

SAFETY DATA SHEET

In accordance with 1907/2006 Annex II (2015/830) and 1272/2008
(All references to EU regulations and directives are abbreviated into only the numeric term)
Issued 2017-05-30
Replaces issued SDS 2015-06-01
Version number 3.0

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

1.1. Product identifier

Trade name Ultragas
Article number 2202, 60g, 110ml - 2205, 210g, 300ml

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

Identified uses Propellants

1.3. Details of the supplier of the safety data sheet

Company Sievert AB
Box 1366
17126 SOLNA
Sweden
Telephone +46 (0)8-629 22 00
E-mail info@sievert.se

1.4. Emergency telephone number

Acute cases: Call 112, request poison information.

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Extremely flammable gas (Category 1), H220
Liquefied pressurized gas, H280

2.2. Label elements

Hazard pictogram



Signal word Danger
Hazard statements
H220 Extremely flammable gas
H280 Contains gas under pressure; may explode if heated
Precautionary statements
P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking
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

2.3. Other hazards

This product does not contain any substances that are assessed to be a PBT or a vPvB

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Note that the table shows known hazards of the ingredients in pure form. These hazards are reduced or eliminated when mixed or diluted, see Section 16d.

| Constituent | Classification | Concentration |
|--------------------------------------|-------------------------------------|---------------|
| BUTANE | | |
| CAS No: 106-97-8 EC No: 203-448-7 | Flam Gas 1, Press Gas P, H220, H280 | 55 - 60 % |

| | | |
|--|---|-----------|
| Index No: 601-004-00-0 REACH: 01-2119474691-32 | | |
| PROPENE | | |
| CAS No: 115-07-1 EC No: 204-062-1 Index No: 601-011-00-9 | Flam Gas 1, Press Gas <i>P</i> ; H220, H280 | 25 - 30 % |
| PROPANE | | |
| CAS No: 74-98-6 EC No: 200-827-9 Index No: 601-003-00-5 REACH: 01-2119486944-21 | Flam Gas 1, Press Gas <i>P</i> ; H220, H280 | 10 - 15 % |

Explanations to the classification and labelling of the ingredients are given in Section 16e. Official abbreviations are printed in normal font. Text in italics are specifications and/or complements used in the calculation of the classification of this mixture, see Section 16b.

SECTION 4: First aid measures

4.1. Description of first aid measures

Upon breathing in

Allow the injured person to rest in a warm place with fresh air, if symptoms persist seek medical attention.

Upon eye contact

Remove contact lenses immediately if possible.

Rinse the eye for several minutes with lukewarm water. If irritation persists call a doctor/ophthalmologist.

Upon skin contact

Remove contaminated clothes.

Warm up affected parts of the body if frostbite is apparent.

In case of major frost injuries, please contact your doctor.

Upon ingestion

If symptoms persist contact a doctor.

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

No further relevant information available.

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

Symptomatic treatment.

SECTION 5: Fire-fighting measures

5.1. Extinguishing media

Recommended extinguishing agents

Extinguish with powder, carbon dioxide or foam.

Unsuitable extinguishing agents

Should not be extinguished with water.

5.2. Special hazards arising from the substance or mixture

Gases detrimental to health (carbon monoxide and carbon dioxide) can be spread in case of fire.

The gas forms an explosive mixture with air.

In case of fire, high pressure may build up causing the packaging to explode.

Flammable gas.

5.3. Advice for fire-fighters

In case of fire use a respirator mask.

Vapors are heavier than air and may spread along floors.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Use recommended safety equipment, see section 8.

Do not inhale the gas.

Area should be evacuated and gases removed with ventilation.

Note, risk of ignition and explosion.

Switch off equipment which has an exposed flame, glows, or has a heat source of some other kind.

Note, risk for formation of sparks due to static electricity. Do not remove clothing in a room where spillage has occurred.

6.2. Environmental precautions

Notify rescue services for larger spillage.

Prevent from entering sewers, basements and pits, or any place where gas accumulation could be dangerous.

6.3. Methods and material for containment and cleaning up

Let the gas from the leaking gas cylinders evaporate outdoors.

6.4. Reference to other sections

See section 8 and 13 for personal protection equipment and disposal considerations.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Do not inhale fumes and avoid contact with skin and eyes.

Handle in premises with good ventilation.

Do not eat, drink or smoke in premises where this product is handled.

Open fires, hot objects, spark formation, or other sources of ignition, are not allowed in the premises where this product is handled. Prevent build up of static electricity by utilising a semi-conducting floor and shoe soles and keep humidity above 50%.

An evacuation plan should be available and evacuation routes must not be blocked.

7.2. Conditions for safe storage, including any incompatibilities

The product should be stored in a manner which prevents hazards to health and the environment. Avoid exposure to humans and animals and do not discharge the product in a sensitive environment.

Contact with the liquid product can cause injuries from hypothermia.

Store in a dry place not above normal room temperature.

Store in a well-ventilated space.

Store tightly, in original packaging.

Do not store in direct sunlight.

7.3. Specific end uses

Not relevant.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1. National limit values

BUTANE

United Kingdoms (EH40/2005)

Time-weighted-average exposure limit (TWA) 600 ppm / 1450 mg/m³

Short term exposure limit (STEL) 750 ppm / 1810 mg/m³

DNEL

No data available.

PNEC

No data available.

8.2. Exposure controls

In terms of minimizing risks, attention must be paid to the physical hazards (see Sections 2 and 10) of this product according to EU directives 89/391 and 98/24 and national occupational legislation.

8.2.1. Appropriate engineering controls

Handle in premises with good ventilation.

Eye/face protection

Not relevant.

Skin protection

Release of gas can cause strong cold. Gloves protecting against cold, labelled with the "cold hazard" pictogram, is recommended.

Respiratory protection

Use proper protective breathing equipment in case of insufficient ventilation.

Gas filter AX is recommended.

A respiratory mask may be required.

8.2.3. Environmental exposure controls

No specific measures needed.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

- | | |
|--------------------|--|
| a) Appearance | Form: Liquefied gas. Colour: colourless. |
| b) Odour | characteristic |
| c) Odour threshold | Not indicated |

| | |
|---|---|
| d) pH | Not indicated |
| e) Melting point/freezing point | -180 °C |
| f) Initial boiling point and boiling range | -44 °C |
| g) Flash point | -107 °C |
| h) Evaporation rate | Not indicated |
| i) Flammability (solid, gas) | Extremely flammable gas |
| j) Upper/lower flammability or explosive limits | Lower explosion limit 1.5% Upper explosion limit 10.9% |
| k) Vapour pressure | 450 kPa (15°C) |
| l) Vapour density | Not indicated |
| m) Relative density | 0.55 kg/L |
| n) Solubility | Solubility in water: Partially soluble |
| o) Partition coefficient: n-octanol/water | Not applicable |
| p) Auto-ignition temperature | 365 °C |
| q) Decomposition temperature | Not indicated |
| r) Viscosity | Not indicated |
| s) Explosive properties | Not applicable |
| t) Oxidising properties | Not applicable |

9.2. Other information

No data available

SECTION 10: Stability and reactivity

10.1. Reactivity

The product contains no substances which can lead to hazardous reactions at normal use.

10.2. Chemical stability

The product is stable at normal storage and handling conditions.

10.3. Possibility of hazardous reactions

No hazardous reactions known.

10.4. Conditions to avoid

Avoid heat, sparks and open flames.

10.5. Incompatible materials

Avoid contact with oxidizers.

10.6. Hazardous decomposition products

None under normal conditions.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

This product's main risk is its flammability.

Acute toxicity

The criteria for classification cannot be considered fulfilled based on available data.

BUTANE

LC50 rat 4h: 658 mg/L Inhalation

LD50 rat 24h: 658000 mg/kg Orally

PROPANE

LC50 rat 4h: 658 mg/L Inhalation

Skin corrosion/irritation

Contact with compressed gas may cause frostbites.

Serious eye damage/irritation

Contact with compressed gas may cause frostbites.

Respiratory or skin sensitisation

The criteria for classification cannot be considered fulfilled based on available data.

Germ cell mutagenicity

The criteria for classification cannot be considered fulfilled based on available data.

Carcinogenicity

The criteria for classification cannot be considered fulfilled based on available data.

Reproductive toxicity

The criteria for classification cannot be considered fulfilled based on available data.

STOT-single exposure

At high concentrations there is an anaesthetic or narcotic effect.

Prolonged inhalation can cause loss of consciousness and/or death.

STOT-repeated exposure

The criteria for classification cannot be considered fulfilled based on available data.

Aspiration hazard

The criteria for classification cannot be considered fulfilled based on available data.

SECTION 12: Ecological information

12.1. Toxicity

In the quantities with which this product is used, effects on the environment are negligible. Note however, that the local environment may be affected, and all discharge to the natural environment may impact ecosystems.

PROPANE

LC50 Freshwater water flea (*Daphnia magna*) 48h: 16.3 mg/L

LC50 Fish 96h: 16.1 mg/L

IC50 Algae 72h: 11.3 mg/L

12.2. Persistence and degradability

The product degrades easily in the natural environment.

12.3. Bioaccumulative potential

Neither this product, nor its contents, accumulates in nature.

12.4. Mobility in soil

No information about mobility in the nature exists but there is no reason to suppose the product to be ecologically harmful because of this.

12.5. Results of PBT and vPvB assessment

This product does not contain any substances that are assessed to be a PBT or a vPvB.

12.6. Other adverse effects

No known effects or hazards.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste handling of the product

Product as well as packaging must be disposed of as hazardous waste.

Also take local regulations for dealing with waste into account.

See also national waste regulations.

This product is not usually recycled.

SECTION 14: Transport information

Where not otherwise stated the information applies to all of the UN Model Regulations, i.e. ADR (road), RID (railway), ADN (inland waterways), IMDG (sea), and ICAO (IATA) (air).

14.1. UN number

2037

14.2. UN proper shipping name

RECEPTACLES, SMALL, CONTAINING GAS (GAS CARTRIDGES)

14.3. Transport hazard class(es)

Class

2: Gases

Classification code (ADR/RID)

5F: Aerosols, flammable

Labels



14.4. Packing group

Not applicable

14.5. Environmental hazards

Not applicable

14.6. Special precautions for user

Tunnel restrictions

Tunnel category: D

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

Not applicable

14.8 Other transport information

Transport category: 2; Highest total quantity per transported unit 333 kg or liters

Stowage category not indicated (IMDG)

SECTION 15: Regulatory information

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

Not indicated.

15.2. Chemical safety assessment

Chemical safety report according to 1907/2006 Annex I is not required for this product.

SECTION 16: Other information

16a. Indication of where changes have been made to the previous version of the safety data sheet

Revisions of this document

Earlier versions

2015-06-01 Revisions of this document has, where not otherwise stated, been caused by changes in the regulations

16b. Legend to abbreviations and acronyms used in the safety data sheet

Full texts for Hazard Class and Category Code mentioned in section 3

Flam Gas 1 Extremely flammable gas (Category 1)

Press Gas P Compressed gas

Explanations of the abbreviations in Section 14

ADR European Agreement concerning the International Transport of Dangerous Goods by Road

RID Regulations concerning the International Transport of Dangerous Goods by Rail

IMDG International Maritime Dangerous Goods Code

ICAO International Civil Aviation Organization (ICAO, 999 University Street, Montreal, Quebec H3C 5H7, Canada)

IATA The International Air Transport Association

Tunnel restriction code: D; Passage forbidden through tunnels of category D and E type

Transport category: 2; Highest total quantity per transported unit 333 kg or liters

16c. Key literature references and sources for data

Sources for data

Primary data for the calculation of the hazards has preferentially been taken from the official European classification list, 1272/2008 Annex I, as updated to 2017-05-30.

Where such data was not available, alternative documentation used to establish the official classification was used, e.g. IUCLID (International Uniform Chemical Information Database). As a second alternative, information was used from reputable international chemical industries, and as a third alternative other available information was used, e.g. material safety data sheets from other suppliers or information from non-profit associations, where reliability of the source was assessed by expert opinion. If, in spite of this, reliable information could not be sourced, the hazards were assessed by expert opinions based on the known hazards of similar substances, and according to the principles in 1907/2006 and 1272/2008.

Full texts for Regulations mentioned in this Safety Data Sheet

1907/2006 Annex II (2015/830) COMMISSION REGULATION (EU) 2015/830 of 28 May 2015 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH)

1272/2008 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, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006

EH40/2005 EH40/2005 Workplace exposure limits

89/391 COUNCIL DIRECTIVE (89/391/EEC of 12 June 1989 on the introduction of measures to encourage improvements in the safety and health of workers at work

98/24 COUNCIL DIRECTIVE 98/24/EC of 7 April 1998 on the protection of the health and safety of workers from the risks related to chemical agents at work (fourteenth individual Directive within the meaning of Article 16(1) of Directive 89/391/EEC)

1907/2006 REGULATION (EC) No 1907/2006 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC

16d. Methods of evaluating information referred to in 1272/2008 Article 9 which was used for the purpose of classification

Hazard calculation for this mixture has been performed as a cumulative assessment with the aid of expert assessments in accordance with 1272/2008 Annex I , where all available information which may be significant to establishing the hazards of the mixture was assessed together, and in accordance with 1907/2006 Annex XI .

16e. List of relevant hazard statements and/or precautionary statements

Full texts for hazard statements mentioned in section 3

H220 Extremely flammable gas

H280 Contains gas under pressure; may explode if heated

16f. Advice on any training appropriate for workers to ensure protection of human health and the environment

Warning for misuse

This product can cause severe harm if used improperly. Read and follow the directions of use carefully. At professional use the employer is responsible for the staff being well aware of the risks.

Other relevant information

Editorial information



This material safety data sheet has been prepared and checked by KemRisk®, KemRisk Sweden AB, Platensgatan 8, SE-582 20 Linköping, Sweden, www.kemrisk.se