Unblock 500ml

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

1.1. Product identifier

Trade name/designation:

Unblock 500ml

Article No.:
T317001

UFI:
2336-54W7-XD94-SQC7

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

Use of the substance/mixture:
Lubricating agent

*
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
aerosol dispensers and lighters *(Aerosol 1)*	H222; H229: Extremely flammable aerosol. Pressurised container: May burst if heated.	
Skin corrosion/irritation *(Skin Irrit. 2)*	H315: Causes skin irritation.	
STOT-single exposure *(STOT SE 3)*	H336: May cause drowsiness or dizziness.	
Aspiration hazard *(Asp. Tox. 1)*	H304: May be fatal if swallowed and enters airways.	
Hazardous to the aquatic environment *(Aquatic Chronic 3)*	H412: Harmful to aquatic life with long lasting effects.	

2.2. Label elements

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

Hazard pictograms:



GHS02
Flame



GHS07
Exclamation mark

Signal word: Danger

Hazard components for labelling:
Hydrocarbons, C10-C13, n-alkanes, cyclic, <2% aromatics (benzene <0.1%); Kerosine (petroleum), hydrodesulfurized; Distillates (petroleum), hydrotreated light paraffinic; Distillates (petroleum), hydrotreated light naphthenic

Hazard statements for physical hazards	
H222	Extremely flammable aerosol.
H229	Pressurised container: May burst if heated.

Hazard statements for health hazards	
H315	Causes skin irritation.
H336	May cause drowsiness or dizziness.

Hazard statements for environmental hazards	
H412	Harmful to aquatic life with long lasting effects.

Precautionary statements Prevention	
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.
P260	Do not breathe mist/vapours/spray.
P271	Use only outdoors or in a well-ventilated area.
P280	Wear protective gloves/eye protection.

Precautionary statements Response	
P302 + P352	IF ON SKIN: Wash with plenty of water and soap.
P304 + P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P312	Call a POISON CENTER/doctor if you feel unwell.

Precautionary statements Storage	
P410 + P412	Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.

Precautionary statements Disposal	
P501	Dispose of contents/container to an appropriate recycling or disposal facility.

2.3. Other hazards

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

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Description:
Active ingredient mixture with propellant gas

Additional information:
Aerosols and containers fitted with a solid nebuliser containing substances or mixtures classified as hazardous by aspiration must not be labelled for this hazard.

Hazardous ingredients / Hazardous impurities / Stabilisers:

Product identifiers	Substance name Classification according to Regulation (EC) No 1272/2008 [CLP]	Concentration
EC No.: 918-481-9 REACH No.: 01-2119457273-39	**Hydrocarbons, C10-C13, n-alkanes, cyclic, <2% aromatics (benzene <0.1%)** Asp. Tox. 1 (H304) Danger **Acute Toxicity Estimate** ATE (oral) > 5,000 mg/kg ATE (dermal) > 5,000 mg/kg ATE (inhalation, vapour) > 4,951 mg/L	10 – < 25 Vol-%
CAS No.: 106-97-8 EC No.: 203-448-7 Index No.: 601-004-00-0 REACH No.: 01-2119474691-32	**Butane (with < 0,1 % butadiene (203-450-8))** Flam. Gas 1A (H220), Press. Gas (Comp.) (H280) Danger	10 – < 25 Vol-%
CAS No.: 64742-81-0 EC No.: 265-184-9 REACH No.: 01-2119462828-25	**Kerosine (petroleum), hydrodesulfurized** Aquatic Chronic 2 (H411), Asp. Tox. 1 (H304), STOT SE 3 (H336), Skin Irrit. 2 (H315) Danger **Acute Toxicity Estimate** ATE (oral) ≥ 5,000 mg/kg ATE (dermal) > 2,000 mg/kg ATE (inhalation, gases) > 5.28 ppmV ATE (inhalation, vapour) ≥ 50 mg/L	10 – < 25 Vol-%
CAS No.: 64742-55-8 EC No.: 265-158-7 REACH No.: 01-2119487077-29	**Distillates (petroleum), hydrotreated light paraffinic** Asp. Tox. 1 (H304) Danger **Acute Toxicity Estimate** ATE (oral) > 2,000 mg/kg ATE (dermal) > 5,000 mg/kg	10 – < 25 Vol-%
CAS No.: 64742-53-6 EC No.: 265-156-6 REACH No.: 01-2119480375-34	**Distillates (petroleum), hydrotreated light naphthenic** Asp. Tox. 1 (H304) Danger **Acute Toxicity Estimate** ATE (oral) > 5,000 mg/kg ATE (dermal) > 3,000 mg/kg	10 – < 25 Vol-%
CAS No.: 74-98-6 EC No.: 200-827-9 Index No.: 601-003-00-5 REACH No.: 01-2119486944-21	**propane** Flam. Gas 1A (H220), Press. Gas (Comp.) (H280) Danger **Acute Toxicity Estimate** ATE (oral) 5,840 mg/kg ATE (dermal) 13,900 mg/kg ATE (inhalation, gases) > 25 ppmV ATE (inhalation, vapour) ≥ 50 mg/L	10 – < 25 Vol-%
CAS No.: 75-28-5 EC No.: 200-857-2 REACH No.: 01-2119485395-27	**Isobutane (with < 0.1 % butadiene (203-450-8))** Flam. Gas 1A (H220), Press. Gas (Comp.) (H280) Danger **Acute Toxicity Estimate** ATE (inhalation, vapour) 52,000 mg/L	2.5 – < 10 Vol-%
EC No.: 920-107-4 REACH No.: 01-2119453414-43	**Hydrocarbons, C12-C15, n-alkanes, isoalkanes, cyclics, <2% aromatics** Asp. Tox. 1 (H304) Danger **Acute Toxicity Estimate** ATE (oral) > 15,000 mg/kg ATE (dermal) ≥ 3,160 mg/kg ATE (inhalation, gases) ≥ 6,100 ppmV	1 – < 2.5 Vol-%

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

SECTION 4: First aid measures

4.1. Description of first aid measures

Following inhalation:
Fresh air supply, consult a doctor in case of complaints.

In case of skin contact:
Rinse skin with water.

After eye contact:
Rinse opened eye for several minutes under running water. Consult a doctor if symptoms persist

Following ingestion:
Do not induce vomiting, seek medical help immediately.

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

No further relevant information available.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media:
Water mist, Extinguishing powder, Carbon dioxide (CO2), alcohol resistant foam

Unsuitable extinguishing media:
Water in full jet

5.2. Special hazards arising from the substance or mixture

No further relevant information available.

5.3. Advice for firefighters

Special protective equipment: Put on breathing apparatus.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Personal precautions:
Wear protective equipment. Keep unprotected persons away.

6.1.2. For emergency responders

No data available

6.2. Environmental precautions

Do not allow to enter into surface water or drains. In case of spillage into water or sewage system, inform the competent authorities.

6.3. Methods and material for containment and cleaning up

For cleaning up:
Do not wash away with water or aqueous detergents.

Other information:
Provide adequate ventilation.

6.4. Reference to other sections

Further information on proper storage: see section 7.
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:
Ensure good ventilation/extraction at the workplace.

Fire prevent measures:
Do not spray on naked flames or any incandescent material. Keep away from sources of ignition - No smoking. Take precautionary measures against static discharges. Container is under pressure. Protect from sunlight and temperatures above 50°C (e.g. from incandescent lamps). Do not open by force or burn even after use.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels:
Store in a cool place. The official regulations for the storage of pressurised gas packages must be observed.

Hints on storage assembly:
The official regulations for the storage of pressurised gas packages must be observed.

Storage class (TRGS 510, Germany): 2B – Aerosol dispensers and lighters

Further information on storage conditions:
Store in a cool, dry place in well-sealed containers. 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)	**Hydrocarbons, C10-C13, n-alkanes, cyclic, <2% aromatics (benzene <0.1%)** EC No.: 918-481-9	① 200 mL/m³ ② 400 mL/m³ ⑤ (für Kohlenwasserstoffgemische mit einem Gehalt an aromatischen Kohlenwasserstoffen von weniger als 1 %, an n-Hexan von weniger als 5 % und an Cyclo-/ Isohexanen von weniger als 25 %)
MAK (AT)	**Hydrocarbons, C10-C13, n-alkanes, cyclic, <2% aromatics (benzene <0.1%)** EC No.: 918-481-9	① 170 mL/m³ ② 340 mL/m³ ⑤ (für Kohlenwasserstoffgemische mit einem Gehalt an aromatischen Kohlenwasserstoffen von weniger als 1 %, an n-Hexan von weniger als 5 % und an Cyclo-/ Isohexanen von 25 % oder mehr)
MAK (AT)	**Butane (with < 0,1 % butadiene (203-450-8))** CAS No.: 106-97-8 EC No.: 203-448-7	① 800 ppm (1,900 mg/m³)
MAK (AT)	**Butane (with < 0,1 % butadiene (203-450-8))** CAS No.: 106-97-8 EC No.: 203-448-7	② 1,600 ppm (3,800 mg/m³) ⑤ (max. 3x60 min./Schicht, Momentanwert)

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)	**Kerosine (petroleum), hydrodesulfurized** CAS No.: 64742-81-0 EC No.: 265-184-9	① 20 mL/m³ ② 40 mL/m³ ⑤ (für Kohlenwasserstoffgemische mit einem Gehalt an aromatischen Kohlenwasserstoffen von mehr als 25 %)
MAK (AT)	**Kerosine (petroleum), hydrodesulfurized** CAS No.: 64742-81-0 EC No.: 265-184-9	① 70 mL/m³ ② 140 mL/m³ ⑤ (für Kohlenwasserstoffgemische mit einem Gehalt an aromatischen Kohlenwasserstoffen von 1 % bis 25 % und an Hexanen von weniger als 1 %)
MAK (AT)	**propane** CAS No.: 74-98-6 EC No.: 200-827-9	② 2,000 ppm (3,600 mg/m³) ⑤ (max. 3x60 min./Schicht, Momentanwert)
MAK (AT)	**propane** CAS No.: 74-98-6 EC No.: 200-827-9	① 1,000 ppm (1,800 mg/m³)
MAK (AT)	**Isobutane (with < 0.1 % butadiene (203-450-8))** CAS No.: 75-28-5 EC No.: 200-857-2	② 1,600 ppm (3,800 mg/m³) ⑤ (max. 3x60 min./SchichtMomentanwert)
MAK (AT)	**Isobutane (with < 0.1 % butadiene (203-450-8))** CAS No.: 75-28-5 EC No.: 200-857-2	① 800 ppm (1,900 mg/m³)

8.1.2. Biological limit values

No data available

8.1.3. DNEL-/PNEC-values

Substance name	DNEL value	① DNEL type ② Exposure route ③ Exposure time
Hydrocarbons, C10-C13, n-alkanes, cyclic, <2% aromatics (benzene <0.1%) EC No.: 918-481-9	2.73 mg/m³	① DNEL worker ② Long-term – inhalation, systemic effects
Hydrocarbons, C10-C13, n-alkanes, cyclic, <2% aromatics (benzene <0.1%) EC No.: 918-481-9	5.58 mg/m³	① DNEL worker ② Long-term – inhalation, local effects
Hydrocarbons, C10-C13, n-alkanes, cyclic, <2% aromatics (benzene <0.1%) EC No.: 918-481-9	0.97 mg/kg bw/day	① DNEL worker ② Long-term - dermal, systemic effects
Hydrocarbons, C10-C13, n-alkanes, cyclic, <2% aromatics (benzene <0.1%) EC No.: 918-481-9	0.74 mg/kg bw/day	① DNEL worker ② Long-term - oral, systemic effects
Kerosine (petroleum), hydrodesulfurized CAS No.: 64742-81-0 EC No.: 265-184-9	19 mg/kg	① DNEL Consumer ② Long-term - oral, systemic effects ③ 24 h

Substance name	DNEL value	① DNEL type ② Exposure route ③ Exposure time
Distillates (petroleum), hydrotreated light naphthenic CAS No.: 64742-53-6 EC No.: 265-156-6	2.73 mg/m³	① DNEL worker ② Long-term – inhalation, systemic effects
Distillates (petroleum), hydrotreated light naphthenic CAS No.: 64742-53-6 EC No.: 265-156-6	5.58 mg/m³	① DNEL worker ② Long-term – inhalation, local effects
Distillates (petroleum), hydrotreated light naphthenic CAS No.: 64742-53-6 EC No.: 265-156-6	1.19 mg/m³	① DNEL Consumer ② Long-term – inhalation, local effects
Distillates (petroleum), hydrotreated light naphthenic CAS No.: 64742-53-6 EC No.: 265-156-6	0.97 mg/kg bw/day	① DNEL worker ② Long-term - dermal, systemic effects
Distillates (petroleum), hydrotreated light naphthenic CAS No.: 64742-53-6 EC No.: 265-156-6	0.74 mg/kg bw/day	① DNEL Consumer ② Long-term - oral, systemic effects

8.2. Exposure controls

8.2.1. Appropriate engineering controls

No further details. See section 7.

8.2.2. Personal protection equipment



Eye/face protection:

Safety goggles (EN-166)

Skin protection:

Hand protection:
Selection of glove material considering breakthrough times, permeation rates and degradation.
Wear gloves for protection against chemicals according to EN 374.
Gloves / solvent resistant
Breakthrough times and swelling properties of the material must be taken into consideration.
Glove material:
The selection of a suitable glove depends not only on the material but also on other quality features and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of glove materials cannot be calculated in advance and must therefore be checked before use.
NBR (Nitrile rubber)
Recommended material thickness: ≥ 0,5 mm
Permeation time (maximum wear duration):
For continuous contact we recommend gloves with a breakthrough time of at least 240 minutes, with the preference for a breakthrough time greater than 480 minutes. For short term or splash protection we recommend the same. We are aware that suitable gloves offering this protection are not available. In this case, a shorter breakthrough time is permissible, provided the procedures for maintenance and timely replacement are followed. The thickness of the gloves is not a good measure of the resistance the gloves give against a chemical substance, as this depends on the exact composition of the material of the gloves. The exact breakthrough time should be checked with the glove manufacturer and adhered to.

Body protection:
Use protective suit. (EN-13034/6)
Antistatic, chemical and oil resistant clothing and safety shoes are recommended. (EN1149; EN340&EN ISO 13688 EN13034-6).

Respiratory protection:
In case of inadequate ventilation wear respiratory protection. Filter A2/P2

Other protection measures:
General protective and hygienic measures: Remove contaminated, saturated clothing immediately. Keep away from food, drink and animal feed. Wash hands before breaks and after work. Do not inhale gases/ vapours/aerosols. General ventilation.

8.2.3. Environmental exposure controls
Use a suitable container to prevent environmental pollution.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance
Form: Aerosol
Colour: According to product designation
Odour: characteristic
flammability: No data available
Odour threshold: not determined

Safety relevant basis data

Parameter	Value	at °C	① Method ② Remark
pH	*not applicable*		② Mixture is not polar/aprotic.
Initial boiling point and boiling range	-44.5 °C		
Flash point	-97 °C		
Evaporation rate	*No data available*		
Auto-ignition temperature	> 220 °C		
Upper/lower flammability or explosive limits	0.6 – 10.9 Vol-%		
Vapour pressure	4,000 hPa	20 °C	
Density	0.707 g/cm³	20 °C	
Water solubility	Immiscible		
Kinematic viscosity	≤ 20.5 mm²/s	40 °C	

9.2. Other information
The product is not self-igniting. The product is not explosive, but the formation of explosive vapour/air mixtures is possible. formation of explosive vapour/air mixtures is possible.

9.2.1. Information with regard to physical hazard classes
Explosives:
Not applicable
Flammable gases:
Not applicable
Aerosols:
Extremely flammable aerosol. Pressurized container: May burst if heated.
Oxidizing gases:
Not applicable
Gases under pressure:
Not applicable
Flammable liquids:
Not applicable
Flammable solids:
Not applicable
Self-reactive substances and mixtures:
Not applicable
Pyrophoric liquids:
Not applicable

Pyrophoric solids:
Not applicable

Self-heating substances and mixtures:
Not applicable

Substances or mixtures which, in contact with water, emit flammable gases:
Not applicable

Oxidizing liquids:
Not applicable

Oxidizing solids:
Not applicable

Organic peroxides:
Not applicable

Corrosive to metals:
Not applicable

Desensitised explosives:
Not applicable

SECTION 10: Stability and reactivity

10.1. Reactivity
No further relevant information available.

10.2. Chemical stability
Thermal decomposition / Conditions to avoid: No decomposition when used as directed.

10.3. Possibility of hazardous reactions
No dangerous reactions known.

10.4. Conditions to avoid
No further relevant information available.

10.5. Incompatible materials
No further relevant information available.

10.6. Hazardous decomposition products
No dangerous decomposition products known.

SECTION 11: Toxicological information

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

Hydrocarbons, C10-C13, n-alkanes, cyclic, <2% aromatics (benzene <0.1%) EC No.: 918-481-9
LD_{50} oral: >5,000 mg/kg (Rat) OESO 401)
LD_{50} dermal: >5,000 mg/kg (Rabbit)
LC_{50} Acute inhalation toxicity (vapour): >4,951 mg/L 4 h (Rat) OESO 403
Kerosine (petroleum), hydrodesulfurized CAS No.: 64742-81-0 EC No.: 265-184-9
LD_{50} oral: ≥5,000 mg/kg (Rat)
LD_{50} dermal: >2,000 mg/kg (Rabbit) OECD 402
LC_{50} Acute inhalation toxicity (gas): >5.28 ppmV 1 d (Rat) OECD 403
LC_{50} Acute inhalation toxicity (vapour): ≥50 mg/L 4 h (Rat)
Distillates (petroleum), hydrotreated light paraffinic CAS No.: 64742-55-8 EC No.: 265-158-7
LD_{50} oral: >2,000 mg/kg (Rat)
LD_{50} dermal: >5,000 mg/kg (Rabbit)
Distillates (petroleum), hydrotreated light naphthenic CAS No.: 64742-53-6 EC No.: 265-156-6
LD_{50} oral: >5,000 mg/kg (Rat)
LD_{50} dermal: >3,000 mg/kg (Rabbit)

propane CAS No.: 74-98-6 EC No.: 200-827-9	
LD_{50} oral: 5,840 mg/kg (Rat)	
LD_{50} dermal: 13,900 mg/kg (Rabbit)	
LC_{50} Acute inhalation toxicity (gas): >25 ppmV 4 h (Rat)	
LC_{50} Acute inhalation toxicity (vapour): ≥50 mg/L 4 h (Rat)	
Isobutane (with < 0.1 % butadiene (203-450-8)) CAS No.: 75-28-5 EC No.: 200-857-2	
LC_{50} Acute inhalation toxicity (vapour): 52,000 mg/L 2 h (Rat)	
Hydrocarbons, C12-C15, n-alkanes, isoalkanes, cyclics, <2% aromatics EC No.: 920-107-4	
LD_{50} oral: >15,000 mg/kg (Rat)	
LD_{50} dermal: ≥3,160 mg/kg (Rat)	
LC_{50} Acute inhalation toxicity (gas): ≥6,100 ppmV 4 h (Rat)	

Acute oral toxicity:
Based on available data, the classification criteria are not met.

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:
Causes skin irritation.

Serious eye damage/irritation:
Based on available data, the classification criteria are not met.

Respiratory or skin sensitisation:
Based on available data, the classification criteria are not met.

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 drowsiness or dizziness.

STOT-repeated exposure:
Based on available data, the classification criteria are not met.

Aspiration hazard:
May be fatal if swallowed and enters airways.

11.2. Information on other hazards

Endocrine disrupting properties:
None of the ingredients are included.

SECTION 12: Ecological information

*

12.1. Toxicity

Hydrocarbons, C10-C13, n-alkanes, cyclic, <2% aromatics (benzene <0.1%) EC No.: 918-481-9	
LC_{50}: 1,000 mg/L 3 d (Algae/water plant)	
EC_{50}: 1,000 mg/L 2 d (crustaceans)	
EC_{50}: >1,000 mg/L 2 d (DAPHNIA MAGNA)	
EC_{50}: >1,000 mg/L 3 d (Selenastrum capricornutum)	
Kerosine (petroleum), hydrodesulfurized CAS No.: 64742-81-0 EC No.: 265-184-9	
NOEC: 0.098 mg/L 28 d (fish, Oncorhynchus mykiss) QSAR	

Distillates (petroleum), hydrotreated light paraffinic CAS No.: 64742-55-8 EC No.: 265-158-7
NOEC: 10 mg/L 21 d (crustaceans, Daphnia magna)
LC_{50}: >100 mg/L 4 d (fish, Pimephales promelas)
EC_{50}: >10,000 mg/L 2 d (crustaceans, Daphnia magna)
Distillates (petroleum), hydrotreated light naphthenic CAS No.: 64742-53-6 EC No.: 265-156-6
LC_{50}: >100 mg/L 2 d (fish, Pimephales promelas)
EC_{50}: >10,000 mg/L 4 d (crustaceans, Daphnia magna)
NOEC: >10 mg/L 21 d (crustaceans, Daphnia magna)
propane CAS No.: 74-98-6 EC No.: 200-827-9
LC_{50}: 9,640 mg/L 4 d (fish, Pimephales promelas)
LC_{50}: 0.41 mg/L 4 d (fish, Oncorhynchus mykiss)
LC_{50}: 49.9 mg/L 4 d (fish)
EC_{50}: >100 mg/L (Algae/water plant, Bacteria)
EC_{50}: 0.17 mg/L 3 d (Algae/water plant, Selenastrum capricornutum)
EC_{50}: 69.43 mg/L 2 d (crustaceans, Daphnia) Calculation with the ECOSAR programme v1.00.
NOEC: 0.017 mg/L 3 d (Algae/water plant, Pseudokirchneriella subcapitata)
ErC_{50}: 19.37 mg/L 4 d (Algae/water plant, Algae) Calculation with the ECOSAR programme v1.00.
LOEC: 1,000 mg/L (Algae/water plant, Algae)
LOEC: 1,000 mg/L (Algae/water plant, Alge)
IC_{50}: 11.3 mg/L 3 d (Algae/water plant)

Aquatic toxicity:
No further relevant information available.

12.2. Persistence and degradability

propane CAS No.: 74-98-6 EC No.: 200-827-9
Biodegradation: Yes, rapidly

Biodegradation:
Not readily biodegradable.

Additional information:
No further relevant information available.

*
12.3. Bioaccumulative potential

Butane (with < 0,1 % butadiene (203-450-8)) CAS No.: 106-97-8 EC No.: 203-448-7
Log K_{OW}: 2.89
propane CAS No.: 74-98-6 EC No.: 200-827-9
Log K_{OW}: 1.09

Accumulation / Evaluation:
No further relevant information available.

12.4. Mobility in soil
No further relevant information available.

12.5. Results of PBT and vPvB assessment

Hydrocarbons, C10-C13, n-alkanes, cyclic, <2% aromatics (benzene <0.1%) EC No.: 918-481-9
Results of PBT and vPvB assessment: —
Butane (with < 0,1 % butadiene (203-450-8)) CAS No.: 106-97-8 EC No.: 203-448-7
Results of PBT and vPvB assessment: —
Kerosine (petroleum), hydrodesulfurized CAS No.: 64742-81-0 EC No.: 265-184-9
Results of PBT and vPvB assessment: —
Distillates (petroleum), hydrotreated light paraffinic CAS No.: 64742-55-8 EC No.: 265-158-7
Results of PBT and vPvB assessment: —

Distillates (petroleum), hydrotreated light naphthenic CAS No.: 64742-53-6 EC No.: 265-156-6	
Results of PBT and vPvB assessment: —	
propane CAS No.: 74-98-6 EC No.: 200-827-9	
Results of PBT and vPvB assessment: —	
Isobutane (with < 0.1 % butadiene (203-450-8)) CAS No.: 75-28-5 EC No.: 200-857-2	
Results of PBT and vPvB assessment: —	
Hydrocarbons, C12-C15, n-alkanes, isoalkanes, cyclics, <2% aromatics EC No.: 920-107-4	
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 with endocrine-disrupting properties.

12.7. Other adverse effects
Do not allow undiluted product or large quantities of it to reach ground water, water bodies or sewage system.
Water hazard class 1: slightly hazardous to water

SECTION 13: Disposal considerations

13.1. Waste treatment methods
Must not be disposed of together with household waste. Do not allow to enter into surface water or drains.

13.1.1. Product/Packaging disposal

Waste codes/waste designations according to EWC/AVV

Waste code product

07 01 04 *	other organic solvents, washing liquids and mother liquors
20 01 99	Other fractions not otherwise specified

**: Evidence for disposal must be provided.*

Directive 2008/98/EC (Waste Framework Directive)

HP 3	Flammable
HP 14	Ecotoxic

Waste code packaging

15 01 04	metallic packaging

Waste treatment options

Appropriate disposal / Package:
Uncleaned packaging: Dispose of waste according to applicable legislation.

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 1950	UN 1950	UN 1950	UN 1950
14.2. UN proper shipping name			
AEROSOLS	AEROSOLS	AEROSOLS	AEROSOLS, flammable
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

Land transport (ADR/RID)	Inland waterway craft (ADN)	Sea transport (IMDG)	Air transport (ICAO-TI / IATA-DGR)
14.6. Special precautions for user			
Special Provisions: 190 | 327 | 344 | 625 **Limited quantity (LQ):** 1 L **Excepted Quantities (EQ):** E0 **Classification code:** 5F **Tunnel restriction code:** (D) **Remark:** Attention: Gases	**Special Provisions:** 190 | 327 | 344 | 625 **Limited quantity (LQ):** 1 L **Excepted Quantities (EQ):** E0 **Classification code:** 5F **Remark:** Attention: Gases	**Special Provisions:** 63 | 190 | 277 | 327 | 344 | 381 | 959 **Limited quantity (LQ):** Siehe SV277 **Excepted Quantities (EQ):** E0 **EmS-No.:** F-D, S-U **Remark:** Attention: Gases	**Special Provisions:** A145 | A167 **Limited quantity (LQ):** Y203 **Excepted Quantities (EQ):** E0 **Remark:** Attention: Gases

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**

15.1.1. EU legislation

Authorisations:
Directive 2012/18/EU
Named dangerous substances - ANNEX I: None of the ingredients are included.

Restrictions on use:
Regulation (EC) No 1907/2006 ANNEX XVII: Restriction conditions: 3
Directive 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment - Annex II: None of the ingredients are included.
Regulation (EU) 2019/1148
Annex I - RESTRICTED EXPORT SUBSTANCES FOR EXPLOSIVES (upper concentration limit for a permit pursuant to Article 5(3)): None of the ingredients are included.
Annex II - EXPLOSIVES REPORTABLE FOR EXPLOSIVES: None of the ingredients are included.
Regulation (EC) No 273/2004 on drug precursors: Piperonal (120-57-0)
Regulation (EC) No 111/2005 laying down rules for the monitoring of trade in drug precursors between the Community and third countries: Piperonal (120-57-0)

Other regulations (EU):
Directive 2012/18/EU on the control of major-accident hazards involving dangerous substances [Seveso-III-Directive], Hazard categories:
• P3a 'Flammable' aerosols Category 1 or 2, containing flammable gases Category 1 or 2 or flammable liquids

Named dangerous substances:
• Liquefied flammable gases, Category 1 or 2 (including liquefied petroleum gas) and natural gas

Directive 2004/42/EC on the limitation of emissions of volatile organic compounds:
Volatile organic compounds (VOC) content in percent by weight: 493.7 g/L

15.1.2. National regulations
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

1.3.	Details of the supplier of the safety data sheet
8.1.	Control parameters
12.1.	Toxicity
12.3.	Bioaccumulative potential
15.1.	Safety, health and environmental regulations/legislation specific for the substance or mixture
15.3.	Additional information
16.1.	Indication of changes

Limit value / limit values updated: SI

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%
EN	European Standard
ES	Exposure scenario
EWC	European Waste Catalogue
IC_{50}	Inhibition Concentration 50 %
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
OSHA	Occupational Safety & Health Administration
PBT	persistent and bioaccumulative and toxic
PNEC	Predicted No Effect Concentration
QSAR	Quantitative Structure-Activity Relationship
REACH	Registration, Evaluation and Authorization of Chemicals
RID	Dangerous goods regulations for transport by rail
TRGS	Technische Regeln für Gefahrstoffe
UN	United Nations
VOC	Volatile organic compounds
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
aerosol dispensers and lighters *(Aerosol 1)*	H222; H229: Extremely flammable aerosol. Pressurised container: May burst if heated.	
Skin corrosion/irritation *(Skin Irrit. 2)*	H315: Causes skin irritation.	
STOT-single exposure *(STOT SE 3)*	H336: May cause drowsiness or dizziness.	
Aspiration hazard *(Asp. Tox. 1)*	H304: May be fatal if swallowed and enters airways.	
Hazardous to the aquatic environment *(Aquatic Chronic 3)*	H412: Harmful to aquatic life with long lasting effects.	

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.
H304	May be fatal if swallowed and enters airways.
H315	Causes skin irritation.
H336	May cause drowsiness or dizziness.
H411	Toxic to aquatic life with long lasting effects.

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.