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

1.1. Product identifier

SRS ViVA 1 topsynth 5W-40

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

<table>
<thead>
<tr>
<th>Use of the substance/mixture</th>
<th>Uses advised against</th>
</tr>
</thead>
<tbody>
<tr>
<td>engine oil</td>
<td>none</td>
</tr>
</tbody>
</table>

1.3. Details of the supplier of the safety data sheet

Company name: SRS Schmierstoff Vertrieb GmbH
Street: Neuenkirchener Straße 8
Place: D-48497 Salzbergen
Telephone: 05976 - 945-0
Responsible Department: Abt. Produktsicherheit: info.reach@srs-oil.de

1.4. Emergency telephone number:

Gift-Informationszentrum Nord (Göttingen)
Telefon 0551-19240

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Regulation (EC) No. 1272/2008
This mixture is not classified as hazardous in accordance with Regulation (EC) No. 1272/2008.

2.2. Label elements

Regulation (EC) No. 1272/2008

Special labelling of certain mixtures
- EUH208: Contains Benzenesulfonic acid, methyl-, mono-C20-24-branched alkyl derivs., calcium salts. May produce an allergic reaction.
- EUH210: Safety data sheet available on request.

2.3. Other hazards

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.
This mixture contains no substances of very high concern (SVHC) (>0.1%) which are included in the Candidate List according to Article 59 of REACH.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

<table>
<thead>
<tr>
<th>CAS No</th>
<th>Chemical name</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>64742-54-7</td>
<td>Baseoil - unspecified, Distillates (petroleum), hydrotreated heavy paraffinic</td>
<td>40 - &lt; 45 %</td>
</tr>
<tr>
<td>265-157-1</td>
<td>649-467-00-8</td>
<td>01-2119484627-25</td>
</tr>
<tr>
<td>253-249-4</td>
<td></td>
<td>01-2119488911-28</td>
</tr>
</tbody>
</table>

Hazardous components

CAS No     | Chemical name       | Quantity  |
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>EC No</td>
<td>Index No</td>
<td>REACH No</td>
</tr>
</tbody>
</table>
| GHS Classification

Revised date: 27.03.2019

Print date: 29.03.2019
Further Information

Note L : The classification as a carcinogen need not apply if it can be shown that the substance contains less than 3 % DMSO extract as measured by IP 346 ‘Determination of polycyclic aromatics in unused lubricating base oils and asphaltene free petroleum fractions — Dimethyl sulfoxide extraction refractive index method’, Institute of Petroleum, London. This note applies only to certain complex oil-derived substances in Part 3.

SECTION 4: First aid measures

4.1. Description of first aid measures

General information
In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

After inhalation
In case of accident by inhalation: remove casualty to fresh air and keep at rest.
In case of allergic symptoms, especially in the breathing area, seek medical advice immediately.

After contact with skin
After contact with skin, wash immediately with plenty of water and soap.
Take off immediately all contaminated clothing.
In case of skin irritation, consult a physician.

After contact with eyes
Rinse immediately carefully and thoroughly with eye-bath or water.
In case of troubles or persistent symptoms, consult an ophthalmologist.

After ingestion
Do NOT induce vomiting.
Rinse mouth thoroughly with water.
Let water be drunken in little sips (dilution effect).
Never give anything by mouth to an unconscious person or a person with cramps.
When in doubt or if symptoms are observed, get medical advice.

4.2. Most important symptoms and effects, both acute and delayed
If swallowed or in the event of vomiting, risk of entering the lungs.

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
Sand.
Foam.
Carbon dioxide (CO2).
Extinguishing powder.
In case of major fire and large quantities:
5.2. Special hazards arising from the substance or mixture
Burning produces heavy smoke.
Can be released in case of fire:
- Carbon monoxide
- Carbon dioxide (CO2)
- Sulphur dioxide (SO2)
- Nitrogen oxides (NOx)
- Phosphorus oxides.

5.3. Advice for firefighters
- In case of fire and/or explosion do not breathe fumes.
- In case of fire: Wear self-contained breathing apparatus.

Additional information
- Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.
- Co-ordinate fire-fighting measures to the fire surroundings.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures
- Wear personal protection equipment (refer to section 8).
- Ventilate affected area.
- Special danger of slipping by leaking/spilling product.

6.2. Environmental precautions
- Do not allow to enter into surface water or drains.
- Prevent spread over a wide area (e.g. by containment or oil barriers).
- Do not allow to enter into soil/subsoil.

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).
- Treat the recovered material as prescribed in the section on waste disposal.
- Clean contaminated articles and floor according to the environmental legislation.

6.4. Reference to other sections
- No information available.

SECTION 7: Handling and storage

7.1. Precautions for safe handling
- Advice on safe handling
  - Wear suitable protective clothing. (See section 8.)
  - Avoid formation of oil dust.

- Advice on protection against fire and explosion
  - Usual measures for fire prevention.
  - Keep away from sources of ignition - No smoking.
  - Fire class B

Further information on handling
- Do not breathe vapour/aerosol.
- Avoid contact with eyes and skin.
- Advices on general occupational hygiene:
  - See section 8.
7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels
Keep container tightly closed in a cool, well-ventilated place.
Only use containers specifically approved for the substance/product.

Hints on joint storage
Do not store together with:
Gas.
Explosives.
Oxidizing solids.
Oxidizing liquids.
Radioactive substances.
Infectious substances

Further information on storage conditions
Temperature control required.
Protect from light.
Keep container tightly closed.
Do not allow contact with air.

7.3. Specific end use(s)
See section 1.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters
DNEL/DMEL values

<table>
<thead>
<tr>
<th>CAS No</th>
<th>Substance</th>
<th>DNEL type</th>
<th>Exposure route</th>
<th>Effect</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>36878-20-3</td>
<td>Bis(nonylphenyl)amine</td>
<td>Worker DNEL, acute</td>
<td>dermal</td>
<td>systemic</td>
<td>5 mg/kg bw/day</td>
</tr>
<tr>
<td>68784-26-9</td>
<td>Phenol, 2,2'-polythiobis[4-C8-30-alkyl derivs., calcium salts, overbased</td>
<td>Worker DNEL, long-term</td>
<td>inhalation</td>
<td>systemic</td>
<td>3.5 mg/m³</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Worker DNEL, acute</td>
<td>inhalation</td>
<td>systemic</td>
<td>133.5 mg/m³</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Worker DNEL, long-term</td>
<td>dermal</td>
<td>systemic</td>
<td>0.5 mg/kg bw/day</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Worker DNEL, acute</td>
<td>dermal</td>
<td>systemic</td>
<td>80 mg/kg bw/day</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Consumer DNEL, long-term</td>
<td>inhalation</td>
<td>systemic</td>
<td>0.87 mg/m³</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Consumer DNEL, acute</td>
<td>inhalation</td>
<td>systemic</td>
<td>0.067 mg/m³</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Consumer DNEL, acute</td>
<td>dermal</td>
<td>systemic</td>
<td>40 mg/kg bw/day</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Consumer DNEL, long-term</td>
<td>oral</td>
<td>systemic</td>
<td>0.25 mg/kg bw/day</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Consumer DNEL, acute</td>
<td>oral</td>
<td>systemic</td>
<td>50 mg/kg bw/day</td>
</tr>
<tr>
<td>68784-31-6</td>
<td>Phosphorodithioic acid, mixed O,O-bis(sec-Bu and 1,3-dimethylbutyl) esters, zinc salts</td>
<td>Worker DNEL, long-term</td>
<td>inhalation</td>
<td>systemic</td>
<td>2.93 mg/m³</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Worker DNEL, acute</td>
<td>inhalation</td>
<td>systemic</td>
<td>496.4 mg/m³</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Worker DNEL, long-term</td>
<td>dermal</td>
<td>systemic</td>
<td>10.42 mg/kg bw/day</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Worker DNEL, acute</td>
<td>dermal</td>
<td>systemic</td>
<td>100 mg/kg bw/day</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Worker DNEL, long-term</td>
<td>inhalation</td>
<td>systemic</td>
<td>11.75 mg/m³</td>
</tr>
</tbody>
</table>
Consumer DNEL, acute
- inhalation: systemic 198.6 mg/m³
- dermal: systemic 2.1 mg/kg bw/day
- oral: systemic 50 mg/kg bw/day
- oral: systemic 29 mg/kg bw/day

PNEC values

<table>
<thead>
<tr>
<th>Substance</th>
<th>Environmental compartment</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Baseoil - unspecified, Distillates (petroleum), hydrotreated heavy paraffinic</td>
<td>Secondary poisoning</td>
<td>9,33 mg/kg</td>
</tr>
<tr>
<td>Bis(nonylphenyl)amine</td>
<td>Freshwater</td>
<td>0,1 mg/l</td>
</tr>
<tr>
<td></td>
<td>Freshwater (intermittent releases)</td>
<td>1 mg/l</td>
</tr>
<tr>
<td></td>
<td>Marine water</td>
<td>0,01 mg/l</td>
</tr>
<tr>
<td></td>
<td>Marine water (intermittent releases)</td>
<td>13200 mg/kg</td>
</tr>
<tr>
<td></td>
<td>Freshwater sediment</td>
<td>132000 mg/kg</td>
</tr>
<tr>
<td></td>
<td>Micro-organisms in sewage treatment plants (STP)</td>
<td>1 mg/l</td>
</tr>
<tr>
<td></td>
<td>Soil</td>
<td>263000 mg/kg</td>
</tr>
<tr>
<td>Phenol, 2,2'-polythiobiobis[4-C8-30-alkyl derivs., calcium salts, overbased]</td>
<td>Freshwater</td>
<td>0,5 mg/l</td>
</tr>
<tr>
<td></td>
<td>Freshwater (intermittent releases)</td>
<td>5 mg/l</td>
</tr>
<tr>
<td></td>
<td>Marine water</td>
<td>0,04 mg/l</td>
</tr>
<tr>
<td></td>
<td>Freshwater sediment</td>
<td>43500 mg/kg</td>
</tr>
<tr>
<td></td>
<td>Marine sediment</td>
<td>3480 mg/kg</td>
</tr>
<tr>
<td></td>
<td>Secondary poisoning</td>
<td>13,333 mg/kg</td>
</tr>
<tr>
<td></td>
<td>Micro-organisms in sewage treatment plants (STP)</td>
<td>100 mg/l</td>
</tr>
<tr>
<td></td>
<td>Soil</td>
<td>8850 mg/kg</td>
</tr>
<tr>
<td>Phosphorodithioic acid, mixed O,O-bis(sec-Bu and 1,3-dimethylbutyl) esters, zinc salts</td>
<td>Freshwater</td>
<td>0,04 mg/l</td>
</tr>
<tr>
<td></td>
<td>Marine water</td>
<td>0,0046 mg/l</td>
</tr>
<tr>
<td></td>
<td>Freshwater sediment</td>
<td>0,07 mg/kg</td>
</tr>
<tr>
<td></td>
<td>Marine sediment</td>
<td>0,007 mg/kg</td>
</tr>
<tr>
<td></td>
<td>Secondary poisoning</td>
<td>8,33 mg/kg</td>
</tr>
<tr>
<td></td>
<td>Micro-organisms in sewage treatment plants (STP)</td>
<td>3,8 mg/l</td>
</tr>
<tr>
<td></td>
<td>Soil</td>
<td>0,055 mg/kg</td>
</tr>
</tbody>
</table>

Air limit values:
- Possibility of exposure to Aerosol
- Limit value = 5 mg/ m³ - Source: ACGIH

8.2. Exposure controls
Appropriate engineering controls
Provide adequate ventilation.

Protective and hygiene measures
Clean skin thoroughly after working.
Do not put any product-impregnated cleaning rags into your trouser pockets.
Contaminated work clothing should not be allowed out of the workplace.
Wash contaminated clothing before reuse.

Eye/face protection
Safety goggles with side protection. In case of increased risk add protective face shield.
DIN EN 166

Hand protection
Use safety gloves of following materials: NBR (nitrile) / neopren / viton (permeationslevel 5 - 6), Cat. II according to norm EN 347/EN 388.
The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances.
For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

Skin protection
Oil-resistant and hardly inflammable protective clothing.

Respiratory protection
With correct and proper use, and under normal conditions, breathing protection is not required.
Respiratory protection necessary at:
-aerosol or mist formation
-exceeding exposure limit values
Suitable respiratory protection apparatus: Respiratory equipment in case of nebulosity or aerosol: Use a mask with a filter type A2, A2/P2 or ABEK.
The filter class must be suitable for the maximum contaminant concentration (gas/vapour/aerosol/particulates) that may arise when handling the product. If the concentration is exceeded, self-contained breathing apparatus must be used.

Environmental exposure controls
No information available.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties
Physical state: liquid
Colour: clear
Odour: characteristic

pH-Value: No information available.

Changes in the physical state
Melting point: No information available.
Initial boiling point and boiling range: No information available.
Sublimation point: No information available.
Softening point: No information available.
Pour point: -42 °C  ISO 3016
### Flash point:
236 °C

### Sustaining combustion:
No data available

## Flammability

### Solid:
No information available.

### Gas:
No information available.

## Explosive properties

### None

### Lower explosion limits:
No information available.

### Upper explosion limits:
No information available.

### Ignition temperature:
No information available.

### Auto-ignition temperature

### Solid:
No information available.

### Gas:
No information available.

### Decomposition temperature:
No information available.

## Oxidizing properties

### None

### Vapour pressure:

(at 20 °C)
No information available.

(at 50 °C)
No information available.

### Density (at 15 °C):

0.8543 g/cm³ DIN 51757

### Bulk density:
No information available.

### Water solubility:
Immiscible

## Solubility in other solvents

### None

### Partition coefficient:
No information available.

### Viscosity / dynamic:

(at 40 °C)
86.92 mm²/s DIN EN ISO 3104

### Flow time:
No information available.

### Vapour density:
No information available.

### Evaporation rate:
No information available.

### Solvent separation test:
No information available.

### Solvent content:
No information available.

### Solid content:
No information available.

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

No information available.

### 10.2. Chemical stability

Stable at ambient temperature.

### 10.3. Possibility of hazardous reactions

No hazardous reactions known.
10.4. Conditions to avoid
No information available.

10.5. Incompatible materials
Oxidising agent, strong

10.6. Hazardous decomposition products
No known hazardous decomposition products.

Further information
No information available.

SECTION 11: Toxicological information

11.1. Information on toxicological effects
Toxicokinetics, metabolism and distribution
No information available.

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

<table>
<thead>
<tr>
<th>CAS No</th>
<th>Chemical name</th>
<th>Exposure route</th>
<th>Dose</th>
<th>Species</th>
<th>Source</th>
<th>Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>64742-54-7</td>
<td>Baseoil - unspecified, Distillates (petroleum), hydrotreated heavy paraffinic</td>
<td>oral</td>
<td>LD50</td>
<td>Rat</td>
<td>ECHA Dossier</td>
<td>OECD 401</td>
</tr>
<tr>
<td></td>
<td></td>
<td>dermal</td>
<td>LD50</td>
<td>Rabbit</td>
<td>ECHA Dossier</td>
<td>OECD 402</td>
</tr>
<tr>
<td>36878-20-3</td>
<td>Bis(nonylphenyl)amine</td>
<td>oral</td>
<td>LD50</td>
<td>Rat</td>
<td>ECHA Dossier</td>
<td></td>
</tr>
<tr>
<td>68784-26-9</td>
<td>Phenol, 2,2’-polythiobi[4-C8-30-alkyl derivs., calcium salts, overbased</td>
<td>oral</td>
<td>LD50</td>
<td>Rat</td>
<td>ECHA Dossier</td>
<td>OECD Guideline 401</td>
</tr>
<tr>
<td></td>
<td></td>
<td>dermal</td>
<td>LD50</td>
<td>Rabbit</td>
<td>ECHA Dossier</td>
<td>OECD Guideline 402</td>
</tr>
<tr>
<td>68784-31-6</td>
<td>Phosphorodithioic acid, mixed O,O-bis(sec-Bu and 1,3-dimethylbutyl) esters, calcium salts</td>
<td>oral</td>
<td>LD50</td>
<td>Rat</td>
<td>ECHA Dossier</td>
<td>OECD Guideline 401</td>
</tr>
<tr>
<td></td>
<td></td>
<td>dermal</td>
<td>LD50</td>
<td>Rabbit</td>
<td>ECHA Dossier</td>
<td>OECD Guideline 402</td>
</tr>
</tbody>
</table>

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

Sensitising effects
Contains Benzenesulfonic acid, methyl-, mono-C20-24-branched alkyl derivs., calcium salts. May produce an allergic reaction.
May cause sensitisation especially in sensitive humans.

Carcinogenic/mutagenic/toxic effects for reproduction
Based on available data, the classification criteria are not met.
Baseoil - unspecified, Distillates (petroleum), hydrotreated heavy paraffinic:
In vitro mutagenicity/genotoxicity.
Method: OECD Guideline 473 (In vitro Mammalian Chromosome Aberration Test); Literature information: ECHA dossier; Result: negative.

Carcinogenicity:
Method: OECD Guideline 453 (Combined Chronic Toxicity / Carcinogenicity Studies)
Species: Mouse; Results: Non-carcinogenic if DMSO extract as measured by IP346 is less than 3% m/m.;
Literature information: ECHA Dossier

Reproductive toxicity:
Species: Rat (Sprague-Dawley); Method: OECD Guideline 421 (Reproduction / Developmental Toxicity Screening Test)
Results: NOAEL > 1000 mg/kg; Literature information: ECHA Dossier
Developmental toxicity/teratogenicity:
Species: Rat (Sprague-Dawley); Method: OECD Guideline 414 (Prenatal Developmental Toxicity Study)
Results: NOAEL >= 2000 mg/kg; Literature information: ECHA Dossier

Phosphorodithioic acid, mixed O,O-bis(sec-Bu and 1,3-dimethylbutyl) esters, zinc salts:
In-vitro mutagenicity:
Method: OECD Guideline 471 (Bacterial Reverse Mutation Assay)
Result: negative.; Literature information: ECHA Dossier

Phenol, 2,2'-polythiobis[4-C8-30-alkyl derivs., calcium salts, overbased:
Reproductive toxicity:
Method: OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test); Species: Rat
Result: NOAEL = 200 mg/kg; Literature information: ECHA Dossier

Method:
-OECD Guideline 471 (Bacterial Reverse Mutation Assay)
-OECD Guideline 476 (In vitro Mammalian Cell Gene Mutation Test)
Result: negative.; Literature information: ECHA Dossier

Bis(nonylphenyl)amine:
Developmental toxicity/teratogenicity: Species: Rat (Wistar); Method: OECD Guideline 414 (Prenatal Developmental Toxicity Study); Result: NOAEL >= 500 mg/kg; Literature information: ECHA Dossier

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

STOT-repeated exposure
Based on available data, the classification criteria are not met.
Baseoil - unspecified, Distillates (petroleum), hydrotreated heavy paraffinic:
Subacute inhalative toxicity:
Method: - ; Exposure time: 28d; Species: Rat
Results: NOAEL >980 mg/m3; Literature information: ECHA Dossier

Subacute dermal toxicity:
Method: OECD Guideline 410 (Repeated Dose Dermal Toxicity: 21/28-Day Study)
Exposure time: 28d; Species: Rabbit
Results: 1000 mg/kg ; Literature information: ECHA Dossier

Phosphorodithioic acid, mixed O,O-bis(sec-Bu and 1,3-dimethylbutyl) esters, zinc salts:
Subacute oral toxicity:
Method: OECD Guideline 407 (Repeated Dose 28-Day Oral Toxicity in Rodents)
Species: Rat
Exposure duration: 28 d; Results: NOAEL = 125 mg/kg; Literature information: ECHA Dossier

Phenol, 2,2'-polythiobis[4-C8-30-alkyl derivs., calcium salts, overbased:
Subacute oral toxicity:
Method: OECD Guideline 410 (Repeated Dose Dermal Toxicity: 21/28-Day Study)
Species: Dog.; Exposure duration: 28 d.
Results: NOAEL >250 mg/kg(bw)/day ; Literature information: ECHA Dossier

Bis(nonylphenyl)amine:
Subchronic oral toxicity: Exposure time: 90d; Species: Han Wistar Rat.; Method: OECD Guideline 408; Result: LOAEL = 100 mg/kg; Literature information: ECHA Dossier

Aspiration hazard

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

Practical experience

Other observations

Frequent contact specially if dried out may cause skin and eye irritations.

SECTION 12: Ecological information

12.1. Toxicity

If this product contains phenol, dodecyl, branched (EC No. 310-154-3), this product is not to be classified as dangerous for the environment (H410, H411, H412). Raw materials containing this substance have not been classified by our suppliers as hazardous to the environment (H410, H411) on the basis of test data, expert judgement or analogy assessments.

<table>
<thead>
<tr>
<th>CAS No</th>
<th>Chemical name</th>
<th>Aquatic toxicity</th>
<th>Dose</th>
<th>Species</th>
<th>Source</th>
<th>Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>64742-54-7</td>
<td>Baseoil - unspecified, Distillates (petroleum), hydrotreated heavy paraffinic</td>
<td>NOEC</td>
<td>10 mg/l</td>
<td>Daphnia magna (OECD 211)</td>
<td>ECHA Dossier</td>
<td></td>
</tr>
<tr>
<td>36878-20-3</td>
<td>Bis(nonylphenyl)amine</td>
<td>LC50 &gt;100 mg/l</td>
<td>Brachydianio rerio (new name: Danio rerio) (OECD 202)</td>
<td>ECHA Dossier</td>
<td></td>
<td></td>
</tr>
<tr>
<td>68784-26-9</td>
<td>Phenol, 2,2’-polythiobis[4-C8-30-alkyl derivs., calcium salts, overbased</td>
<td>LC50 &gt;1000 mg/l</td>
<td>Pimephales promelas</td>
<td>ECHA Dossier OECD Guideline 203</td>
<td></td>
<td></td>
</tr>
<tr>
<td>68784-31-6</td>
<td>Phosphorodithioic acid, mixed O,O-bis(sec-Bu and 1,3-dimethylbutyl) esters, zinc salts</td>
<td>LC50 = 4,4 mg/l, LL50 = 4,4 mg/l, EL50 = 410 mg/l, NOEC = 0,4 mg/l</td>
<td>Oncorhynchus mykiss</td>
<td>ECHA Dossier OECD Guideline 203</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

12.2. Persistence and degradability

The product is slightly soluble in water. It can be largely eliminated from the water by abiotic processes, e.g. mechanical separation.

<table>
<thead>
<tr>
<th>CAS No</th>
<th>Chemical name</th>
<th>Method</th>
<th>Value</th>
<th>d</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>64742-54-7</td>
<td>Baseoil - unspecified, Distillates (petroleum), hydrotreated heavy paraffinic</td>
<td>OECD 301F / ISO 9408 / EEC 92/69 annex V, C.4-D</td>
<td>31%</td>
<td>28</td>
<td>ECHA Dossier</td>
</tr>
</tbody>
</table>
12.3. Bioaccumulative potential

No indication of bioaccumulation potential.

Partition coefficient n-octanol/water

<table>
<thead>
<tr>
<th>CAS No</th>
<th>Chemical name</th>
<th>Log Pow</th>
</tr>
</thead>
<tbody>
<tr>
<td>68784-26-9</td>
<td>Phenol, 2,2'-polithiobis[4-C8-30-alkyl derivs., calcium salts, overbased</td>
<td>9,5</td>
</tr>
</tbody>
</table>

BCF

<table>
<thead>
<tr>
<th>CAS No</th>
<th>Chemical name</th>
<th>BCF</th>
<th>Species</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>68784-26-9</td>
<td>Phenol, 2,2'-polithiobis[4-C8-30-alkyl derivs., calcium salts, overbased</td>
<td>2,2</td>
<td>lipid triolein</td>
<td>ECHA Dossier</td>
</tr>
</tbody>
</table>

12.4. Mobility in soil

No information available.

12.5. Results of PBT and vPvB assessment

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

12.6. Other adverse effects

No information available.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Advice on disposal

Dispose of waste according to applicable legislation. Consult the appropriate local waste disposal expert about waste disposal. Non-contaminated packages may be recycled. The allocation of waste identity numbers/waste descriptions must be carried out according to the EEC, specific to the industry and process.

Waste disposal number of contaminated packaging

- WASTE PACKAGING; ABSORBENTS, WIPIING CLOTHS, FILTER MATERIALS AND PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED; packaging (including separately collected municipal packaging waste); packaging containing residues of or contaminated by hazardous substances; hazardous waste

Contaminated packaging

Handle contaminated packages in the same way as the substance itself.

SECTION 14: Transport information

Land transport (ADR/RID)

14.1. UN number: No dangerous good in sense of this transport regulation.
14.2. UN proper shipping name: No dangerous good in sense of this transport regulation.
14.3. Transport hazard class(es): No dangerous good in sense of this transport regulation.
14.4. Packing group: No dangerous good in sense of this transport regulation.

Inland waterways transport (ADN)
14.1. UN number: No dangerous good in sense of this transport regulation.
14.2. UN proper shipping name: No dangerous good in sense of this transport regulation.
14.3. Transport hazard class(es): No dangerous good in sense of this transport regulation.
14.4. Packing group: No dangerous good in sense of this transport regulation.

Marine transport (IMDG)
14.1. UN number: No dangerous good in sense of this transport regulation.
14.2. UN proper shipping name: No dangerous good in sense of this transport regulation.
14.3. Transport hazard class(es): No dangerous good in sense of this transport regulation.
14.4. Packing group: No dangerous good in sense of this transport regulation.

Air transport (ICAO-TI/IATA-DGR)
14.1. UN number: No dangerous good in sense of this transport regulation.
14.2. UN proper shipping name: No dangerous good in sense of this transport regulation.
14.3. Transport hazard class(es): No dangerous good in sense of this transport regulation.
14.4. Packing group: No dangerous good in sense of this transport regulation.

14.5. Environmental hazards
ENVIRONMENTALLY HAZARDOUS: no

14.6. Special precautions for user
Informations for safe handling see chapter 7.
Informations for personal protective equipment see chapter 8.

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code
not relevant

SECTION 15: Regulatory information

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

EU regulatory information
2010/75/EU (VOC): No information available.
2004/42/EC (VOC): No information available.
Information according to 2012/18/EU (SEVESO III): Not subject to 2012/18/EU (SEVESO III)

Additional information
Observe in addition any national regulations!

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

Additional information
none

15.2 Chemical Safety Assessment
not applicable.

SECTION 16: Other information

Changes
This data sheet contains changes from the previous version in section(s): 1,2,3,11,12,15,16.
Rev.: 1,00 - 08.04.2015
Rev.: 1,01 - 28.04.2015
Relevant H and EUH statements (number and full text)

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.
EUH208 Contains Benzenesulfonic acid, methyl-, mono-C20-24-branched alkyl derivs., calcium salts. May produce an allergic reaction.
EUH210 Safety data sheet available on request.

Further Information

Classification according to Regulation (EC) No 1272/2008 [CLP] - Classification procedure:
Health hazards: Calculation method.
Environmental hazards: Calculation method.
Physical hazards: On basis of test data.

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be
transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.

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