

SAFETY DATA SHEET

This safety data sheet was created pursuant to the requirements of:
Regulation (EC) No. 1907/2006 and Regulation (EC) No. 1272/2008



Revision date: 20-Jan-2022

Revision Number: 4

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

1.1. Product identifier

Product Name: Kluthe Lösol 80
Article number: 066110330000
CAS No: -
REACH registration number: 01-2119475514-35

Hazard components for labeling:
Contains hydrocarbons, C6 - 7, n-alkanes, i-alkanes, cyclics, < 5% n-Hexane

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

Product categories [PC]: PC9 - Coatings and paints, fillers, putties, thinners
PC 0.56 - Solvent

1.3. Details of the supplier of the safety data sheet

Supplier: conti coatings GmbH & Co. KG
Feldstrasse 55
D - 46149 Oberhausen
Telefon: +49 208/ 9948-0
Telefax: +49 208/ 650625
www.conticoatings.com

E-mail address: sds.ob@conticoatings.com

1.4. Emergency telephone number

Emergency Telephone: +49 177 / 214 4737 (24 h)

Emergency Telephone - §45 - (EC)1272/2008	
Europe	112
Austria	+43 1 406 43 43 (Giftinformationszentrale)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Flammable liquids	Category 2 - (H225)
Aspiration hazard	Category 1 - (H304)
Skin corrosion/irritation	Category 2 - (H315)
Specific target organ toxicity (single exposure)	Category 3 - (H336)
Chronic aquatic toxicity	Category 2 - (H411)

2.2. Label elements

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Signal word: **Danger**

Hazard components for labeling:

Contains hydrocarbons, C6 - 7, n-alkanes, i-alkanes, cyclics, < 5% n-Hexane

Hazard statements:

- H225 - Highly flammable liquid and vapor.
- 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.

Precautionary Statements - EU (§28, 1272/2008):

- P101 - If medical advice is needed, have product container or label at hand
- P102 - Keep out of reach of children
- P271 - Use only outdoors or in a well-ventilated area
- P273 - Avoid release to the environment
- P301 + P310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor
- P331 - Do NOT induce vomiting
- P391 - Collect spillage
- P405 - Store locked up
- P501 - Dispose of contents/ container to an approved waste disposal plant
- P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking
- P370 + P378 - In case of fire: Use dry chemical, CO₂, water spray or alcohol-resistant foam to extinguish
- P403 + P233 - Store in a well-ventilated place. Keep container tightly closed

Additional information

This product requires child resistant fastenings when supplied to the general public unless the product is placed on the market in the form of aerosols or in a container with a sealed spray attachment. Placed on the market in aerosol containers or in containers fitted with a sealed spray attachment.

2.3. Other hazards

No information available.

SECTION 3: Composition/information on ingredients

3.1 Substances

Not applicable

3.2 Mixtures

Chemical name	CAS No	EC No	REACH registration number	Classification according to Regulation (EC) No. 1272/2008 [CLP]	Weight-%
hydrocarbons, C6 - 7,	-	921-024-6	01-2119475514-35	Flam. Liq. 2 (H225)	90 - 100

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n-alkanes, i-alkanes, cyclics, < 5% n-Hexane				Asp. Tox. 1 (H304) Skin Irrit. 2 (H315) STOT SE 3 (H336) Aquatic Chronic 2 (H411)	
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Acute Toxicity Estimate:

If LD50/LC50 data is not available or does not correspond to the classification category, then the appropriate conversion value from CLP Annex I, Table 3.1.2, is used to calculate the acute toxicity estimate (ATEmix) for classifying a mixture based on its components

Chemical name	Oral LD50 mg/kg	Dermal LD50 mg/kg	Inhalation LC50 - 4 hour - dust/mist - mg/L	Inhalation LC50 - 4 hour - vapor - mg/L	Inhalation LC50 - 4 hour - gas - ppm
hydrocarbons, C6 - 7, n-alkanes, i-alkanes, cyclics, < 5% n-Hexane -	5001	No data available	No data available	No data available	No data available

hazardous components above-mentioned substances/ substance mixtures:

Chemical name	CAS No	EC No	REACH registration number	Classification according to Regulation (EC) No. 1272/2008 [CLP]	Weight-%
Cyclohexane 110-82-7	110-82-7	203-806-2	01-2119463273-41	Flam. Liq. 2 (H225) Asp. Tox. 1 (H304) Skin Irrit. 2 (H315) STOT SE 3 (H336) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)	10 - < 25
Hexane 110-54-3	110-54-3	203-777-6	01-2119480412-44	Flam. Liq. 2 (H225) Asp. Tox. 1 (H304) Skin Irrit. 2 (H315) STOT SE 3 (H336) Repr. 2 (H361f) STOT RE 2 (H373) Aquatic Chronic 2 (H411)	1 - < 3

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

SECTION 4: First aid measures

4.1. Description of first aid measures

General advice:	Show this safety data sheet to the doctor in attendance. Immediate medical attention is required.
Inhalation:	Remove to fresh air. Aspiration into lungs can produce severe lung damage. If breathing has stopped, give artificial respiration. Get medical attention immediately. Avoid direct contact with skin. Use barrier to give mouth-to-mouth resuscitation. If breathing is difficult, (trained personnel should) give oxygen. Get immediate medical advice/attention. Delayed pulmonary edema may occur.
Eye contact:	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Keep eye wide open while rinsing. Do not rub affected area.

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Skin contact:	Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Get medical attention if irritation develops and persists.
Ingestion:	Do NOT induce vomiting. Rinse mouth. Never give anything by mouth to an unconscious person. ASPIRATION HAZARD IF SWALLOWED - CAN ENTER LUNGS AND CAUSE DAMAGE. If vomiting occurs spontaneously, keep head below hips to prevent aspiration. Get immediate medical advice/attention.
Self-protection of the first aider:	Remove all sources of ignition. Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination. Use personal protective equipment as required. See section 8 for more information. Avoid direct contact with skin. Use barrier to give mouth-to-mouth resuscitation. Avoid contact with skin, eyes or clothing.

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

Symptoms:	Difficulty in breathing. Coughing and/ or wheezing. Dizziness. Inhalation of high vapor concentrations may cause symptoms like headache, dizziness, tiredness, nausea and vomiting.
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4.3. Indication of any immediate medical attention and special treatment needed

Note to physicians:	Because of the danger of aspiration, emesis or gastric lavage should not be employed unless the risk is justified by the presence of additional toxic substances.
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SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable Extinguishing Media:	Dry chemical. Carbon dioxide (CO ₂). Water spray. Alcohol resistant foam.
Large Fire:	CAUTION: Use of water spray when fighting fire may be inefficient.
Unsuitable extinguishing media:	Do not scatter spilled material with high pressure water streams.

5.2. Special hazards arising from the substance or mixture

Specific hazards arising from the chemical:	Risk of ignition. Keep product and empty container away from heat and sources of ignition. In the event of fire, cool tanks with water spray. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.
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5.3. Advice for firefighters

Special protective equipment and precautions for fire-fighters:	Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.
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SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions:	Evacuate personnel to safe areas. Use personal protective equipment as required. See section 8 for more information. Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. Keep people away from and upwind of spill/leak. ELIMINATE all
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ignition sources (no smoking, flares, sparks or flames in immediate area). Pay attention to flashback. Take precautionary measures against static discharges. All equipment used when handling the product must be grounded. Do not touch or walk through spilled material.

Other information: Ventilate the area. Refer to protective measures listed in Sections 7 and 8.

For emergency responders: Use personal protection recommended in Section 8.

6.2. Environmental precautions

Environmental precautions: Refer to protective measures listed in Sections 7 and 8. Prevent further leakage or spillage if safe to do so. Prevent product from entering drains.

6.3. Methods and material for containment and cleaning up

Methods for containment: Stop leak if you can do it without risk. Do not touch or walk through spilled material. A vapor suppressing foam may be used to reduce vapors. Dike far ahead of spill to collect runoff water. Keep out of drains, sewers, ditches and waterways. Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal.

Methods for cleaning up: Take precautionary measures against static discharges. Dam up. Soak up with inert absorbent material. Pick up and transfer to properly labeled containers.

Prevention of secondary hazards: Clean contaminated objects and areas thoroughly observing environmental regulations.

6.4. Reference to other sections

Reference to other sections: See section 8 for more information. See section 13 for more information.

SECTION 7: Handling and storage

7.1. Precautions for safe handling



Advice on safe handling: Use personal protection equipment. Avoid breathing vapors or mists. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use grounding and bonding connection when transferring this material to prevent static discharge, fire or explosion. Use with local exhaust ventilation. Use spark-proof tools and explosion-proof equipment. Keep in an area equipped with sprinklers. Use according to package label instructions. Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. Do not eat, drink or smoke when using this product. Take off contaminated clothing and wash before reuse. In case of insufficient ventilation, wear suitable respiratory equipment.

General hygiene considerations: Do not eat, drink or smoke when using this product. Contaminated work clothing should not be allowed out of the workplace. Regular cleaning of equipment, work area and clothing is recommended. Wash hands before breaks and immediately after handling the product. Wear suitable gloves and eye/face protection.

7.2. Conditions for safe storage, including any incompatibilities

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Storage Conditions: Keep containers tightly closed in a dry, cool and well-ventilated place. Keep away from heat, sparks, flame and other sources of ignition (i.e., pilot lights, electric motors and static electricity). Keep in properly labeled containers. Do not store near combustible materials. Keep in an area equipped with sprinklers. Store in accordance with the particular national regulations. Store in accordance with local regulations. Store locked up. Keep out of the reach of children. Store away from other materials.

7.3. Specific end use(s)

Other information: No information available.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Exposure Limits:

<i>Chemical name</i>	<i>European Union</i>	<i>Germany</i>	<i>Netherlands</i>	<i>Spain</i>	<i>United Kingdom</i>	<i>Hungary</i>
Cyclohexane 110-82-7	TWA: 200 ppm TWA: 700 mg/m ³	TWA: 200 ppm TWA: 700 mg/m ³	TWA: 700 mg/m ³ STEL: 1400 mg/m ³	TWA: 200 ppm TWA: 700 mg/m ³	TWA: 100 ppm TWA: 350 mg/m ³ STEL: 300 ppm STEL: 1050 mg/m ³	TWA: 700 mg/m ³
Hexane 110-54-3	TWA: 20 ppm TWA: 72 mg/m ³	TWA: 50 ppm TWA: 180 mg/m ³	TWA: 72 mg/m ³ STEL: 144 mg/m ³	TWA: 20 ppm TWA: 72 mg/m ³	TWA: 20 ppm TWA: 72 mg/m ³ STEL: 60 ppm STEL: 216 mg/m ³	TWA: 72 mg/m ³ b*

<i>Chemical name</i>	<i>France</i>	<i>Italy</i>	<i>Portugal</i>	<i>Finland</i>	<i>Denmark</i>	<i>Czech Republic</i>
Cyclohexane 110-82-7	TWA: 200 ppm TWA: 700 mg/m ³ STEL: 375 ppm STEL: 1300 mg/m ³	TWA: 100 ppm TWA: 350 mg/m ³	TWA: 200 ppm TWA: 700 mg/m ³	TWA: 100 ppm TWA: 350 mg/m ³ STEL: 250 ppm STEL: 875 mg/m ³	TWA: 50 ppm TWA: 172 mg/m ³	TWA: 700 mg/m ³ Ceiling: 2000 mg/m ³
Hexane 110-54-3	TWA: 20 ppm TWA: 72 mg/m ³ STEL: 1500 mg/m ³	TWA: 20 ppm TWA: 72 mg/m ³	TWA: 20 ppm TWA: 72 mg/m ³ Cutânea*	TWA: 20 ppm TWA: 72 mg/m ³ iho*	TWA: 20 ppm TWA: 72 mg/m ³	TWA: 70 mg/m ³ Ceiling: 200 mg/m ³ D*

<i>Chemical name</i>	<i>Austria</i>	<i>Switzerland</i>	<i>Poland</i>	<i>Norway</i>	<i>Ireland</i>	<i>Russia</i>
Cyclohexane 110-82-7	TWA: 200 ppm TWA: 700 mg/m ³ STEL 800 ppm STEL 2800 mg/m ³	TWA: 200 ppm TWA: 700 mg/m ³ STEL: 800 ppm STEL: 2800 mg/m ³	STEL: 1000 mg/m ³ TWA: 300 mg/m ³ skóra*	TWA: 150 ppm TWA: 525 mg/m ³ STEL: 187.5 ppm STEL: 656.25 mg/m ³	TWA: 200 ppm TWA: 700 mg/m ³ STEL: 600 ppm STEL: 2100 mg/m ³	MAC: 80 mg/m ³
Hexane 110-54-3	TWA: 20 ppm TWA: 72 mg/m ³ STEL 80 ppm STEL 288 mg/m ³	TWA: 50 ppm TWA: 180 mg/m ³ STEL: 400 ppm STEL: 1440 mg/m ³ H*	TWA: 72 mg/m ³ skóra*	TWA: 20 ppm TWA: 72 mg/m ³ STEL: 30 ppm STEL: 108 mg/m ³	TWA: 20 ppm TWA: 72 mg/m ³ STEL: 60 ppm STEL: 216 mg/m ³ Sk*	TWA: 300 mg/m ³ MAC: 900 mg/m ³

Biological occupational exposure limits:

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<i>Chemical name</i>	<i>European Union</i>	<i>Germany</i>	<i>Netherlands</i>	<i>Spain</i>	<i>United Kingdom</i>	<i>Hungary</i>
Cyclohexane 110-82-7		150 mg/g Creatinine (urine - total 1,2-Cyclohexanedi ol (after hydrolysis) end of shift) 150 mg/g Creatinine (urine - total 1,2-Cyclohexanedi ol (after hydrolysis) for long-term exposures: at the end of the shift after several shifts) 150 mg/g Creatinine - BAT (for long-term exposures: at the end of the shift after several shifts) urine				
Hexane 110-54-3		5 mg/L (urine - 2,5-Hexandione plus 4,5-Dihydroxy-2-h exanone (after hydrolysis) end of shift) 5 mg/L - BAT (end of exposure or end of shift) urine 5 mg/L - BAT (for long-term exposures: at the end of the shift after several shifts) urine		0.2 mg/L - urine (2,5-Hexanedione) - end of workweek		2 mg/L (urine - 2,5-Hexanedione (after hydrolysis) end of shift) 18 µmol/L (urine - 2,5-Hexanedione (after hydrolysis) end of shift)

<i>Chemical name</i>	<i>France</i>	<i>Italy</i>	<i>Portugal</i>	<i>Finland</i>	<i>Denmark</i>	<i>Czech Republic</i>
Hexane 110-54-3	5 mg/g creatinine - urine (2,5-Hexanedione) - end of shift					

<i>Chemical name</i>	<i>Austria</i>	<i>Switzerland</i>	<i>Poland</i>	<i>Norway</i>	<i>Ireland</i>	<i>Russia</i>
Cyclohexane 110-82-7		150 mg/g creatinine - urine (total 1,2-Cyclohexanedi ol) - end of shift, and after several shifts (for long-term exposures)				
Hexane 110-54-3		5 mg/L - urine (2,5-Hexanedione plus			0.4 mg/L (urine - 2,5-Hexanedione end of shift at end	

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Chemical name	Austria	Switzerland	Poland	Norway	Ireland	Russia
		4,5-Dihydroxy-2-hexanone) - end of shift			of workweek)	

Derived No Effect Level (DNEL):

component information:

Worker - inhalative:

Chemical name	long term, systemic	short term, systemic	long term, local	short term, local
hydrocarbons, C6 - 7, n-alkanes, i-alkanes, cyclics, < 5% n-Hexane	2035 mg/m ³			

Chemical name	short term, local	short term, systemic	long term, local	long term, systemic
Cyclohexane	1400 mg/m ³	1400 mg/m ³	700 mg/m ³	700 mg/m ³
Hexane				75 mg/m ³

Worker - dermal:

Chemical name	long term, systemic	short term, systemic	long term, local	short term, local
hydrocarbons, C6 - 7, n-alkanes, i-alkanes, cyclics, < 5% n-Hexane	773 mg/kg bw/day			

Chemical name	short term, local	short term, systemic	long term, local	long term, systemic
Cyclohexane				2016 mg/kg bw/day
Hexane				11 mg/kg bw/day

Consumer - inhalative:

Chemical name	long term, systemic	short term, systemic	long term, local	short term, local
hydrocarbons, C6 - 7, n-alkanes, i-alkanes, cyclics, < 5% n-Hexane	608 mg/m ³			

Chemical name	short term, local	short term, systemic	long term, local	long term, systemic
Cyclohexane	412 mg/m ³	412 mg/m ³	206 mg/m ³	206 mg/m ³
Hexane				16 mg/m ³

Consumer - dermal:

Chemical name	long term, systemic	short term, systemic	long term, local	short term, local
hydrocarbons, C6 - 7, n-alkanes, i-alkanes, cyclics, < 5% n-Hexane	699 mg/kg bw/day			

Chemical name	short term, local	short term, systemic	long term, local	long term, systemic

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Chemical name	short term, local	short term, systemic	long term, local	long term, systemic
Cyclohexane				1168 mg/kg bw/day
Hexane				5.32 mg/kg bw/day

consumer - oral:

Chemical name	long term, systemic	short term, systemic	long term, local	short term, local
hydrocarbons, C6 - 7, n-alkanes, i-alkanes, cyclics, < 5% n-Hexane	699 mg/kg bw/day			

Chemical name	short term, local	short term, systemic	long term, local	long term, systemic
Cyclohexane				59.4 mg/kg bw/day
Hexane				4 mg/kg bw/day

Predicted No Effect Concentration (PNEC):

component information:

Chemical name	Cyclohexane
Freshwater	0.207 mg/L
Marine water	0.207 mg/L
Intermittent release	0.207 mg/L
Impact on Sewage Treatment	3.24 mg/L
Freshwater sediment	16.68 mg/kg dry weight
Marine sediment	16.68 mg/kg dry weight
Soil	3.38 mg/kg dry weight

8.2. Exposure controls

Engineering controls: Showers, eyewash stations, and ventilation systems.

Personal protective equipment:



Eye/face protection: Tight sealing safety goggles.

Hand protection: Wear suitable gloves. Impervious gloves.

PPE - Glove material	Glove thickness	Break through time
NBR (Nitrile rubber)	0.5 mm	>=480 min.

Skin and body protection: Wear suitable protective clothing. Long sleeved clothing. Chemical resistant apron. Antistatic boots.

Respiratory protection: No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.

Recommended Filter Type: Filtering device (full mask or mouthpiec AP-2

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Environmental exposure controls: No information available.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance	Liquid				
Color	colorless				
Odor	Paraffin oil				
			<i>Conditions</i>	<i>Method</i>	<i>Remarks</i>
Melting point / melting range					Not established
Boiling point / boiling range	80 - 110	°C			
Flammability					Not established
Decomposition temperature					not relevant
Flash point	~ -20	°C			
Autoignition temperature	250	°C			
Lower explosive limit	0.8	Vol%			
Upper explosion limit	6.5	Vol%			
Vapor pressure	> 1100	hPa	50 °C		
Density	~ 0.714	g/cm ³	15 °C		
Water solubility					Immiscible
pH					Not applicable
pH (as aqueous solution)					Not established
Partition coefficient					Not established
Kinematic viscosity	< 20.5	mm ² /s	40 °C		
Odor threshold					Not established
Relative density					Not established
Evaporation rate					Not established
Relative vapor density	no data available				
Particle Size	no data available				
Particle Size Distribution	no data available				

9.2. Other information

Bulk density:	no data available
Softening point	No information available
Molecular weight	No information available

9.2.1. Information with regard to physical hazard classes:

Explosive properties	No data available
Oxidizing properties	No data available

9.2.2. Other safety characteristics: No information available

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity: No information available.

10.2. Chemical stability

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Stability: Stable under normal conditions.

Explosion data:

Sensitivity to mechanical impact: None.

Sensitivity to static discharge: Yes.

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions: None under normal processing.

10.4. Conditions to avoid

Conditions to avoid: Heat, flames and sparks.

10.5. Incompatible materials

Incompatible materials: Strong acids. Strong bases. Strong oxidizing agents.

10.6. Hazardous decomposition products

Hazardous decomposition products: None known based on information supplied.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Information on likely routes of exposure:

Product Information:

Inhalation: Specific test data for the substance or mixture is not available. Aspiration into lungs can produce severe lung damage. May cause pulmonary edema. Pulmonary edema can be fatal. May cause irritation of respiratory tract. May cause drowsiness or dizziness.

Eye contact: Specific test data for the substance or mixture is not available. May cause irritation.

Skin contact: Repeated exposure may cause skin dryness or cracking. Specific test data for the substance or mixture is not available. Causes skin irritation. (based on components).

Ingestion: Specific test data for the substance or mixture is not available. Potential for aspiration if swallowed. May cause lung damage if swallowed. Aspiration may cause pulmonary edema and pneumonitis. May be fatal if swallowed and enters airways. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.

Symptoms related to the physical, chemical and toxicological characteristics:

Symptoms: Difficulty in breathing. Coughing and/ or wheezing. Dizziness. Redness. May cause redness and tearing of the eyes. Inhalation of high vapor concentrations may cause symptoms like headache, dizziness, tiredness, nausea and vomiting.

Numerical measures of toxicity:

Acute toxicity: No information available

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Chemical name	Parameter	Species	effektive Dosis	Method
hydrocarbons, C6 - 7, n-alkanes, i-alkanes, cyclics, < 5% n-Hexane -	Oral LD50	Rat	> 5000 mg/kg	

Chemical name	Parameter	Species	effektive Dosis	Method
Cyclohexane 110-82-7	Oral LD50	Rat	> 5000 mg/kg	OECD 401
Hexane 110-54-3	Oral LD50	Rat	> 5000 mg/kg	OECD 401

Chemical name	Parameters	Species	Effective dose	Method
hydrocarbons, C6 - 7, n-alkanes, i-alkanes, cyclics, < 5% n-Hexane -	Dermal LD50	Rat	> 2000 mg/kg	

Chemical name	Parameters	Species	Effective dose	Method
Cyclohexane 110-82-7	Dermal LD50	Rabbit	> 2000 mg/kg	OECD 402
Hexane 110-54-3	Dermal LD50	Rabbit	> 2000 mg/kg	OECD 402

Chemical name	Parameters	Species	Effective dose	Exposure time	Method
hydrocarbons, C6 - 7, n-alkanes, i-alkanes, cyclics, < 5% n-Hexane -	Inhalation LC50	Rat	> 25.2 mg/L	4 h	

Chemical name	Parameters	Species	Effective dose	Exposure time	Method
Cyclohexane 110-82-7	Inhalation LC50	Rat	19.1 mg/L	4 h	OECD 403
Hexane 110-54-3	Inhalation LC50	Rat	169.2 mg/L	4 h	

Delayed and immediate effects as well as chronic effects from short and long-term exposure:

Skin corrosion/irritation:	Irritating to skin.
Serious eye damage/eye irritation:	No information available.
Respiratory or skin sensitization:	No information available.
Germ cell mutagenicity:	No information available.
Carcinogenicity:	No information available.
Reproductive toxicity:	Based on available data, the classification criteria are not met.

The table below indicates ingredients above the cut-off threshold considered as relevant which are listed as reproductive toxins.

Chemical name	European Union
Hexane	Repr. 2

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STOT - single exposure: May cause drowsiness or dizziness.
STOT - repeated exposure: No information available.
Aspiration hazard: May be fatal if swallowed and enters airways.

11.2. Information on other hazards

11.2.1. Endocrine disrupting properties

No information available.

11.2.2. Other information

No information available.

SECTION 12: Ecological information

12.1. Toxicity

Ecotoxicity: Toxic to aquatic life with long lasting effects.

fish toxicity:

Chemical name	Parameter	Species	Effective dose	Exposure time	Method
hydrocarbons, C6 - 7, n-alkanes, i-alkanes, cyclics, < 5% n-Hexane -	LL50	Oncorhynchus mykiss	15.8 mg/L	96 h	OECD 203

Chemical name	Parameter	Species	Effective dose	Exposure time	Method
Cyclohexane 110-82-7	LC50	Pimephales promelas Lepomis macrochirus Poecilia reticulata	3.96 - 5.18 mg/L 23.03 - 42.07 mg/L 48.87 - 68.76 mg/L	96 h	OECD 203
Hexane 110-54-3	LC50	Pimephales promelas	2.1 - 2.98 mg/L	96 h	

toxicity to crustacea:

Chemical name	Parameter	Species	Effective dose	Exposure time	Method
hydrocarbons, C6 - 7, n-alkanes, i-alkanes, cyclics, < 5% n-Hexane -	EL50	Daphnia magna	3 mg/L	48 h	OECD 202

Chemical name	Parameter	Species	Effective dose	Exposure time	Method
Cyclohexane 110-82-7	EC50	Daphnia magna	0.9 mg/L	48 h	OECD 202
Hexane 110-54-3	EC50	Daphnia magna	21.85 mg/L	48 h	

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Algae Toxicity:

Chemical name	Parameter	Species	Effective dose	Exposure time	Method
hydrocarbons, C6 - 7, n-alkanes, i-alkanes, cyclics, < 5% n-Hexane -	EL50	Pseudokirchneriella subcapitata	10 - 30 mg/L	96 h	OECD 201

Chemical name	Parameter	Species	Effective dose	Exposure time	Method
Cyclohexane 110-82-7	EC50	Desmodesmus subspicatus	500 mg/L	72 h	
Hexane 110-54-3	EL50	Pseudokirchneriella subcapitata	9.285 mg/L	72 h	

Bacteria toxicity:

Chemical name	Parameters	Species	Effective dose	Exposure time	Method
Cyclohexane 110-82-7	IC50		29	15	

12.2. Persistence and degradability

Persistence and degradability:

Chemical name	degradation rate	test duration	Rapidly biodegradable	Remarks	Method
hydrocarbons, C6 - 7, n-alkanes, i-alkanes, cyclics, < 5% n-Hexane -	98 %	28 d	Yes		OECD 301 F

Chemical name	degradation rate	test duration	Rapidly biodegradable	Remarks	Method
Cyclohexane 110-82-7	77 %	28 d	Yes	Aerobic biological treatment	OECD 301 F
Hexane 110-54-3	98 %	28 d	Yes		OECD 301 F

12.3. Bioaccumulative potential

Bioaccumulation:

Chemical name	Partition coefficient	Bioconcentration factor (BCF)
hydrocarbons, C6 - 7, n-alkanes, i-alkanes, cyclics, < 5% n-Hexane -	> 4	

Chemical name	Partition coefficient	Bioconcentration factor (BCF)
Cyclohexane 110-82-7	3.44	167
Hexane 110-54-3	4	501.2

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12.4. Mobility in soil

Mobility in soil: No information available.

Mobility: No information available.

12.5. Results of PBT and vPvB assessment

PBT and vPvB assessment:

<i>Chemical name</i>	<i>PBT and vPvB assessment</i>
Cyclohexane 110-82-7	The substance is not PBT / vPvB
Hexane 110-54-3	The substance is not PBT / vPvB

12.6. Endocrine disrupting properties.

No information available.

12.7. Other adverse effects.

No information available.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste from residues/unused products: Should not be released into the environment. Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.

Contaminated packaging: Empty containers pose a potential fire and explosion hazard. Do not cut, puncture or weld containers.

Waste codes / waste designations according to EWC / AVV: 07 01 04* (other organic solvents, washing liquids and mother liquors)

SECTION 14: Transport information

14.1. UN number

ADR: UN3295
RID: UN3295
IMDG: UN3295
IATA: UN3295

14.2 UN proper shipping name

ADR: HYDROCARBONS, LIQUID, N.O.S.
UN3295, HYDROCARBONS, LIQUID, N.O.S., 3, II, Environmentally Hazardous

RID: HYDROCARBONS, LIQUID, N.O.S.
UN3295, HYDROCARBONS, LIQUID, N.O.S., 3, II, Environmentally Hazardous

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IMDG: HYDROCARBONS, LIQUID, N.O.S.
UN3295, HYDROCARBONS, LIQUID, N.O.S. (HYDROCARBONS, C6 - 7, N-ALKANES, I-ALKANES, CYCLICS, < 5% N-HEXANE), 3, II, (-20°C C.C.), MARINE POLLUTANT

IATA: HYDROCARBONS, LIQUID, N.O.S.
UN3295, HYDROCARBONS, LIQUID, N.O.S., 3, II

14.3. Transport hazard class(es)

ADR: 3
Hazard label(s) 3
Classification code F1
Hazard identification number 33
(Kemler No.)
Tunnel restriction code (D/E)
Limited quantity (LQ) 1 L
Excepted quantity E2

RID: 3
Labels 3
Classification code F1

IMDG: 3
Hazard label(s) 3
Limited quantity (LQ) 1 L
Excepted quantity E2
EmS-No F-E, S-D

IATA: 3
Hazard label(s) 3
Excepted quantity E2

14.4. Packing group

ADR: II
RID: II
IMDG: II
IATA: II

14.5. Environmental hazards

ADR: Yes
RID: Yes
IMDG: Marine pollutant
IATA: Yes

14.6. Special precautions for user

ADR:
Special Provisions: 640C

RID:
Special Provisions: 640C

IMDG:
Special Provisions: Not regulated

IATA:
Special Provisions: None

Special Provisions: A325, A3
ERG Code 3H

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14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code

No information available

SECTION 15: Regulatory information

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

European Union:

Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work

Authorizations and/or restrictions on use:

- This product contains one or more substance(s) subject to restriction (Regulation (EC) No. 1907/2006 (REACH), Annex XVII)

Chemical name	Substance subject to authorization per REACH Annex XIV	Restricted substance per REACH Annex XVII
hydrocarbons, C6 - 7, n-alkanes, i-alkanes, cyclics, < 5% n-Hexane -		3.

Chemical name	Substance subject to authorization per REACH Annex XIV	Restricted substance per REACH Annex XVII
Cyclohexane 110-82-7		40. 57.
Hexane 110-54-3		40.

Persistent Organic Pollutants: Not applicable

Dangerous substance category per Seveso Directive (2012/18/EU):

P5a - FLAMMABLE LIQUIDS

P5b - FLAMMABLE LIQUIDS

P5c - FLAMMABLE LIQUIDS

E2 - Hazardous to the Aquatic Environment in Category Chronic 2

Ozone-depleting substances (ODS) regulation (EC) 1005/2009: Not applicable

volatile organic compounds (VOC) content:

acc. reg. 2010/75/EG:

100 %

acc. reg. 2004/42/EG (Decopaint):

714 g/L

National regulations:

Germany:

Water hazard class (WGK): obviously hazardous to water (WGK 2) - Classification according to AwSV

Chemical name	WGK Classification (AwSV)	ID number
hydrocarbons, C6 - 7, n-alkanes, i-alkanes, cyclics, < 5% n-Hexane	2	-

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Chemical name	WGK Classification (AwSV)	ID number
Cyclohexane 110-82-7	2	63
Hexane 110-54-3	2	124

TA Luft (German Air Pollution Control Regulation):
org. substances (Ziffer 5.2.5): 95 - 100%

Storage class (TRGS 510): 3 • LGK3 - Flammable liquids

France:

Occupational Illnesses (R-463-3, France):

Chemical name	French RG number
hydrocarbons, C6 - 7, n-alkanes, i-alkanes, cyclics, < 5% n-Hexane -	RG 84

Chemical name	French RG number
Cyclohexane 110-82-7	RG 84
Hexane 110-54-3	RG 59, RG 84

RG 59 - Occupational poisoning by hexane
RG 84 - Occupational conditions caused by liquid organic solvents

Netherlands:

Chemical name	Hexane
Netherlands - List of Reproductive Toxins	Fertility Category 2
(p)ZS list: potential SVHC	x

Austria:

Flammable Liquids Regulations, VbF: Flammable liquids: A1

Switzerland:

VOC content:: acc. VOCV CH 814.018, att. 1: 100 %

International Inventories:

TSCA	Does not comply
DSL/NDSL	Does not comply
EINECS/ELINCS	Complies
ENCS	Does not comply
IECSC	Complies
KECL	Complies
PICCS	Complies
AICS	Complies

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Legend:

- TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory
- DSL/NDSL** - Canadian Domestic Substances List/Non-Domestic Substances List
- EINECS/ELINCS** - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
- ENCS** - Japan Existing and New Chemical Substances
- IECSC** - China Inventory of Existing Chemical Substances
- KECL** - Korean Existing and Evaluated Chemical Substances
- PICCS** - Philippines Inventory of Chemicals and Chemical Substances
- AICS** - Australian Inventory of Chemical Substances

15.2. Chemical safety assessment

Chemical Safety Report: No information available

SECTION 16: Other information

Key or legend to abbreviations and acronyms used in the safety data sheet:

Full text of H-Statements referred to under section 3:

- H225 - Highly flammable liquid and vapor
- 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

Legend:

- ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways (Accord européen relatif au transport international des marchandises dangereuses par voies de navigation intérieures)
- ADR: European agreement concerning the international carriage of dangerous goods by road (Accord européen relatif transport des marchandises dangereuses par route)
- AGW: Occupational threshold limit value (Arbeitsplatzgrenzwert – Germany)
- BCF: Bio-Concentration Factor
- BOD(5): Biochemical oxygen demand (within 5 days)
- CAS: Chemical Abstract Service
- CLP: Classification, Labelling and Packaging
- CMR: Carcinogenic, Mutagenic, toxic for Reproduction
- DIN: German Standards Institute / German industrial norm
- DNEL: Derived No Effect Level
- DOC: Dissolved organic carbon
- EAK/ AVV: European waste catalogue/ waste directory-regulation
- EC50: Effective Concentration 50%
- ECHA: European Chemical Agency
- EINECS: European Inventory of Existing Commercial Chemical Substances
- GHS: Globally Harmonised System of Classification, Labelling and Packaging of Chemicals
- IATA: International Air Transport Association
- IC50: Inhibition Concentration 50%
- IMDG: International Maritime Dangerous Goods Code
- LC50: Lethal Concentration 50% - LD50: Lethal dose 50%
- MAK: Treshold limit values Germany
- NLP: No Longer Polymers
- NOAEC: No Observed Adverse Effect Concentration
- NOAEL: No Observed Adverse Effect Level
- OECD: Organization for Economic Cooperation and Development

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PBT: persistent, bioaccumulative, toxic
PC: Product category
PNEC: Predicted No Effect Concentration
REACH: Registration, Evaluation and Authorization of Chemicals
RID: Regulations concerning the international carriage of dangerous goods by rail
(Règlement International concernant le transport de marchandises dangereuses par chemin de fer)
STEL: Short-term Exposure Limit
STP: Sewage treatment plant
SVHC: Substance of Very High Concern
TLV: Threshold Limit Value
TWA: Time Weighted Average
UN: United Nations
VOC: Volatile Organic Compounds
vPvB: very persistent, very bioaccumulative

Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Ceiling: Maximum limit value

* Skin designation

Classification procedure	
Classification according to Regulation (EC) No. 1272/2008 [CLP]	Method Used
Acute oral toxicity	Calculation method
Acute dermal toxicity	Calculation method
Acute inhalation toxicity - gas	Calculation method
Acute inhalation toxicity - vapor	Calculation method
Acute inhalation toxicity - dust/mist	Calculation method
Skin corrosion/irritation	Calculation method
Serious eye damage/eye irritation	Calculation method
Respiratory sensitization	Calculation method
Skin sensitization	Calculation method
Mutagenicity	Calculation method
Carcinogenicity	Calculation method
Reproductive toxicity	Calculation method
STOT - single exposure	Calculation method
STOT - repeated exposure	Calculation method
Acute aquatic toxicity	Calculation method
Chronic aquatic toxicity	Calculation method
Aspiration hazard	On basis of test data
Ozone	Calculation method

Key literature references and sources for data used to compile the SDS:

European Chemicals Agency (ECHA)

Agency for Toxic Substances and Disease Registry (ATSDR)

U.S. Environmental Protection Agency ChemView Database

European Food Safety Authority (EFSA)

EPA (Environmental Protection Agency)

Acute Exposure Guideline Level(s) (AEGl(s))

U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act

U.S. Environmental Protection Agency High Production Volume Chemicals

Food Research Journal

Hazardous Substance Database

International Uniform Chemical Information Database (IUCLID)

Japan GHS Classification

Australia National Industrial Chemicals Notification and Assessment Scheme (NICNAS)

NIOSH (National Institute for Occupational Safety and Health)

National Library of Medicine's ChemID Plus (NLM CIP)

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National Library of Medicine's PubMed database (NLM PUBMED)
National Toxicology Program (NTP)
New Zealand's Chemical Classification and Information Database (CCID)
Organization for Economic Co-operation and Development Environment, Health, and Safety Publications
Organization for Economic Co-operation and Development High Production Volume Chemicals Program
Organization for Economic Co-operation and Development Screening Information Data Set
RTECS (Registry of Toxic Effects of Chemical Substances)
World Health Organization

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This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006:

Disclaimer:

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End of Safety Data Sheet