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

1.1. Product identifier

Trade name/designation:

Parts Cleaner HD 500ml

Article No.:

T741500

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

Cold cleaner

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
Aerosols (Aerosol 1)	H222; H229: Extremely flammable aerosol. Pressurised container: May burst if heated.	
Aspiration hazard (Asp. Tox. 1)	H304: May be fatal if swallowed and enters airways.	
Skin corrosion/irritation (Skin Irrit. 2)	H315: Causes skin irritation.	
Serious eye damage/eye irritation (Eye Irrit. 2)	H319: Causes serious eye irritation.	
STOT-single exposure (STOT SE 3)	H335: May cause respiratory irritation.	
STOT-single exposure (STOT SE 3)	H336: May cause drowsiness or dizziness.	
STOT-repeated exposure (STOT RE 2)	H373: May cause damage to organs through prolonged or repeated exposure.	
Hazardous to the aquatic environment (Aquatic Chronic 3)	H412: Harmful to aquatic life with long lasting effects.	

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2.2. Label elements

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







GHS07 Exclamation mark



GHS08 Health hazard

Signal word: Danger

Hazard components for labelling:

Reaction mass of ethylbenzene and xylene; Hydrocarbons, C7-C9, n-alkanes, iso-alkanes, cyclic (< 0.1%

benzene); butanone; propan-2-ol

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.	
H319	Causes serious eye irritation.	
H335	May cause respiratory irritation.	
H336	May cause drowsiness or dizziness.	
H373	May cause damage to organs through prolonged or repeated exposure.	

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.	
P273	Avoid release to the environment.	
P280	Wear protective gloves/protective clothing and eye protection/face 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.	
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.	
P312	Call a POISON CENTER/doctor if you feel unwell.	

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

Additional information:

Formation of explosive mixtures possible without adequate ventilation.

2.3. Other hazards

Other adverse effects:

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

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Determination of endocrine disrupting properties: Butanone (78-93-3)

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Description:

Cleaning agent

Additional information:

Regulation (EC) No. 648/2004 [Detergents regulation]:

aliphatic hydrocarbons ≥30%

aromatic hydrocarbons ≥15 - <30%

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

The application of a CRF (Child-Resist Fastening) is mandatory when this product is offered on the consumer market. Please note that the CRF is part of the packaging and not of the classification. The application of a TWD (Tactile Warning of Danger) is mandatory when this product is offered on the consumer market. Please note that the TWD is part of the packaging and not of the classification.

Hazardous ingredients / Hazardous impurities / Stabilisers:

Product identifiers Substance name Classification according to Regulation (EC) No 1272/2008 [CLP]		Concentration
EC No.: 905-588-0 REACH No.: 01-2119488216-32	Reaction mass of ethylbenzene and xylene Acute Tox. 4 (H312, H332), Asp. Tox. 1 (H304), Eye Irrit. 2 (H319), Flam. Liq. 3 (H226), STOT RE 2 (H373), STOT SE 3 (H335), Skin Irrit. 2 (H315) Danger	25 - < 50 Vol-%
CAS No.: 78-93-3 EC No.: 201-159-0 Index No.: 606-002-00-3 REACH No.: 01-2119457290-43	butanone Eye Irrit. 2 (H319), Flam. Liq. 2 (H225), STOT SE 3 (H336) Danger EUH066	10 - < 25 Vol-%
EC No.: 920-750-0 REACH No.: 01-2119473851-33	Hydrocarbons, C7-C9, n-alkanes, iso-alkanes, cyclic (< 0.1% benzene) Aquatic Chronic 2 (H411), Asp. Tox. 1 (H304), Flam. Liq. 2 (H225), STOT SE 3 (H336) Other Danger	10 - < 25 Vol-%
CAS No.: 67-63-0 EC No.: 200-661-7 REACH No.: 01-2119457558-25	propan-2-ol The substance is classified as not hazardous according to regulation (EC) No 1272/2008 [CLP].	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	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	1 - < 2.5 Vol-%
CAS No.: 111-76-2 EC No.: 203-905-0 Index No.: 603-014-00-0 REACH No.: 01-2119475108-36	2-butoxyethanol Acute Tox. 3 (H331), Acute Tox. 4 (H302), Eye Irrit. 2 (H319), Skin Irrit. 2 (H315)	1 - < 2.5 Vol-%

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Product identifiers	Substance name Classification according to Regulation (EC) No 1272/2008 [CLP]	Concentration
CAS No.: 75-28-5 EC No.: 200-857-2	Isobutane (with < 0.1 % butadiene (203-450-8)) Flam. Gas 1A (H220), Press. Gas (Comp.) (H280)	0.1 - < 1 Vol-%
REACH No.: 01-2119485395-27	♠ Danger	

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

SECTION 4: First aid measures

4.1. Description of first aid measures

General information:

Symptoms of poisoning may not appear for many hours, therefore medical monitoring for at least 48 hours after an accident.

Following inhalation:

Fresh air supply, respiratory care if necessary, warmth. Consult a doctor if symptoms persist. If unconscious, position and transport in stable lateral position.

In case of skin contact:

Wash off immediately with soap and water and rinse well.

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, 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:

Dispose of contaminated material as waste according to section 13.

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Other information:

Provide adequate ventilation. Do not wash away with water or aqueous detergents.

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:

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 discharge. 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	 Long-term occupational exposure limit value Short-term occupational exposure limit value Instantaneous value Monitoring and observation processes Remark
MAK (AT)	butanone CAS No.: 78-93-3 EC No.: 201-159-0	① 100 ppm (295 mg/m³) ⑤ (kann über die Haut aufgenommen werden) H
MAK (AT)	butanone CAS No.: 78-93-3 EC No.: 201-159-0	② 200 ppm (590 mg/m³) ⑤ (max. 4x30 min./Schicht, kann über die Haut aufgenommen werden) H
IOELV (EU)	butanone CAS No.: 78-93-3 EC No.: 201-159-0	① 200 ppm (600 mg/m³) ② 300 ppm (900 mg/m³)
MAK (AT)	propan-2-ol CAS No.: 67-63-0 EC No.: 200-661-7	② 800 ppm (2,000 mg/m³) ⑤ (max. 4x15 min./Schicht)
MAK (AT)	propan-2-ol CAS No.: 67-63-0 EC No.: 200-661-7	① 200 ppm (500 mg/m³)

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Limit value type (country of origin)	Substance name	 Long-term occupational exposure limit value Short-term occupational exposure limit value Instantaneous value Monitoring and observation processes Remark
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)	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)
MAK (AT)	2-butoxyethanol CAS No.: 111-76-2 EC No.: 203-905-0	② 40 ppm (200 mg/m³) ⑤ (max. 4x30 min./Schicht, kann über die Haut aufgenommen werden) H
IOELV (EU)	2-butoxyethanol CAS No.: 111-76-2 EC No.: 203-905-0	① 20 ppm (98 mg/m³) ② 50 ppm (246 mg/m³) ⑤ (may be absorbed through the skin)
MAK (AT)	2-butoxyethanol CAS No.: 111-76-2 EC No.: 203-905-0	① 20 ppm (98 mg/m³) ⑤ (kann über die Haut aufgenommen werden) H
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
Reaction mass of ethylbenzene and xylene EC No.: 905-588-0	77 mg/m³	DNEL worker Long-term – inhalation, systemic effects
Reaction mass of ethylbenzene and xylene EC No.: 905-588-0	14.8 mg/m³	DNEL Consumer Long-term – inhalation, systemic effects
Reaction mass of ethylbenzene and xylene EC No.: 905-588-0	289 mg/m ³	① DNEL worker ② Acute - inhalation, local effects
Reaction mass of ethylbenzene and xylene EC No.: 905-588-0	180 mg/kg bw/ day	DNEL worker Long-term - dermal, systemic effects
Reaction mass of ethylbenzene and xylene EC No.: 905-588-0	108 mg/kg bw/ day	① DNEL Consumer ② Long-term - dermal, systemic effects

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Substance name	DNEL value	① DNEL type	
		② Exposure route	
Reaction mass of ethylbenzene and	1.6 mg/kg bw/	① DNEL Consumer	
xylene EC No.: 905-588-0	day	② Long-term - oral, systemic effects	
butanone	600 mg/m ³	① DNEL worker	
CAS No.: 78-93-3 EC No.: 201-159-0		② Long-term – inhalation, systemic effects	
butanone	106 mg/m ³	① DNEL Consumer	
CAS No.: 78-93-3 EC No.: 201-159-0		② Long-term – inhalation, systemic effects	
butanone	1,161 mg/kg	① DNEL worker	
CAS No.: 78-93-3 EC No.: 201-159-0	bw/day	② Long-term - dermal, systemic effects	
butanone		① DNEL Consumer	
CAS No.: 78-93-3 EC No.: 201-159-0	day	② Long-term - dermal, systemic effects	
butanone	31 mg/kg bw/	① DNEL Consumer	
CAS No.: 78-93-3 EC No.: 201-159-0	day	② Long-term - oral, systemic effects	
Hydrocarbons, C7-C9, n-alkanes, iso-	2,035 mg/m ³	① DNEL worker	
alkanes, cyclic (< 0.1% benzene) EC No.: 920-750-0		② Long-term – inhalation, systemic effects	
Hydrocarbons, C7-C9, n-alkanes, iso-	608 mg/m ³	① DNEL Consumer	
alkanes, cyclic (< 0.1% benzene) EC No.: 920-750-0		② Long-term – inhalation, systemic effects	
Hydrocarbons, C7-C9, n-alkanes, iso-	773 mg/kg bw/	① DNEL worker	
alkanes, cyclic (< 0.1% benzene) EC No.: 920-750-0	day	② Long-term - dermal, systemic effects	
Hydrocarbons, C7-C9, n-alkanes, iso-	699 mg/kg bw/	① DNEL Consumer	
alkanes, cyclic (< 0.1% benzene) EC No.: 920-750-0	day	② Long-term - dermal, systemic effects	
Hydrocarbons, C7-C9, n-alkanes, iso-	699 mg/kg bw/	① DNEL Consumer	
alkanes, cyclic (< 0.1% benzene) EC No.: 920-750-0	day	② Long-term - oral, systemic effects	
propan-2-ol	500 mg/m ³	① DNEL worker	
CAS No.: 67-63-0 EC No.: 200-661-7		② Long-term – inhalation, systemic effects	
propan-2-ol	89 mg/m³	① DNEL Consumer	
CAS No.: 67-63-0 EC No.: 200-661-7		② Long-term – inhalation, systemic effects	
propan-2-ol		① DNEL worker	
CAS No.: 67-63-0 EC No.: 200-661-7	day	② Long-term - dermal, systemic effects	
propan-2-ol	319 mg/kg bw/	0 - 11-1 - 11-11-11	
CAS No.: 67-63-0 EC No.: 200-661-7	day	② Long-term - dermal, systemic effects	
propan-2-ol	26 mg/kg bw/	① DNEL Consumer	
CAS No.: 67-63-0 EC No.: 200-661-7	day	② Long-term - oral, systemic effects	
2-butoxyethanol	98 mg/m³	① DNEL worker	
CAS No.: 111-76-2 EC No.: 203-905-0		② Long-term – inhalation, systemic effects	
2-butoxyethanol	59 mg/m³	① DNEL Consumer	
CAS No.: 111-76-2 EC No.: 203-905-0		② Long-term – inhalation, systemic effects	
2-butoxyethanol	1,091 mg/m ³	① DNEL worker	
CAS No.: 111-76-2 EC No.: 203-905-0		② Acute - inhalation, systemic effects	
LC 140 203-303-0			

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Substance name	DNEL value	2 DUEL towns	
Substance name	DNEL value	① DNEL type ② Exposure route	
2 hadamadh an al	126 (3	-	
2-butoxyethanol CAS No.: 111-76-2	426 mg/m ³	① DNEL Consumer	
EC No.: 203-905-0		② Acute - inhalation, systemic effects	
2-butoxyethanol	147 mg/m ³	① DNEL Consumer	
CAS No.: 111-76-2		② Acute - inhalation, local effects	
EC No.: 203-905-0	10.2		
2-butoxyethanol CAS No.: 111-76-2	10.3 mg/kg bw/day	① DNEL worker	
EC No.: 203-905-0	DW/day	② Long-term - dermal, systemic effects	
2-butoxyethanol	26.7 mg/kg	① DNEL Consumer	
CAS No.: 111-76-2	bw/day	② Acute – dermal, systemic effects	
EC No.: 203-905-0			
2-butoxyethanol CAS No.: 111-76-2	6.3 mg/kg bw/ day		
EC No.: 203-905-0	uay	② Long-term - oral, systemic effects	
	DNEC Veles	L	
Substance name	PNEC Value	① PNEC type	
Reaction mass of ethylbenzene and	0.327 mg/L	① PNEC aquatic, marine water	
xylene EC No.: 905-588-0			
Reaction mass of ethylbenzene and	6.58 mg/L	① PNEC sewage treatment plant	
xylene	j.	- The sewage deadlient plant	
EC No.: 905-588-0			
Reaction mass of ethylbenzene and	12.46 mg/L	① PNEC sediment, freshwater	
xylene EC No.: 905-588-0			
Reaction mass of ethylbenzene and	12.46 mg/L	① PNEC sediment, marine water	
xylene	12.40 1119/2	TWEC Sediment, manne water	
EC No.: 905-588-0			
Reaction mass of ethylbenzene and	2.31 mg/kg	① PNEC soil	
xylene EC No.: 905-588-0			
propan-2-ol	140.9 mg/L	① PNEC aquatic, freshwater	
CAS No.: 67-63-0	140.5 mg/L	TWEC aquatic, riestiwater	
EC No.: 200-661-7			
propan-2-ol	140.9 mg/L	① PNEC aquatic, marine water	
CAS No.: 67-63-0 EC No.: 200-661-7			
propan-2-ol	2 251 mg/l	© PNEC	
CAS No.: 67-63-0	2,251 mg/L	① PNEC sewage treatment plant	
EC No.: 200-661-7			
propan-2-ol	552 mg/kg	① PNEC sediment, freshwater	
CAS No.: 67-63-0			
EC No.: 200-661-7	552 mg/kg	DNIFC and impart manying water	
CAS No.: 67-63-0	JJZ IIIg/kg	① PNEC sediment, marine water	
EC No.: 200-661-7			
propan-2-ol	28 mg/kg	① PNEC soil	
CAS No.: 67-63-0			
EC No.: 200-661-7	140.0 mg//	© PMEC	
propan-2-ol CAS No.: 67-63-0	140.9 mg/L	① PNEC aquatic, intermittent release	
EC No.: 200-661-7			
2-butoxyethanol	8.8 mg/L	① PNEC aquatic, marine water	
CAS No.: 111-76-2		, ,	
EC No.: 203-905-0	1462 "		
2-butoxyethanol CAS No.: 111-76-2	463 mg/L	① PNEC sewage treatment plant	
EC No.: 203-905-0			

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Substance name	PNEC Value	① PNEC type	
2-butoxyethanol CAS No.: 111-76-2 EC No.: 203-905-0	0.88 mg/L	① PNEC sediment, freshwater	
2-butoxyethanol CAS No.: 111-76-2 EC No.: 203-905-0	3.46 mg/L	① PNEC sediment, marine water	
2-butoxyethanol CAS No.: 111-76-2 EC No.: 203-905-0	8.14 mg/kg	① PNEC soil	

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:

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:

Keep away from food, drink and animal feed.

Remove contaminated, saturated clothing immediately.

Wash hands before breaks and after work.

Do not inhale gases/vapours/aerosols.

Avoid contact with eyes and skin.

General ventilation.

8.2.3. Environmental exposure controls

Use a suitable container to prevent environmental pollution.

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SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance

Physical state: Aerosol Colour: According to product designation

Odour: characteristic

Safety relevant basis data

Parameter	Value	at °C	① Method
			② Remark
рН	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	> 200 °C		
Upper/lower flammability or explosive limits	0.7 - 12 Vol-%		
Vapour pressure	3,400 hPa	20 °C	
Density	0.745 g/cm ³	20 °C	
Bulk density	not applicable		
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.

Organic solvents: 100%

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

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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

Resetter wass of athylhonous and vidence. If No. 1005 500 0
Reaction mass of ethylbenzene and xylene EC No.: 905-588-0
LD₅₀ oral: >3,523 mg/kg (Rat)
LD ₅₀ dermal: >2,000 mg/kg (Rabbit)
LC ₅₀ Acute inhalation toxicity (gas): 27.571 ppmV 4 h (Rat)
butanone CAS No.: 78-93-3 EC No.: 201-159-0
LD₅₀ oral: >2,193 mg/kg (Rat)
LD ₅₀ dermal: >5,000 mg/kg (Rabbit)
LC ₅₀ Acute inhalation toxicity (vapour): 40 mg/L (Mouse)
Hydrocarbons, C7-C9, n-alkanes, iso-alkanes, cyclic (< 0.1% benzene) EC No.: 920-750-0
LD₅₀ oral: >5,000 mg/kg (Rat)
LD ₅₀ dermal: >3,100 mg/kg (Rat)
LC ₅₀ Acute inhalation toxicity (dust/mist): >23.3 mg/L 4 h (Rat)
propan-2-ol CAS No.: 67-63-0 EC No.: 200-661-7
LD₅₀ oral: >2,000 mg/kg (Rat)
LD ₅₀ dermal: >2,000 mg/kg (Rat)
LC ₅₀ Acute inhalation toxicity (gas): >25 ppmV (Rat)
LC ₅₀ Acute inhalation toxicity (vapour): >20 mg/L (Rat)
propane CAS No.: 74-98-6 EC No.: 200-827-9
LD₅₀ 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)

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

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2-butoxyethanol	CAS No.:	111-76-2	EC No.:	203-905-0
- Dutokyctilalioi	C/ 13 110	111 /02	LC 110	203 303

ATE (oral)¹: 1,200 mg/kg

ATE (inhalation, vapour)¹: 3 mg/L **LD**₅₀ oral: 300 mg/kg (Kaninchen) **LD**₅₀ dermal: 2,000 mg/kg (Rabbit)

LC₅₀ Acute inhalation toxicity (vapour): 2.2 mg/L (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:

Causes serious eye irritation.

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 respiratory irritation. May cause drowsiness or dizziness.

STOT-repeated exposure:

May cause damage to organs through prolonged or repeated exposure.

Aspiration hazard:

May be fatal if swallowed and enters airways.

11.2. Information on other hazards

Endocrine disrupting properties:

butanone (78-93-3)

SECTION 12: Ecological information

12.1. Toxicity

LC₅₀: 8.9 - 16.4 mg/L 4 d (fish, Pimephales promelas)

EC₅₀: 3.2 - 9.5 mg/L 2 d (crustaceans, Daphnia magna)

NOEC: 0.44 mg/L 3 d (Algae/water plant)

LC₅₀: 2.6 mg/L 4 d (fish, Oncorhynchus mykiss)

EC₅₀: 2.2 mg/L 3 d (Algae/water plant, Chlorella vulgaris)

NOEC: >1.39 mg/L (fish, Oncorhynchus kisutch)

NOEC: 0.74 mg/L (crustaceans, Ceriodaphnia dubia)

butanone CAS No.: 78-93-3 EC No.: 201-159-0

LC₅₀: 2,993 mg/L 4 d (fish, Pimephales promelas) OECD 203

EC₅₀: 308 mg/L 2 d (crustaceans, Daphnia magna) OECD 202

ErC₅₀: 1,972 mg/L 3 d (Algae/water plant, Pseudokirchnerella subcapitata) OECD 201

Hydrocarbons, C7-C9, n-alkanes, iso-alkanes, cyclic (< 0.1% benzene) EC No.: 920-750-0

NOEC: 0.17 mg/L 21 d (crustaceans, Daphnia magna)

LOEC: 0.32 mg/L 21 d (crustaceans, Daphnia magna)

^{1:} Acute Toxicity Estimate. Harmonised (legal) classification.

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propan-2-ol CAS No.: 67-63-0 EC No.: 200-661-7

LC₅₀: 9,640 mg/L 4 d (fish, Pimephales promelas)

LC₅₀: >1,000 mg/L 4 d (fish)

EC₅₀: >100 mg/L (Algae/water plant)

EC₅₀: >100 mg/L 2 d (crustaceans, Daphnia magna)

EC₅₀: >1,000 mg/L 2 d (crustaceans)

ErC₅₀: >100 mg/L 3 d (Algae/water plant, Desmodesmus subspicatus)

LOEC: 1,000 mg/L (Algae/water plant, Algae)

LC₅₀: 8,970 mg/L 2 d (fish, Leuciscus idus (golden orfe))

propane CAS No.: 74-98-6 EC No.: 200-827-9

LC₅₀: 9,640 mg/L 4 d (fish, Pimephales promelas) **LC₅₀:** 0.41 mg/L 4 d (fish, Oncorhynchus mykiss)

LC₅₀: 49.9 mg/L 4 d (fish)

EC₅₀: >100 mg/L (Algae/water plant, Bacteria)

EC₅₀: 0.17 mg/L 3 d (Algae/water plant, Selenastrum capricornutum)

EC₅₀: 69.43 mg/L 2 d (crustaceans, Daphnia)

NOEC: 0.017 mg/L 3 d (Algae/water plant, Pseudokirchneriella subcapitata)

ErC₅₀: 19.37 mg/L 4 d (Algae/water plant)

LOEC: 1,000 mg/L (Algae/water plant, Algae)

LOEC: 1,000 mg/L (Algae/water plant, Alge)

2-butoxyethanol CAS No.: 111-76-2 EC No.: 203-905-0

LC₅₀: 1,490 mg/L (fish, Lepomis macrochirus)

Aquatic toxicity:

No further relevant information available.

Assessment/classification:

No further relevant information available.

12.2. Persistence and degradability

butanone CAS No.: 78-93-3 EC No.: 201-159-0

Biodegradation: Yes, rapidly

propan-2-ol CAS No.: 67-63-0 EC No.: 200-661-7

Biodegradation: Yes, rapidly

Remark: Readily biodegradable (according to OECD criteria).

propane CAS No.: 74-98-6 EC No.: 200-827-9

Biodegradation: Yes, rapidly

2-butoxyethanol CAS No.: 111-76-2 EC No.: 203-905-0

Biodegradation: Yes, rapidly

Biodegradation:

Not readily biodegradable.

12.3. Bioaccumulative potential

Reaction mass of ethylbenzene and xylene EC No.: 905-588-0

Log K_{OW}: 3.16

Bioconcentration factor (BCF): 29

propan-2-ol CAS No.: 67-63-0 EC No.: 200-661-7

Log K_{OW}: 0.05

propane CAS No.: 74-98-6 EC No.: 200-827-9

Log K_{OW}: 1.09

2-butoxyethanol CAS No.: 111-76-2 EC No.: 203-905-0

Log K_{OW}: 0.81

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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

Reaction mass of ethylbenzene and xylene EC No.: 905-588-0			
Results of PBT and vPvB assessment: —			
butanone CAS No.: 78-93-3 EC No.: 201-159-0			
Results of PBT and vPvB assessment: —			
Hydrocarbons, C7-C9, n-alkanes, iso-alkanes, cyclic (< 0.1% benzene) EC No.: 920-750-0			
Results of PBT and vPvB assessment: —			
propan-2-ol CAS No.: 67-63-0 EC No.: 200-661-7			
Results of PBT and vPvB assessment: —			
propane CAS No.: 74-98-6 EC No.: 200-827-9			
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: —			
2-butoxyethanol CAS No.: 111-76-2 EC No.: 203-905-0			
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

For information on endocrine disrupting properties see section 11.

12.7. Other adverse effects

Do not allow to enter into surface water or drains.

Drinking water hazard even when small quantities leak into the subsoil.

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 Directive 2008/98/EC (Waste Framework Directive)

HP 3	Flammable
HP 4	Irritant — skin irritation and eye damage
HP 5	Specific Target Organ Toxicity (STOT)/Aspiration Toxicity
HP 6	Acute Toxicity
HP 14	Ecotoxic

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	

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Land transport (ADR/RID)	Inland waterway craft (ADN)	Sea transport (IMDG)	Air transport (ICAO-TI / IATA-DGR)		
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 precau	itions for user				
Special Provisions: 190 327 344 625 Limited quantity (LQ): 1 L Excepted Quantities (EQ): E0 Classification code: 5F Tunnel restriction code: (D)	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		
Remark: Attention: Gases		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: butanone; ethyl methyl ketone (78-93-3)

Regulation (EC) No 111/2005 laying down rules for the monitoring of trade in drug precursors between the Community and third countries: butanone (78-93-3)

Other regulations (EU):

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: 745 g/L

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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

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 EC₅₀ Effective Concentration 50%

EN European Standard ES Exposure scenario

EWC European Waste Catalogue

ICAO International Civil Aviation Organization
IMDG International Maritime Dangerous Goods
IMO International Maritime Organization

KG body weight

LC₅₀ Lethal (fatal) Concentration 50%

LD₅₀ 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

SCL Specific concentration limit

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			
Aerosols (Aerosol 1)	H222; H229: Extremely flammable aerosol. Pressurised container: May burst if heated.				
Aspiration hazard (Asp. Tox. 1)	H304: May be fatal if swallowed and enters airways.				
Skin corrosion/irritation (Skin Irrit. 2)	H315: Causes skin irritation.				

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Hazard classes and hazard categories	Hazard statements	Classification procedure
Serious eye damage/eye irritation (Eye Irrit. 2)	H319: Causes serious eye irritation.	
STOT-single exposure (STOT SE 3)	H335: May cause respiratory irritation.	
STOT-single exposure (STOT SE 3)	H336: May cause drowsiness or dizziness.	
STOT-repeated exposure (STOT RE 2)	H373: May cause damage to organs through prolonged or repeated exposure.	
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.
H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H280	Contains gas under pressure; may explode if heated.
H302	Harmful if swallowed.
H304	May be fatal if swallowed and enters airways.
H312	Harmful in contact with skin.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H331	Toxic if inhaled.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
H373	May cause damage to organs through prolonged or repeated exposure.
H411	Toxic to aquatic life with long lasting effects.

Supplemental hazard information	
EUH066	Repeated exposure may cause skin dryness or cracking.

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.