1.1 Product identifier

LKW-Leichtlauf-Motoroel SAE 10W-40 5 L
Art.: 1185

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

Relevant identified uses of the substance or mixture:
No information available at present.

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 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 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)
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 telephone number:
Telephone number of the company in case of emergencies:
+49 (0) 700 / 24 112 112 (LMR)
Classification according to Regulation (EC) 1272/2008 (CLP)
The mixture is not classified as dangerous in the terms of the Regulation (EC) 1272/2008 (CLP).

2.2 Label elements
Labeling according to Regulation (EC) 1272/2008 (CLP)
EUH208-Contains Calcium alkyl aryl sulfonate, long chain. May produce an allergic reaction.
EUH210-Safety data sheet available on request.

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 %).
Product can compose a film on the water surface, which can prevent oxygen exchange.

SECTION 3: Composition/information on ingredients

3.1 Substance
n.a.

3.2 Mixture
Lubricating oils (petroleum), C20-50, hydrotreated neutral oil-based
Registration number (REACH) 01-2119474889-13-XXXX
Index 649-483-00-5
EINECS, ELINCS, NLP 276-738-4
CAS 72823-87-1
content % 20-40
Classification according to Regulation (EC) 1272/2008 (CLP) Asp. Tox. 1, H304

Polyolefin polyamine succinimide, Polyol
Registration number (REACH) ---
Index ---
EINECS, ELINCS, NLP 604-611-9 (REACH-IT List-No.)
CAS 147880-09-9
content % 1-5
Classification according to Regulation (EC) 1272/2008 (CLP) Aquatic Chronic 4, H413

Phosphorodithioic acid, mixed 0,O-bis(sec-Bu and 1,3-dimethylbutyl) esters, zinc salts
Registration number (REACH) 01-2119657973-23-XXXX
Index ---
EINECS, ELINCS, NLP 272-238-5
CAS 68764-31-6
content % 1-<2,5
Classification according to Regulation (EC) 1272/2008 (CLP) Eye Dam. 1, H318 Aquatic Chronic 2, H411

Calcium alkyl aryl sulfonate, long chain
Registration number (REACH) ---
Index ---
EINECS, ELINCS, NLP ---
CAS 722503-69-7
content % 1-2,5
Classification according to Regulation (EC) 1272/2008 (CLP) Aquatic Chronic 4, H413

For the text of the H-phrases and classification codes (GHS/CLP), see Section 16.
SECTION 4: First aid measures

4.1 Description of first aid measures

Inhalation
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.

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. The following may occur:

- Drying of the skin.
- Irritation of the eyes
- Allergic reaction possible.

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:
- 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 phosphorus
- Oxides of sulphur
- Oxides of nitrogen
- Metal oxides
- Toxic gases

5.3 Advice for firefighters

In case of fire and/or explosion do not breathe fumes. Protective respirator with independent air supply. Full protection, if necessary. Dispose of contaminated extinction water according to official regulations.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Ensure sufficient supply of air.
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.
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, sawdust) and dispose of according to Section 13.
Fill the absorbed material into lockable containers.
Do not wash away with water or watery cleaning agents.

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
Ensure good ventilation.
Avoid formation of oil mist.
Avoid contact with eyes.
Avoid long lasting or intensive contact with skin.
Do not carry cleaning cloths soaked in product in trouser pockets.
Eating, drinking, smoking, as well as food-storage, is prohibited in work-room.
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
Not to be stored in gangways or stair wells.
Store product closed and only in original packing.
Under all circumstances prevent penetration into the soil.
Store at room temperature.
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

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Oil mist, mineral</th>
<th>Content %</th>
</tr>
</thead>
<tbody>
<tr>
<td>WEL-TWA:</td>
<td>5 mg/m³ (ACGIH)</td>
<td>WEL-STEL: 10 mg/m³ (ACGIH)</td>
</tr>
<tr>
<td>Monitoring procedures:</td>
<td>-</td>
<td>Draeger - Oil 10/a-P (67 28 371)</td>
</tr>
<tr>
<td></td>
<td>-</td>
<td>Draeger - Oil Mist 1/a (67 33 031)</td>
</tr>
<tr>
<td>BMGV:</td>
<td>---</td>
<td>Other information: ---</td>
</tr>
</tbody>
</table>

\*\* WEL-TWA = Workplace Exposure Limit - Long-term exposure limit (8-hour TWA (= time weighted average) reference period) EH40. AGW = "Arbeitsplatzgrenzwert" (workplace limit value, Germany). | WEL-STEL = Workplace Exposure Limit - Short-term exposure limit (15-minute reference period). | 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.
Safety data sheet according to Regulation (EC) No 1907/2006, Annex II
Revision date / version: 02.02.2017 / 0009
Replacing version dated / version: 21.08.2015 / 0008
Valid from: 02.02.2017
PDF print date: 02.02.2017
LKW-Leichtlauf-Motoroel SAE 10W-40 5 L
Art.: 1185

<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>
<tbody>
<tr>
<td>Consumer</td>
<td>Human - oral</td>
<td>PNEC</td>
<td>9,33</td>
<td>mg/kg</td>
<td>feed</td>
<td></td>
</tr>
<tr>
<td>Workers / employees</td>
<td>Human - inhalation</td>
<td>Long term, local effects</td>
<td>DNEL</td>
<td>1,2</td>
<td>mg/m³</td>
<td>24h</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</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. 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 (EN 166) with side protection, with danger of projections.

Skin protection - Hand protection:
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 374 Part 3 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:
Normally not necessary.
If OES or MEL is exceeded.
Filter A 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

9.1 Information on basic physical and chemical properties

Physical state: Liquid
Colour: Brown
Odour: Characteristic
Odour threshold: Not determined
pH-value: Not determined
Melting point/freezing point: Not determined
Initial boiling point and boiling range: Not determined
Flash point: 230 °C
Evaporation rate: Not determined
Flammability (solid, gas): Not determined
Lower explosive limit: Not determined
Upper explosive limit: Not determined
Vapour pressure: Not determined
Vapour density (air = 1): Not determined
Density: 0,875 g/ml
Bulk density: Not determined
Solubility(ies): Not determined
Water solubility: Insoluble
Partition coefficient (n-octanol/water): Not determined
Auto-ignition temperature: Not determined
Decomposition temperature: Not determined
Viscosity: 95 mm²/s (40°C)
Viscosity: 14,6 mm²/s (100°C)

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
Hazardous reactions will not occur during storage and handling under normal conditions.

10.4 Conditions to avoid
See also section 7.
Protect from humidity.
Open flame, ignition sources

10.5 Incompatible materials
See also section 7.
Avoid contact with strong oxidizing agents.

10.6 Hazardous decomposition products
See also section 5.2
No decomposition when used as directed.

SECTION 11: Toxicological information

11.1 Information on toxicological effects
### Environmental Information

For more information on environmental effects, see Section 2.2 (classification).
Lubricating oils (petroleum), C20-50, hydrotreated neutral oil-based

<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>NOEC/NOEL</td>
<td>96h</td>
<td>&gt;=100</td>
<td>mg/l</td>
<td>Pimephales promelas</td>
<td>OECD 203 (Fish, Acute Toxicity Test)</td>
<td></td>
</tr>
<tr>
<td>12.1. Toxicity to fish:</td>
<td>LL50</td>
<td>96h</td>
<td>&gt; 100</td>
<td>mg/l</td>
<td>Pimephales promelas</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;10000</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>10</td>
<td>mg/l</td>
<td>Daphnia magna</td>
<td>OECD 211 (Daphnia magna Reproduction Test)</td>
<td></td>
</tr>
<tr>
<td>12.1. Toxicity to algae:</td>
<td>NOEC/NOEL</td>
<td>72h</td>
<td>&gt;=100</td>
<td>mg/l</td>
<td>Pseudokirchneriella subcapitata</td>
<td>OECD 201 (Alga, Growth Inhibition Test)</td>
<td></td>
</tr>
<tr>
<td>12.1. Toxicity to algae:</td>
<td>EL50</td>
<td>48h</td>
<td>&gt;100</td>
<td>mg/l</td>
<td>Pseudokirchneriella subcapitata</td>
<td>OECD 201 (Alga, Growth Inhibition Test)</td>
<td></td>
</tr>
<tr>
<td>12.2. Persistence and degradability:</td>
<td>28d</td>
<td>46</td>
<td>%</td>
<td></td>
<td></td>
<td>OECD 301 B (Ready Biodegradability - Co2 Evolution Test)</td>
<td>A notable biological accumulation potential has to be expected (LogPow &gt; 3).</td>
</tr>
<tr>
<td>12.3. Bioaccumulative potential:</td>
<td>Log Kow</td>
<td>4,1</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>No PBT substance, No vPvB substance</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.: 

Owing to the user's specific conditions for use and disposal, other waste codes may be allocated under certain circumstances. (2014/955/EU)
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.
Classification code: n.a.
LQ: n.a.
14.5. Environmental hazards: Not applicable
Tunnel restriction code:

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: n.a.
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:
General hygiene measures for the handling of chemicals are applicable.

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

15.2 Chemical safety assessment
A chemical safety assessment is not provided for mixtures.

SECTION 16: Other information

Revised sections: 3, 5, 6, 7
Classification and processes used to derive the classification of the mixture in accordance with the ordinance (EG) 1272/2008 (CLP):

Not applicable

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).

H304 May be fatal if swallowed and enters airways.
H318 Causes serious eye damage.
H411 Toxic to aquatic life with long lasting effects.
H413 May cause long lasting harmful effects to aquatic life.

Asp. Tox. — Aspiration hazard
Aquatic Chronic — Hazardous to the aquatic environment - chronic
Eye Dam. — Serious eye damage

Any abbreviations and acronyms used in this document:

AC Article Categories
acc., acc. to 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. 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 Biological 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, reproductive 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
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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