1.1 Product identifier

Zentralhydraulikoel 1 L
Art.: 1127

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

Relevant identified uses of the substance or mixture:

Hydraulic oil

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]:
PC17 - Hydraulic fluids
PC24 - Lubricants, greases, release products

Process category [PROC]:
PROC 1 - Chemical production or refinery in closed process without likelihood of exposure or processes with equivalent containment conditions.
PROC 2 - Chemical production or refinery in closed continuous process with occasional controlled exposure or processes with equivalent containment conditions
PROC 8a - Transfer of substance or mixture (charging and discharging) at non-dedicated facilities
PROC 9 - Transfer of substance or mixture into small containers (dedicated filling line, including weighing)
PROC20 - Use of functional fluids in small devices

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 9a - Widespread use of functional fluid (indoor)
ERC 9b - Widespread use of functional fluid (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, Germany
Phone: (+49) 0731-1420-0, Fax: (+49) 0731-1420-88

Qualified person's e-mail address: info@chemical-check.de, 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:

Telephone number of the company in case of emergencies:
+49 (0) 700 / 24 112 112 (LMR)
Classification according to Regulation (EC) 1272/2008 (CLP)

<table>
<thead>
<tr>
<th>Hazard class</th>
<th>Hazard category</th>
<th>Hazard statement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute Tox.</td>
<td>4</td>
<td>H332-Harmful if inhaled.</td>
</tr>
<tr>
<td>Asp. Tox.</td>
<td>1</td>
<td>H304-May be fatal if swallowed and enters airways.</td>
</tr>
</tbody>
</table>

2.2 Label elements

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

Danger

H332-Harmful if inhaled. H304-May be fatal if swallowed and enters airways.

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.
P301+P310-IF SWALLOWED: Immediately call a POISON CENTER / doctor. P331-Do NOT induce vomiting.
P405-Store locked up.
P501-Dispose of contents / container to an approved waste disposal facility.

EUH208-Contains Di-iso-octyl amino methyl tolutriazole, Reaction products of bis(4-methylpentan-2-yl)dithiophosphoric acid with phosphorus oxide, propylene oxide and amines, C12-14-alkyl (branched). May produce an allergic reaction.

1-Decene, dimer, hydrogenated
Distillates (petroleum), hydrotreated light naphthenic
Hydrocarbons, C13-C16, n-alkanes, isoalkanes, cyclics, <0.03% 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 (< 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 (< 0,1 %).

SECTION 3: Composition/information on ingredients

3.1 Substance
n.a.

3.2 Mixture

<table>
<thead>
<tr>
<th>1-Decene, dimer, hydrogenated</th>
<th>01-2119493069-28-XXXX</th>
</tr>
</thead>
<tbody>
<tr>
<td>Registration number (REACH)</td>
<td></td>
</tr>
<tr>
<td>Index</td>
<td>--</td>
</tr>
<tr>
<td>EINECS, ELINCS, NLP</td>
<td>500-228-5 (NLP)</td>
</tr>
<tr>
<td>CAS</td>
<td>68649-11-6</td>
</tr>
<tr>
<td>content %</td>
<td>60-80</td>
</tr>
<tr>
<td>Classification according to Regulation (EC) 1272/2008 (CLP)</td>
<td>Acute Tox. 4, H332 Asp. Tox. 1, H304</td>
</tr>
</tbody>
</table>
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
Remove person from danger area.
Supply person with fresh air and consult doctor according to symptoms.

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**

Rinse the mouth thoroughly with water. Do not induce vomiting. Consult doctor immediately. Danger of aspiration

In case of vomiting, keep head low so that the stomach content does not reach the lungs.

### 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.

Gastric lavage (stomach washing) only under endotracheal intubation.

---

### SECTION 5: Firefighting measures

#### 5.1 Extinguishing media

**Suitable extinguishing media**

- CO2
- Foam
- Dry extinguisher
- Water jet spray

**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
- Oxides of nitrogen
- Oxides of sulphur
- Toxic gases
- Flammable vapour/air mixtures

#### 5.3 Advice for firefighters

- In case of fire and/or explosion do not breathe fumes.
- Protective respirator with independent air supply.
- According to size of fire
- Full protection, if necessary.
- 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

- Keep unprotected persons away.
- Ensure sufficient supply of air.
- Remove possible causes of ignition - do not smoke.
- Avoid contact with eyes or skin.
- If applicable, caution - risk of slipping.

#### 6.2 Environmental precautions

- If leakage occurs, dam up.
- Resolve leaks if this possible without risk.
- Prevent from entering drainage system.
- Prevent surface and ground-water infiltration, as well as ground penetration.
- If accidental entry into drainage system occurs, inform responsible authorities.

#### 6.3 Methods and material for containment and cleaning up
Soak up with absorbent material (e.g. universal binding agent, sand, diatomaceous earth) and dispose of according to Section 13.

Oil binder

6.4 Reference to other sections
For personal protective equipment see Section 8 and for disposal instructions see Section 13.

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 formation of oil mist.
Ensure good ventilation.
Do not heat to temperatures close to flash point.
Avoid long lasting or intensive contact with skin.
Eating, drinking, smoking, as well as food-storage, is prohibited in work-room.
Do not carry cleaning cloths soaked in product in trouser pockets.
Observe directions on label and instructions for use.
Use working methods according to operating instructions.

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.
Protect against moisture and store closed.

7.3 Specific end use(s)
No information available at present.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Content %: 0,1-&lt;0,25</th>
</tr>
</thead>
<tbody>
<tr>
<td>2,6-di-tert-butyl-p-cresol</td>
<td></td>
</tr>
<tr>
<td>WEL-TWA: 10 mg/m3</td>
<td>WEL-STEL: ---</td>
</tr>
<tr>
<td>Monitoring procedures:</td>
<td>---</td>
</tr>
<tr>
<td>BMGV: ---</td>
<td>Other information:</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Content %:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oil mist, mineral</td>
<td></td>
</tr>
<tr>
<td>WEL-TWA: 5 mg/m3 (Mineral oil, excluding metal working fluids, ACGIH)</td>
<td>WEL-STEL: ---</td>
</tr>
<tr>
<td>Monitoring procedures:</td>
<td></td>
</tr>
<tr>
<td>BMGV: ---</td>
<td>Other information:</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Hydrocarbons, C13-C16, n-alkanes, isoalkanes, cyclics, &lt;0.03% aromatics</th>
</tr>
</thead>
<tbody>
<tr>
<td>WEL-TWA: 1000 mg/m3</td>
<td>WEL-STEL: ---</td>
</tr>
<tr>
<td>Monitoring procedures:</td>
<td>- Draeger - Hydrocarbons 2/a (81 03 581)</td>
</tr>
<tr>
<td></td>
<td>- Draeger - Hydrocarbons 0.1%/c (81 03 571)</td>
</tr>
<tr>
<td></td>
<td>- Compur - KITA-187 S (551 174)</td>
</tr>
<tr>
<td>BMGV: ---</td>
<td>Other information: ---</td>
</tr>
</tbody>
</table>

Di-iso-octyl amino methyl toluitrazole

<table>
<thead>
<tr>
<th>Area of application</th>
<th>Exposure route / Environmental compartment</th>
<th>Effect on health</th>
<th>Descriptor</th>
<th>Value</th>
<th>Unit</th>
<th>Note</th>
</tr>
</thead>
</table>
### 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. BS EN 14042. BS 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 (EN 166) with side protection, with danger of splashes.

Skin protection - Hand protection:
Chemical resistant protective gloves (EN 374).
If applicable
Protective Neoprene® / polychloroprene gloves (EN 374).
Protective nitrile gloves (EN 374)
Minimum layer thickness in mm:
0,4
Permeation time (penetration time) in minutes:
> 480
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.
Protective hand cream recommended.

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.
Filter A2 P2 (EN 14387), code colour brown, white
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.

**8.2.3 Environmental exposure controls**

No information available at present.

---

**SECTION 9: Physical and chemical properties**

<table>
<thead>
<tr>
<th>Physical state:</th>
<th>Liquid</th>
</tr>
</thead>
<tbody>
<tr>
<td>Colour:</td>
<td>Green</td>
</tr>
<tr>
<td>Odour:</td>
<td>Characteristic</td>
</tr>
<tr>
<td>Odour threshold:</td>
<td>Not determined</td>
</tr>
<tr>
<td>pH-value:</td>
<td>Not determined</td>
</tr>
<tr>
<td>Melting point/freezing point:</td>
<td>Not determined</td>
</tr>
</tbody>
</table>
Initial boiling point and boiling range: Not determined
Flash point: 150 °C
Evaporation rate: Not determined
Flammability (solid, gas): n.a.
Lower explosive limit: Not determined
Upper explosive limit: Not determined
Vapour pressure: Not determined
Vapour density (air = 1): Not determined
Density: 0.825 g/ml (20°C)
Bulk density: n.a.
Solubility(ies): Not determined
Water solubility: Insoluble
Partition coefficient (n-octanol/water): Not determined
Auto-ignition temperature: Not determined
Decomposition temperature: Not determined
Viscosity: 19.8 mm²/s (40°C)
Viscosity: 6.5 mm²/s (100°C)
Explosive properties: Product is not explosive.
Oxidising properties: No

9.2 Other information
Miscibility: Not determined
Fat solubility / solvent: Not determined
Conductivity: Not determined
Surface tension: Not determined
Solvents content: Not determined

SECTION 10: Stability and reactivity

10.1 Reactivity
The product has not been tested.

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

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

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

<table>
<thead>
<tr>
<th>Toxicity / effect</th>
<th>Endpoint</th>
<th>Value</th>
<th>Unit</th>
<th>Organism</th>
<th>Test method</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute toxicity, by dermal route:</td>
<td>n.d.a.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Acute toxicity, by inhalation:</td>
<td>ATE</td>
<td>14,5</td>
<td>mg/l/4h</td>
<td></td>
<td>calculated value, Vapours</td>
<td></td>
</tr>
<tr>
<td>Acute toxicity, by inhalation:</td>
<td>ATE</td>
<td>2,38</td>
<td>mg/l/4h</td>
<td></td>
<td>calculated value, Aerosol</td>
<td></td>
</tr>
<tr>
<td>Skin corrosion/irritation:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>n.d.a.</td>
</tr>
<tr>
<td>Serious eye damage/irritation:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>n.d.a.</td>
</tr>
<tr>
<td>Respiratory or skin sensitisation:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>n.d.a.</td>
</tr>
<tr>
<td>Germ cell mutagenicity:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>n.d.a.</td>
</tr>
</tbody>
</table>
1-Decene, dimer, hydrogenated

<table>
<thead>
<tr>
<th>Toxicity / effect</th>
<th>Endpoint</th>
<th>Value</th>
<th>Unit</th>
<th>Organism</th>
<th>Test method</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute toxicity, by oral route:</td>
<td>LD50</td>
<td>&gt;5000</td>
<td>mg/kg</td>
<td>Rat</td>
<td>OECD 401 (Acute Oral Toxicity)</td>
<td></td>
</tr>
<tr>
<td>Serious eye damage/irritation:</td>
<td></td>
<td></td>
<td></td>
<td>Rabbit</td>
<td>OECD 405 (Acute Eye Irritation/Corrosion)</td>
<td>Not irritant</td>
</tr>
<tr>
<td>Respiratory or skin sensitisation:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>OECD 406 (Skin Sensitisation)</td>
<td>Not sensitizing (Analogous conclusion)</td>
</tr>
</tbody>
</table>

Reaction products of bis(4-methylpentan-2-yl)dithiophosphoric acid with phosphorus oxide, propylene oxide and amines, C12-14-alkyl (branched)

<table>
<thead>
<tr>
<th>Toxicity / effect</th>
<th>Endpoint</th>
<th>Value</th>
<th>Unit</th>
<th>Organism</th>
<th>Test method</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute toxicity, by oral route:</td>
<td>LD50</td>
<td>&gt;2000</td>
<td>mg/kg</td>
<td>Rat</td>
<td>OECD 401 (Acute Oral Toxicity)</td>
<td></td>
</tr>
<tr>
<td>Skin corrosion/irritation:</td>
<td></td>
<td>&gt;2000</td>
<td>mg/kg</td>
<td>Rabbit</td>
<td>OECD 404 (Acute Dermal Irritation/Corrosion)</td>
<td>Not irritant</td>
</tr>
<tr>
<td>Respiratory or skin sensitisation:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>OECD 406 (Skin Sensitisation)</td>
<td>Sensitising</td>
</tr>
<tr>
<td>Germ cell mutagenicity:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>OECD 471 (Bacterial Reverse Mutation Test)</td>
<td>Negative</td>
</tr>
</tbody>
</table>

Di-iso-octyl amino methyl tolutriazole

<table>
<thead>
<tr>
<th>Toxicity / effect</th>
<th>Endpoint</th>
<th>Value</th>
<th>Unit</th>
<th>Organism</th>
<th>Test method</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute toxicity, by oral route:</td>
<td>LD50</td>
<td>3313</td>
<td>mg/kg</td>
<td>Rat</td>
<td>OECD 401 (Acute Oral Toxicity)</td>
<td></td>
</tr>
<tr>
<td>Acute toxicity, by dermal route:</td>
<td>LD50</td>
<td>&gt;2000</td>
<td>mg/kg</td>
<td>Rabbit</td>
<td>OECD 402 (Acute Dermal Toxicity)</td>
<td></td>
</tr>
<tr>
<td>Skin corrosion/irritation:</td>
<td></td>
<td>&gt;2000</td>
<td>mg/kg</td>
<td>Rabbit</td>
<td>Draize-Test (Skin Irrit. 2)</td>
<td></td>
</tr>
<tr>
<td>Respiratory or skin sensitisation:</td>
<td></td>
<td></td>
<td></td>
<td>Guinea pig</td>
<td>OECD 406 (Skin Sensitisation)</td>
<td>Skin Sens. 1B</td>
</tr>
<tr>
<td>Germ cell mutagenicity:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>OECD 471 (Bacterial Reverse Mutation Test)</td>
<td>Negative</td>
</tr>
</tbody>
</table>

2,6-di-tert-butyl-p-cresol

<table>
<thead>
<tr>
<th>Toxicity / effect</th>
<th>Endpoint</th>
<th>Value</th>
<th>Unit</th>
<th>Organism</th>
<th>Test method</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute toxicity, by oral route:</td>
<td>LD50</td>
<td>&gt;2930</td>
<td>mg/kg</td>
<td>Rat</td>
<td>OECD 401 (Acute Oral Toxicity)</td>
<td></td>
</tr>
<tr>
<td>Acute toxicity, by dermal route:</td>
<td>LD50</td>
<td>&gt;5000</td>
<td>mg/kg</td>
<td>Rabbit</td>
<td>OECD 402 (Acute Dermal Toxicity)</td>
<td></td>
</tr>
<tr>
<td>Skin corrosion/irritation:</td>
<td></td>
<td></td>
<td></td>
<td>Rabbit</td>
<td>Draize-Test (Slightly irritant)</td>
<td></td>
</tr>
<tr>
<td>Respiratory or skin sensitisation:</td>
<td></td>
<td></td>
<td></td>
<td>Human being</td>
<td>Not sensitising</td>
<td></td>
</tr>
<tr>
<td>Germ cell mutagenicity:</td>
<td>NOAEL</td>
<td>100</td>
<td>mg/kg</td>
<td>Rat</td>
<td>(Ames-Test)</td>
<td>Negative</td>
</tr>
<tr>
<td>Reproductive toxicity:</td>
<td>NOEL</td>
<td>25</td>
<td>mg/kg</td>
<td>Rat</td>
<td>(28 d)</td>
<td>mucous membrane irritation</td>
</tr>
</tbody>
</table>
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### Hydrocarbons, C13-C16, n-alkanes, isoalkanes, cyclics, <0.03% aromatics

<table>
<thead>
<tr>
<th>Toxicity / effect</th>
<th>Endpoint</th>
<th>Value</th>
<th>Unit</th>
<th>Organism</th>
<th>Test method</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute toxicity, by oral route:</td>
<td>LD50</td>
<td>&gt;5000</td>
<td>mg/kg</td>
<td>Rat</td>
<td>OECD 401 (Acute Oral Toxicity)</td>
<td></td>
</tr>
<tr>
<td>Acute toxicity, by dermal route:</td>
<td>LD50</td>
<td>&gt;3160</td>
<td>mg/kg</td>
<td>Rabbit</td>
<td>OECD 402 (Acute Dermal Toxicity)</td>
<td></td>
</tr>
<tr>
<td>Acute toxicity, by inhalation:</td>
<td>LC50</td>
<td>&gt;5266</td>
<td>mg/m3/4h</td>
<td>Rat</td>
<td>OECD 403 (Acute Inhalation Toxicity)</td>
<td></td>
</tr>
</tbody>
</table>

### SECTION 12: Ecological information

Possibly more information on environmental effects, see Section 2.1 (classification).
See section 2.

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<table>
<thead>
<tr>
<th>Toxicity / effect</th>
<th>Endpoint</th>
<th>Time</th>
<th>Value</th>
<th>Unit</th>
<th>Organism</th>
<th>Test method</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>12.1. Toxicity to fish:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12.1.1. Toxicity to daphnia:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12.1.2. Persistence and degradability:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12.3. Bioaccumulative potential:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12.4. Mobility in soil:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12.5. Results of PBT and vPvB assessment</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12.6. Other adverse effects:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### 1-Decene, dimer, hydrogenated

<table>
<thead>
<tr>
<th>Toxicity / effect</th>
<th>Endpoint</th>
<th>Time</th>
<th>Value</th>
<th>Unit</th>
<th>Organism</th>
<th>Test method</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>12.1. Toxicity to fish:</td>
<td>LL50</td>
<td>96h</td>
<td>&gt;1000</td>
<td>mg/l</td>
<td>Oncorhynchus mykiss</td>
<td>OECD 203 (Fish, Acute Toxicity Test)</td>
<td></td>
</tr>
<tr>
<td>12.1. Toxicity to daphnia:</td>
<td>EL50</td>
<td>48h</td>
<td>&gt;1000</td>
<td>mg/l</td>
<td>Daphnia magna</td>
<td>OECD 202 (Daphnia sp. Acute Immobilisation Test)</td>
<td></td>
</tr>
<tr>
<td>12.2. Persistence and degradability:</td>
<td>28d</td>
<td>49,2-53,5</td>
<td>%</td>
<td></td>
<td></td>
<td>Not readily biodegradable</td>
<td></td>
</tr>
<tr>
<td>12.4. Mobility in soil:</td>
<td>Log Koc</td>
<td></td>
<td>&gt;6,2</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Di-iso-octyl amino methyl tolualtrazole

<table>
<thead>
<tr>
<th>Toxicity / effect</th>
<th>Endpoint</th>
<th>Time</th>
<th>Value</th>
<th>Unit</th>
<th>Organism</th>
<th>Test method</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>12.1. Toxicity to fish:</td>
<td>LC50</td>
<td>96h</td>
<td>1.3</td>
<td>mg/l</td>
<td>Brachydanio rerio</td>
<td>OECD 203 (Fish, Acute Toxicity Test)</td>
<td></td>
</tr>
<tr>
<td>12.1. Toxicity to daphnia:</td>
<td>EC50</td>
<td>48h</td>
<td>2.05</td>
<td>mg/l</td>
<td>Daphnia magna</td>
<td>OECD 202 (Daphnia sp. Acute Immobilisation Test)</td>
<td></td>
</tr>
<tr>
<td>12.1. Toxicity to algae:</td>
<td>EC50</td>
<td>72h</td>
<td>0.976</td>
<td>mg/l</td>
<td>Desmodesmus subspicatus</td>
<td>OECD 201 (Alga, Growth Inhibition Test)</td>
<td></td>
</tr>
<tr>
<td>12.1. Toxicity to algae:</td>
<td>NOEC/NOEL</td>
<td>72h</td>
<td>0.658</td>
<td>mg/l</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

12.2. Persistence and degradability:

<table>
<thead>
<tr>
<th>Endpoint</th>
<th>Time</th>
<th>Value</th>
<th>Unit</th>
<th>Organism</th>
<th>Test method</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>NOEC/NOEL</td>
<td>28d</td>
<td>&lt;10</td>
<td>%</td>
<td>activated sludge</td>
<td>OECD 301 B (Ready Biodegradability - CO2 Evolution Test)</td>
<td>Not readily biodegradableCO2 formation of the theoretical value</td>
</tr>
</tbody>
</table>

### 2,6-di-tert-butyl-p-cresol

<table>
<thead>
<tr>
<th>Toxicity / effect</th>
<th>Endpoint</th>
<th>Time</th>
<th>Value</th>
<th>Unit</th>
<th>Organism</th>
<th>Test method</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>12.1. Toxicity to fish:</td>
<td>LC50</td>
<td>96h</td>
<td>&gt;0.57</td>
<td>mg/l</td>
<td></td>
<td>QSAR</td>
<td></td>
</tr>
<tr>
<td>12.1. Toxicity to fish:</td>
<td>NOEC/NOEL</td>
<td>42d</td>
<td>0.053</td>
<td>mg/l</td>
<td>Oryzias latipes</td>
<td>OECD 210 (Fish, Early-Life Stage Toxicity Test)</td>
<td></td>
</tr>
<tr>
<td>12.1. Toxicity to daphnia:</td>
<td>LC50</td>
<td>48h</td>
<td>0.61</td>
<td>mg/l</td>
<td>Daphnia magna</td>
<td>OECD 202 (Daphnia sp. Acute Immobilisation Test)</td>
<td></td>
</tr>
<tr>
<td>12.1. Toxicity to daphnia:</td>
<td>NOEC/NOEL</td>
<td>21d</td>
<td>0.07</td>
<td>mg/l</td>
<td>Daphnia magna</td>
<td>OECD 202 (Daphnia sp. Acute Immobilisation Test)</td>
<td></td>
</tr>
<tr>
<td>12.1. Toxicity to algae:</td>
<td>EC50</td>
<td>72h</td>
<td>0.5</td>
<td>mg/l</td>
<td>Desmodesmus subspicatus</td>
<td>OECD 201 (Alga, Growth Inhibition Test)</td>
<td></td>
</tr>
<tr>
<td>12.1. Toxicity to algae:</td>
<td>NOEC/NOEL</td>
<td>72h</td>
<td>1</td>
<td>mg/l</td>
<td></td>
<td>OECD 201 (Alga, Growth Inhibition Test)</td>
<td></td>
</tr>
<tr>
<td>12.2. Persistence and degradability:</td>
<td></td>
<td></td>
<td>4.5</td>
<td>%</td>
<td></td>
<td>OECD 301 C (Ready Biodegradability - Modified MITI Test (I))</td>
<td>Not readily biodegradable</td>
</tr>
</tbody>
</table>

12.3. Bioaccumulative potential:

<table>
<thead>
<tr>
<th>Endpoint</th>
<th>Time</th>
<th>Value</th>
<th>Unit</th>
<th>Organism</th>
<th>Test method</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>230-2500</td>
<td>mg/l</td>
<td>Cyprinus caprio</td>
<td>OECD 305 (Bioconcentration - Flow-Through Fish Test)</td>
<td>56d</td>
</tr>
</tbody>
</table>

Toxicity to bacteria:

| EC50 | 3h | >10000 | mg/l | activated sludge | | |
Other information:

Does not contain any organically bound halogens which can contribute to the AOX value in waste water.

Water solubility:

0.00076 g/l

### Hydrocarbons, C13-C16, n-alkanes, isoalkanes, cyclics, <0.03% aromatics

<table>
<thead>
<tr>
<th>Toxicity / effect</th>
<th>Endpoint</th>
<th>Time</th>
<th>Value</th>
<th>Unit</th>
<th>Organism</th>
<th>Test method</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>12.1. Toxicity to fish:</td>
<td>LC50</td>
<td>96h</td>
<td>&gt;1028</td>
<td>mg/l</td>
<td>Scophthalmus maximus</td>
<td>OECD 203 (Fish, Acute Toxicity Test)</td>
<td></td>
</tr>
<tr>
<td>12.1. Toxicity to daphnia:</td>
<td>LC50</td>
<td>48h</td>
<td>&gt;3193</td>
<td>mg/l</td>
<td>Acartia tonsa</td>
<td>ISO 14669</td>
<td></td>
</tr>
<tr>
<td>12.1. Toxicity to algae:</td>
<td>Er/L50</td>
<td>72h</td>
<td>&gt;10000</td>
<td>mg/l</td>
<td>Skeletonema costatum</td>
<td>ISO 10253</td>
<td></td>
</tr>
<tr>
<td>12.2. Persistence and degradability:</td>
<td></td>
<td>28d</td>
<td>74</td>
<td>%</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### SECTION 13: Disposal considerations

#### 13.1 Waste treatment methods

**For the substance / mixture / residual amounts**

Soaked polluted cloths, paper or other organic materials represent a fire hazard and should be controlled, collected and disposed of.

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)

13 01 10 mineral based non-chlorinated hydraulic oils

Recommendation:

Sewage disposal shall be discouraged.

Pay attention to local and national official regulations.

E.g. dispose at suitable refuse site.

E.g. suitable incineration plant.

**For contaminated packing material**

Pay attention to local and national official regulations.

15 01 01 paper and cardboard packaging
15 01 02 plastic packaging
15 01 04 metallic packaging

Empty container completely.

Uncontaminated packaging can be recycled.

Dispose of packaging that cannot be cleaned in the same manner as the substance.

### SECTION 14: Transport information

**General statements**

14.1. UN number:

n.a.

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

14.2. UN proper shipping name:

n.a.

14.3. Transport hazard class(es):

n.a.

14.4. Packing group:

n.a.

14.5. Environmental hazards:

Not applicable

**Transport by sea (IMDG-code)**

14.2. UN proper shipping name:

n.a.

14.3. Transport hazard class(es):

n.a.
14.4. Packing group: n.a.
Marine Pollutant: n.a.
14.5. Environmental hazards: Not applicable

**Transport by air (IATA)**

14.2. UN proper shipping name: 
14.3. Transport hazard class(es): n.a.
14.4. Packing group: n.a.
14.5. Environmental hazards: Not applicable

**14.6. Special precautions for user**

Unless specified otherwise, general measures for safe transport must be followed.

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

Non-dangerous material according to Transport Regulations.

---

**SECTION 15: Regulatory information**

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

Observe restrictions:
Comply with trade association/occupational health regulations.

Directive 2010/75/EU (VOC): 0,008 %

**15.2 Chemical safety assessment**

A chemical safety assessment is not provided for mixtures.

---

**SECTION 16: Other information**

Revised sections: 2, 3, 8, 11, 12, 16

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):**

<table>
<thead>
<tr>
<th>Classification in accordance with regulation (EC) No. 1272/2008 (CLP)</th>
<th>Evaluation method used</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute Tox. 4, H332</td>
<td>Classification according to calculation procedure.</td>
</tr>
<tr>
<td>Asp. Tox. 1, H304</td>
<td>Classification according to calculation procedure.</td>
</tr>
</tbody>
</table>

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).
H314 Causes severe skin burns and eye damage.
H317 May cause an allergic skin reaction.
H318 Causes serious eye damage.
H320 Harmful if swallowed.
H400 Very toxic to aquatic life.

Acute Tox. — Acute toxicity - inhalation
Asp. Tox. — Aspiration hazard
Acute Tox. — Acute toxicity - oral
Skin Sens. — Skin sensitization
Eye Dam. — Serious eye damage
Aquatic Chronic — Hazardous to the aquatic environment - chronic
Skin Irrit. — Skin irritation
Aquatic Acute — Hazardous to the aquatic environment - acute
STOT RE — Specific target organ toxicity - repeated exposure
Skin Corr. — Skin corrosion

Any abbreviations and acronyms used in this document:

AC Article Categories
acc., acc. to according, according to
ACGIH American Conference of Governmental Industrial Hygienists
ADR Accord européen relatif au transport international des marchandises Dangereuses par Route (= European Agreement concerning the International Carriage of Dangerous Goods by Road)
AOEL Acceptable Operator Exposure Level
AOX Adsorbable organic halogen compounds
approx. approximately
Art., Art. no. Article number
ATE Acute Toxicity Estimate according to Regulation (EC) 1272/2008 (CLP)
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)
BCF Bioconcentration factor
BGV Berufsgenossenschaftliche Vorschrift (= Accident Prevention Regulation)
BHT Butylhydroxytoluol (= 2,6-Di-t-butyl-4-methyl-phenol)
BMGV Biological monitoring guidance value (EH40, UK)
BOD Biochemical oxygen demand
BSEF Bromine Science and Environmental Forum
bw body weight
CAS Chemical Abstracts Service
CEC Coordinating European Council for the Development of Performance Tests for Fuels, Lubricants and Other Fluids
CESIO Comité Européen des Agents de Surface et de leurs Intermédiaires Organiques
CIPAC Collaborative International Pesticides Analytical Council
CLP Classification, Labelling and Packaging (REGULATION (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures)
CMR carcinogenic, mutagenic, reductive toxic
COD Chemical oxygen demand
CTFA Cosmetic, Toiletry, and Fragrance Association
DMEL Derived Minimum Effect Level
DNEL Derived No Effect Level
DOC Dissolved organic carbon
DT50 Dwell Time - 50% reduction of start concentration
DVS Deutscher Verband für Schweißen und verwandte Verfahren e.V. (= German Association for Welding and Allied Processes)
dw dry weight
e.g. for example (abbreviation of Latin ‘exempli gratia’), for instance
EC European Community
ECHA European Chemicals Agency
EEA European Economic Area
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)
ERC Environmental Release Categories
ES Exposure scenario
etc. et cetera
EU European Union
EWC European Waste Catalogue
Fax. Fax number
gen. general
GHS Globally Harmonized System of Classification and Labelling of Chemicals
GWP Global warming potential
HET-CAM Hen's Egg Test - Chorionallantoic Membrane
HGWP Halocarbon Global Warming Potential

Page 14 of 16
Safety data sheet according to Regulation (EC) No 1907/2006, Annex II
Revision date / version: 22.02.2019 / 0017
Replacing version dated / version: 28.06.2018 / 0016
Valid from: 22.02.2019
PDF print date: 12.03.2019
Zentralhydraulikoel 1 L
Art.: 1127
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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