Page: 1/9



Safety Data Sheet

according to Regulation (EC) Nr. 1907/2006 (REACH)

Print date: 30.04.2015 Revision number 1.0 Version date: 30.04.2015

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

1.1 Product identifier

Product name: Kartusche für Euterhaarentf.

· Product code: 15683

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

· Identified uses of the substance or mixture

Aerosol

1.3 Details of the supplier of the safety data sheet

Albert Kerbl GmbH Felizenzell 9 D-84428 Buchbach

www.kerbl.com Tel.: 0049-(0)8086-933-100 E-Mail: info@kerbl.com

Responsible Department:

Albert Kerbl GmbH

Tel.: 0049-(0)8086-933-104 E-Mail: bm@kerbl.com

1.4 Emergency telephone number:

Gemeinsames Giftinformationszentrum der Länder Mecklenburg-Vorpommern, Sachsen,

Sachsen-Anhalt und Thüringen

c/o HELIOS Klinikum Erfurt Nordhäuser Straße 74 Tel.: (03 61) 73 07 30 - Fax: (03 61) 7 30 73 17

E-Mail: ggiz@ggiz-erfurt.de - Internet: www.ggiz-erfurt.de

2 Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) Nr. 1272/2008

Flammable aerosol: Flam. Aerosol 1 (H222, H229)

Classification according to Directives 67/548/EEC and 1999/45/EC

F+; R12

Extremely flammable

2.2 Label elements

Label elements according to Regulation (EC) Nr. 1272/2008 (CLP/GHS)

Hazard pictograms



Flame (GHS 02)

Signal word Danger

Page: 2/9

Product code: 15683



Safety Data Sheet

Regulation (EC) Nr. 1907/2006 (REACH)

Print date: 30.04.2015 Revision number 1.0 Version date: 30.04.2015

Product name: Kartusche für Euterhaarentf.

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+P412 Protect from sunlight. Do no expose to temperatures exceeding 50 °C/122 °F.

Label elements according to Directives 67/548/EEC and 1999/45/EC

F+ - Extremely flammable.

Risk phrases

R12 Extremely flammable.

Safety phrases

S2 Keep out of the reach of children.

S16 Keep away from sources of ignition - No smoking.

S23 Do not breathe aerosol.

S51 Use only in well-ventilated areas.

2.3 Other hazards

· The mixture does not meet the criteria for PBT or vPvB.

3 Composition/information on ingredients

Chemical Characterization: Mixtures

Hazardous ingredients:

CAS: 78-78-4 ISOPENTANE <1 %

EC-Nr. 201-142-8 F+; R12 Xn; R65-66-67 N; R51-53

Index-Nr 601-006-00-1 Flam. Liq. 1; H224 Asp. Tox. 1; H304 STOT SE 3; H336

Reg.nr. 01-2119475602-38Aquatic Chronic 2; H411

Additional information:

The wording of the listed risk phrases and hazard statements refer to section 16.

4 First aid measures

4.1 Description of first aid measures

· General information:

As a general rule, in case of doubt or if symptoms persist, always call a doctor. NEVER induce swallowing by an unconscious person.

Inhalation:

Move to fresh air. If symptoms persist, call a physician.

· Skin contact:

Remove immediately any soiled or splashed garment. Rinse abundantly in the water and in the soap. Clean clothes separately before reusing them. Consult a doctor in case of persistent pain.

Page: 3/9

Product code: 15683



Safety Data Sheet

Regulation (EC) Nr. 1907/2006 (REACH)

Print date: 30.04.2015 Revision number 1.0 Version date: 30.04.2015

Product name: Kartusche für Euterhaarentf.

· Eye contact:

Wash thoroughly with soft, clean water for 15 minutes holding the eyelids open. If there is any redness, pain or visual impairment, consult an ophthalmologist.

· Ingestion:

Wash out mouth thoroughly and drink 1-2 glasses of water in small sips.

4.2 Most important symptoms and effects, both acute and delayed

Inhalation of spray mist is irritating to the upper airways.

4.3 Indication of any immediate medical attention and special treatment needed

None

5 Firefighting measures

5.1 Extinguishing media

Suitable methods of extinction - In the event of a fire, use: sprayed water or water mist, foam, multipurpose ABC powder, BC powder, carbon dioxide (CO2)
Unsuitable methods of extinction - In the event of a fire, do not use: water jet

5.2 Special hazards arising from the substance or mixture

Extremely flammable aerosol. Pressurised container: May burst if heated.

A fire will often produce a thick black smoke. Exposure to decomposition products may be hazardous to health. Do not breathe in smoke. In the event of a fire, the following may be formed: carbon monoxide (CO), carbon dioxide (CO2)

5.3 Advice for firefighters

Special protective equipment: Wear self-contained breathing apparatus.

Further information

Cool endangered containers with water spray jet.

Dispose fire residues and contaminated fire fighting water in accordance with official regulations.

6 Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Wear protective equipment. Keep unprotected people away.

Keep people away and stay on the upwind side.

Keep ignition sources away. No smoking.

Consult the safety measures listed under headings 7 and 8.

6.2 Environmental precautions:

Avoid unnecessary release to the environment. Prevent any material from entering drains or waterways. In case of entry into waterways, soil or drains, inform the responsible authorities.

6.3 Methods and material for containment and cleaning up:

Collect spillage. Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents). Ensure adequate ventilation.

6.4 Reference to other sections

Information regarding safe handling see chapter 7.

Information regarding personal protection see chapter 8.

Information regarding disposal see chapter 13.

Page: 4/9



Safety Data Sheet

Regulation (EC) Nr. 1907/2006 (REACH)

Print date: 30.04.2015 Revision number 1.0 Version date: 30.04.2015

Product name: Kartusche für Euterhaarentf. Product code: 15683

7 Handling and storage

7.1 Precautions for safe handling

Ensure that there is adequate ventilation, especially in confined areas.

Open and handle container with care.

Fire prevention:

Keep ignition sources away - Do not smoke. Take precautionary measures against static discharges. Pressurized container. Protect from sunlight and temperatures above $50\,^{\circ}$ C (eg by Electric lights). Do not open by force or burn even after use. Do not spray in flames or on hot surfaces.

7.2 Conditions for safe storage, including any incompatibilities Storage

· Requirements for storage rooms and vessels:

Store in a cool place.

Official regulations on storing pressurized containers must be observed.

Store away from oxidizing agents.

Further information about storage conditions:

Store in tightly closed containers in a cool, dry place.

Protect from heat and direct sunlight.

Ensure adequate ventilation.

Recommended storage temperature: 10-50 ° C

Storage class: No data available.

7.3 Specific end use(s) Keep out of reach of children.

8 Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limits		Exposure			
	Country	limit	ml/m³	mg/m³	Remarks
78-78-4 Methylbutan	EU	OEL	1000	3000	8 h
-	D, TRGS 900	AGW	1000	3000	2(II);DFG, EU
	UK, WEL	TWA	600	1800	8 h
	F, INRS	VME	1000	3000	8 h
106-97-8 Butan	D, TRGS 900	AGW	1000	2400	4(II);DFG
	UK, WEL	TWA	600	1450	8 h
		STEL	750	1810	15 min
	F, INRS	VME	800	1900	8 h
74-98-6 Propan	D, TRGS 900	AGW	1000	1800	4(II);DFG
•	UK, WEL	TWA	1000	1800	8 h
75-28-5 Isobutan	D, TRGS 900	AGW	1000	2400	4(II);DFG

8.2 Exposure controls / Personal protection

Use personal protective equipment that is clean and has been properly maintained. Store personal protective equipment in a clean place, away from the work area. Never eat, drink or smoke during use. Remove and wash contaminated clothing before re-using. Ensure that there is adequate ventilation, especially in confined areas.

Page: 5/9



Safety Data Sheet

Regulation (EC) Nr. 1907/2006 (REACH)

Print date: 30.04.2015 Revision number 1.0 Version date: 30.04.2015

Product name: Kartusche für Euterhaarentf. Product code: 15683

Eye / face protection

Avoid contact with eyes. Use eye protectors designed to protect against liquid splashes Before handling, wear safety goggles with protective sides accordance with standard EN166. In the event of high danger, protect the face with a face shield. When spraying, wear a face shield in accordance with standard EN166. Prescription glasses are not considered as protection. Individuals wearing contact lenses should wear prescription glasses during work where they may be exposed to irritant vapours. Provide eyewash stations in facilities where the product is handled constantly.

Hand protection

Wear suitable protective gloves in the event of prolonged or repeated skin contact. Use suitable protective gloves that are resistant to chemical agents in accordance with standard EN374. Gloves must be selected according to the application and duration of use at the workstation. Protective gloves need to be selected according to their suitability for the workstation in question: other chemical products that may be handled, necessary physical protections (cutting, pricking, heat protection), level of dexterity required.

Type of gloves recommended:

- Natural latex
- Nitrile rubber (butadiene-acrylonitrile copolymer rubber (NBR))
- PVC (polyvinyl chloride)
- Butyl Rubber (Isobutylene-isoprene copolymer)

Recommended properties:

- Impervious gloves in accordance with standard EN374

Skin protection (other than of the hands)

Work clothing worn by personnel shall be laundered regularly. After contact with the product, all parts of the body that have been soiled must be washed.

Respiratory protection

In case of insufficient ventilation, wear respiratory protective equipment with filter.

Thermal hazards

Pressurised container: May burst if heated.

Exposure controls regarding environmental protection

No data available.

9 Physical and chemical properties

9.1 Information on basic physical and chemical properties

· General Information

· Appearence:

Form: Aerosol
Colour: colourless
Odour: odourless
Smell Threshold: not determined
pH: not determined

· Change of state

Melting point/range: not relevant

Boiling point/range: -42,1/-11,7/-0,5 °C (Propane/Isobutane/Butane)

• Flash point: -104/-83/-60 °C (Propane/Isobutane/Butane)

· Flammability (solid, gas): not applicable

• Ignition temperature: 450/460/365 °C (Propane/Isobutane/Butane)

· Thermal decomposition: not relevant

Autoinflammability: not self-flammable

• Explosion hazard: Pressurised container: May burst if heated.

Page: 6/9



Safety Data Sheet

Regulation (EC) Nr. 1907/2006 (REACH)

Print date: 30.04.2015 Revision number 1.0 Version date: 30.04.2015

Product name: Kartusche für Euterhaarentf. Product code: 15683

· Explosion limits:

Lower: 1,7/1,5/1,4 Vol.-% (Propane/Isobutane/Butane)
Upper: 10,8/9,4/9,4 Vol.-% (Propane/Isobutane/Butane)

• Vapour pressure at 20 °C: 8,33/3,02/2,08 bar (Propane/Isobutane/Butane)

Density: not determined
 Bulk density not determined
 Vapour density not determined
 Evaporation rate not determined

· Solubility / miscibility

Water: soluable

Partition coefficient (n-Octanol/Water): not determined
 Viscosity: not determined
 Oxidising properties not determined

9.2 Other information No data available.

10 Stability and reactivity

- **10.1 Reactivity** Heating may cause a fire or explosion.
- **10.2 Chemical stability** This mixture is stable under the recommended handling and storage conditions in section 7.
- **10.3 Possibility of hazardous reactions** No hazardous reactions when stored under the recommended handling and storage conditions.
- 10.4 Conditions to avoid:

Sunlight. High temperatures. Keep away from sources of ignition.

- 10.5 Incompatible materials: Reacts with strong oxidants.
- 10.6 Hazardous decomposition products: None when used as intended.

11 Toxicological information

11.1 Information on toxicological effects

Acute toxicity:

LD/LC50 values relevant for classification:

78-78-4 ISOPENTANE

Oral LD-50 > 5000 mg/kg (Ratte) Inhalation LC50 > 20 mg/l (Ratte, 4h)

Irritation and corrosivity:

Based on available data, the classification criteria are not met

Sensitisation and repeated dose toxicity:

Based on available data, the classification criteria are not met

Carcinogenicity, mutagenicity, and toxicity for reproduction (CMR):

Based on available data, the classification criteria are not met

Additional toxicological information:

Inhalation of concentrated vapors as well as oral intake will lead to anesthesia-like conditions and headache, dizziness, etc.

Has a degreasing effect on the skin!

Page: 7/9

Product code: 15683



Safety Data Sheet

Regulation (EC) Nr. 1907/2006 (REACH)

Print date: 30.04.2015 Revision number 1.0 Version date: 30.04.2015

Product name: Kartusche für Euterhaarentf.

12 Ecological information

12.1 Toxicity

Aquatic Toxicity:

78-78-4 ISOPENTANE

LC-50 3,1 mg/l (Fisch, 96 h), Ref.: ESIS EC-50 2,3 mg/l (Daphnia, 48h), Ref.: ESIS

12.2 Persistence and degradability No data available

12.3 Bioaccumulative potential

78-78-4 ISOPENTANE Log Pow 3,4

12.4 Mobility in soil No data available.

12.5 Results of PBT and vPvB assessment The mixture does not meet the criteria for PBT or vPvB.

12.6 Other adverse effects No data available.

13 Disposal considerations

13.1 Waste treatment methods

Recommendation:

Must not be disposed together with household garbage. Do not empty into drains.

Must be supplied to an authorized hazardous waste incineration plant, after pretreatment, in accordance with regulations for special waste.

European waste catalog

The listed (n) waste number (s) according to the European Waste Catalogue (EWC), are a recommendation. A final decision must be taken in agreement with the regional waste management company.

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

Uncleaned packaging:

Recommendation: Disposal according to official regulations.

Page: 8/9

Product code: 15683



Safety Data Sheet

Regulation (EC) Nr. 1907/2006 (REACH)

Print date: 30.04.2015 Revision number 1.0 Version date: 30.04.2015

Product name: Kartusche für Euterhaarentf.

14 Transport information

14.1 UN number

· ADR/RID, ADN, IMDG, ICAO/IATA UN1950

14.2 UN proper shipping name

· ADR/RID, ADN AEROSOLS IMDG AEROSOLS

· ICAO/IATA AEROSOLS, flammable

14.3 Transport hazard class(es)

· ADR/RID, ADN, IMDG, ICAO/IATA 2.1

Classification code

· ADR/RID, ADN 5F

Special Provisions

• **ADR/RID, ADN** 190, 327, 344, 625

• **IMDG** 63, 190, 277, 327, 344, 959

- **ICAO/IATA** A145, A167, A802

14.4 Packing group none
14.5 Environmental hazards none

14.6 Special precautions for user

EmS F-D, S-U

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable.

15 Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture EU-Regulations

None

National Regulations

Germany: Water hazard class (WGK)

non-hazardous to water (nwg), Classification according to VwVwS

15.2 Chemical safety assessment: No data available

Page: 9/9



Safety Data Sheet

Regulation (EC) Nr. 1907/2006 (REACH)
Print date: 30.04.2015 Revision number 1.0 Version date: 30.04.2015

Product name: Kartusche für Euterhaarentf. Product code: 15683

16 Other information

Since the user's working conditions are not known by us, the information supplied on this safety data sheet is based on our current level of knowledge and on national and community regulations. The mixture must not be used for other uses than those specified in section 1 without having first obtained written handling instructions. It is at all times the responsibility of the user to take all necessary measures to comply with legal requirements and local regulations. The information in this safety data sheet must be regarded as a description of the safety requirements relating to the mixture and not as a guarantee of the properties thereof.

Revision notes

* Changes since the last version

Abbreviations

ADR: European agreement concerning the international carriage of dangerous goods by Road.

IMDG: International Maritime Dangerous Goods. IATA: International Air Transport Association. ICAO: International Civil Aviation Organisation

RID: Regulations concerning the International carriage of Dangerous goods by rail.

WGK: Wassergefahrdungsklasse (Water Hazard Class).

Title for H, EUH and R indications (Number and text)

H222 Extremely flammable aerosol.

H224 Extremely flammable liquid and vapour.

H229 Pressurised container: May burst if heated.

H304 May be fatal if swallowed and enters airways.

H336 May cause drowsiness or dizziness.

H411 Toxic to aquatic life with long lasting effects.

R12 Extremely flammable.

R51 Toxic to aquatic organisms.

R53 May cause long-term adverse effects in the aquatic environment.

R65 Harmful: may cause lung damage if swallowed.

R66 Repeated exposure may cause skin dryness or cracking.

R67 Vapours may cause drowsiness and dizziness.

Methods of evaluating information referred to in Article 9 of Regulation (EC) No 1272/2008 forthe purpose of classification

Classification based on the components