

SAFETY DATA SHEET

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

Revision date: 19 Apr 2023

Print date: 25 Mar 2024

Version: 2



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Ultramapp 2200°C 750ml

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

1.1. Product identifier

Trade name/designation:

Ultramapp 2200°C 750ml

Article No.:

Y902206

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 Eberstälzell

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 (<i>Flam. Gas 1A</i>)	H220: Extremely flammable gas.	
Gases under pressure (<i>Press. Gas (Liq.)</i>)	H280: Contains gas under pressure; may explode if heated.	

2.2. Label elements

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

Hazard pictograms:



GHS02

Flame

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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.
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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

P410 + P403	Protect from sunlight. 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 with endocrine-disrupting properties in concentrations of $\geq 0.1\%$.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Hazardous ingredients / Hazardous impurities / Stabilisers:

Product identifiers	Substance name Classification according to Regulation (EC) No 1272/2008 [CLP]	Concentration
CAS No.: 106-97-8 EC No.: 203-448-7 Index No.: 601-004-00-0 REACH No.: 01-2119474691-32	butane Flam. Gas 1A (H220), Press. Gas (Liq.) (H280) Danger	60 – 65 Vol-%
CAS No.: 115-07-1 EC No.: 204-062-1 Index No.: 601-011-00-9	propene Flam. Gas 1A (H220), Press. Gas (Liq.) (H280) Danger	35 – 40 Vol-%

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

SECTION 4: First aid measures

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.

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. Do NOT induce vomiting.

4.2. Most important symptoms and effects, both acute and delayed

No further relevant information available.

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4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media:

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.

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:

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:

Evacuate the area and vent the gas away. Caution: Danger of explosion. Remains after clean-up should be treated as hazardous waste. Contact the local street cleaning office for more information. Show the safety data sheet.

6.4. Reference to other sections

See section 7 for further information on safe handling.

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

For further information on disposal: see section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Protective measures

Advices on safe handling:

Avoid spillage, inhalation and contact with skin and eyes. Only experienced and properly trained persons should handle compressed gas. Only use compliant equipment suitable for this product, its pressure and temperature. If in doubt, contact your gas supplier. Take measures against electrostatic charges. Pressurised container: Do not pierce or burn, even after use. Protect from sunlight. Do not expose to temperatures exceeding 50°C. Use only in well-ventilated areas. Check hoses and closures regularly, paying attention to gas leaks. Do not eat, drink or smoke in rooms where this product is used. Open

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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.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels:

maximum storage temperature: 50°C

Further information on storage conditions:

Keep only in the original container in a cool, well-ventilated place. Store in a cool dry place. Protect from heat and direct sunlight.

7.3. Specific end use(s)

Recommendation:

No further relevant information available.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1. Occupational exposure limit values

Limit value type (country of origin)	Substance name	① Long-term occupational exposure limit value ② Short-term occupational exposure limit value ③ Instantaneous value ④ Monitoring and observation processes ⑤ Remark
MAK (AT)	butane CAS No.: 106-97-8 EC No.: 203-448-7	① 800 ppm (1,900 mg/m ³)
MAK (AT)	butane CAS No.: 106-97-8 EC No.: 203-448-7	② 1,600 ppm (3,800 mg/m ³) ⑤ (max. 3x60 min./Schicht, Momentanwert)

8.1.2. Biological limit values

No data available

8.1.3. DNEL-/PNEC-values

No data available

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.

Skin protection:

Due to the characteristics of the product, protective gloves are not normally required. Protective gloves may be required due to other working conditions, e.g. mechanical risks, temperature conditions or microbiological hazards. Particularly sensitive persons may use gloves labelled "Low Chemical resistant" or "Waterproof" or corresponding attached pictogram.

Respiratory protection:

Use respiratory protection if ventilation is poor. Fresh air breathing mask may be necessary.

8.2.3. Environmental exposure controls

See section 12.

8.3. Additional information

No further relevant information available.

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SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance

Physical state: Liquefied gas

Colour: colourless

Odour: characteristic

Safety relevant basis data

Parameter	Value	at °C	① Method ② Remark
Melting point	-185 °C		
Freezing point	-185 °C		
Initial boiling point and boiling range	-48 °C		
Flash point	-180 °C		
Evaporation rate	No data available		
Auto-ignition temperature	455 °C		
Upper/lower flammability or explosive limits	2 - 11 Vol-%		
Vapour pressure	450 kPa	15 °C	
Vapour density	1.5	15 °C	
Density	0.5 kg/L		
Bulk density	not applicable		
Water solubility	No data available		

9.2. Other information

No further relevant information available.

SECTION 10: Stability and reactivity

10.1. Reactivity

No hazardous reaction when handled and stored according to provisions.

10.2. Chemical stability

The product is stable under storage at normal ambient temperatures.

10.3. Possibility of hazardous reactions

No hazardous reaction when handled and stored according to provisions.

10.4. Conditions to avoid

Avoid contact with hot surfaces. Heat. No naked flames, no sparks.

10.5. Incompatible materials

Oxidising substances.

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

butane CAS No.: 106-97-8 EC No.: 203-448-7

LD₅₀ oral: ≥5,000 mg/kg (Rat)

LD₅₀ dermal: ≥5,000 mg/kg (Rabbit)

LC₅₀ Acute inhalation toxicity (gas): 658 ppmV 4 h (Rat)

LC₅₀ Acute inhalation toxicity (vapour): ≥50 mg/L 4 h (Rat)

Acute oral toxicity:

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

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Acute dermal toxicity:

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

Acute inhalation toxicity:

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

Skin corrosion/irritation:

Contact with compressed gas can cause frostbite.

Serious eye damage/irritation:

Contact with compressed gas can cause frostbite.

Respiratory or skin sensitisation:

not sensitising.

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:

May cause irritation to the mouth, throat and/or other respiratory organs if inhaled or swallowed.
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:

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

Aspiration hazard:

The product is not classified as toxic by inhalation.

11.2. Information on other hazards

Endocrine disrupting properties:

None of the ingredients are included.

SECTION 12: Ecological information

12.1. Toxicity

butane CAS No.: 106-97-8 EC No.: 203-448-7
LC₅₀ : 49.9 mg/L 4 d (fish) The Ecosar class program has been develo
EC₅₀ : 69.43 mg/L 2 d (crustaceans, Daphnia) Calculation using ECOSAR Program v1.00
ErC₅₀ : 19.37 mg/L 4 d (Algae/water plant, Algae) Calculation using ECOSAR Program v1.00

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.

12.2. Persistence and degradability

butane CAS No.: 106-97-8 EC No.: 203-448-7
Biodegradation : Yes, rapidly

Additional information:

No further relevant information available.

12.3. Bioaccumulative potential

butane CAS No.: 106-97-8 EC No.: 203-448-7
Log K_{ow} : 1.09

12.4. Mobility in soil

No further relevant information available.

12.5. Results of PBT and vPvB assessment

butane CAS No.: 106-97-8 EC No.: 203-448-7
Results of PBT and vPvB assessment : —

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

12.6. Endocrine disrupting properties

None of the ingredients are included.

12.7. Other adverse effects

No further relevant information available.

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.

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
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*: Evidence for disposal must be provided.

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 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).	Special Provisions: 191 303 327 344 Limited quantity (LQ): 1 L 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).	Special Provisions: 191 277 303 327 344 959 Limited quantity (LQ): Siehe SV277 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).	Special Provisions: A2 Remark: Transport category: 2; Maximum total quantity per transport unit 333 kg or litres. Stowage category (IMDG) not specified (IMDG).

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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

No data available

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
BCF	Bioconcentration Factor
CAS	Chemical Abstracts Service
CLP	Classification, Labelling and Packaging
DNEL	derived no-effect level
EC ₅₀	Effective Concentration 50%
ES	Exposure scenario
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
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 (<i>Flam. Gas 1A</i>)	H220: Extremely flammable gas.	
Gases under pressure (<i>Press. Gas (Liq.)</i>)	H280: Contains gas under pressure; may explode if heated.	

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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.