAFETY DATA SHEET

According to directive (EC) No. 1907/2006

Date of compilation: 8. 4. 2022	Product name: Cartridge 230 g and 450 g	Page 1 of 13
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SECTION 1: Identification of substance/mixture and of the company/business

1.1 Product identifier

Name: **Cartridge 230 g and 450 g (Product ID: 02006)**

Synonyms: Not oxidizing

Identification number: Not assigned

Registration number: Not assigned

The product itself is not and does not contain any nanoforms.

UFI code: X7J5-403T-900F-SUXC

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

Identified uses: Use only in mobile gas appliances

Uses advised against: Product is to be used for identified uses only.

1.3 Details of the supplier of the safety data sheet

Importer/distributor: MEVA-TEC s.r.o.

Full address of supplier: Chelčického 1228, 413 01 Roudnice nad Labem, Czech republic

Company ID: 62742051

Competent person responsible: Luboš Kindermann

Phone number: +420 416 823 111

E-mail address: Kindermann.Lubos@meva.eu

1.4 Emergency telephone number

Toxikologické informační středisko (Toxicology information center), Na Bojišti 1, Prague

(non-stop): + 420 224 919 293, + 420 224 915 402

Information only for health risks – acute poisoning of humans and animals.

SECTION 2: Hazards identification

Overall classification:

Flam. Gas 1: H220, Press. Gas: H280

2.1 Classification of the substance or mixture

Classification (1272/2008):	Classification	H-Statements
	Flam. Gas 1	H220
	Press. Gas	H280

Full-text of H statements is stated in section 16 of this safety data sheet.

Most important adverse physical effects and effects on human health and environment (in accordance with sections 9 to 12 of this safety data sheet)

Extremely flammable gas. Contains pressurized gas; can explode if heated.

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2.2 Label elements

Hazard pictogram according to EC Directive No. 1272/2008:



Signal word:

Danger

Standard 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 flame and other ignition sources. No smoking.

P251 Do not pierce or burn, even after use.

P377 Leaking gas fire: Do not extinguish unless leak can be stopped safely.

P381 In case of leakage eliminate all ignition sources.

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

P412 Do not expose to temperatures exceeding 50 °C/122 °F.

Additional label information

Contains hazardous substance in accordance with Annex II of part 2 of EC Directive No. 1272/2008:

Contains no such substance.

Labelling in accordance with Government order No. 194/2001 Coll. for aerosols:

Not required.

2.3 Other hazards

By the release date of this safety sheet the substance is not classified as PBT or vPvB nor is it by the date of creating of this safety data sheet mentioned in Annex XIV of REACH Directive or in Candidate list for Annex XIV of REACH Directive. The substance itself is not and does not contain endocrine disruptors.

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SECTION 3: Composition/information on ingredients

3.1 Substances

Product is a mixture of more than one substance.

3.2 Mixtures

Component identifier	Concentration/ concentration range in %	Index number Registration number CAS number ES number	Classification according to EC Directive 1272/2008	
			Class code and hazard category	Standard hazard statement code
Butan	40 - 45	601-004-00-0 --- 106-97-8 203-448-7	Flam. Gas 1	H220
Isobutane	25 - 30	601-004-00-0 --- 75-28-5 200-857-2	Flam. Gas 1	H220
Propane	21 - 28	601-003-00-5 --- 74-98-6 200-827-9	Flam. Gas 1	H220

Other component information

Mixture may contain components which are not classified as hazardous or which do not meet minimal concentration of hazardous substances in the mixture in accordance with EC Directive 1272/2008 and therefore are not listed here.

Full-text of H statements is stated in section 16 of this safety data sheet.

SECTION 4: First aid measures

4.1 Description of first aid measures

In case of contamination leave contaminated area, remove contaminated or soaked clothing, control basic bodily functions (blood circulation, breathing, consciousness), prevent hypothermia. In case of unconsciousness with spontaneous breathing and blood circulation put the affected person to recovery position. In case of breathing and cardiac arrest begin immediate resuscitation (heart massage). Immediately summon professional medical aid.

After inhalation: Interrupt the exposure, move the exposed person to fresh air and ensure physical and mental calmness. Keep person warm. If the symptoms persist, seek medical advice (especially if coughing, shortness of breath or other symptoms persist).

Skin contact: Remove contaminated clothing, flush contaminated skin with clean water flow. If there is no skin damage, soap, soap solution or shampoo may be used. If the symptoms persist, seek medical advice.

Eye contact: If contact lenses are in place, ensure their careful removal. Then flush with gentle flow of lukewarm water for at least 20 minutes (even under eyelids). If the symptoms persist, seek medical advice.

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Ingestion: Not possible way of exposition.

4.2 Most important symptoms and effects, both acute and delayed

May cause sleepiness and dizziness.

4.3 Indication of any immediate medical attention and special treatment needed

In case of any persisting symptoms (e.g. irritation) caused by contact with this product even after the first aid measures seek medical attention and show this safety data sheet.

There is no need to have specific means for specific and immediate treatment at the workplace.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media: Water, foam, extinguishing powder, carbon dioxide, water fog. Adjust extinguishing media to environs.

Unsuitable extinguishing media: High power water jet.

5.2 Special hazards arising from the substance or mixture

In the event of fire toxic gasses can be released. Heat of fire increases inner pressure of containers and causes their explosion, which is usually connected with ignition of flammable content. Exploding containers can fly out to the distances of tens of meters.

5.3 Advice for firefighters

Cool the containers with water mist. Do not enter the fire area without appropriate protective equipment and self contained breathing apparatus. Isolate endangered scene and prevent unauthorized persons from entering. Firefighting should be done from higher ground or downwind from the fire.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

6.1.1 For non-emergency personnel – instructions relating to accidental spills and release of the substance or mixture

Prevent direct contact with product. In indoor spaces ensure supply of fresh air. Use assigned personal protective equipment, as specified in section 8 of this safety data sheet. Do not smoke, do not use open flame or other ignition sources. Comply with common working and public health rules.

6.1.2 For emergency personnel

Materials for personal protective equipment: no special materials are required.

6.2 Environmental precautions

In case of leakage of liquified gas the developing gas and fog may accumulate in terrain depressions and get into areas located under terrain level or into sewerage and cause explosion hazard. It is necessary to cover the drains and to prevent substance leak into underground areas. In case of small spill ensure sufficient ventilation.

6.3 Methods and material for containment and cleaning up

6.3.1 Advices on how to contain a spill of substance or mixture

Liquified gas evaporates quickly. In case of small leakage of gas ensure sufficient ventilation.

6.3.2 Advices for cleaning up of substance of mixture

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Cover liquid residue of mixture with non-flammable absorbent material e.g. vapex, sand etc.

Thoroughly ventilate the spill area. Put the used (contaminated) sorbent into suitable hazardous waste container and dispose in accordance with valid legislation.

6.3.3 Other information relating to spills and releases, including advices on unsuitable methods for containment or cleaning up

Not known.

6.4 Reference to other sections

Hazardous combustion products: see section 5. Personal protective equipment: see section 8. Incompatible materials: see section 10. Disposal considerations: see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

7.1.1 Specific advices

Do not expose to temperatures exceeding 50 °C. Protect from sun. Do not pierce or burn, even after use. Keep away from sources of ignition – no smoking. Do not spray on an open flame, hot items and electric appliances under voltage. Vapor explosion risk in small unventilated rooms. Keep all possible ignition sources out of the area. Use only spark proof tools.

7.1.2 Advice on general occupational hygiene

Do not eat, drink or smoke when working. Wash hands after use. Workplace has to be kept clean and escape routes must be accessible.

7.2 Conditions for safe storage of substances and mixtures, including incompatible substances and mixtures

Store in dry indoor warehouses at temperatures 0 to 30 °C. Keep out of reach of children. Keep away from ignition sources – no smoking. Warehouses must comply with requirements for fire resistance of constructions.

7.3 Specific end use(s)

Do not use the product for other than specified uses listed in section 1 of this safety data sheet. More information for specific usage are stated in technical data sheet of the product.

SECTION 8: Exposure controls and personal protection

8.1 Control parameters

Exposure limits in accordance with Government order No. 361/2007 Coll.:

Name of substance (component):	CAS	PEL mg/m ³	NPK-P mg/m ³	Note
Propane-butane (LPG)	68476-85-7	1800	4000	Aerosol Counting factor: 0.339

Limit values for biological exposure test indicators (Ministry Decree No. 432/2003 Coll.):

Name of substance (component)	DNEL	PNEC
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8.2 Exposure controls

8.2.1 Appropriate engineering controls

Observe working procedures including measures for safe manipulation, storage and transport of hazardous chemical substances and mixtures. Observe all safety rules for working with gases and liquified gases. Avoid direct contact with liquified gas. Keep away from flammable substances or chemically unstable substances. Ensure sufficient ventilation of workplace. In case of insufficient ventilation use local exhaust ventilation.

8.2.2 Personal protective equipment

Respiratory protection: In case of sufficient ventilation no need for use is expected.
In case of higher exposure use protective mask or half face mask with filter against organic compounds.

Eye protection: Necessity of use is not expected.

Hand protection: Necessity of use is not expected.

Skin protection: Protective working clothing, immediately remove contaminated clothing.

8.2.3 Environmental exposure control

Observe the conditions for manipulation and storage, in particular secure the area against leakage into water flows, soil and sewerage.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Form:	Gas
Appearance (color):	Colorless
Odor:	Characteristic odor
Odor threshold:	Not established
pH (at 20 °C):	Not established
Melting point (°C):	Not established
Boiling point and boiling range (°C):	Not established
Flash point (°C):	approx. 80 °C
Evaporation rate:	Not established
Flammability (solid, gas):	Extremely flammable gas
Upper/lower flammability or explosive limits:	
upper (% vol.):	9.5
lower (% vol.):	1.8
Vapor pressure:	t 1550 kPa at 40°C
Vapor density:	Not established
Relative density (at 20 °C):	Not established
Solubility:	Not established
Partition coefficient: n-octanol / water:	Not established
Auto-ignition temperature:	approx. 365 °C

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Decomposition temperature:	Not established
Viscosity (at 40 °C):	Not established
Explosive properties:	Mixture of vapor and air may form explosive mixture
Oxidizing properties:	Not oxidizing

9.2 Other information

VOC content in mixture (%):	0
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SECTION 10: Stability and reactivity

10.1 Reactivity

Under common conditions no special hazards of reaction with other substances are known.

10.2 Chemical stability

Product is stable under recommended storage and handling conditions and under established measures. Avoid excessive warming by various heat sources, inappropriate storage conditions (article 10.4 and 10.5).

10.3 Possibility of hazardous reactions

No hazardous reactions are occurring under normal conditions of storage and usage.

10.4 Conditions to avoid

Overheating of container, mechanical damage of container, contact of product with source of ignition (open flame, spark, hot surface), temperatures exceeding 50 °C.

10.5 Incompatible materials

Keep away from: flammable materials, strong oxidizing agents, peroxides, acids, bases, food, beverages and feed.

10.6 Hazardous decomposition products

See section 5 of this safety data sheet.

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SECTION 11: Toxicological information

11.1 Information on hazard classes defined in the regulation No. 1272/2008/EC

a) *Acute toxicity*

Mixture is not classified as acutely toxic.

Test type	Result	Way of exposure	Test organism
LC50 (mg/l/96 h)	---	---	---
LC50 (mg/l/48 h)	---	---	---
EC50 (mg/l/96 h)	---	---	---

b) *Skin corrosion/irritation*

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

c) *Serious eye damage/eye irritation*

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

d) *Respiratory sensitization/Skin sensitization*

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

e) *Germ cell mutagenicity*

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

f) *Carcinogenicity*

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

g) *Reproductive toxicity*

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

h) *Specific target organ toxicity – single exposure*

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

i) *Specific target organ toxicity – repeated exposure*

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

j) *Aspiration hazard*

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

11.2 Information on other hazards

Longer exposure may cause headache, faintness, light stupor.

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SECTION 12: Ecological information

12.1 Toxicity

Fish

Information is not available.

Crustacea

Information is not available.

Algae

Information is not available.

Other water plants

Information is not available.

Soil micro- and macroorganisms

Information is not available.

Other environmentally important organisms (birds, bees, plants)

Propane: LA50: 6960 mg/kg, inhalation, rat

Isobutane: LC50: 57 ppm/15 min, inhalation, rat

Butane: LC50: 658 mg/m³/45 min, inhalation, rat

Butane: LC50: 680 mg/m³/2 h, inhalation, mouse

12.2 Persistence and degradability

Information is not available.

12.3 Bio-accumulative potential

Information is not available.

12.4 Mobility in soil

Information is not available.

12.5 Results of PBT and vPvB assessment

The compound does not meet the criteria to be considered to be PBT or vPvB.

12.6 Endocrine-disrupting properties

Information is not available. No such properties are assumed.

12.7 Other adverse effects

Not known.

Water hazard class WGK=0

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SECTION 13: Disposal considerations

13.1 Waste treatment methods

a) Specification of packaging and waste treatment methods, including suitable waste treatment methods (e.g. burning, recycling, landfilling)

Waste treatment methods:

Dispose in accordance with applicable regulations. Waste producer is responsible for classification of waste and its removal. Avoid leakage into sewerage. Recycle in accordance with applicable legislation. Put waste and packaging to specified place according to their type – inquire about at company's ecologist/at municipal authority.

Mixture (gas) – hand over for disposal to an authorized person in accordance with law on waste as hazardous under catalogue number 16 05 04 – Gases in pressure containers (including halons) containing hazardous substances.

Hand over contaminated or empty packaging or unused products for disposal to an authorized person in accordance with law on waste as hazardous waste under catalogue number 15 01 11 – Metal packaging containing hazardous filling mass (e.g. asbestos), including empty pressure containers.

b) Specification of physical/chemical properties which can impact waste treatment measures

Designation according to Annex III of the Directive 2008/98/EC:

HP3 Flammable

c) Preventing waste removal by sewerage

Prevent further spreading into environment by bordering spilled mixture. Do not throw into sewerage. Hand over waste only to an authorized person in accordance with law on waste.

d) Special safety measures for each recommended way of waste treatment

Do not expose to temperatures exceeding 50 °C. Protect from sun. Do not pierce or burn, even after use. Keep away from sources of ignition – no smoking. Do not spray on an open flame, hot items and electric appliances under voltage. Vapor explosion risk in small unventilated rooms. Keep all possible ignition sources out of the area. Use only spark proof tools.

Important Union regulations, or valid national and regional regulations on waste treatment

See section 15 of this safety data sheet.

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SECTION 14: Transport information

14.1 UN number or ID number

2037

14.2 UN proper shipping name

Carriage of dangerous goods by road (ADR)

CONTAINERS, SMALL, CONTAINING GAS (CARTRIDGES), without
offtake valve, non-refillable

Carriage by rail RID

Carriage by seaways

ASN/IMDG:

Carriage by air ICAO/IATA:

14.3 Transport hazard class(es)

Carriage of dangerous goods by road (ADR)

2

Carriage by rail RID

Carriage by seaways
ASN/IMDG:

Carriage by air
ICAO/IATA:

Classification

Carriage of dangerous goods by road (ADR)

5F

Carriage by rail RID

14.4 Packaging group

Carriage of dangerous goods by road (ADR)

Carriage by rail RID

Carriage by seaways IMDG:

Carriage by air ICAO/IATA:

Warning table (Kemler)

Carriage of dangerous goods by road (ADR)

Safety label

Carriage of dangerous goods by road (ADR)

2.1

Carriage by rail RID

Carriage by seaways IMDG:

Carriage by air ICAO/IATA:

Note

Limited quantity: 1 L. Excluded quantity: E0 (Not allowed as excluded quantity).

Attention! If the package exceeds LQ limits, contact your Safety advisor in accordance with International ADR/RID treaty before any manipulation (filling, packaging, sending, transporting, receiving).

14.5 Environmental hazards

The product is not environmentally hazardous during transport.

14.6 Special precautions for user

Not known.

14.7 Maritime Solid Bulk Cargoes as per IMO tools

Not transported.

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SECTION 15: Regulatory information

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

Act No. 350/2011 Coll., on chemical substances and mixtures and on amendments of some acts, as amended (inc. implementing measures).

EC Regulation 1907/2006 (REACH)

EC Regulation 1272/2008 (CLP) EC

Regulation 2020/878

Up-to-date version of Act on waste and its implementing decrees

Up-to-date version of Act on packaging

Government order No. 194/2001 Coll. that lays down technical requirements for aerosol dispensers

15.2 Chemical safety assessment

Was not carried out.

SECTION 16: Other information

a) Changes performed in safety data sheet by revision

Version 1: New safety data sheet in accordance with Regulation 2020/878/EC.

b) Key to abbreviation and acronyms

DNEL	Derived No Effect Level (Derived substance concentration beneath which a substance does not have adverse effects)
PNEC	Predicted No Effect Concentration (estimated substance concentration beneath which a substance does not have adverse effects)
PEL	Permissible exposure limit long-term (8 hours)
NPK-P	Maximum permissible concentration short term limit
CLP	EC Directive 1272/2008
REACH	EC Directive 1907/2006
PBT	Substance which is persistent, bio-accumulative and toxic at the same time
vPvB	Substance which is highly persistent and highly bio-accumulative
Flam.Gas 1	Flammable gas
Press. Gas	Pressurized gases

c) Important literal references and data sources

The above information is based on our best knowledge and current legislation. This safety data sheet was also based on the original safety data sheet provided by the manufacturer and on the information listed in the ECHA database, and in other available documents related to this substance.

d) For mixtures, information about which method of information assessing in accordance with Article 9 of Regulation 1272/2008/EC was used for classification

The substance has been classified according to the harmonized classification stated in Annex VI to Regulation CLP.

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e) List of applicable standardized hazard statements and/or safe handling instruction

H220	Extremely flammable gas.
H280	Contains pressurized gas; can explode if heated.
P102	Keep out of reach of children.
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P251	Do not pierce or burn, even after use.
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.
P412	Do not expose to temperatures exceeding 50 °C/122 °F.

f) Instruction for all training of workers ensuring protection of human health and environment

General training for safe handling of chemical substances and mixtures.

Other information

Information in this safety data sheet are in accordance with our current knowledge. Safety data sheet is compiled in accordance with Annex of Directive 1907/2006/EC. Mixture classification is carried out in accordance with revised CLP Regulation.

Working conditions of user is out of our knowledge and possibility to control. User is responsible for complying with all necessary legislation.

Packaging **must** be provided with tactile notice for visually impaired, but it does not have to be fitted with a child-proof cap.

Article 3.2.1.1 does not apply on portable gas containers. Aerosols and containers equipped with closed sprayer containing substances or mixtures classified as hazardous at ingestion do not have to be equipped with tactile notice if they are not classified as hazardous in accordance with one or more criteria stated in article 3.2.1.1.