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

1.1. Product identifier
ADDINOL Flushing Oil Super

1.2. Relevant identified uses of the substance or mixture and uses advised against
Use of the substance/mixture
Engine cleaning agent.

1.3. Details of the supplier of the safety data sheet
Company name: ADDINOL Lube Oil GmbH
Gebäude 4609
Street: Am Haupttor
Place: D-06237 Leuna
Telephone: +49 (0) 3461 845-0
Fax: +49 (0) 3461 845-555
E-mail: info@addinol.de
Contact person: Application Technology
Internet: www.addinol.de
Responsible Department: ADDINOL Application Technology

1.4. Emergency telephone number:
Giftnotruf Berlin (030) 30686 790

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture
Classification according to Regulation (EC) No. 1272/2008 [CLP]

<table>
<thead>
<tr>
<th>Hazard categories</th>
<th>Hazard Statements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Respiratory/skin sensitization: Skin Sens. 1</td>
<td>May be fatal if swallowed and enters airways.</td>
</tr>
<tr>
<td>Aspiration hazard: Asp. Tox. 1</td>
<td>May cause an allergic skin reaction.</td>
</tr>
</tbody>
</table>

2.2. Label elements

Hazardous components which must be listed on the label
Distillates (petroleum), heavy hydrocracked; Base oil unspecified
Distillates (petroleum), hydrotreated heavy paraffinic; Baseoil - unspecified
Calcium long-chain alkaryl sulfonate

Signal word: Danger
Pictograms: GHS07-GHS08
Hazard statements
H304 May be fatal if swallowed and enters airways.
H317 May cause an allergic skin reaction.

Precautionary statements
P261 Do not breathe vapour/aerosol.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/doctor.
2.3. Other hazards

Prolonged/repetitive skin contact may cause skin defattening or dermatitis.
Spilled product must not leak into the ground.
Do not allow uncontrolled leakage of product into the environment.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

<table>
<thead>
<tr>
<th>EC No</th>
<th>Chemical name</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAS No</td>
<td>Classification according to Directive 67/548/EEC</td>
<td></td>
</tr>
<tr>
<td>Index No</td>
<td>Classification according to Regulation (EC) No. 1272/2008 [CLP]</td>
<td></td>
</tr>
<tr>
<td>REACH No</td>
<td></td>
<td></td>
</tr>
<tr>
<td>265-077-7</td>
<td>Distillates (petroleum), heavy hydrocracked; Base oil unspecified</td>
<td>&lt; 65 %</td>
</tr>
<tr>
<td>64741-76-0</td>
<td>Asp. Tox. 1; H304</td>
<td></td>
</tr>
<tr>
<td>01-2119486951-26</td>
<td></td>
<td></td>
</tr>
<tr>
<td>265-157-1</td>
<td>Distillates (petroleum), hydrotreated heavy paraffinic; Base oil unspecified</td>
<td>&lt; 30 %</td>
</tr>
<tr>
<td>64742-54-7</td>
<td>Asp. Tox. 1; H304</td>
<td></td>
</tr>
<tr>
<td>01-2119484627-25</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1,50 - 1,80 % Calcium long-chain alkaryl sulfonate</td>
<td>1,50 - 1,80 %</td>
<td></td>
</tr>
<tr>
<td>272-028-3</td>
<td>Zinc alklyldithiophosphate</td>
<td>1,20 - 1,50 %</td>
</tr>
<tr>
<td>68649-42-3</td>
<td>Eye Irrit. 2, Aquatic Chronic 2; H319 H411</td>
<td></td>
</tr>
</tbody>
</table>

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

Further Information

DMSO-Extrakt < 3 %, IP 346.
Concentration of PCBs < 1mg/kg.
Classification system: The classification corresponds to the current EC lists and is completed by information from specialist literature and company information.

SECTION 4: First aid measures

4.1. Description of first aid measures

General information
Self-protection of the first aider. Change contaminated clothing. Do not put any product-impregnated cleaning rags into your trouser pockets.

After inhalation
Move victim to fresh air. Put victim at rest and keep warm. In case of breathing difficulties administer...
4.2. Most important symptoms and effects, both acute and delayed

No information available.

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

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

Unsuitable extinguishing media
- High power water jet.

5.2. Special hazards arising from the substance or mixture


5.3. Advice for firefighters

In case of fire: Wear self-contained breathing apparatus.

Additional information
- Co-ordinate fire-fighting measures to the fire surroundings. Use water spray/stream to protect personnel and to cool endangered containers. In case of fire and/or explosion do not breathe fumes. Contaminated fire-fighting water must be collected separately. Do not allow to enter into surface water or drains.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

High slip hazard because of leaking or spilled product. Remove all sources of ignition. Wear breathing apparatus if exposed to vapours/dusts/aerosols.

6.2. Environmental precautions

Do not allow to enter into surface water or drains. In case of gas escape or of entry into waterways, soil or drains, inform the responsible authorities. Prevent spread over a wide area (e.g. by containment or oil barriers).

6.3. Methods and material for containment and cleaning up

Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents). Collect in closed containers for disposal. Clean contaminated objects and areas thoroughly observing environmental regulations.

6.4. Reference to other sections

Refer to the provisions listed in Sections 8, 12 and 13.

SECTION 7: Handling and storage
7.1. Precautions for safe handling

Advice on safe handling
Work in well-ventilated zones or use proper respiratory protection. Avoid oil mist if handled uncovered, arrangements with local exhaust ventilation have to be used. Avoid contact with skin, eye and clothing.

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
Keep the packing dry and well sealed to prevent contamination and absorption of humidity. Keep container tightly closed in a cool place.

Advice on storage compatibility
Keep away from food, drink and animal feedingstuffs.
Keep away from: Oxidizing agents.

Further information on storage conditions
Recommended storage temperature: 10 - 30°C
Protect against: heat. UV-radiation/sunlight. frost.

7.3. Specific end use(s)

Further information: see technical data sheet.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Additional advice on limit values
TWA: 5 mg/m³ oil mist
STEL: 10 mg/m³ oil mist

The product does not contain any relevant quantities of substances with legally established exposure limitation.

8.2. Exposure controls

Appropriate engineering controls
Provide adequate ventilation as well as local exhaustion at critical locations.

Protective and hygiene measures
Wash hands before breaks and after work. Take off immediately all contaminated clothing. Wash contaminated clothing prior to re-use. Do not eat, drink, smoke or sneeze at the workplace.

Eye/face protection
Tightly sealed safety glasses. German Industry Norms (DIN) / European Norms (EN): DIN EN 166

Hand protection
Tested protective gloves are to be worn: German Industry Norms (DIN) / European Norms (EN): DIN EN 374

Duration of wearing with permanent contact: 480 min
Suitable material: NBR (Nitrile rubber).
Thickness of glove material: 0.7 mm.

Wearing time with occasional contact (splashes): 30 min
Suitable material: NBR (Nitrile rubber).
Thickness of glove material: 0.4 mm

**Skin protection**
Wear suitable protective clothing. Change contaminated clothing. Do not put any product-impregnated cleaning rags into your trouser pockets.

**Respiratory protection**
If technical exhaust or ventilation measures are not possible or insufficient, respiratory protection must be worn. Breathing protection with filter against organic gases and vapours type A - boiling point > 65°C: A1: < 1000 ppm; A2: < 5000 ppm; A3: < 10000 ppm

**SECTION 9: Physical and chemical properties**

9.1. Information on basic physical and chemical properties

| Physical state: | liquid |
| Colour: | brown |
| Odour: | like: mineral oil |

**Changes in the physical state**

| Initial boiling point and boiling range: | not determined |
| Flash point: | > 130 °C DIN EN ISO 2719 |
| Upper explosion limits: | 7.0 |
| Ignition temperature: | not determined |
| Density (at 15 °C): | 0.860 g/cm³ DIN 51757 |
| Water solubility: | virtually insoluble |
| Viscosity / kinematic: | 8.9 mm²/s ASTM D 7042 |

**SECTION 10: Stability and reactivity**

10.1. Reactivity
The product is chemically stable when handled and stored under normal conditions.

10.2. Chemical stability
Stable with proper care and handling.

10.3. Possibility of hazardous reactions
No decomposition if used as intended.

10.4. Conditions to avoid
Do not overheat to avoid decomposition by heat.

Refer to chapter 7 No further action is necessary.

10.5. Incompatible materials
Reacts with: Oxidizing agents, strong Acid.

10.6. Hazardous decomposition products

**SECTION 11: Toxicological information**

11.1. Information on toxicological effects
### Acute toxicity

No data available

Mixture not tested.

<table>
<thead>
<tr>
<th>CAS No</th>
<th>Chemical name</th>
<th>Exposure routes</th>
<th>Dose</th>
<th>Species</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>64741-76-0</td>
<td>Distillates (petroleum), heavy hydrocracked; Base oil unspecified</td>
<td>oral</td>
<td>LD50 &gt; 5000 mg/kg</td>
<td>Rat</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>dermal</td>
<td>LD50 &gt; 2000 mg/kg</td>
<td>Rabbit</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>inhalative (4 h) vapour</td>
<td>LC50 &gt; 5000 mg/l</td>
<td>Rabbit</td>
<td></td>
</tr>
<tr>
<td>64742-54-7</td>
<td>Distillates (petroleum), hydrotreated heavy paraffinic; Base oil - unspecified</td>
<td>oral</td>
<td>LD50 &gt; 5000 mg/kg</td>
<td>Rat</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>dermal</td>
<td>LD50 &gt; 2000 mg/kg</td>
<td>Rabbit</td>
<td></td>
</tr>
</tbody>
</table>

### Irritation and corrosivity

Irritant effect on the eye: mild irritant.

Irritant effect on the skin: Prolonged/repetitive skin contact may cause skin defattening or dermatitis.

### Sensitising effects

Contains: Calcium long-chain alkaryl sulfonate. May produce an allergic reaction.

### Severe effects after repeated or prolonged exposure

Prolonged/repetitive skin contact may cause skin defattening or dermatitis.

### Carcinogenic/mutagenic/toxic effects for reproduction

No data available

### Specific effects in experiment on an animal

No data available

### SECTION 12: Ecological information

#### 12.1. Toxicity

No data available

Mixture not tested.

<table>
<thead>
<tr>
<th>CAS No</th>
<th>Chemical name</th>
<th>Aquatic toxicity</th>
<th>Dose</th>
<th>Species</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>64741-76-0</td>
<td>Distillates (petroleum), heavy hydrocracked; Base oil unspecified</td>
<td>Acute fish toxicity</td>
<td>LC50 &gt; 100 mg/l</td>
<td>96 h Fisch</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Acute algae toxicity</td>
<td>ErC50 &gt; = 100 mg/l</td>
<td>72 h Alge</td>
<td></td>
</tr>
<tr>
<td>64742-54-7</td>
<td>Distillates (petroleum), hydrotreated heavy paraffinic; Base oil - unspecified</td>
<td>Acute fish toxicity</td>
<td>LC50 &gt;1.000 mg/l</td>
<td>96 h</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Acute algae toxicity</td>
<td>ErC50 &gt;100 mg/l</td>
<td>72 h</td>
<td></td>
</tr>
</tbody>
</table>

#### 12.2. Persistence and degradability

Not easily bio-degradable (according to OECD-criteria). Do not allow to enter into surface water or drains.

#### 12.3. Bioaccumulative potential

No data available

#### 12.4. Mobility in soil

Due to its low solubility in water the product is almost completely mechanically separated in biological waste water treatment plants.
12.5. Results of PBT and vPvB assessment

The components in this formulation do not meet the criteria for classification as PBT or vPvB.

12.6. Other adverse effects

No data available

Further information

Do not allow uncontrolled leakage of product into the environment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Advice on disposal

Must not be disposed of with domestic refuse. Do not allow to enter into surface water or drains.

Waste disposal number of waste from residues/unused products

130205 WASTE OILS AND WASTES OF LIQUID FUELS (except edible oils, and those in chapters 05, 12 and 19); waste engine, gear and lubricating oils; mineral-based non-chlorinated engine, gear and lubricating oils

Classified as hazardous waste.

Contaminated packaging

Contaminated packages must be completely emptied and can be re-used following proper cleaning.

Dispose of waste according to applicable legislation. Packing which cannot be properly cleaned must be thrown away.

SECTION 14: Transport information

Land transport (ADR/RID)

14.1. UN number: -

Inland waterways transport (ADN)

14.1. UN number: -

Marine transport (IMDG)

14.1. UN number: -

Air transport (ICAO)

14.1. UN number: -

14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: no

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 MARPOL73/78 and the IBC Code

not applicable

Other applicable information

No dangerous good in sense of these 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): 1 - slightly water contaminating

15.2. Chemical safety assessment

Chemical safety assessments for substances in this mixture were not carried out.
SECTION 16: Other information

Relevant H- and EUH-phrases (Number and full text)
- H304 May be fatal if swallowed and enters airways.
- H317 May cause an allergic skin reaction.
- H319 Causes serious eye irritation.
- H411 Toxic to aquatic life with long lasting effects.
- H413 May cause long lasting harmful effects to aquatic life.

Further Information

This preparation is hazardous in the sense of regulation (EC) No 1272/2008 [GHS].

These given data only refer to the named product. If the product is used together with other materials or in manufacturing processes the data might not be applicable any more. The data are based on today’s state of our knowledge and experience. They are, however, no guarantee of any specific product properties and do not establish any legally valid contractual relationship.

The receiver of our product is singularly responsible for adhering to existing laws and regulations.

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