SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006 (REACH), (EU) 2020/878

Date of creation: 18 Apr 2023
Revised on: 22 Jun 2026
Version: 3, replaces version 2

Ultragas 2100° 380ml

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

* **1.1. Product identifier**

Trade name/designation:

Ultragas 2100° 380ml

Article No.:
Y902205

UFI:
E1EW-KFRX-G1N2-T3SQ

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

Use of the substance/mixture:
(Fuel) gases

* **1.3. Details of the supplier of the safety data sheet**

Supplier:

KANDO Service GmbH
Hartleitnerstraße 3
4653 Eberstalzell
Austria
Telephone: +43 (0) 7241 213 79
E-mail: msds@kando.eu

* **1.4. Emergency telephone number**

Vergiftungsinformationszentrale (VIZ), Stubenring 6, 1010 Wien, 24h: 01 406 43 43, Montag - Freitag: 8 bis 16 Uhr, Tel.: 01 406 68 98 (keine medizinische Auskunft) (Only available during office hours.)

SECTION 2: Hazards identification

* **2.1. Classification of the substance or mixture**

Classification according to Regulation (EC) No 1272/2008 [CLP]

Hazard classes and hazard categories	Hazard statements	Classification procedure
Flammable gases *(Flam. Gas 1A)*	H220: Extremely flammable gas.	On basis of test data.
Gases under pressure *(Press. Gas (Liq.))*	H280: Contains gas under pressure; may explode if heated.	On basis of test data.

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2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms:



GHS02
Flame

Signal word: Danger

Hazard statements for physical hazards	
H220	Extremely flammable gas.
H280	Contains gas under pressure; may explode if heated.

Precautionary statements Prevention	
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

Precautionary statements Response	
P377	Leaking gas fire: Do not extinguish, unless leak can be stopped safely.
P381	In case of leakage, eliminate all ignition sources.

Precautionary statements Storage	
P403	Store in a well-ventilated place.

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2.3. Other hazards

Other adverse effects:

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII. The product does not contain any substances that have been shown to have endocrine-disrupting properties in accordance with the criteria set out in (EU) 2017/2100 or (EU) 2018/605.

SECTION 3: Composition/information on ingredients

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3.2. Mixtures

Additional information:

Please note that the table lists known hazards associated with ingredients in their pure form. These hazards are reduced or eliminated when the ingredients are mixed or diluted; see section 16d.

Hazardous ingredients / Hazardous impurities / Stabilisers:

Product identifiers	Substance name Classification according to Regulation (EC) No 1272/2008 [CLP]	Concentration
CAS No.: 68476-85-7 EC No.: 270-704-2 REACH No.: 01-2119486557-22	**Petroleum gases, liquefied** Flam. Gas 1A (H220), Press. Gas (Liq.) (H280) Danger **Acute Toxicity Estimate** ATE (inhalation, gases) 658 ppmV	> 99.99 %

Full text of H- and EUH-phrases: see section 16.

SECTION 4: First aid measures

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4.1. Description of first aid measures

General information:

Use fresh air masks when rescuing exposed persons. Take the injured person into fresh air, give oxygen immediately and take him to hospital as soon as possible. If in doubt, or if you experience any symptoms, contact a doctor.

Following inhalation:
Remove the injured person to the open air. If breathing has stopped, give artificial respiration. If breathing is difficult, trained personnel should administer oxygen. The injured person should be placed in a warm place with fresh air and a doctor should be called immediately.

In case of skin contact:
Remove contaminated clothing. Warm the exposed part of the body in lukewarm water if cold injury has occurred. DO NOT use water that is too warm. Frostbite should be treated by a doctor.

After eye contact:
If possible, remove any contact lenses immediately. Rinse eyes with lukewarm water for several minutes. If irritation persists, consult a doctor or ophthalmologist.

Following ingestion:
Consult a doctor if symptoms persist.

* **4.2. Most important symptoms and effects, both acute and delayed**
General: Contact with rapidly spreading gas may cause frostbite.
If inhaled: High concentrations may displace normal air and cause suffocation due to lack of oxygen.
If in eyes: Frostbite.
If on skin: Contact with rapidly spreading gas may cause frostbite.
If swallowed: Frostbite.

* **4.3. Indication of any immediate medical attention and special treatment needed**
Treat symptomatically. Make safety data sheet available to the doctor.

SECTION 5: Firefighting measures

* **5.1. Extinguishing media**

Suitable extinguishing media:
Water mist, Powder, Carbon dioxide (CO2), Foam

Unsuitable extinguishing media:
Must not be extinguished with water at high pressure.

* **5.2. Special hazards arising from the substance or mixture**
In case of fire, harmful gases (carbon monoxide and carbon dioxide) may be produced. In the event of fire, pressure can build up which can cause the packaging to explode. The gas is explosive on contact with air. Flammable gas. In case of fire, may emit harmful fumes containing carbon monoxide and carbon dioxide. Incomplete combustion may produce aldehydes and other toxic, hazardous, irritant or environmentally hazardous substances. Avoid spilling extinguishing water down the drain.

5.3. Advice for firefighters
Protective measures are taken with regard to the other material at the fire site. Containers near the fire should be removed and cooled with water. If the gas cylinder cannot be removed, cool with water for as long as the fire burns and then for at least another 10 minutes. Vapours are heavier than air and can spread over the ground. Use fresh air mask in case of fire. Wear full protective clothing.

SECTION 6: Accidental release measures

* **6.1. Personal precautions, protective equipment and emergency procedures**

6.1.1. For non-emergency personnel

Personal precautions:
Keep unauthorised persons away. Avoid contact with skin, eyes and clothes. Ventilate affected area. Use recommended protective equipment, see section 8. Do not breathe the gas. Clear the area and vent the gases. Note risk of ignition and explosion. Switch off equipment with open flame, embers or other heat generation. Note the risk of sparks from static electricity. Do not undress in the room where spillage/ fallout has occurred. Use mask with fresh air supply if oxygen level is low or unknown.

6.1.2. For emergency responders
No data available

6.2. Environmental precautions
Notify emergency services in case of major spills. Prevent entry into sewers, cellars, working pits or other places where gas accumulation could be dangerous.

6.3. Methods and material for containment and cleaning up

Other information:

The gas from leaking gas cylinders must evaporate outdoors. Evacuate and ventilate the building.

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6.4. Reference to other sections

For further information on personal protective equipment: see section 8.
For further information on disposal: see section 13.

SECTION 7: Handling and storage

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7.1. Precautions for safe handling

Protective measures

Advices on safe handling:

Take the necessary precautions and protective measures to ensure safe handling. Only experienced and appropriately trained persons should handle compressed gas. Only use equipment suitable for this product, its pressure and temperature. If in doubt, please contact your gas supplier. Avoid contact with skin, eyes and clothes. Do not breathe gas. Work in such a way that spillages are avoided. If this does happen, act as described in section 6 of this safety data sheet. Pressurized container: Do not pierce or burn, even after use. Never use pressure to empty container. Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F. Check hoses and closures regularly, paying attention to gas leaks. Do not eat, drink or smoke in rooms where this product is used. Open flames, hot objects, sparks or other sources of ignition must not be present in the premises where this product is handled. Prevent static electricity from semi-conductive floor coverings, shoe soles and humidity above 50%. There must be an evacuation plan and evacuation routes must not be blocked. Store separately from food. Store out of reach of children and pets. Wash hands thoroughly after handling. Take off contaminated clothing and wash it before reuse. Do not store near incompatible materials. Wear personal protection equipment (refer to section 8).

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7.2. Conditions for safe storage, including any incompatibilities

Technical measures and storage conditions:

The product should be stored in such a way that hazards to health and the environment are avoided. Avoid contact with humans and animals and release into the environment. Take the necessary precautions and protective measures for safe storage. Keep away from food and animal feed and from equipment or surfaces that come into contact with them. Keep out of reach of children. Store tightly closed in the original packaging. Always use sealed and clearly labelled packaging. Store in a well-ventilated area. Store in a dry place that is not above normal room temperature. Store at a maximum of 50 °C. Do not store in direct sunlight. Avoid naked flames, hot objects, sparks or other sources of ignition. Do not store near incompatible materials (see section 10.5).

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7.3. Specific end use(s)

No data available

SECTION 8: Exposure controls/personal protection

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8.1. Control parameters

No data available

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8.2. Exposure controls

8.2.1. Appropriate engineering controls

Ventilation in the workplace must ensure air quality that meets the specifications of the applicable working environment legislation. Local exhaust ventilation should be used to remove airborne contaminants at source. Since nitrogen gases could be released, oxygen meters should be used.

8.2.2. Personal protection equipment

Eye/face protection:

Use eye protection in case of risk of direct contact or splashes. EN166

Skin protection:

Wear suitable protective clothing when working. Escaping gas can cause severe cold. It is recommended to wear cold protection gloves marked with the appropriate pictogram. The most suitable protective gloves should be selected in consultation with the glove supplier, taking into account the risk assessment

of the specific activity and the properties of the chemicals involved. Please note that the breakthrough time of the material is influenced by the duration of exposure, temperature conditions, wear and tear, etc.
Breakthrough time: >480 min.

Respiratory protection:
Use respiratory protection if ventilation is poor. Fresh air breathing mask may be necessary. The most appropriate respiratory protective equipment should be selected in consultation with the appointed safety representative, taking into account the risk assessment of the specific activity. Filter type: AX.

8.2.3. Environmental exposure controls
The hazards posed by the product or its components must be considered in the activity-based risk assessment in accordance with the applicable working environment legislation. The risk assessment should be reviewed regularly and updated as necessary.

SECTION 9: Physical and chemical properties

* ### 9.1. Information on basic physical and chemical properties

Appearance

Physical state: gaseous
Colour: colourless
Odour: characteristic
flammability: No data available

Safety relevant basis data

Parameter	Value	at °C	① Method ② Remark
Melting point			② Propane -187°C, Butane -138°C
Freezing point			② Propane -187°C, Butane -138°C
Initial boiling point and boiling range			② Propane -42°C, Butane -0,5°C
Flash point			② Propane -104°C, Butane -60°C
Evaporation rate	*No data available*		
Auto-ignition temperature			② Propane 468°C, Butane 405°C
Upper/lower flammability or explosive limits	1.86 – 9.5 %		
Vapour pressure	275 – 1,500 kPa	40 °C	
Vapour density	1.86 – 2.45		
Density			② Propane 505-230 kg/m3 (15°C), Butane 560-585 kg/m3 (15°C)
Bulk density	*not applicable*		
Water solubility	practically insoluble		

* ### 9.2. Other information
Pseudo-critical temperature: Propane 96,5°C, Butane 151°C
Conductivity 0,13 W7m x 15°C

SECTION 10: Stability and reactivity

* ### 10.1. Reactivity
Reacts strongly or explosively with certain oxidising agents. Vapours can form explosive mixtures with air.

10.2. Chemical stability
Chemically stable under conditions of storage, handling and use.

* ### 10.3. Possibility of hazardous reactions
Reacts strongly or explosively with certain oxidising agents. Toxic vapours can be released. Keep away from sources of heat (e.g. hot surfaces), sparks and open flames.

* ### 10.4. Conditions to avoid
Avoid contact with hot surfaces. Heat. No naked flames, no sparks. Protect from heat and direct sunlight.

* **10.5. Incompatible materials**

Avoid contact with strong oxidising agents.

10.6. Hazardous decomposition products

No known hazardous decomposition products.

SECTION 11: Toxicological information

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

Petroleum gases, liquefied CAS No.: 68476-85-7 EC No.: 270-704-2
LC_{50} Acute inhalation toxicity (gas): 658 ppmV 4 h (Rat)

Skin corrosion/irritation:
Is not classified as skin corrosive/irritant. Can cause frostbite.

Serious eye damage/irritation:
Is not classified as seriously damaging or irritating to the eyes. Can cause frostbite.

Respiratory or skin sensitisation:
not sensitising.

Germ cell mutagenicity:
Is not to be classified as germ cell mutagenic (mutagenic).

Carcinogenicity:
Is not to be classified as carcinogenic.

Reproductive toxicity:
Is not classified as toxic for reproduction.

STOT-single exposure:
Is not to be classified as specific target organ toxicant (single exposure). High concentrations may displace normal air and cause asphyxiation due to lack of oxygen. Prolonged inhalation may cause unconsciousness and/or death.

STOT-repeated exposure:
Shall not be classified as specific target organ toxicant (repeated exposure).

Aspiration hazard:
The product is not classified as toxic by inhalation.

* **11.2. Information on other hazards**

Endocrine disrupting properties:
The product does not contain any substances that have been shown to have endocrine-disrupting properties in accordance with the criteria set out in (EU) 2017/2100 or (EU) 2018/605.

SECTION 12: Ecological information

* **12.1. Toxicity**

Petroleum gases, liquefied CAS No.: 68476-85-7 EC No.: 270-704-2
LC_{50}: >1,000 mg/L 4 d (fish)

Assessment/classification:
At the quantities where this product is used, environmental effects can be ignored. Note that the local environment can be affected and that all discharges affect the ecosystem.

Additional ecotoxicological information:
The product does not have to be labelled as environmentally hazardous. Nevertheless, it cannot be ruled out that major emissions or repeated minor emissions may have a harmful effect on the environment. Avoid release to the environment.

* **12.2. Persistence and degradability**

Additional information:
Readily biodegradable (according to OECD criteria).

* **12.3. Bioaccumulative potential**

Accumulation / Evaluation:
This product or its ingredients do not accumulate in nature.

* 12.4. Mobility in soil
Evaporates quickly into the air.

* 12.5. Results of PBT and vPvB assessment

Petroleum gases, liquefied CAS No.: 68476-85-7 EC No.: 270-704-2
Results of PBT and vPvB assessment: —

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

* 12.6. Endocrine disrupting properties
The product does not contain any substances that have been shown to have endocrine-disrupting properties in accordance with the criteria set out in (EU) 2017/2100 or (EU) 2018/605.

* 12.7. Other adverse effects
Large emissions in the atmosphere can produce ground surface ozone in sunlight and are thus harmful to vegetation and can cause respiratory problems for humans and animals.
water hazard class 1: slightly hazardous to water

SECTION 13: Disposal considerations

* 13.1. Waste treatment methods
Product and packaging must be treated as hazardous waste. Pressure vessels: Do not puncture or incinerate, even after use. Also consider local regulations on waste disposal. See Regulation 2008/98/EC on waste. Please comply with national or regional regulations on waste disposal. This product is not normally recycled. Do not allow to enter drains/surface water/ground water.

13.1.1. Product/Packaging disposal

Waste codes/waste designations according to EWC/AVV

Waste code product

16 05 04 *	Gases in pressure containers (including halons) containing hazardous substances

**: Evidence for disposal must be provided.*

Directive 2008/98/EC (Waste Framework Directive)

HP 3	Flammable

SECTION 14: Transport information

Land transport (ADR/RID)	Inland waterway craft (ADN)	Sea transport (IMDG)	Air transport (ICAO-TI / IATA-DGR)
14.1. UN number or ID number			
UN 2037	UN 2037	UN 2037	UN 2037
14.2. UN proper shipping name			
RECEPTACLES, SMALL, CONTAINING GAS (GAS CARTRIDGES)	RECEPTACLES, SMALL, CONTAINING GAS (GAS CARTRIDGES)	RECEPTACLES, SMALL, CONTAINING GAS (GAS CARTRIDGES)	RECEPTACLES, SMALL, CONTAINING GAS
14.3. Transport hazard class(es)			
 2.1	 2.1	 2.1	 2.1
14.4. Packing group			
		-	
14.5. Environmental hazards			
No	No	No	No
14.6. Special precautions for user			
Special Provisions: 191 | 303 | 327 | 344 **Limited quantity (LQ):** 1 L	**Special Provisions:** 191 | 303 | 327 | 344 **Limited quantity (LQ):** 1 L	**Special Provisions:** 191 | 277 | 303 | 327 | 344 | 959 **Limited quantity (LQ):** Siehe SV277	**Special Provisions:** A2 **Remark:** Transport category: 2; Maximum total quantity per transport unit 333 kg

Land transport (ADR/RID)	Inland waterway craft (ADN)	Sea transport (IMDG)	Air transport (ICAO-TI / IATA-DGR)
Excepted Quantities (EQ): E0 **Classification code:** 5F **Tunnel restriction code:** (D) **Remark:** Transport category: 2; Maximum total quantity per transport unit 333 kg or litres. Stowage category (IMDG) not specified (IMDG).	**Excepted Quantities (EQ):** E0 **Classification code:** 5F **Remark:** Transport category: 2; Maximum total quantity per transport unit 333 kg or litres. Stowage category (IMDG) not specified (IMDG).	**Excepted Quantities (EQ):** E0 **EmS-No.:** F-D, S-U **Remark:** Transport category: 2; Maximum total quantity per transport unit 333 kg or litres. Stowage category (IMDG) not specified (IMDG).	or litres. Stowage category (IMDG) not specified (IMDG).

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**
No data available

15.2. Chemical Safety Assessment
A chemical safety assessment has not been carried out.

SECTION 16: Other information

* **16.1. Indication of changes**

1.1.	Product identifier
1.3.	Details of the supplier of the safety data sheet
1.4.	Emergency telephone number
2.1.	Classification of the substance or mixture
2.2.	Label elements
2.3.	Other hazards
3.2.	Mixtures
4.1.	Description of first aid measures
4.2.	Most important symptoms and effects, both acute and delayed
4.3.	Indication of any immediate medical attention and special treatment needed
5.1.	Extinguishing media
5.2.	Special hazards arising from the substance or mixture
6.1.	Personal precautions, protective equipment and emergency procedures
6.4.	Reference to other sections
7.1.	Precautions for safe handling
7.2.	Conditions for safe storage, including any incompatibilities
7.3.	Specific end use(s)
8.1.	Control parameters
8.2.	Exposure controls
9.1.	Information on basic physical and chemical properties
9.2.	Other information
10.1.	Reactivity
10.3.	Possibility of hazardous reactions
10.4.	Conditions to avoid
10.5.	Incompatible materials
11.1.	Information on hazard classes as defined in Regulation (EC) No 1272/2008

11.2.	Information on other hazards
12.1.	Toxicity
12.2.	Persistence and degradability
12.3.	Bioaccumulative potential
12.4.	Mobility in soil
12.5.	Results of PBT and vPvB assessment
12.6.	Endocrine disrupting properties
12.7.	Other adverse effects
13.1.	Waste treatment methods
15.1.	Safety, health and environmental regulations/legislation specific for the substance or mixture
16.1.	Indication of changes
16.2.	Abbreviations and acronyms
16.4.	Classification for mixtures and used evaluation method according to regulation (EC) No 1272/2008 [CLP]
16.5.	List of relevant hazard statements and/or precautionary statements from sections 2 to 15

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16.2. Abbreviations and acronyms

ACGIH	American Conference of Governmental Industrial Hygienists
ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
ATE	Acute Toxicity Estimate
AVV	Waste Shipment Ordinance (DE)
BCF	Bioconcentration Factor
CAS	Chemical Abstracts Service
CLP	Classification, Labelling and Packaging
DNEL	derived no-effect level
EAK	European Waste Catalogue
EC_{50}	Effective Concentration 50%
EG	European Community
ES	Exposure scenario
EU	European Union
EWC	European Waste Catalogue
ICAO	International Civil Aviation Organization
IMDG	International Maritime Dangerous Goods
IMO	International Maritime Organization
KG	body weight
LC_{50}	Lethal (fatal) Concentration 50%
LD_{50}	Lethal (fatal) Dose 50%
MAK	Maximum concentration in the workplace air (CH)
NFPA	National Fire Protection Association
NIOSH	National Institute for Occupational Safety & Health
NOEC	No Observed Effect Concentration
OECD	Organisation for Economic Cooperation and Development
OEL	Threshold Limit Value
OSHA	Occupational Safety & Health Administration
PBT	persistent and bioaccumulative and toxic
PNEC	Predicted No Effect Concentration
REACH	Registration, Evaluation and Authorization of Chemicals
RID	Dangerous goods regulations for transport by rail
TRGS	Technische Regeln für Gefahrstoffe
UFI	Unique Formula Identifier
UN	United Nations
ZNS	central nervous system

16.3. Key literature references and sources for data

No data available

* 16.4. Classification for mixtures and used evaluation method according to regulation (EC) No 1272/2008 [CLP]

Hazard classes and hazard categories	Hazard statements	Classification procedure
Flammable gases *(Flam. Gas 1A)*	H220: Extremely flammable gas.	On basis of test data.
Gases under pressure *(Press. Gas (Liq.))*	H280: Contains gas under pressure; may explode if heated.	On basis of test data.

* 16.5. List of relevant hazard statements and/or precautionary statements from sections 2 to 15

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

16.6. Training advice

No data available

16.7. Additional information

To the best of our knowledge, the information contained herein is accurate. However, neither the above-mentioned supplier nor its subsidiaries assume any liability with regard to the correctness or completeness of the information provided. A final determination of the suitability of individual materials is the sole responsibility of the user. All materials may involve unknown risks and should be used with caution. While certain risks are described herein, we cannot guarantee that these are the only possible risks.

* Data changed compared with the previous version.