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## Safety data sheet according to Regulation (EC) No 1907/2006, Annex II

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

#### 1.1 Product identifier

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

##### Relevant identified uses of the substance or mixture:

Cavity protection  
Sector of use [SU]:  
SU 3 - Industrial uses: Uses of substances as such or in preparations at industrial sites  
SU21 - Consumer uses: Private households (=general public = consumers)  
SU22 - Professional uses: Public domain (administration, education, entertainment, services, craftsmen)  
Chemical product category [PC]:  
PC 9a - Coatings and paints, thinners, paint removers  
PC14 - Metal surface treatment products  
PC24 - Lubricants, greases, release products  
Process category [PROC]:  
PROC 7 - Industrial spraying  
PROC 8a - Transfer of substance or mixture (charging and discharging) at non-dedicated facilities  
PROC 8b - Transfer of substance or mixture (charging and discharging) at dedicated facilities  
PROC 9 - Transfer of substance or mixture into small containers (dedicated filling line, including weighing)  
PROC11 - Non industrial spraying  
Article Categories [AC]:  
AC99 - Not required.  
Environmental Release Category [ERC]:  
ERC 4 - Use of non-reactive processing aid at industrial site (no inclusion into or onto article)  
ERC 7 - Use of functional fluid at industrial site  
ERC 8a - Widespread use of non-reactive processing aid (no inclusion into or onto article, indoor)  
ERC 8d - Widespread use of non-reactive processing aid (no inclusion into or onto article, outdoor)

##### Uses advised against:

No information available at present.

#### 1.3 Details of the supplier of the safety data sheet

LIQUI MOLY GmbH  
Jerg-Wieland-Str. 4  
89081 Ulm-Lehr  
Tel.: (+49) 0731-1420-0  
Fax: (+49) 0731-1420-88

Qualified person's e-mail address: [info@chemical-check.de](mailto:info@chemical-check.de), [k.schnurbusch@chemical-check.de](mailto:k.schnurbusch@chemical-check.de) Please DO NOT use for requesting Safety Data Sheets.

#### 1.4 Emergency telephone number

##### Emergency information services / official advisory body:

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##### Telephone number of the company in case of emergencies:

+49 (0) 700 / 24 112 112 (LMR)

### SECTION 2: Hazards identification

#### 2.1 Classification of the substance or mixture

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## Classification according to Regulation (EC) 1272/2008 (CLP)

Hazard class	Hazard category	Hazard statement
STOT SE	3	H336-May cause drowsiness or dizziness.
Aquatic Chronic	3	H412-Harmful to aquatic life with long lasting effects.
Aerosol	1	H222-Extremely flammable aerosol.
Aerosol	1	H229-Pressurised container: May burst if heated.

## 2.2 Label elements

### Labeling according to Regulation (EC) 1272/2008 (CLP)



Danger

H336-May cause drowsiness or dizziness. H412-Harmful to aquatic life with long lasting effects. H222-Extremely flammable aerosol. H229-Pressurised container: May burst if heated.

P101-If medical advice is needed, have product container or label at hand. P102-Keep out of reach of children.

P210-Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P211-Do not spray on an open flame or other ignition source. P251-Do not pierce or burn, even after use. P261-Avoid breathing vapours or spray. P271-Use only outdoors or in a well-ventilated area.

P312-Call a POISON CENTRE / doctor if you feel unwell.

P405-Store locked up. P410+P412-Protect from sunlight. Do not expose to temperatures exceeding 50 °C.

P501-Dispose of contents / container to an approved waste disposal facility.

EUH066-Repeated exposure may cause skin dryness or cracking.

EUH208-Contains Sulfonic acids, petroleum, calcium salts. May produce an allergic reaction.

Without adequate ventilation, formation of explosive mixtures may be possible.

Pentane

Hydrocarbons, C9-C10, n-alkanes, isoalkanes, cyclics, &lt;2% aromatics

Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, &lt;2% aromatics

## 2.3 Other hazards

The mixture does not contain any vPvB substance (vPvB = very persistent, very bioaccumulative) or is not included under XIII of the regulation (EC) 1907/2006 (&lt; 0,1 %).

The mixture does not contain any PBT substance (PBT = persistent, bioaccumulative, toxic) or is not included under XIII of the regulation (EC) 1907/2006 (&lt; 0,1 %).

## SECTION 3: Composition/information on ingredients

### 3.1 Substances

n.a.

### 3.2 Mixtures

Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics	
Registration number (REACH)	---
Index	---
EINECS, ELINCS, NLP, REACH-IT List-No.	919-857-5
CAS	---
content %	10-<25

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<b>Classification according to Regulation (EC) 1272/2008 (CLP), M-factors</b>	Flam. Liq. 3, H226 Asp. Tox. 1, H304 STOT SE 3, H336
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<b>Pentane</b>	<b>Substance for which an EU exposure limit value applies.</b>
<b>Registration number (REACH)</b>	---
<b>Index</b>	601-006-00-1
<b>EINECS, ELINCS, NLP, REACH-IT List-No.</b>	203-692-4
<b>CAS</b>	109-66-0
<b>content %</b>	1-<10
<b>Classification according to Regulation (EC) 1272/2008 (CLP), M-factors</b>	Aquatic Chronic 2, H411 Asp. Tox. 1, H304 STOT SE 3, H336 Flam. Liq. 2, H225

<b>Hydrocarbons, C9-C10, n-alkanes, isoalkanes, cyclics, &lt;2% aromatics</b>	
<b>Registration number (REACH)</b>	---
<b>Index</b>	---
<b>EINECS, ELINCS, NLP, REACH-IT List-No.</b>	927-241-2
<b>CAS</b>	---
<b>content %</b>	1-<10
<b>Classification according to Regulation (EC) 1272/2008 (CLP), M-factors</b>	Flam. Liq. 3, H226 Asp. Tox. 1, H304 STOT SE 3, H336 Aquatic Chronic 3, H412

<b>Sulfonic acids, petroleum, calcium salts</b>	<b>Substance with specific conc. limit(s) acc. to REACH-registration.</b>
<b>Registration number (REACH)</b>	---
<b>Index</b>	---
<b>EINECS, ELINCS, NLP, REACH-IT List-No.</b>	263-093-9
<b>CAS</b>	61789-86-4
<b>content %</b>	1-<2,5
<b>Classification according to Regulation (EC) 1272/2008 (CLP), M-factors</b>	Skin Sens. 1B, H317

<b>4,5-dihydro-2-heptadecyl-1H-imidazole-1-ethylamine</b>	
<b>Registration number (REACH)</b>	---
<b>Index</b>	---
<b>EINECS, ELINCS, NLP, REACH-IT List-No.</b>	221-133-2
<b>CAS</b>	3010-23-9
<b>content %</b>	0,25-<1
<b>Classification according to Regulation (EC) 1272/2008 (CLP), M-factors</b>	Skin Corr. 1B, H314 Aquatic Acute 1, H400 (M=1) Aquatic Chronic 1, H410 (M=1) Eye Dam. 1, H318

Impurities, test data and additional information may have been taken into account in classifying and labelling the product.

For the text of the H-phrases and classification codes (GHS/CLP), see Section 16.

The substances named in this section are given with their actual, appropriate classification!

For substances that are listed in appendix VI, table 3.1 of the regulation (EC) no. 1272/2008 (CLP regulation) this means that all notes that may be given here for the named classification have been taken into account.

If, for example, the note P is applied for a hydrocarbon then this has already been taken into account for the classification named here.

Quote: "Note P - The classification as a carcinogen or mutagen need not apply if it can be shown that the substance contains less than 0,1 % w/w benzene (EINECS No 200-753-7)."

Article 4 of the regulation (EC) no. 1272/2008 (CLP regulation) was also observed and taken into account for the classification named here.

## SECTION 4: First aid measures

### 4.1 Description of first aid measures

First-aiders should ensure they are protected!

Never pour anything into the mouth of an unconscious person!

#### Inhalation

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Remove person from danger area.  
Supply person with fresh air and consult doctor according to symptoms.  
If the person is unconscious, place in a stable side position and consult a doctor.

### **Skin contact**

Remove polluted, soaked clothing immediately, wash thoroughly with plenty of water and soap, in case of irritation of the skin (flare), consult a doctor.

### **Eye contact**

Remove contact lenses.  
Wash thoroughly for several minutes using copious water. Seek medical help if necessary.

### **Ingestion**

Do not induce vomiting. Consult doctor immediately.  
Keep Data Sheet available.  
Danger of aspiration.

### **4.2 Most important symptoms and effects, both acute and delayed**

If applicable delayed symptoms and effects can be found in section 11 and the absorption route in section 4.1.  
In certain cases, the symptoms of poisoning may only appear after an extended period / after several hours.

### **4.3 Indication of any immediate medical attention and special treatment needed**

Symptomatic treatment.

## **SECTION 5: Firefighting measures**

### **5.1 Extinguishing media**

#### **Suitable extinguishing media**

CO<sub>2</sub>  
Extinguishment powder  
Water jet spray  
Alcohol resistant foam

#### **Unsuitable extinguishing media**

High volume water jet

### **5.2 Special hazards arising from the substance or mixture**

In case of fire the following can develop:

Oxides of carbon  
Toxic gases  
Explosive vapour/air or gas/air mixtures.  
Danger of explosion by prolonged heating.

### **5.3 Advice for firefighters**

In case of fire and/or explosion do not breathe fumes.  
Protective respirator with independent air supply.  
Cool container at risk with water.  
Dispose of contaminated extinction water according to official regulations.

## **SECTION 6: Accidental release measures**

### **6.1 Personal precautions, protective equipment and emergency procedures**

Remove possible causes of ignition - do not smoke.  
Ensure sufficient supply of air.  
Avoid inhalation, and contact with eyes or skin.

### **6.2 Environmental precautions**

If leakage occurs, dam up.  
Resolve leaks if this possible without risk.  
Prevent from entering drainage system.

### **6.3 Methods and material for containment and cleaning up**

If spray or gas escapes, ensure ample fresh air is available.

Active substance:

Soak up with absorbent material (e.g. universal binding agent) and dispose of according to Section 13.

### **6.4 Reference to other sections**

For personal protective equipment see Section 8 and for disposal instructions see Section 13.

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## SECTION 7: Handling and storage

In addition to information given in this section, relevant information can also be found in section 8 and 6.1.

### 7.1 Precautions for safe handling

#### 7.1.1 General recommendations

Avoid inhalation, and contact with eyes or skin.  
 Ensure sufficient ventilation.  
 Do not use on hot surfaces.  
 Take precautions against electrostatic charges.  
 Pressurized container:

protect from sunlight and do not expose to temperatures exceeding 50°C.

Do not pierce or burn, even after use.  
 Do not spray on a naked flame or any incandescent material.  
 Keep away from sources of ignition - No smoking.  
 Use working methods according to operating instructions.  
 Observe directions on label and instructions for use.

#### 7.1.2 Notes on general hygiene measures at the workplace

General hygiene measures for the handling of chemicals are applicable.  
 Wash hands before breaks and at end of work.  
 Keep away from food, drink and animal feedingstuffs.  
 Remove contaminated clothing and protective equipment before entering areas in which food is consumed.

### 7.2 Conditions for safe storage, including any incompatibilities

Keep out of access to unauthorised individuals.  
 Not to be stored in gangways or stair wells.  
 Store product closed and only in original packing.  
 Solvent resistant floor  
 Observe special regulations for aerosols!  
 Observe special storage conditions.  
 Keep protected from direct sunlight and temperatures over 50°C.  
 Do not keep the container sealed.  
 Store in a well-ventilated place.  
 Store cool.  
 Store in a dry place.

### 7.3 Specific end use(s)

No information available at present.

## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

Workplace exposure limit (WEL) of the total hydrocarbon solvent content of the mixture (RCP method according to EH40):  
 800 mg/m<sup>3</sup>

Chemical Name	Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics	Content %:10-<25
WEL-TWA: 800 mg/m <sup>3</sup>	WEL-STEL: ---	---
Monitoring procedures:	<ul style="list-style-type: none"> <li>- Draeger - Hydrocarbons 0,1%/c (81 03 571)</li> <li>- Draeger - Hydrocarbons 2/a (81 03 581)</li> <li>- Compur - KITA-187 S (551 174)</li> </ul>	
BMGV: ---	Other information: (OEL acc. to RCP-method, paragraphs 84-87, EH40)	

Chemical Name	Pentane	Content %:1-<10
WEL-TWA: 1800 mg/m <sup>3</sup> (600 ppm) (WEL), 3000 mg/m <sup>3</sup> (1000 ppm) (EU)	WEL-STEL: ---	---
Monitoring procedures:	<ul style="list-style-type: none"> <li>- Draeger - Pentane 100/a (67 24 701)</li> <li>- Compur - KITA-113 SB(C) (549 368)</li> <li>- DFG (D) (Lösungsmittelgemische Meth. Nr. 1), DFG (E) (Solvent mixtures 1) - 1998, 2002</li> <li>- NIOSH 1500 (HYDROCARBONS, BP 36°-216 °C) - 2003</li> </ul>	

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		- NIOSH 2549 (VOLATILE ORGANIC COMPOUNDS (SCREENING)) - 1996	
BMGV: ---		Other information: ---	
<b>Chemical Name</b>	Hydrocarbons, C9-C10, n-alkanes, isoalkanes, cyclics, <2% aromatics	Content %: 1-<10	
WEL-TWA: 800 mg/m3	WEL-STEL: ---	---	
Monitoring procedures:	<ul style="list-style-type: none"> <li>- Draeger - Hydrocarbons 0,1%/c (81 03 571)</li> <li>- Draeger - Hydrocarbons 2/a (81 03 581)</li> <li>- Compur - KITA-187 S (551 174)</li> </ul>		
BMGV: ---	Other information: (OEL acc. to RCP-method, paragraphs 84-87, EH40)		
<b>Chemical Name</b>	Butane	Content %:	
WEL-TWA: 600 ppm (1450 mg/m3)	WEL-STEL: 750 ppm (1810 mg/m3)	---	
Monitoring procedures:	<ul style="list-style-type: none"> <li>- Compur - KITA-221 SA (549 459)</li> <li>- OSHA PV2010 (n-Butane) - 1993</li> </ul>		
BMGV: ---	Other information: ---		
<b>Chemical Name</b>	Propane	Content %:	
WEL-TWA: 1000 ppm (ACGIH)	WEL-STEL: ---	---	
Monitoring procedures:	<ul style="list-style-type: none"> <li>- Compur - KITA-125 SA (549 954)</li> <li>- OSHA PV2077 (Propane) - 1990</li> </ul>		
BMGV: ---	Other information: ---		
<b>Chemical Name</b>	Isobutane	Content %:	
WEL-TWA: 1000 ppm (EX) (ACGIH)	WEL-STEL: ---	---	
Monitoring procedures:	- Compur - KITA-113 SB(C) (549 368)		
BMGV: ---	Other information: ---		
<b>Chemical Name</b>	Hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, <2% aromatics	Content %:	
WEL-TWA: 800 mg/m3	WEL-STEL: ---	---	
Monitoring procedures:	<ul style="list-style-type: none"> <li>- Draeger - Hydrocarbons 0,1%/c (81 03 571)</li> <li>- Draeger - Hydrocarbons 2/a (81 03 581)</li> <li>- Compur - KITA-187 S (551 174)</li> </ul>		
BMGV: ---	Other information: (OEL acc. to RCP-method, paragraphs 84-87, EH40)		
<b>Chemical Name</b>	Microcrystalline paraffin wax and hydrocarbon wax	Content %:	
WEL-TWA: 2 mg/m3 (paraffin wax, fume)	WEL-STEL: 6 mg/m3 (paraffin wax, fume)	---	
Monitoring procedures:	---		
BMGV: ---	Other information: ---		
<b>Chemical Name</b>	Oil mist, mineral	Content %:	
WEL-TWA: 5 mg/m3 (Mineral oil, excluding metal working fluids, ACGIH)	WEL-STEL: ---	---	
Monitoring procedures:	- Draeger - Oil Mist 1/a (67 33 031)		
BMGV: ---	Other information: ---		
<b>Chemical Name</b>	Paraffin wax, fume	Content %:	
WEL-TWA: 2 mg/m3	WEL-STEL: 6 mg/m3	---	
Monitoring procedures:	---		
BMGV: ---	Other information: ---		

Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics						
Area of application	Exposure route / Environmental compartment	Effect on health	Descriptor	Value	Unit	Note
Consumer	Human - oral	Long term, systemic effects	DNEL	300	mg/kg bw/day	
Consumer	Human - dermal	Long term, systemic effects	DNEL	300	mg/kg bw/day	
Consumer	Human - inhalation	Long term, systemic effects	DNEL	900	mg/m3	
Consumer	Human - dermal	Long term, systemic effects	DNEL	125	mg/kg bw/day	
Consumer	Human - inhalation	Long term, systemic effects	DNEL	185	mg/m3	

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Consumer	Human - oral	Long term, systemic effects	DNEL	125	mg/kg bw/day	
Workers / employees	Human - dermal	Long term, systemic effects	DNEL	300	mg/kg bw/day	
Workers / employees	Human - inhalation	Long term, systemic effects	DNEL	1500	mg/m <sup>3</sup>	
Workers / employees	Human - dermal	Long term, systemic effects	DNEL	208	mg/kg bw/day	
Workers / employees	Human - inhalation	Long term, systemic effects	DNEL	871	mg/m <sup>3</sup>	

<b>Pentane</b>						
Area of application	Exposure route / Environmental compartment	Effect on health	Descriptor	Value	Unit	Note
	Environment - water, sporadic (intermittent) release		PNEC	880	µg/l	
	Environment - freshwater		PNEC	230	µg/l	
	Environment - marine		PNEC	230	µg/l	
	Environment - sewage treatment plant		PNEC	3600	µg/l	
	Environment - sediment, freshwater		PNEC	1,2	mg/kg dw	
	Environment - sediment, marine		PNEC	1,2	mg/kg dw	
	Environment - soil		PNEC	0,55	mg/kg dw	
Consumer	Human - oral	Long term, systemic effects	DNEL	214	mg/kg bw/d	
Consumer	Human - dermal	Long term, systemic effects	DNEL	214	mg/kg bw/d	
Consumer	Human - inhalation	Long term, systemic effects	DNEL	643	mg/m <sup>3</sup>	
Workers / employees	Human - inhalation	Long term, systemic effects	DNEL	3000	mg/m <sup>3</sup>	
Workers / employees	Human - dermal	Long term, systemic effects	DNEL	432	mg/kg bw/d	

<b>Hydrocarbons, C9-C10, n-alkanes, isoalkanes, cyclics, &lt;2% aromatics</b>						
Area of application	Exposure route / Environmental compartment	Effect on health	Descriptor	Value	Unit	Note
Consumer	Human - dermal	Long term, systemic effects	DNEL	46	mg/kg bw/d	
Consumer	Human - inhalation	Long term, systemic effects	DNEL	185	mg/m <sup>3</sup>	
Consumer	Human - oral	Long term, systemic effects	DNEL	46	mg/kg bw/day	
Workers / employees	Human - dermal	Long term, systemic effects	DNEL	77	mg/kg bw/d	
Workers / employees	Human - inhalation	Long term, systemic effects	DNEL	871	mg/m <sup>3</sup>	

<b>Stearic acid</b>						
Area of application	Exposure route / Environmental compartment	Effect on health	Descriptor	Value	Unit	Note
Workers / employees	Human - dermal		DNEL	10	mg/kg bw/d	
Workers / employees	Human - inhalation		DNEL	17632	mg/m <sup>3</sup>	

"Arbeitsplatzgrenzwert" (workplace limit value, Germany).

(8) = Inhalable fraction (Directive 2017/164/EU, Directive 2004/37/CE). (9) = Respirable fraction (Directive 2017/164/EU, Directive 2004/37/CE). (11) = Inhalable fraction (Directive 2004/37/CE). (12) = Inhalable fraction. Respirable fraction in those Member States that implement, on the date of the entry into force of this Directive, a biomonitoring system with a biological limit value not exceeding 0,002 mg Cd/g creatinine in urine (Directive 2004/37/CE). | WEL-STEL = Workplace Exposure Limit - Short-term exposure limit (15-minute reference period).

(8) = Inhalable fraction (2017/164/EU, 2017/2398/EU). (9) = Respirable fraction (2017/164/EU, 2017/2398/EU). (10) = Short-term exposure limit value in relation to a reference period of 1 minute (2017/164/EU). | BMGV = Biological monitoring guidance value EH40. BGW = "Biologischer Grenzwert" (biological limit value, Germany) | Other information: Sen = Capable of causing occupational asthma. Sk = Can be absorbed through skin. Carc = Capable of causing cancer and/or heritable genetic damage.

\*\* = The exposure limit for this substance is repealed through the TRGS 900 (Germany) of January 2006 with the goal of revision.

(13) = The substance can cause sensitisation of the skin and of the respiratory tract (Directive 2004/37/CE), (14) = The substance can cause sensitisation of the skin (Directive 2004/37/CE).

## 8.2 Exposure controls

### 8.2.1 Appropriate engineering controls

Ensure good ventilation. This can be achieved by local suction or general air extraction.

If this is insufficient to maintain the concentration under the WEL or AGW values, suitable breathing protection should be worn.

Applies only if maximum permissible exposure values are listed here.

Suitable assessment methods for reviewing the effectiveness of protection measures adopted include metrological and non-metrological investigative techniques.

These are specified by e.g. EN 14042.

EN 14042 "Workplace atmospheres. Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents".

### 8.2.2 Individual protection measures, such as personal protective equipment

General hygiene measures for the handling of chemicals are applicable.

Wash hands before breaks and at end of work.

Keep away from food, drink and animal feedingstuffs.

Remove contaminated clothing and protective equipment before entering areas in which food is consumed.

Eye/face protection:

Tight fitting protective goggles with side protection (EN 166).

Skin protection - Hand protection:

Protective nitrile gloves (EN 374).

Minimum layer thickness in mm:

$\geq 0,12$

Permeation time (penetration time) in minutes:

$> 480$

Protective hand cream recommended.

The breakthrough times determined in accordance with EN 16523-1 were not obtained under practical conditions.

The recommended maximum wearing time is 50% of breakthrough time.

Skin protection - Other:

Protective working garments (e.g. safety shoes EN ISO 20345, long-sleeved protective working garments).

Respiratory protection:

If OES or MEL is exceeded.

Gas mask filter AX (EN 14387), code colour brown.

Observe wearing time limitations for respiratory protection equipment.

Thermal hazards:

Not applicable

Additional information on hand protection - No tests have been performed.

In the case of mixtures, the selection has been made according to the knowledge available and the information about the contents.

Selection of materials derived from glove manufacturer's indications.

Final selection of glove material must be made taking the breakthrough times, permeation rates and degradation into account.

Selection of a suitable glove depends not only on the material but also on other quality characteristics and varies from manufacturer to manufacturer.

In the case of mixtures, the resistance of glove materials cannot be predicted and must therefore be tested before use.

The exact breakthrough time of the glove material can be requested from the protective glove manufacturer and must be observed.



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### 8.2.3 Environmental exposure controls

No information available at present.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

Physical state:	Aerosol. Active substance: liquid.
Colour:	White
Odour:	Characteristic
Odour threshold:	Not determined
pH-value:	Not determined
Melting point/freezing point:	Not determined
Initial boiling point and boiling range:	-44 °C
Flash point:	n.a.
Evaporation rate:	n.a.
Flammability (solid, gas):	n.a.
Lower explosive limit:	0,6 Vol-%
Upper explosive limit:	10,9 Vol-%
Vapour pressure:	8300 hPa (20°C)
Vapour density (air = 1):	Not determined
Density:	0,718 g/cm <sup>3</sup> (20°C, DIN 51757)
Bulk density:	n.a.
Solubility(ies):	Not determined
Water solubility:	Not miscible
Partition coefficient (n-octanol/water):	Not determined
Auto-ignition temperature:	No
Auto-ignition temperature:	>200 °C (Ignition temperature )
Decomposition temperature:	Not determined
Viscosity:	Not determined
Explosive properties:	Product is not explosive. Possible build up of explosive/highly flammable vapour/air mixture.
Oxidising properties:	No

### 9.2 Other information

Miscibility:	Not determined
Fat solubility / solvent:	Not determined
Conductivity:	Not determined
Surface tension:	Not determined
Solvents content:	75,4 % (Organic solvents )

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

Danger of bursting (explosion) when heated

### 10.2 Chemical stability

Stable with proper storage and handling.

### 10.3 Possibility of hazardous reactions

No dangerous reactions are known.

### 10.4 Conditions to avoid

Heating, open flame, ignition sources

Pressure increase will result in danger of bursting.

Electrostatic charge

### 10.5 Incompatible materials

Avoid contact with strong oxidizing agents.

### 10.6 Hazardous decomposition products

No decomposition when used as directed.

## SECTION 11: Toxicological information

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## 11.1 Information on toxicological effects

Possibly more information on health effects, see Section 2.1 (classification).

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Toxicity / effect	Endpoint	Value	Unit	Organism	Test method	Notes
Acute toxicity, by oral route:						n.d.a.
Acute toxicity, by dermal route:						n.d.a.
Acute toxicity, by inhalation:						n.d.a.
Skin corrosion/irritation:						n.d.a.
Serious eye damage/irritation:						n.d.a.
Respiratory or skin sensitisation:						n.d.a.
Germ cell mutagenicity:						n.d.a.
Carcinogenicity:						n.d.a.
Reproductive toxicity:						n.d.a.
Specific target organ toxicity - single exposure (STOT-SE):						n.d.a.
Specific target organ toxicity - repeated exposure (STOT-RE):						n.d.a.
Aspiration hazard:						n.d.a.
Symptoms:						n.d.a.

Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics						
Toxicity / effect	Endpoint	Value	Unit	Organism	Test method	Notes
Acute toxicity, by oral route:	LD50	>5000	mg/kg	Rat	OECD 401 (Acute Oral Toxicity)	
Acute toxicity, by dermal route:	LD50	>5000	mg/kg	Rabbit	OECD 402 (Acute Dermal Toxicity)	
Acute toxicity, by inhalation:	LD50	>18,5	mg/l/4h	Rat	OECD 403 (Acute Inhalation Toxicity)	
Skin corrosion/irritation:				Rabbit	OECD 404 (Acute Dermal Irritation/Corrosion)	Not irritant, Repeated exposure may cause skin dryness or cracking.
Serious eye damage/irritation:				Rabbit	OECD 405 (Acute Eye Irritation/Corrosion)	Not irritant
Respiratory or skin sensitisation:				Guinea pig	OECD 406 (Skin Sensitisation)	No (skin contact)
Germ cell mutagenicity:				Salmonella typhimurium	OECD 471 (Bacterial Reverse Mutation Test)	Negative, Analogous conclusion
Germ cell mutagenicity:				Human being	OECD 473 (In Vitro Mammalian Chromosome Aberration Test)	Negative, Analogous conclusion
Germ cell mutagenicity:				Rat	OECD 478 (Genetic Toxicology - Rodent dominant Lethal Test)	Negative, Analogous conclusion
Carcinogenicity:	NOAEC	1100	mg/m3	Mouse	OECD 453 (Combined Chronic Toxicity/Carcinogenicity Studies)	Female
Carcinogenicity:	NOAEC	>= 2200	mg/m3	Mouse	OECD 453 (Combined Chronic Toxicity/Carcinogenicity Studies)	Male
Reproductive toxicity:					OECD 414 (Prenatal Developmental Toxicity Study)	Negative, Analogous conclusion

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Reproductive toxicity (Effects on fertility):	NOAEL	>= 3000	mg/kg bw/d	Rat	OECD 415 (One-Generation Reproduction Toxicity Study)	Male
Reproductive toxicity (Effects on fertility):	NOAEL	>= 1500	mg/kg bw/d	Rat	OECD 415 (One-Generation Reproduction Toxicity Study)	Female
Specific target organ toxicity - single exposure (STOT-SE):						May cause drowsiness or dizziness., STOT SE 3, H336
Aspiration hazard:						Yes
Symptoms:						unconsciousness , headaches, dizziness, discoloration of the skin, vomiting, diarrhoea
Specific target organ toxicity - repeated exposure (STOT-RE), oral:	NOAEL	3000	mg/kg/d	Rat	OECD 408 (Repeated Dose 90-Day Oral Toxicity Study in Rodents)	Analogous conclusion
Specific target organ toxicity - repeated exposure (STOT-RE), inhalat.:	NOAEC	1444	ppm	Rat	OECD 413 (Subchronic Inhalation Toxicity - 90-Day Study)	Analogous conclusion

<b>Pentane</b>						
Toxicity / effect	Endpoint	Value	Unit	Organism	Test method	Notes
Acute toxicity, by oral route:	LD50	>16000	mg/kg	Rat		
Acute toxicity, by oral route:	LD50	5000	mg/kg	Mouse		
Acute toxicity, by dermal route:	LD50	>2000	mg/kg	Rabbit		
Acute toxicity, by inhalation:	LC50	>100	mg/l/4h	Rat		
Skin corrosion/irritation:						Mild irritant, Repeated exposure may cause skin dryness or cracking.
Serious eye damage/irritation:						Mild irritant
Respiratory or skin sensitisation:						Not sensitising
Germ cell mutagenicity:					OECD 471 (Bacterial Reverse Mutation Test)	Negative
Aspiration hazard:						Yes
Symptoms:						drowsiness, vomiting, cramps, drowsiness, mucous membrane irritation

<b>Hydrocarbons, C9-C10, n-alkanes, isoalkanes, cyclics, &lt;2% aromatics</b>						
Toxicity / effect	Endpoint	Value	Unit	Organism	Test method	Notes
Acute toxicity, by oral route:	LD50	>5000	mg/kg	Rat	OECD 401 (Acute Oral Toxicity)	
Acute toxicity, by dermal route:	LD50	>5000	mg/kg	Rabbit	OECD 402 (Acute Dermal Toxicity)	

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Acute toxicity, by inhalation:	LC50	>4951	mg/m <sup>3</sup> /4h	Rat	OECD 403 (Acute Inhalation Toxicity)	Analogous conclusion, Maximum achievable concentration.
Skin corrosion/irritation:				Rabbit	OECD 404 (Acute Dermal Irritation/Corrosion)	Repeated exposure may cause skin dryness or cracking.
Serious eye damage/irritation:				Rabbit	OECD 405 (Acute Eye Irritation/Corrosion)	Mild irritant (Analogous conclusion)
Respiratory or skin sensitisation:				Guinea pig	OECD 406 (Skin Sensitisation)	Not sensitising
Germ cell mutagenicity:				Salmonella typhimurium	OECD 471 (Bacterial Reverse Mutation Test)	Negative
Germ cell mutagenicity:				Human being	OECD 473 (In Vitro Mammalian Chromosome Aberration Test)	Negative, Analogous conclusion
Germ cell mutagenicity:				Mouse	OECD 474 (Mammalian Erythrocyte Micronucleus Test)	Negative, Analogous conclusion
Germ cell mutagenicity:				Mouse	OECD 476 (In Vitro Mammalian Cell Gene Mutation Test)	Negative, Analogous conclusion
Germ cell mutagenicity:				Rat	OECD 478 (Genetic Toxicology - Rodent dominant Lethal Test)	Negative, Analogous conclusion
Germ cell mutagenicity:					OECD 479 (Genetic Toxicology - In Vitro Sister Chromatid Exchange assay in Mammalian Cells)	Negative, Analogous conclusion Chinese hamster
Carcinogenicity:				Rat	OECD 453 (Combined Chronic Toxicity/Carcinogenicity Studies)	Negative, Analogous conclusion
Reproductive toxicity:				Rat	OECD 414 (Prenatal Developmental Toxicity Study)	Negative, Analogous conclusion
Reproductive toxicity:				Rat	OECD 415 (One-Generation Reproduction Toxicity Study)	Negative, Analogous conclusion
Specific target organ toxicity - single exposure (STOT-SE):						May cause drowsiness or dizziness.
Aspiration hazard:						Yes
Symptoms:						drowsiness, unconsciousness, heart/circulatory disorders, headaches, cramps, drowsiness, mucous membrane irritation, dizziness, nausea and vomiting.

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Specific target organ toxicity - repeated exposure (STOT-RE), oral:				Rat	OECD 408 (Repeated Dose 90-Day Oral Toxicity Study in Rodents)	No indications of such an effect., Analogous conclusion
Specific target organ toxicity - repeated exposure (STOT-RE), inhalat.:				Rat	OECD 413 (Subchronic Inhalation Toxicity - 90-Day Study)	Vapours, No indications of such an effect., Analogous conclusion

#### Sulfonic acids, petroleum, calcium salts

Toxicity / effect	Endpoint	Value	Unit	Organism	Test method	Notes
Acute toxicity, by oral route:	LD50	>5000	mg/kg	Rat	OECD 401 (Acute Oral Toxicity)	
Acute toxicity, by dermal route:	LD50	>5000	mg/kg	Rabbit	OECD 402 (Acute Dermal Toxicity)	
Respiratory or skin sensitisation:				Mouse	OECD 429 (Skin Sensitisation - Local Lymph Node Assay)	Yes (skin contact)
Respiratory or skin sensitisation:				Guinea pig	OECD 406 (Skin Sensitisation)	Yes (skin contact)

#### 4,5-dihydro-2-heptadecyl-1H-imidazole-1-ethylamine

Toxicity / effect	Endpoint	Value	Unit	Organism	Test method	Notes
Acute toxicity, by oral route:	LD50	>2000	mg/kg	Rat	OECD 401 (Acute Oral Toxicity)	Analogous conclusion
Skin corrosion/irritation:				Rabbit		Irritant, Analogous conclusion
Skin corrosion/irritation:						Corrosive, Analogous conclusion, Experiences on persons.
Serious eye damage/irritation:				Rabbit	OECD 405 (Acute Eye Irritation/Corrosion)	Risk of serious damage to eyes., Analogous conclusion
Symptoms:						gastrointestinal disturbances

#### Butane

Toxicity / effect	Endpoint	Value	Unit	Organism	Test method	Notes
Acute toxicity, by inhalation:	LC50	658	mg/l/4h	Rat		
Germ cell mutagenicity:				Salmonella typhimurium	OECD 471 (Bacterial Reverse Mutation Test)	Negative
Germ cell mutagenicity:					OECD 473 (In Vitro Mammalian Chromosome Aberration Test)	Negative
Germ cell mutagenicity:				Human being	OECD 473 (In Vitro Mammalian Chromosome Aberration Test)	Negative
Germ cell mutagenicity:				Rat	OECD 474 (Mammalian Erythrocyte Micronucleus Test)	Negative
Aspiration hazard:						No

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Symptoms:						ataxia, breathing difficulties, drowsiness, unconsciousness, frostbite, disturbed heart rhythm, headaches, cramps, intoxication, dizziness, nausea and vomiting.
Specific target organ toxicity - repeated exposure (STOT-RE), inhalat.:	NOAEL	21,394	mg/l	Rat	OECD 422 (Combined Repeated Dose Tox. Study with the Reproduction/Developm. Tox. Screening Test)	

**Propane**

Toxicity / effect	Endpoint	Value	Unit	Organism	Test method	Notes
Acute toxicity, by inhalation:	LC50	658	mg/l/4h	Rat		
Acute toxicity, by inhalation:	LC50	260000	ppmV/4h	Rat		Gasses, Male, Analogous conclusion
Skin corrosion/irritation:						Not irritant
Serious eye damage/irritation:						Not irritant
Germ cell mutagenicity:					OECD 473 (In Vitro Mammalian Chromosome Aberration Test)	Negative
Germ cell mutagenicity:				Salmonella typhimurium	OECD 471 (Bacterial Reverse Mutation Test)	Negative
Reproductive toxicity (Developmental toxicity):	NOAEC	21,641	mg/l		OECD 422 (Combined Repeated Dose Tox. Study with the Reproduction/Developm. Tox. Screening Test)	
Aspiration hazard:						No
Symptoms:						breathing difficulties, unconsciousness, frostbite, headaches, cramps, mucous membrane irritation, dizziness, nausea and vomiting.
Specific target organ toxicity - repeated exposure (STOT-RE), inhalat.:	NOAEL	7,214	mg/l	Rat	OECD 422 (Combined Repeated Dose Tox. Study with the Reproduction/Developm. Tox. Screening Test)	
Specific target organ toxicity - repeated exposure (STOT-RE), inhalat.:	LOAEL	21,641	mg/l	Rat	OECD 422 (Combined Repeated Dose Tox. Study with the Reproduction/Developm. Tox. Screening Test)	

**Isobutane**

Toxicity / effect	Endpoint	Value	Unit	Organism	Test method	Notes
Acute toxicity, by inhalation:	LC50	658	mg/l/4h	Rat		

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Acute toxicity, by inhalation:	LC50	260000	ppmV/4h	Rat		Gasses, Male
Serious eye damage/irritation:				Rabbit		Not irritant
Germ cell mutagenicity:				Salmonella typhimurium	OECD 471 (Bacterial Reverse Mutation Test)	Negative
Aspiration hazard:						No
Symptoms:						unconsciousness , frostbite, headaches, cramps, dizziness, nausea and vomiting.
Specific target organ toxicity - repeated exposure (STOT-RE), inhalat.:	NOAEL	21,394	mg/l	Rat	OECD 422 (Combined Repeated Dose Tox. Study with the Reproduction/Developm. Tox. Screening Test)	

**Hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, <2% aromatics**

Toxicity / effect	Endpoint	Value	Unit	Organism	Test method	Notes
Acute toxicity, by oral route:	LD50	>5000	mg/kg	Rat	OECD 401 (Acute Oral Toxicity)	
Acute toxicity, by dermal route:	LD50	>2000	mg/kg	Rat	OECD 402 (Acute Dermal Toxicity)	
Acute toxicity, by inhalation:	LC50	>5000	mg/m3/8h	Rat	OECD 403 (Acute Inhalation Toxicity)	
Skin corrosion/irritation:						Repeated exposure may cause skin dryness or cracking.
Serious eye damage/irritation:					OECD 405 (Acute Eye Irritation/Corrosion)	Not irritant
Respiratory or skin sensitisation:				Guinea pig	OECD 406 (Skin Sensitisation)	No (skin contact)
Germ cell mutagenicity:					OECD 471 (Bacterial Reverse Mutation Test)	Negative, Analogous conclusion
Carcinogenicity:					OECD 453 (Combined Chronic Toxicity/Carcinogenicity Studies)	Negative, Analogous conclusion
Reproductive toxicity:					OECD 414 (Prenatal Developmental Toxicity Study)	Negative, Analogous conclusion
Reproductive toxicity:					OECD 421 (Reproduction/Developmental Toxicity Screening Test)	Negative, Analogous conclusion
Specific target organ toxicity - single exposure (STOT-SE):						No indications of such an effect.
Specific target organ toxicity - repeated exposure (STOT-RE):					OECD 408 (Repeated Dose 90-Day Oral Toxicity Study in Rodents)	No indications of such an effect., Analogous conclusion
Aspiration hazard:						Yes
Symptoms:						unconsciousness , headaches, dizziness

**Microcrystalline paraffin wax and hydrocarbon wax**

Toxicity / effect	Endpoint	Value	Unit	Organism	Test method	Notes
Acute toxicity, by dermal route:	LD50	>2000	mg/kg	Rabbit		

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## SECTION 12: Ecological information

Possibly more information on environmental effects, see Section 2.1 (classification).

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Toxicity / effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
12.1. Toxicity to fish:							n.d.a.
12.1. Toxicity to daphnia:							n.d.a.
12.1. Toxicity to algae:							n.d.a.
12.2. Persistence and degradability:							n.d.a.
12.3. Bioaccumulative potential:							n.d.a.
12.4. Mobility in soil:							n.d.a.
12.5. Results of PBT and vPvB assessment							n.d.a.
12.6. Other adverse effects:							n.d.a.

Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics							
Toxicity / effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
Toxicity to bacteria:	EL50	48h	0,95	mg/l			QSAR
12.1. Toxicity to fish:	LC50	96h	>1000	mg/l	Oncorhynchus mykiss	OECD 203 (Fish, Acute Toxicity Test)	
12.1. Toxicity to fish:	NOELR	28d	0,13	mg/l	Oncorhynchus mykiss	QSAR	
12.1. Toxicity to daphnia:	EC50	48h	>1000	mg/l	Daphnia magna	OECD 202 (Daphnia sp. Acute Immobilisation Test)	
12.1. Toxicity to algae:	ErC50	72h	>1000	mg/l	Pseudokirchneriella subcapitata	OECD 201 (Alga, Growth Inhibition Test)	
12.1. Toxicity to algae:	EbC50	72h	>1000	mg/l	Pseudokirchneriella subcapitata	OECD 201 (Alga, Growth Inhibition Test)	
12.1. Toxicity to algae:	NOELR	72h	100	mg/l	Raphidocelis subcapitata	OECD 201 (Alga, Growth Inhibition Test)	
12.2. Persistence and degradability:		28d	80	%		OECD 301 F (Ready Biodegradability - Manometric Respirometry Test)	Readily biodegradable
12.1. Toxicity to algae:	NOELR	72h	3	mg/l	Pseudokirchneriella subcapitata	OECD 201 (Alga, Growth Inhibition Test)	
12.3. Bioaccumulative potential:			5-6,7				High
12.5. Results of PBT and vPvB assessment							No PBT substance, No vPvB substance

Pentane							
Toxicity / effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
12.5. Results of PBT and vPvB assessment							No PBT substance, No vPvB substance
12.1. Toxicity to fish:	LC50	96h	9,87	mg/l	Salmo gairdneri		
12.1. Toxicity to fish:	LC50	96h	9,87	mg/l	Oncorhynchus mykiss		



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12.1. Toxicity to fish:	LC50	96h	9,99	mg/l	Lepomis macrochirus		
12.1. Toxicity to daphnia:	EC50	48h	9,74	mg/l	Daphnia magna		
12.2. Persistence and degradability:		8d	70	%			
12.3. Bioaccumulative potential:	Log Pow		3,39				calculated value

**Hydrocarbons, C9-C10, n-alkanes, isoalkanes, cyclics, <2% aromatics**

Toxicity / effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
12.1. Toxicity to fish:	LL50	96h	>10-<30	mg/l	Oncorhynchus mykiss		
12.1. Toxicity to fish:	NOEC/NOEL	28d	0,182	mg/l	Oncorhynchus mykiss		
12.1. Toxicity to daphnia:	NOEC/NOEL	21d	0,317	mg/l	Daphnia magna		
12.1. Toxicity to daphnia:	EL50	48h	>22-<46	mg/l	Daphnia magna	OECD 202 (Daphnia sp. Acute Immobilisation Test)	
12.1. Toxicity to algae:	NOELR	72h	<1	mg/l	Pseudokirchneriella subcapitata	OECD 201 (Alga, Growth Inhibition Test)	
12.1. Toxicity to algae:	EL50		>1000	mg/l	Pseudokirchneriella subcapitata		
12.2. Persistence and degradability:		28d	89	%		OECD 301 F (Ready Biodegradability - Manometric Respirometry Test)	Readily biodegradable
12.2. Persistence and degradability:	ThOD	28d	53-55	%			Biodegradable
12.3. Bioaccumulative potential:	Log Pow		4-5,7				
12.4. Mobility in soil:							Product floats on the water surface.
12.5. Results of PBT and vPvB assessment							No PBT substance, No vPvB substance
Toxicity to bacteria:	EC50		>1000	mg/l			
Other information:	AOX						Does not contain any organically bound halogens which can contribute to the AOX value in waste water.
Water solubility:			~ 0,04	g/l			Insoluble 20°C

**Sulfonic acids, petroleum, calcium salts**

Toxicity / effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
12.1. Toxicity to fish:	LC50	96h	>10000	mg/l	Cyprinodon variegatus	OECD 203 (Fish, Acute Toxicity Test)	
12.1. Toxicity to daphnia:	EC50	48h	>1000	mg/l	Daphnia magna		Analogous conclusion
12.1. Toxicity to algae:	NOELR	72h	100	mg/l	Desmodesmus subspicatus	OECD 201 (Alga, Growth Inhibition Test)	

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12.2. Persistence and degradability:		28d	8,6	%		OECD 301 F (Ready Biodegradability - Manometric Respirometry Test)	Not readily biodegradable
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#### 4,5-dihydro-2-heptadecyl-1H-imidazole-1-ethylamine

Toxicity / effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
12.1. Toxicity to fish:	LC50	96h	0,35	mg/l		OECD 203 (Fish, Acute Toxicity Test)	Analogous conclusion
12.1. Toxicity to daphnia:	EC50	48h	0,29	mg/l	Daphnia magna	OECD 202 (Daphnia sp. Acute Immobilisation Test)	Analogous conclusion
12.2. Persistence and degradability:						OECD 301 (Ready Biodegradability)	Not readily biodegradable
Other information:	COD		2704,00 0	mg/l		DIN 38409-H41	

#### Butane

Toxicity / effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
12.1. Toxicity to fish:	LC50	96h	24,11	mg/l		QSAR	
12.1. Toxicity to daphnia:	LC50	48h	14,22	mg/l		QSAR	
12.3. Bioaccumulative potential:	Log Pow		2,98				A notable biological accumulation potential is not to be expected (LogPow 1-3).
12.5. Results of PBT and vPvB assessment							No PBT substance, No vPvB substance

#### Propane

Toxicity / effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
12.3. Bioaccumulative potential:	Log Pow		2,28				A notable biological accumulation potential is not to be expected (LogPow 1-3).
12.5. Results of PBT and vPvB assessment							No PBT substance, No vPvB substance

#### Isobutane

Toxicity / effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
12.3. Bioaccumulative potential:							A notable biological accumulation potential is not to be expected (LogPow 1-3).
12.1. Toxicity to fish:	LC50	96h	27,98	mg/l			
12.1. Toxicity to algae:	EC50	96h	7,71	mg/l			
12.2. Persistence and degradability:							Readily biodegradable
12.5. Results of PBT and vPvB assessment							No PBT substance, No vPvB substance

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Hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, <2% aromatics							
Toxicity / effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
12.1. Toxicity to fish:	LC50	96h	>1000	mg/l	Oncorhynchus mykiss	OECD 203 (Fish, Acute Toxicity Test)	
12.1. Toxicity to fish:	NOELR	28d	0,1	mg/l	Oncorhynchus mykiss		
12.1. Toxicity to daphnia:	EC50	48h	>1000	mg/l	Daphnia magna	OECD 202 (Daphnia sp. Acute Immobilisation Test)	
12.1. Toxicity to daphnia:	NOELR	21d	0,18	mg/l	Daphnia magna		
12.1. Toxicity to algae:	ErL50	72h	>1000	mg/l	Pseudokirchneriella subcapitata	OECD 201 (Alga, Growth Inhibition Test)	
12.1. Toxicity to algae:	NOELR	72h	1000	mg/l	Pseudokirchneriella subcapitata	OECD 201 (Alga, Growth Inhibition Test)	
12.2. Persistence and degradability:		28d	80	%		OECD 301 F (Ready Biodegradability - Manometric Respirometry Test)	
12.3. Bioaccumulative potential:	Log Pow		5,5-7,2				
12.4. Mobility in soil:	Log Koc		>3				
12.5. Results of PBT and vPvB assessment							No PBT substance, No vPvB substance
12.6. Other adverse effects:							Product floats on the water surface.
Water solubility:			~10	mg/l			Slight

Microcrystalline paraffin wax and hydrocarbon wax							
Toxicity / effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
12.1. Toxicity to fish:	LC50	96h	>100	mg/l			
12.1. Toxicity to fish:	NOEC/NOEL	96h	>100	mg/l			
12.1. Toxicity to daphnia:	NOEC/NOEL	96h	>1000	mg/l			
12.1. Toxicity to daphnia:	EC50	48h	>1000	mg/l			
12.1. Toxicity to algae:	ErC50	24h	>10000	mg/l			
12.5. Results of PBT and vPvB assessment							No PBT substance, No vPvB substance

## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods

#### For the substance / mixture / residual amounts

EC disposal code no.:

The waste codes are recommendations based on the scheduled use of this product.

Owing to the user's specific conditions for use and disposal, other waste codes may be allocated under certain circumstances. (2014/955/EU)

08 01 11 waste paint and varnish containing organic solvents or other hazardous substances

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

Recommendation:

Sewage disposal shall be discouraged.

Pay attention to local and national official regulations.

Take full aerosol cans to problem waste collection.

Take emptied aerosol cans to valuable material collection.

#### For contaminated packing material

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Pay attention to local and national official regulations.

## SECTION 14: Transport information

### General statements

14.1. UN number: 1950

### Transport by road/by rail (ADR/RID)

14.2. UN proper shipping name:

UN 1950 AEROSOLS

14.3. Transport hazard class(es): 2.1

14.4. Packing group: -

Classification code: 5F

LQ: 1 L

14.5. Environmental hazards: Not applicable

Tunnel restriction code: D



### Transport by sea (IMDG-code)

14.2. UN proper shipping name:

AEROSOLS

14.3. Transport hazard class(es): 2.1

14.4. Packing group: -

EmS: F-D, S-U

Marine Pollutant: n.a

14.5. Environmental hazards: Not applicable



### Transport by air (IATA)

14.2. UN proper shipping name:

Aerosols, flammable

14.3. Transport hazard class(es): 2.1

14.4. Packing group: -

14.5. Environmental hazards: Not applicable



### 14.6. Special precautions for user

Persons employed in transporting dangerous goods must be trained.

All persons involved in transporting must observe safety regulations.

Precautions must be taken to prevent damage.

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

Freighted as packaged goods rather than in bulk, therefore not applicable.

Minimum amount regulations have not been taken into account.

Danger code and packing code on request.

Comply with special provisions.

## SECTION 15: Regulatory information

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

Observe restrictions:

Comply with national regulations/laws governing the protection of young people at work (national implementation of the Directive 94/33/EC)!  
 Comply with trade association/occupational health regulations.

Directive 2012/18/EU ("Seveso III"), Annex I, Part 1 - The following categories apply to this product (others may also need to be considered according to storage, handling etc.):

Hazard categories	Notes to Annex I	Qualifying quantity (tonnes) of dangerous substances as referred to in Article 3(10) for the application of - Lower-tier requirements	Qualifying quantity (tonnes) of dangerous substances as referred to in Article 3(10) for the application of - Upper-tier requirements
P3a	11.1	150 (netto)	500 (netto)

The Notes to Annex 1 of Directive 2012/18/EU, in particular those named in the tables here and notes 1-6, must be taken into account when assigning categories and qualifying quantities.

Directive 2012/18/EU ("Seveso III"), Annex I, Part 2 - This product contains the substances listed below:

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Entry Nr	Dangerous substances	Notes to Annex I	Qualifying quantity (tonnes) for the application of - Lower-tier requirements	Qualifying quantity (tonnes) for the application of - Upper-tier requirements
18	Liquefied flammable gases, Category 1 or 2 (including LPG) and natural gas	19	50	200

The Notes to Annex 1 of Directive 2012/18/EU, in particular those named in the tables here and notes 1-6, must be taken into account when assigning categories and qualifying quantities.

Directive 2010/75/EU (VOC): 78 %

Observe incident regulations.

## 15.2 Chemical safety assessment

A chemical safety assessment is not provided for mixtures.

## SECTION 16: Other information

Revised sections: 2  
 Employee training in handling dangerous goods is required.  
 These details refer to the product as it is delivered.  
 Employee instruction/training in handling hazardous materials is required.

## Classification and processes used to derive the classification of the mixture in accordance with the ordinance (EG) 1272/2008 (CLP):

Classification in accordance with regulation (EC) No. 1272/2008 (CLP)	Evaluation method used
STOT SE 3, H336	Classification according to calculation procedure.
Aquatic Chronic 3, H412	Classification according to calculation procedure.
Aerosol 1, H222	Classification based on test data.
Aerosol 1, H229	Classification based on test data.

The following phrases represent the posted Hazard Class and Risk Category Code (GHS/CLP) of the product and the constituents (specified in Section 2 and 3).

H225 Highly flammable liquid and vapour.  
 H226 Flammable liquid and vapour.  
 H317 May cause an allergic skin reaction.  
 H304 May be fatal if swallowed and enters airways.  
 H314 Causes severe skin burns and eye damage.  
 H318 Causes serious eye damage.  
 H336 May cause drowsiness or dizziness.  
 H400 Very toxic to aquatic life.  
 H410 Very toxic to aquatic life with long lasting effects.  
 H411 Toxic to aquatic life with long lasting effects.  
 H412 Harmful to aquatic life with long lasting effects.

STOT SE — Specific target organ toxicity - single exposure - narcotic effects  
 Aquatic Chronic — Hazardous to the aquatic environment - chronic  
 Aerosol — Aerosols  
 Flam. Liq. — Flammable liquid  
 Asp. Tox. — Aspiration hazard  
 Skin Sens. — Skin sensitization  
 Skin Corr. — Skin corrosion  
 Aquatic Acute — Hazardous to the aquatic environment - acute  
 Eye Dam. — Serious eye damage

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### Any abbreviations and acronyms used in this document:

acc., acc. to according, according to  
 ADR Accord européen relatif au transport international des marchandises Dangereuses par Route (= European Agreement concerning the International Carriage of Dangerous Goods by Road)  
 AOX Adsorbable organic halogen compounds  
 approx. approximately  
 Art., Art. no. Article number  
 ASTM ASTM International (American Society for Testing and Materials)  
 ATE Acute Toxicity Estimate  
 BAM Bundesanstalt für Materialforschung und -prüfung (Federal Institute for Materials Research and Testing, Germany)  
 BAuA Bundesanstalt für Arbeitsschutz und Arbeitsmedizin (= Federal Institute for Occupational Health and Safety, Germany)  
 BSEF The International Bromine Council  
 bw body weight  
 CAS Chemical Abstracts Service  
 CLP Classification, Labelling and Packaging (REGULATION (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures)  
 CMR carcinogenic, mutagenic, reproductive toxic  
 DMEL Derived Minimum Effect Level  
 DNEL Derived No Effect Level  
 dw dry weight  
 e.g. for example (abbreviation of Latin 'exempli gratia'), for instance  
 EC European Community  
 ECHA European Chemicals Agency  
 EEC European Economic Community  
 EINECS European Inventory of Existing Commercial Chemical Substances  
 ELINCS European List of Notified Chemical Substances  
 EN European Norms  
 EPA United States Environmental Protection Agency (United States of America)  
 etc. et cetera  
 EU European Union  
 EVAL Ethylene-vinyl alcohol copolymer  
 Fax. Fax number  
 gen. general  
 GHS Globally Harmonized System of Classification and Labelling of Chemicals  
 GWP Global warming potential  
 IARC International Agency for Research on Cancer  
 IATA International Air Transport Association  
 IBC (Code) International Bulk Chemical (Code)  
 IMDG-code International Maritime Code for Dangerous Goods  
 incl. including, inclusive  
 IUCLID International Uniform Chemical Information Database  
 IUPAC International Union for Pure Applied Chemistry  
 LC50 Lethal Concentration to 50 % of a test population  
 LD50 Lethal Dose to 50% of a test population (Median Lethal Dose)  
 LQ Limited Quantities  
 MARPOL International Convention for the Prevention of Marine Pollution from Ships  
 n.a. not applicable  
 n.av. not available  
 n.c. not checked  
 n.d.a. no data available  
 OECD Organisation for Economic Co-operation and Development  
 org. organic  
 PBT persistent, bioaccumulative and toxic  
 PE Polyethylene  
 PNEC Predicted No Effect Concentration  
 ppm parts per million  
 PVC Polyvinylchloride  
 REACH Registration, Evaluation, Authorisation and Restriction of Chemicals (REGULATION (EC) No 1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals)

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RID Règlement concernant le transport International ferroviaire de marchandises Dangereuses (= Regulation concerning the International Carriage of Dangerous Goods by Rail)

SVHC Substances of Very High Concern

Tel. Telephone

UN RTDG United Nations Recommendations on the Transport of Dangerous Goods

VOC Volatile organic compounds

vPvB very persistent and very bioaccumulative

wwt wet weight

The statements made here should describe the product with regard to the necessary safety precautions - they are not meant to guarantee definite characteristics - but they are based on our present up-to-date knowledge.

No responsibility.

These statements were made by:

**Chemical Check GmbH, Chemical Check Platz 1-7, D-32839 Steinheim, Tel.: +49 5233 94 17 0, Fax: +49 5233 94 17 90**

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