Product name: CARTRIDGE 500 gr BUTANE WITH VALVE

SECTION 1. Identification of the substance and of the company

1.1 Product identifier

Trade name:	**XQ GAZ - VALVE**
ID No.:	**8719202176049**
Chemical family :	Alkane Hydrocarbon
Dot hazard class:	Flammable Gas , 2.1
Synonyms:	Butane gas
Formula:	C_4H_{10}
UN / NA ID#:	UN 2037

1.2 Relevant identified uses of the substance and uses advised against

Butane is used as industrial heating fluid especially for household heating.

Butane shall not be used for other purposes not specified by a relevant process documentation. The use of propane-butane in a facility not approved for its use, is strictly prohibited.

1.3 Details on MSDS Supplier

1.3.1 Business Name and Identification No.

Rapid Gas dooel
ul. Gjorgji Kapcev 4/9
Skopje
Postcode 1000

Company ID: 5271118
Tax ID: MK 4019999105286
www. rapidgas.com.mk
E-mail: rapid_gas@t-home.mk

1.3.2 Place of business

Rapid Gas dooel
Bogdanci
Macedonia

Tel. +389 34 222677
Fax: +389 34 222677

1.3.3 Person responsible for the Material Safety Data Sheet

Ing.Krstevski Igor tel.: +389 34 222 677
E-mail: rapid_gas@t-home.mk

1.4 Emergency telephone number

1.4.1 TRINS **(Transport Information and Emergency System)**

This system provides round-the-clock professional and practical assistance in managing emergency situations as sociatedwith the transport and /or storage of hazard chemical substances in the Macedonia

Contact to Rapid Gas dooel tel +389 34 222 677

1.4.2 Toxicological Information Centre

Address: JZUUU Klinika za toxikologija
Ul. Vodnjanska 17,
Telephone: +389 2 31 47 635
contact@toxicocenter.com.mk ; www.toxicocenter.com.mk

Telephone: +389 2 31 47 635

Information on health risks only - acute poisoning of people and animals.

SECTION 2. Hazards identification

2.1 Classification of the substance

2.1.1 Pursuant to Regulation (EC) No 1272/2008 (CLP)

a) Physico-chemical properties

Flammable gas:	Flam. gas. 1, H220, GHS02, Dgr
Pressurized gas:	Liquefied gas, H280, GHS04, Dgr

2.1.2 Pursuantto Council Directive 67/548/EEC (DSD)

a) Physico-chemical properties: extremely flammable liquid,F+ ; R12

2.2 Label elements

2.2.1 Pursuant to Regulation (EC) No 1272/2008

Hazard in dication:	GHS02	GHS04
Signal words:		Danger(Dgr)
Standard hazard phrases(H-phrases):		H220;H280
Notification of precautionary measures (P-phrases):		P102;P210;P377;P381;P410+P403

2.2.2 Pursuant to Council Directive 67/548/EEC

Hazard in dication:	F+
Specifie risks (R-phrases):	R12
Safety phrases (S-phrases):	S2;S9;S16;S33

NOTE: For thetextof the standard phrases see Section16.

2.3 Other hazards

2.3.1 PBT Information

According to the criteria in the Annex XIII to the Regulation no.1907/2006 the product does not contain PBT or vPvB substances.

2.3.2 Other Hazardous Impacts

Gaseous LPGs are heavier than air and may accumulate in lower-lying locations .It forms an explosive mixture with air.Higher concentrations of LPG vapours may have narcotic effects ,cause headache ,nausea ,and eye and respiratory tract irritation .The product can accumulate statict electric charge.

LPGs are kept under pressure in pressure vessels.When released with atmospheric pressure, they vaporize by boiling at temperatures asl ow as–45°C,therefore there is a danger of frostbite in the case of contact of the liquefied gas and skin.

SECTION 3. Composition / Information on ingredients

3.1 Substances

The product contains the following hazardous substances:

Substance(name)	*Content,%(V/V)*	*CASNo.*	*ECNo.*	*RegistrationNo.*
HydrocarbonsC3–C4; Refinery gas	>99	68476-40-4	270-681-9	01-2119486557-22-XXXX

3.2 Mixtures

The product is not a mixture.

NOTE: For the text of the standard phrases see Section16.

SECTION 4. First aid instructions

4.1 General instructions

When handling this product, comply with requirements for health and safety at work in accordance with applicable legislation and with this Material Safety Data Shee

If the danger of loss of consciousness exists , transport the victim in the recovery position .

4.2 Inhalation Hazards

Move the victim to fresh air, provide rest ,do not allow the victim to walk .If breathing has stopped apply mouth-to-mouth resuscitation .Seek medical attention.

4.3 Skin contact

Wash skin with water and soap, rinse, change clothes . If frostbite developed do not use any ointments or powders; cover the frostbite with sterile gauze and seek medical attention.

4.4 Contact with Eye

Flush eyes thoroughly with plenty of water and seek medical attention.

4.5 Ingestion

Have the victim drink water.Do not induce vomiting.Seek medical attention.

SECTION 5. Fire fighting measures

5.1 Extinguishing media

5.1.1 Suitable extinguishing media

Foam, powder,carbon dioxide.

5.1.2 Unsuitable extinguishing media

Water(only suitable for cooling).

5.2 Special hazards arising from the substance or mixture

Product vapours form an explosive mixture with air. It burns with a sooty flame in air. Carbon monoxide may be released. LPG vaporizes quickly and forms cool mists; the gas is heavier than air and may form explosive mixtures in lower locations or above water surfaces. When released into the space with atmospheric pressure , it vaporizes by boiling at temperatures as low as-45°C.

5.3 Special Protective Equipmentfor Fire Fighters

Fire-resistant clothing, self-contained breathing apparatus.

SECTION 6. Accidental Release Measures

6.1 Personal precautions , protective equipment and emergency procedures

Prevent contamination of clothes and shoes ,prevent skin and eye contact . To escape a contaminated area , use a respirator fitted with an organic vapour cartridge. Donot smoke. Remove all potential source of ignition . Evacuate all persons who are not participating in salvage operations .

6.2 Environmental Precautions

Prevent further leakage. Keep unauthorized persons out of the area. Do not drain the product intosewers. Prevent the product from leaking into soiland/or water.

6.3 Methods and material for containment and cleaning up

Product off or absorb it into a suitable porous materiiasl and dispose of it in compliance with applicable legislation on wastes.

6.4 Referenceto Other Sections

See sections 8 and 13

SECTION 7. Handling and storage

7.1 Safe handling precautions

Any person handling hazardous chemical substances and chemieal preparations is odliged to protect human health and the en vironment and observe hazard symbols, standard phrases describing specific risks and standard safe handling instructions.

7.2 Conditions for safe storage of substances and mixtures, including any incompatibilities

Store in accordance with CSN 65 0201.The design, construction, testing and operation of any equipment with LPG are subject to ČSN 38 6462.The building must be equipped as stipulate by ČSN 75 3415.Keep in a well-ventilated area away from ignition sources.Electrical equipment must conform to the respective regulations. Protect from electrostatic charge. Do not smoke.

7.3 Specific final uses

Propane-butane is used as industrial heating fiuid especially for household ,labaratoriy or industrial heating. Butane may only be used for approved purposes and in facilities approved for its use.Never drain into sewers.

SECTION 8. Exposure controls / Personal protection

8.1 Exposure limits

8.1.1 According to Government Resolutionno.361/2007Coll.

		propane	butane
PEL	mg/m^3	900	2,350
NPK-P	mg/m^3	1,800	4,700

8.1.2 DNEL accordingto CSR

N/A.

8.2 Exposurecontrols

General safety and hygienic measures: Do not drink, eat or smoke whilehandling LPGs.Before meals and drinks and after work wash your skin with soap and warm water an apply a suitable moisturizing cream.

8.2.1 Worker exposure controls

Respiratory protection:	Escape mask with a filter against organic gases and vapours.
Eye protection:	Chemical type goggles.
Hand protection:	Protective gloves.
Skin protection:	Protective clothing

8.2.2 Environmental exposure controls

See also Clauses2.1, 6.2 and 16.3.

SECTION 9. Physical and Chemical Properties

9.1 Basic physical and chemical properties

Appearance(at20°C):		liquid
Colour:		colourless
Odour:		characteristic hydrocarbon odour
Densityat15°C:		500to580kg/m ^{3}
Boiling point range:		-42°Cto0°C
Relative vapour density:		approx2(air=1*)*
Solubility in water:		negligible
Vapour pressure at 20°C:		<0.9MPa
Flash point:		<-40°C
Explosion limits:	*lower:*	1.5%(V/V)
	upper:	11.0%(V/V)
Maximum experimental safegap:		*>0.9mm*

9.2 Otherinformation

Pour point:	<-40°C
Ignition point:	<-40°C
Flash point:	approx430°Cto465°C
Critical pressure:	approx.3.7MPa
Heat of combustion:	approx.50MJ/kg

SECTION 10. Stability and reactivity

10.1 Reactivity

The product is stable under normal use conditions.

10.2 Chemical stability

The product is stable under normal use conditions.

10.3 Possibility of Hazardous Chemical Reactions

When burning with limited air carbon monoxide can be released.

10.4 Conditionstoavoid

Concentrations within explosion limits, presence of ignition sources, contact with naked fiames.

10.5 Incompatible materials

Oxidants.

10.6 Hazardous Decomposition Products

None under normal conditions; incomplete burning can produce carbon monoxide and soot.

SECTION 11. Toxicological Information

11.1 Acute toxicity

N/A

11.2 Skin causticity / irritation

N/A

11.3 Serious eye damage / irritation

N/A

11.4 Respiratory / skin sensitisation

N/A

11.5 Mutagenic Impactsin Elementary Cells

N/A

11.6 Carcinogenic effects

N/A

11.7 Toxicity for reproduction

N/A

11.8 STOT Single Exposure

N/A

11.9 STOT Repeated Exposure

N/A

11.10Aspiration hazard

N/A

SECTION 12. Ecological Information

12.1 Toxicity
N/A

12.2 Persistency and Degradability
N/A

12.3 Bio-Accumulative Potential
N/A

12.4 Mobility in soil
N/A

12.5 PBT and vPvB Assessment Results
N/A

12.6 Other Adverse Effects
N/A

SECTION 13. Disposal considerations

13.1 Legal regulations on wastes
The product is categorized as follows pursuant to ActNo.185/2001Cosll on wastes as amended, and related regulations: **Not applicable**

13.2 Product disposal methods
Wastes and unused residues are disposed of in compliance with thc applieable leigislation on wastes, usually by incineration in the reserved incinerators. Dumping is inappropriate.

13.3 Contaminated container disposal
LPGs are supplied in road and railway tank cars. Decontamination and disposal of such containers are governed by applicable ADR/RID provisions.

SECTION 14. Transport information

Department of Transportation (DOT) Classifi cation:
The nomenclature and labeling must comply with the European Agreement on Hazardous Substances RID / ADR:
UN identification Number: UN 2037
Proper Shipping Name : Receptacles , Small Containing Gas (gas cartridges)
[without a release device , non - refillable]
Hazard class : 2.1
Hazard Label : Flammable Gas
Solubility in Water : Nil
Appearance and Odor : Cliar gas in **XQ GAZ - VALVE** brand butane gas cartrige ; Butane odor.

SECTION 15. Regulatory information

15.1 Regulations relating to safety ,health and environment / Spesifie legislationapplicable to the substance / mixture

- Regulation (EC) No. 1907/2006 of the European Parliament and the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) (as amended),and related rules and regulations
- 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 (CLP)(as amended),and related rules and regulations
- Council Directive 67/548/EEC of 27 June1967 on the approximation of laws, regulation and administrative provisions relating to the classification, packaging and labeling of dangerous substances(DSD) (as amended)
- Directive 1999/45/EC of the European Parliament and of the Council 31 May1999 concerning the approximation of the laws,regulations and administrative provisions relating to the classification,packaging and labelling of dangerous preparations (DPD) (asamended)
- ActNo.111/1994Coll.,on road transport ,as amended ,and relateld atrieognus(ADR)
- ActNo.185/2001Coll.,on wastes ,as amended ,including the related regulations and provisions
- ActNo.201/2012Coll.,on air protection, as amended, and relatedregulations
- ActNo.254/2001Coll.,Water Act ,as amended,and related regulations
- ActNo.266/1994Coll.,on railways ,as amended,and related regulations and provisions (RID)
- ActNo.350/2011Coll.,Chemical Act ,as amended,and related regulations and provisions
- EN 417 European specification concerning non-refillable metallic cartridges for liquefied petroleum gases

15.2 Chemical safety assessment

Has been performed.

15.3 OtherRegulatoryInformation

15.3.1 ActNo.201/2012Coll.,on air conservation

The product is subject to the respective provisions of ActNo.86/2002 Coll ., on air conservation as amended, including the related regulations and provisions.Pursuant to Section 2Para n) of the aforesaid Act, the product is a volatile organic substance.

SECTION 16. Other information

16.1 List of the relevant R-phrases, H-phrases, S-phrases and P-phrases

16.1.1 Hazard phrases(H-phrases):

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

16.1.2 Instructions for Safe Handling (P-phrases):

P102	Keep out of the reach of children
P210	Keep away from open flames and hot surfaces. –No smoking
P377	Leaking gas fire–do not extinguish unless leak can be stopped safely
P381	Remove all sources of ignition if you can do it without risk
P410+P403	Protect from sunlight .Store in a well-ventilated0 place

16.1.3 Standards Phrases for Specific Degree of Risk(R-Phrases)

R12	Extremely flammable

16.1.4 Standard Instructions for Safe Handling (S-Phrases)

S2	Keep out of the reach of children
S9	Keep container in a well-ventilated place
S16	Keep away from sources of ignition-No smoking
S33	Take precautionary measures against static discharges

16.2 Instructions for training

Training sessions are organized in accordance with the requirements of the Labour Code and Act No. 258/2000 Coll.

16.3 Information on changes

Changes in this Safety Data Sheet were made in accordance with the requirements of Regulation 1907/2006/EC (asamended) and Regulation No1272/2008 (asamended),taking into account new informacion on the hazards of the substance gained during the registration procedure .The changes effected mainly concern formal aspects of the document.

16.4 Otherin for mation

Information contained in this Material Safety Data Sheet applies to the specified product only and is based on our current knowledge and experience and may not be comprehensive. Responsibility forropdruoc**p**ter handling in accordance with applicable legislation lies with the user .