



SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006
(amended by Regulation (EU) 2020/878)

KIGAS Universal Gas

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

1.1. Product identifier

Product name	KIGAS Universal Gas
Product code	04.03060.13.1-002 KIGAS Universal Gas 400ml 04.03060.15.1-002 KIGAS Universal Gas 600ml 04.03061.07.1-003 KIGAS Universal Gas 100ml 04.03061.13.1-001 KIGAS Universal Gas 400ml

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

Use of the Substance/Mixture	Aerosol propellants
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1.3. Details of the supplier of the safety data sheet

Company/Undertaking Identification	KISAG AG Bahnhofstrasse 3 CH-4512 Bellach Switzerland T +41 32 617 32 60 www.kisag.ch
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1.4. Emergency telephone number	145 (Tox Info Suisse) International +41 44 251 51 51
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Revision date	30.03.2023
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Version	GHS 3
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SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008	Aerosols, Cat. 1, H222 H229
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Additional information

For the full text of the phrases mentioned in this Section, see Section 16.

2.2. Label elements



Signal Word

Danger

Hazard Statements

H222: Extremely flammable aerosol.
H229: Pressurised container: May burst 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.
P211: Do not spray on an open flame or other ignition source.
P251: Do not pierce or burn, even after use.
P410+P403: Protect from sunlight. Store in a well-ventilated place.
P501: Dispose of contents/ container to an approved waste disposal plant.

Supplemental information

None.

Product identifier

Propane, CAS-No. 74-98-6, EC-No. 200-827-9, REACH No. 01-2119486944-21-xxxx
Butane, CAS-No. 106-97-8, EC-No. 203-448-7, REACH No. 01-2119474691-32-xxxx
Isobutane, CAS-No. 75-28-5, EC-No. 200-857-2

2.3. Other hazards

Pressurized container. Protect from sunlight and do not expose to temperatures exceeding 50 °C. Also after use, do not open with force or burn. Do not spray on a naked flame or any incandescent material. Keep away from sources of ignition - No smoking. Keep away from children.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Extremely flammable liquefied gas.

Components	Weight %	CLP Classification	Product identifier
Propane	30% - 50%	Flam. Gas 1 H220, Press. Gas H280	CAS-No.: 74-98-6 EC-No.: 200-827-9 Index-No: 601-003-00-5 REACH No.: 01-2119486944-21-xxxx
Butane	30% - 50%	Flam. Gas 1 H220, Press. Gas H280	CAS-No.: 106-97-8 EC-No.: 203-448-7 Index-No: 601-004-00-0 REACH No.: 01-2119474691-32-xxxx
Isobutane	15% - 30%	Flam. Gas 1 H220, Press. Gas H280	CAS-No.: 75-28-5 EC-No.: 200-857-2

For the full text of the phrases mentioned in this Section, see Section 16.

Hazardous impurities None known.

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation	Move to fresh air. Oxygen or artificial respiration if needed. Medical examination necessary even only on suspicion of intoxication. Persons who have inhaled the gas or fumes produced in a fire or who have come into contact with the substance may not show immediate symptoms. They should be taken to a doctor with this card. Patient must be kept under medical supervision for at least 24 hours.
Skin contact	May cause frostbite. Wash off immediately with plenty of water. Remove contaminated clothing and shoes. Consult a physician for severe cases.
Eye contact	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Call a physician immediately.
Ingestion	Rinse mouth. Drink 1 or 2 glasses of water. Do not induce vomiting. Medical examination necessary even only on suspicion of intoxication.

4.2. Most important symptoms and effects, both acute and delayed Contact can cause cold burns, frostbite and/or chemical burns with severe skin damage. Symptoms of poisoning may only appear several hours later. Inhalation may provoke the following symptoms: Asphyxia.

4.3. Indication of any immediate medical attention and special treatment needed Artificial respiration and/or oxygen may be necessary.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media Carbon dioxide (CO₂). Water mist

Unsuitable extinguishing media High volume water jet.

5.2. Special hazards arising from the substance or mixture Extremely flammable. Pay attention to the spreading of gases especially at ground level (heavier than air) and to the direction of the wind. Closed containers may explode due to pressure build-up when subjected to excessive heat or intense fire.

5.3. Advice for firefighters

Special protective equipment for firefighters	In the event of fire, wear self-contained breathing apparatus. Complete suit protecting against chemicals.
Specific methods	Do not use a solid water stream as it may scatter and spread fire. Water mist may be used to cool closed containers. Prevent fire extinguishing water from contaminating surface water or the ground water system.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

For non-emergency personnel	Use personal protective equipment. Avoid contact with skin and eyes. Remove all sources of ignition. Pay attention to flashback. Pay attention to the spreading of gases especially at ground level (heavier than air) and to the direction of the wind.
For emergency responders	Keep people away from and upwind of spill/leak. Remove all sources of ignition. Pay attention to flashback. Ventilate the area. Pay attention to the spreading of gases especially at ground level (heavier than air) and to the direction of the wind.

6.2. Environmental precautions No special environmental precautions required.

6.3. Methods and material for containment and cleaning up Ventilate the area.

6.4. Reference to other sections See chapter 8 and 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling	Wear personal protective equipment. Provide appropriate exhaust ventilation at machinery. Keep away from heat and sources of ignition. Pressurized container. Protect from sunlight and do not expose to temperatures exceeding 50 °C.
7.2. Conditions for safe storage, including any incompatibilities	Store in a cool and shaded area. Store in a place accessible by authorized persons only. Keep away from heat. Keep away from direct sunlight.
7.3. Specific end use(s)	See chapter 13.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Exposure limit(s) This information is not available.

Butane (CAS 106-97-8)

UK - Workplace Exposure Limits (WELs) - Carcinogens	Capable of causing cancer and/or heritable genetic damage (containing >0.1% Buta-1,3-diene)
UK - Workplace Exposure Limits (WELs) - STELs	750 ppm STEL
UK - Workplace Exposure Limits (WELs) - TWAs	1810 mg/m ³ STEL 600 ppm TWA 1450 mg/m ³ TWA

8.2. Exposure controls

Appropriate engineering controls Handle in accordance with good industrial hygiene and safety practice. Ensure adequate ventilation, especially in confined areas. General industrial hygiene practice.

Personal protection equipment

Respiratory protection In case of good ventilation no personal respiratory protective equipment required. In case of insufficient ventilation wear suitable respiratory equipment. Respirator with filter for organic vapour

Hand protection No special measures required.

Eye protection Safety glasses with side-shields.

Skin and body protection Long sleeved clothing.

Thermal hazards Keep product and empty container away from heat and sources of ignition.

Environmental exposure controls No special measures required.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	Compressed liquefied gas.
Colour	Colourless.
Odour	Characteristic.
Melting point/ freezing point:	Not determined.
Boiling point or initial boiling point / range:	-42 °C at atmospheric pressure
Flammability:	highly flammable
Lower and upper explosion limit:	1.8 % - 10.2 %
Flash point:	-80 °C
Auto-ignition temperature:	400 °C
Decomposition temperature:	Not determined.
pH:	not applicable
Kinematic viscosity:	Not determined.
Solubility:	Not determined.
Partition coefficient n-octanol/water (log value):	Not determined.
Vapour pressure:	8.4 bar @ 20 °C / 10.8 bar @ 30 °C (Propan)
Density and/or relative density:	0.5 - 0.6 kg/l @ 20 °C
Relative vapour density:	1,55 – 2,09 (air=1)
Particle characteristics:	Not applicable.

9.2. Other information

9.2.1 Information with regard to physical hazard classes	No information available.
9.2.2 Other safety characteristics	Filling pressure: 5.5 bar (20 °C)

SECTION 10: Stability and reactivity

10.1. Reactivity	Risk of receptacle bursting.
10.2. Chemical stability	Stable under recommended storage conditions.
10.3. Possibility of hazardous reactions	No information available.
10.4. Conditions to avoid	Heat, flames and sparks. Temperatures above 50 °C.
10.5. Incompatible materials	None.
10.6. Hazardous decomposition products	Carbon monoxide, carbon dioxide and unburned hydrocarbons (smoke).

SECTION 11: Toxicological information

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

Acute toxicity	Propane (CAS 74-98-6) Inhalation LC50 Rat > 800000 ppm 15 min(ECHA_API) Butane (CAS 106-97-8) Inhalation LC50 Rat = 658 g/m3 4 h(NLM_CIP) Isobutane (CAS 75-28-5) Inhalation LC50 Rat > 800000 ppm 15 min(ECHA_API)
Skin corrosion/irritation	No skin irritation.
Serious eye damage/eye irritation	No eye irritation.
Respiratory / Skin Sensitisation	None.
Carcinogenicity	Based on available data, the classification criteria are not met.
Germ cell mutagenicity	Classification not possible from current data.
Reproductive toxicity	Classification not possible from current data.
Specific target organ toxicity (single exposure)	No data available.
Specific target organ toxicity (repeated exposure)	No data available.
Aspiration hazard	No data available.

Human experience No data available.

11.2. Information on other hazards

Information on likely routes of exposure inhalative

Symptoms related to the physical, chemical and toxicological characteristics Contact can cause cold burns, frostbite and/or chemical burns with severe skin damage. Inhalation may provoke the following symptoms: Tiredness Drowsiness

Endocrine disrupting properties No data available.

Other information Gas reduces oxygen available for breathing.

SECTION 12: Ecological information

12.1. Toxicity No data is available on the product itself.

12.2. Persistence and degradability The product is degraded in the atmosphere.

12.3. Bioaccumulative potential Bioaccumulation is unlikely.

12.4. Mobility in soil May evaporate quickly. Decomposes rapidly in contact with light.

12.5. Results of PBT and vPvB assessment No information available.

12.6. Endocrine disrupting properties No information available.

12.7. Other adverse effects No information available.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste from residues / unused products Pressurized container. Protect from sunlight and do not expose to temperatures exceeding 50 °C. Must be reconditioned or disposed as special waste. EWC waste disposal No: 16 05 04.

Contaminated packaging Dispose of as unused product. Container hazardous when empty.

SECTION 14: Transport information

14.1. UN number or ID number	UN 1950
14.2. UN proper shipping name	AEROSOLS, flammable
14.3. Transport hazard class(es)	2
14.4. Packing group	Not applicable.
14.5. Environmental hazards	Marine pollutant: No.
14.6. Special precautions for user	Not applicable.
14.7. Maritime transport in bulk according to IMO instruments	Not applicable.

UN Model Regulations

ADR/RID UN 1950.
Proper shipping name: AEROSOLS, flammable.
Class 2.
ADR/RID-Labels 2.1.
Classification code 5F.
Limited quantity 1 L.
Excepted quantity E0.
Transport category 2.
Tunnel restriction code (D).

IMDG UN 1950.
Proper shipping name: AEROSOLS, flammable.
Class 2.
IMDG-Labels 2.1.
Limited quantity 1 L.
Excepted quantity E0.
EmS F-D, S-U.
Marine pollutant: No.

IATA UN 1950.
Proper shipping name: Aerosols, flammable.
Class 2.
IATA label 2.1.
Packing instruction (passenger aircraft): 203 (75 kg).
Packing instruction (LQ): Y203 (30 kg G).
Packing instruction (cargo aircraft): 203 (150 kg).

Inland navigation ADN UN 1950.
Proper shipping name: AEROSOLS, flammable.
Class 2.
ADN labels 2.1.
Classification code 5F.
Limited quantity 1 L.
Excepted quantity E0.

Further Information None.

SECTION 15: Regulatory information

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

Regulatory Information	The product is classified and labelled according to Regulation (EC) No. 1272/2008.
Propane (CAS 74-98-6) EU - REACH (1907/2006) - List of Registered Substances UN (United Nations) - Selected Volatile Substances Prone to Abuse	Present Present (components of liquified petroleum gas may contain 30-40% unsaturates (propene, butenes))
Butane (CAS 106-97-8) EU - REACH (1907/2006) - Annex XVII - Restrictions on Certain Dangerous Substances EU - REACH (1907/2006) - List of Registered Substances UN (United Nations) - Selected Volatile Substances Prone to Abuse	Use restricted. See item 28. (C) (containing $\geq 0.1\%$ Butadiene) Use restricted. See item 29. (C) (containing $\geq 0.1\%$ Butadiene) Use restricted. See item 75. Present Present (components of liquified petroleum gas may contain 30-40% unsaturates (propene, butenes))
Isobutane (CAS 75-28-5) EU - REACH (1907/2006) - Annex XVII - Restrictions on Certain Dangerous Substances EU - REACH (1907/2006) - List of Registered Substances UN (United Nations) - Selected Volatile Substances Prone to Abuse	Use restricted. See item 28. (C) (containing $\geq 0.1\%$ Butadiene) Use restricted. See item 29. (C) (containing $\geq 0.1\%$ Butadiene) Use restricted. See item 75. Present Present
15.2. Chemical safety assessment	A Chemical Safety Assessment is not required for this substance.

SECTION 16: Other information

Key or legend to abbreviations and acronyms	CLP: Classification according to Regulation (EC) No. 1272/2008 (GHS) EWC: European Waste catalogue code VeVA: Ordinance on the Treatment of Waste (SR 814.610)
Key literature references and sources for data	According to information supplied by the manufacturer.
Classification procedure	Calculation method.
Full text of phrases referred to under sections 2 and 3	H220: Extremely flammable gas. H222: Extremely flammable aerosol. H229: Pressurised container: May burst if heated. H280: Contains gas under pressure; may explode if heated.

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.