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

1.1. Product identifier
Kühlöl, Typ Isoflex PDP 38

Further trade names
14033606098
14033606099
14033606100
14033606101

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

Use of the substance/mixture
Transmission oil

1.3. Details of the supplier of the safety data sheet

Leica Biosystems Nussloch GmbH

Company name: Leica Biosystems Nussloch GmbH
Street: Heidelberger Str. 17-19
Place: D Nussloch
Telephone: +49 (0)6224/143-0

Responsible Department: Responsible for the safety data sheet: sds@gbk-ingelheim.de

1.4. Emergency telephone number: INTERNATIONAL: +49 - (0) 6132 - 84463, GBK GmbH (24h - 7d/w - 365d/a)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Directive 67/548/EEC or 1999/45/EC

R phrases:
Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Hazard categories:
Hazardous to the aquatic environment: Aquatic Chronic 3

Hazard Statements:
Harmful to aquatic life with long lasting effects.

2.2. Label elements

Hazard statements
H412 Harmful to aquatic life with long lasting effects.

Precautionary statements
P273 Avoid release to the environment.
P501 Dispose of contents/container to in accordance with local and national regulations.

2.3. Other hazards

No data available.

SECTION 3: Composition/information on ingredients

3.2. Mixtures
Hazardous components

<table>
<thead>
<tr>
<th>EC No</th>
<th>Chemical name</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>204-881-4</td>
<td>2,6-bis(1,1-dimethylethyl)-4-methylphenol</td>
<td>0,25-2,5 %</td>
</tr>
<tr>
<td>128-37-0</td>
<td>Aquatic Chronic 1 (M-Factor = 1); H410</td>
<td></td>
</tr>
</tbody>
</table>

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

SECTION 4: First aid measures

4.1. Description of first aid measures

General information
Remove contaminated soaked clothing immediately.
If threatening unconsciousness, position and transport in recovery position.
In case of breathing difficulties give oxygen.

After inhalation
Ensure of fresh air.
In the event of persistent symptoms receive medical treatment.

After contact with skin
In case of contact with skin wash off with soap and water.
Remove contaminated soaked clothing immediately.
In case of irritation consult a physician.

After contact with eyes
Immediately wash with copious amounts of water for at least 15 minutes.
Remove contact lens.
Summon a doctor immediately.

After ingestion
Do not induce vomiting.
Summon a doctor immediately.

4.2. Most important symptoms and effects, both acute and delayed
No data available.

4.3. Indication of any immediate medical attention and special treatment needed
Treat symptoms.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media
Fire-extinguishing activities according to surrounding.

5.2. Special hazards arising from the substance or mixture
Fire or intense heat may cause violent rupture of packages.
Fire may produce: Carbon monoxide (CO), carbon dioxide (CO2) and nitrogen oxides (NOx). Sulphur dioxide (SO2)

5.3. Advice for firefighters
Remove persons to safety.

Additional information
Do not release chemically contaminated water into drains, soil or surface waters. Sufficient measures must be taken to retain water used for extinguishing.
Cool containers at risk with water spray jet.

SECTION 6: Accidental release measures
6.1. Personal precautions, protective equipment and emergency procedures
Do not inhale the spray mist and vapours. 
Ensure adequate ventilation. 
Remove persons to safety.

6.2. Environmental precautions
Do not discharge into the drains or bodies of water. 
Prevent spread over a wide area (e.g. by containment or oil barriers). 
Do not discharge into the subsoil/soil.

6.3. Methods and material for containment and cleaning up
Take up with absorbent material. 
After taking up the material dispose according to regulation. 
Send in suitable containers for recovery or disposal.

When larger quantities are released during incidents or due to other anomalies:

6.4. Reference to other sections
Information for personal protective equipment look up chapter 8. 
Information for disposal see section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling
Advice on safe handling
Use personal protective clothing. 
Avoid contact with skin, eyes and clothing. 
When using do not eat, drink or smoke. 

Advice on protection against fire and explosion
Keep away from sources of ignition - No smoking.

7.2. Conditions for safe storage, including any incompatibilities
Requirements for storage rooms and vessels 
Protect from heat and direct solar radiation. 

Further information on storage conditions 
Store closed container at a cool and aired place.

7.3. Specific end use(s)
No data available.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters
Exposure limits (EH40)

<table>
<thead>
<tr>
<th>CAS No</th>
<th>Substance</th>
<th>ppm</th>
<th>mg/m³</th>
<th>fibres/ml</th>
<th>Category</th>
<th>Origin</th>
</tr>
</thead>
<tbody>
<tr>
<td>128-37-0</td>
<td>2,6-Di-tert-butyl-p-cresol</td>
<td>-</td>
<td>10</td>
<td>-</td>
<td>TWA (8 h)</td>
<td>WEL</td>
</tr>
</tbody>
</table>

Additional advice on limit values
No data available.

8.2. Exposure controls
Protective and hygiene measures
At work do not eat, drink, smoke or take drugs. 
Remove and wash contaminated clothing before re-use.

Eye/face protection
Safety goggles (EN 166).

Hand protection
Glove material must be impermeable and resistant against product / substance / preparation. Gloves material should comply with breakthrough times, permeation rates, and degradation. 
Requirements can vary as a function of the use. Therefore it is necessary to adhere additionally to the
recommendations given by the manufacturer of protective gloves.

**Skin protection**
Use personal protective clothing.

**Respiratory protection**
Breathing apparatus in the event of aerosol or mist formation.

**Environmental exposure controls**
Handle in accordance with good industrial hygiene and safety practices.

### SECTION 9: Physical and chemical properties

#### 9.1. Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical state</td>
<td>Liquid</td>
</tr>
<tr>
<td>Colour</td>
<td>Yellow</td>
</tr>
<tr>
<td>Odour</td>
<td>characteristic</td>
</tr>
<tr>
<td>pH-Value</td>
<td>n.a.</td>
</tr>
</tbody>
</table>

**Changes in the physical state**

- Melting point: n.a.
- Initial boiling point and boiling range: n.a.
- Flash point: 200 °C
- Lower explosion limits: n.a.
- Upper explosion limits: n.a.
- Density (at 20 °C): 0.92 g/cm³
- Viscosity / kinematic (at 40 °C): 12 mm²/s

#### 9.2. Other information

No data available.

### SECTION 10: Stability and reactivity

#### 10.1. Reactivity
No data available.

#### 10.2. Chemical stability
Chemically stable.

#### 10.3. Possibility of hazardous reactions
Stable under normal conditions.

#### 10.4. Conditions to avoid
No data available.

#### 10.5. Incompatible materials
No data available.

#### 10.6. Hazardous decomposition products
No decomposition if stored and applied as directed.

### SECTION 11: Toxicological information

#### 11.1. Information on toxicological effects

**Acute toxicity**
Based on available data, the classification criteria are not met.

- 2,6-bis(1,1-dimethylethyl)-4-methylphenol:
  - LD50/oral/rat: > 2000 mg/kg
  - LD50/dermal/rat: > 2930 mg/kg

**Irritation and corrosivity**
Based on available data, the classification criteria are not met.
**Sensitising effects**
Based on available data, the classification criteria are not met.

**STOT—single exposure**
Based on available data, the classification criteria are not met.

If aerosols/vapours are inhaled, a harmful effect to health cannot be excluded.

**Severe effects after repeated or prolonged exposure**
Based on available data, the classification criteria are not met.

**Carcinogenic/mutagenic/toxic effects for reproduction**
Based on available data, the classification criteria are not met.

**Aspiration hazard**
Based on available data, the classification criteria are not met.

---

### SECTION 12: Ecological information

#### 12.1. Toxicity

2,6-bis(1,1-dimethyl)4-methylphenol:
EC50 (48h)/Daphnia: 0,386 mg/l
LC50 (96h)/Fish: 0,464 mg/l

#### 12.2. Persistence and degradability

2,6-bis(1,1-dimethyl)4-methylphenol:
OECD(301C): 4,5%(28d)

#### 12.3. Bioaccumulative potential

No data available.

#### 12.4. Mobility in soil

No data available.

#### 12.5. Results of PBT and vPvB assessment

No data available.

#### 12.6. Other adverse effects

No data available.

---

### SECTION 13: Disposal considerations

#### 13.1. Waste treatment methods

**Advice on disposal**
Disposal in accordance with local regulations.

**Contaminated packaging**
Contaminated packaging should be emptied as far as possible and after appropriate cleansing may be taken for reuse.

---

### SECTION 14: Transport information

**Land transport (ADR/RID); Marine transport (IMDG); Air transport (ICAO); Inland waterways transport (ADN)**

#### 14.1. UN number:
No hazardous material as defined by the transport regulations.

#### 14.2. UN proper shipping name:
No hazardous material as defined by the transport regulations.

#### 14.3. Transport hazard class(es):
No hazardous material as defined by the transport regulations.

#### 14.4. Packing group:
No hazardous material as defined by the transport regulations.

#### 14.5. Environmental hazards
No hazardous material as defined by the transport regulations.

#### 14.6. Special precautions for user
No hazardous material as defined by the transport regulations.

#### 14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code
No hazardous material as defined by the transport regulations.

---
SECTION 15: Regulatory information

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

National regulatory information
Water contaminating class (D): 2 - water contaminating

15.2. Chemical safety assessment
Chemical safety assessments for substances in this mixture were not carried out.

SECTION 16: Other information

Changes
Changes in chapter: -

Abbreviations and acronyms
ADR = Accord européen relatif au transport international des marchandises Dangereuses par Route
RID = Règlement concernant le transport international ferroviaire de marchandises dangereuses
ADN = Accord européen relatif au transport international des marchandises dangereuses par voie de navigation intérieure
IMDG = International Maritime Code for Dangerous Goods
IATA/ICAO = International Air Transport Association / International Civil Aviation Organization
MARPOL = International Convention for the Prevention of Pollution from Ships
DOT = Department of Transportation
TDG = Transport of Dangerous Goods

GHS = Globally Harmonized System of Classification and Labelling of Chemicals
REACH = Registration, Evaluation, Authorization and Restriction of Chemicals
CAS = Chemical Abstract Service
EN = European norm
ISO = International Organization for Standardization
DIN = Deutsche Industrie Norm
PBT = Persistent Bioaccumulative and Toxic
vPvB = Very Persistent and very Bio-accumulative
LD = Lethal dose
LC = Lethal concentration
EC = Effect concentration
IC = Median immobilisation concentration or median inhibitory concentration

Relevant R-phrases (Number and full text)
50 Very toxic to aquatic organisms.
53 May cause long-term adverse effects in the aquatic environment.

Relevant H- and EUH-phrases (Number and full text)
H410 Very toxic to aquatic life with long lasting effects.
H412 Harmful to aquatic life with long lasting effects.

Further Information
Data of items 4 to 8, as well as 10 to 12, do partly not refer to the use and the regular employing of the product (in this sense consult information on use and on product), but to liberation of major amounts in case of accidents and irregularities.
The information describes exclusively the safety requirements for the product(s) and is based on the present level of our knowledge.
The delivery specifications are contained in the corresponding product sheet.
This data does not constitute a guarantee for the characteristics of the product(s) as defined by the legal warranty regulations.
(n.a. = not applicable; n.d. = not determined)

Concawe Report 5/87 Health Aspects of Lubricants DGMK-Bericht 400-7.

(The data for the hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)