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

1.1. Product identifier

VA-LHM

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

1.3. Details of the supplier of the safety data sheet

Company name: Vierol AG
Street: Karlstrasse 19
Place: D-26123 Oldenburg
Telephone: +49 (0) 441 – 210 20 – 0 Telefax: +49 (0) 441 – 210 20 –111
e-mail: info@vierol.de
Internet: www.vierol.de
Responsible Department: Giftinformationszentrum Nord (Göttingen)
+49 (0)551/19240

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Regulation (EC) No. 1272/2008
Hazard categories:
Hazardous to the aquatic environment: Aquatic Chronic 3
Hazard Statements:
Harmful to aquatic life with long lasting effects.

2.2. Label elements

Regulation (EC) No. 1272/2008
Hazard statements
H412 Harmful to aquatic life with long lasting effects.

Precautionary statements
P501 Dispose of contents/container to Dispose of waste according to applicable legislation.
P273 Avoid release to the environment.

Special labelling of certain mixtures
EUH208 Contains Di-alkylaminomethyl-tollytriazole, Propanoic acid, 3-[[bis(2-methylpropoxy)phosphinothioyl][thio]-2-methyl-(9CI). May produce an allergic reaction.

2.3. Other hazards

No information available.

SECTION 3: Composition/information on ingredients

3.2. Mixtures
### Hazardous components

<table>
<thead>
<tr>
<th>CAS No</th>
<th>Chemical name</th>
<th>Quantity</th>
<th>EC No</th>
<th>Index No</th>
<th>REACH No</th>
<th>GHS Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>64742-53-6</td>
<td>Baseoil - unspecified, Distillates (petroleum), hydrotreated light naphthenic</td>
<td>30-&lt;60 %</td>
<td></td>
<td>643-466-00-2</td>
<td>64-9466002</td>
<td>Asp. Tox. 1; H304</td>
</tr>
<tr>
<td>64742-46-7</td>
<td>Distillates (petroleum), hydrotreated middle; Gasoil - unspecified</td>
<td>15-&lt;30 %</td>
<td></td>
<td>649-221-00-X</td>
<td></td>
<td>Carc. 1B; H350</td>
</tr>
<tr>
<td>64742-55-8</td>
<td>Baseoil - unspecified, Distillates (petroleum), hydrotreated light paraffinic</td>
<td>15-&lt;30 %</td>
<td></td>
<td>649-468-00-3</td>
<td>01-2119487077-29</td>
<td>Asp. Tox. 1; H304</td>
</tr>
<tr>
<td>72623-87-1</td>
<td>Baseoil - unspecified, Lubricating oils (petroleum), C20-50, hydrotreated neutral oil-based</td>
<td>5-&lt;15 %</td>
<td></td>
<td>649-483-00-5</td>
<td>01-2119474889-13</td>
<td>Asp. Tox. 1; H304</td>
</tr>
<tr>
<td>268567-32-4</td>
<td>Propanoic acid, 3-[[bis(2-methylpropoxy)phosphinothioyl]thio]-2-methyl-(9CI)</td>
<td>&lt;1 %</td>
<td></td>
<td>434-070-2</td>
<td>01-2119658068-31</td>
<td>Eye Dam. 1, Skin Sens. 1, Aquatic Chronic 3; H318 H317 H412</td>
</tr>
<tr>
<td>204-884-0</td>
<td>2,6-Di-tert-butylphenol</td>
<td>&lt;1 %</td>
<td></td>
<td></td>
<td>01-2119490822-33</td>
<td>Skin Irrit. 2, Aquatic Acute 1, Aquatic Chronic 1; H315 H400 H410</td>
</tr>
<tr>
<td>128-39-2</td>
<td>2,6-di-tert-butylphenol</td>
<td>1 %</td>
<td></td>
<td>01-2119490822-33</td>
<td>01-2119982395-25</td>
<td>Skin Irrit. 2, Skin Sens. 1, Aquatic Acute 1, Aquatic Chronic 2; H315 H317 H400 H411</td>
</tr>
</tbody>
</table>

Full text of H and EUH statements: see section 16.

**Further Information**

Product containing mineral oil with less than 3% DMSO extract as measured by IP 346.

## 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**

Provide fresh air. If breathing is irregular or stopped, administer artificial respiration. Medical treatment necessary. Remove casualty to fresh air and keep warm and at rest.

**After contact with skin**

After contact with skin, wash immediately with polyethylene glycol, followed by plenty of water. Take off immediately all contaminated clothing and wash it before reuse. If skin irritation occurs: Get medical advice/attention. Remove contaminated, saturated clothing. IF ON SKIN: Wash with plenty of soap and water.
**After contact with eyes**
Rinse immediately carefully and thoroughly with eye-bath or water.

**After ingestion**
Observe risk of aspiration if vomiting occurs. Rinse mouth immediately and drink plenty of water. Do NOT induce vomiting.

**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**
  - Co-ordinate fire-fighting measures to the fire surroundings. Carbon dioxide (CO2), ABC-powder, Foam. Water spray jet, Water mist
- **Unsuitable extinguishing media**
  - Full water jet

**5.2. Special hazards arising from the substance or mixture**
Non-flammable.

**5.3. Advice for firefighters**
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. Use water spray jet to protect personnel and to cool endangered containers.

---

**SECTION 6: Accidental release measures**

**6.1. Personal precautions, protective equipment and emergency procedures**
Remove all sources of ignition.

**6.2. Environmental precautions**
Do not allow to enter into surface water or drains.

**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. Prevent spread over a wide area (e.g. by containment or oil barriers).

**6.4. Reference to other sections**
Safe handling: see section 7
Personal protection equipment: see section 8
Disposal: see section 13

---

**SECTION 7: Handling and storage**

**7.1. Precautions for safe handling**
- **Advice on safe handling**
  - No special measures are necessary.
- **Advice on protection against fire and explosion**
  - Take precautionary measures against static discharges.

**7.2. Conditions for safe storage, including any incompatibilities**
- **Requirements for storage rooms and vessels**
  - Keep container tightly closed.
Hints on joint storage
No special measures are necessary.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

<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>64742-55-8</td>
<td>Baseoil - unspecified, Distillates (petroleum), hydrotreated light paraffinic</td>
<td>Worker DNEL, long-term</td>
<td>inhalation</td>
<td>local</td>
<td>5,4 mg/m³</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Consumer DNEL, long-term</td>
<td>inhalation</td>
<td>local</td>
<td>1,2 mg/m³</td>
</tr>
<tr>
<td>128-39-2</td>
<td>2,6-di-tert-butylphenol</td>
<td>Worker DNEL, long-term</td>
<td>dermal</td>
<td>systemic</td>
<td>2,77 mg/kg bw/day</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Worker DNEL, long-term</td>
<td>inhalation</td>
<td>systemic</td>
<td>19,6 mg/m³</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Consumer DNEL, long-term</td>
<td>oral</td>
<td>systemic</td>
<td>1,67 mg/kg bw/day</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Consumer DNEL, long-term</td>
<td>inhalation</td>
<td>systemic</td>
<td>5,8 mg/m³</td>
</tr>
</tbody>
</table>

PNEC values

<table>
<thead>
<tr>
<th>CAS No</th>
<th>Substance</th>
<th>Environmental compartment</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>128-39-2</td>
<td>2,6-di-tert-butylphenol</td>
<td>Soil</td>
<td>0,0389 mg/kg</td>
</tr>
</tbody>
</table>

8.2. Exposure controls

Protective and hygiene measures
Take off contaminated clothing. Wash hands before breaks and after work. When using do not eat or drink.

Eye/face protection
Wear eye protection/face protection.

Hand protection
When handling with chemical substances, protective gloves must be worn with the CE-label including the four control digits. 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
Wear suitable protective clothing.

Respiratory protection
In case of inadequate ventilation wear respiratory protection.
SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Physical state:</th>
<th>Liquid</th>
</tr>
</thead>
<tbody>
<tr>
<td>Colour:</td>
<td>clear</td>
</tr>
<tr>
<td>Odour:</td>
<td>characteristic</td>
</tr>
</tbody>
</table>

Test method

| pH-Value: | not determined |

Changes in the physical state

| Melting point: | not determined |

| Initial boiling point and boiling range: | not determined |

| Pour point: | ~51 °C ISO 3016 |

| Flash point: | > 90 °C DIN ISO 2592 |

Flammability

| Solid: | not applicable |
| Gas:   | not applicable |

| Lower explosion limits: | not determined |

| Upper explosion limits: | not determined |

Auto-ignition temperature

| Solid: | not applicable |
| Gas:   | not applicable |

| Decomposition temperature: | not determined |

Oxidizing properties

Not oxidising.

Vapour pressure:

(at 20 °C) <0,1 hPa berechnet

Density (at 15 °C): 0,836 g/cm³ DIN 51757

Water solubility: The study does not need to be conducted because the substance is known to be insoluble in water.

Solubility in other solvents

not determined

Partition coefficient: not determined

Viscosity / kinematic:

(at 40 °C) ~21 mm²/s DIN 51562

Vapour density: not determined

Evaporation rate: not determined

9.2. Other information

| Solid content: | not determined |

SECTION 10: Stability and reactivity

10.1. Reactivity

No hazardous reaction when handled and stored according to provisions.

10.2. Chemical stability

The product is stable under storage at normal ambient temperatures.
10.3. Possibility of hazardous reactions
No known hazardous reactions.

10.4. Conditions to avoid
Keep away from sources of heat (e.g. hot surfaces), sparks and open flames.

10.5. Incompatible materials
No information available.

10.6. Hazardous decomposition products
No known hazardous decomposition products.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

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

ATEmix calculated
ATE (inhalation vapour) 11.48 mg/l

<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>64742-55-8</td>
<td>Baseoil - unspecified, Distillates (petroleum), hydrotreated light paraffinic</td>
<td>oral</td>
<td>LD50 mg/kg</td>
<td>&gt;5000</td>
<td>Rat</td>
<td>OECD 420</td>
</tr>
<tr>
<td></td>
<td></td>
<td>dermal</td>
<td>LD50 mg/kg</td>
<td>&gt;5000</td>
<td>Rabbit</td>
<td>OECD 402</td>
</tr>
<tr>
<td></td>
<td></td>
<td>inhalation (4 h) vapour</td>
<td>LC50 mg/l</td>
<td>&gt;5 mg/l</td>
<td>Rat</td>
<td>OECD 403</td>
</tr>
<tr>
<td>72623-87-1</td>
<td>Baseoil - unspecified, Lubricating oils (petroleum), C20-50, hydrotreated neutral oil-based</td>
<td>oral</td>
<td>LD50 mg/kg</td>
<td>&gt;5000</td>
<td>Rat</td>
<td>OECD 401</td>
</tr>
<tr>
<td></td>
<td></td>
<td>dermal</td>
<td>LD50 mg/kg</td>
<td>&gt;2000</td>
<td>Rabbit</td>
<td>OECD 402</td>
</tr>
<tr>
<td></td>
<td></td>
<td>inhalation (4 h) vapour</td>
<td>LC50 mg/l</td>
<td>&gt;5,53</td>
<td>Rat</td>
<td>OECD 403</td>
</tr>
<tr>
<td>128-39-2</td>
<td>2,6-di-tert-butylphenol</td>
<td>oral</td>
<td>LD50 mg/kg</td>
<td>&gt;5000</td>
<td>Rat</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>dermal</td>
<td>LD50 mg/kg</td>
<td>&gt;2000</td>
<td>Rabbit</td>
<td></td>
</tr>
</tbody>
</table>

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

Sensitising effects
Contains Di-alkylaminomethyl-tolytriazole, Propanoic acid, 3-[[bis(2-methylpropoxy) phosphinothioyl]thio]-2-methyl-(9CI). May produce an allergic reaction.

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

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.

Aspiration hazard
Based on available data, the classification criteria are not met.
SECTION 12: Ecological information

12.1. Toxicity
Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

<table>
<thead>
<tr>
<th>CAS No</th>
<th>Chemical name</th>
<th>Aquatic toxicity</th>
<th>Dose</th>
<th>[h]</th>
<th>[d]</th>
<th>Species</th>
<th>Source</th>
<th>Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>128-39-2</td>
<td>2,6-di-tert-butylphenol</td>
<td>Acute fish toxicity</td>
<td>LC50</td>
<td>1 mg/l</td>
<td>96</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Acute algae toxicity</td>
<td>ErC50</td>
<td>1,2 mg/l</td>
<td>72</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Acute crustacea toxicity</td>
<td>EC50</td>
<td>0,45 mg/l</td>
<td>48</td>
<td>Daphnia magna (Big water flea)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Fish toxicity</td>
<td>NOEC</td>
<td>0,3 mg/l</td>
<td>28</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

12.2. Persistence and degradability
The product has not been tested.

<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>128-39-2</td>
<td>2,6-di-tert-butylphenol</td>
<td>Zahn-Wellens</td>
<td>24%</td>
<td>28</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Sturm</td>
<td>5%</td>
<td>28</td>
<td></td>
</tr>
</tbody>
</table>

12.3. Bioaccumulative potential
The product has not been tested.

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>72623-87-1</td>
<td>Baseoil - unspecified, Lubricating oils (petroleum), C20-50, hydrotreated neutral oil-based</td>
<td>&gt;6</td>
</tr>
<tr>
<td>128-39-2</td>
<td>2,6-di-tert-butylphenol</td>
<td>4,5</td>
</tr>
</tbody>
</table>

12.4. Mobility in soil
The product has not been tested.

12.5. Results of PBT and vPvB assessment
The product has not been tested.

12.6. Other adverse effects
No information available.

Further information
Do not allow to enter into surface water or drains. Do not allow to enter into soil/subsoil.

SECTION 13: Disposal considerations

13.1. Waste treatment methods
Advice on disposal
Do not allow to enter into surface water or drains. Do not allow to enter into soil/subsoil. Dispose of waste according to applicable legislation.

Waste disposal number of contaminated packaging
130205 OIL WASTES 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; hazardous waste
Contaminated packaging
Non-contaminated packages may be recycled. 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
No dangerous good in sense of this transport regulation.

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code
No dangerous good in sense of this transport regulation.

SECTION 15: Regulatory information

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

EU regulatory information
Restrictions on use (REACH, annex XVII):
Entry 28: Distillates (petroleum), hydrotreated middle; Gasoil - unspecified

National regulatory information
Employment restrictions: Observe restrictions to employment for juvenils according to the 'juvenile work protection guideline' (94/33/EC).
Water contaminating class (D): 2 - clearly water contaminating
Skin resorption/Sensitization: Causes allergic hypersensitivity reactions.

15.2. Chemical safety assessment
Chemical safety assessments for substances in this mixture were not carried out.
### Abbreviations and acronyms

- **ADR**: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
- **IMDG**: International Maritime Code for Dangerous Goods
- **IATA**: International Air Transport Association
- **GHS**: Globally Harmonized System of Classification and Labelling of Chemicals
- **EINECS**: European Inventory of Existing Commercial Chemical Substances
- **ELINCS**: European List of Notified Chemical Substances
- **CAS**: Chemical Abstracts Service
- **LC50**: Lethal concentration, 50%
- **LD50**: Lethal dose, 50%

### Relevant H and EUH statements (number and full text)

- **H304**: May be fatal if swallowed and enters airways.
- **H315**: Causes skin irritation.
- **H317**: May cause an allergic skin reaction.
- **H318**: Causes serious eye damage.
- **H350**: May cause cancer.
- **H400**: Very toxic to aquatic life.
- **H410**: Very toxic to aquatic life with long lasting effects.
- **H411**: Toxic to aquatic life with long lasting effects.
- **H412**: Harmful to aquatic life with long lasting effects.
- **EUH208**: Contains Di-alkylaminomethyl-tolytriazole, Propanoic acid, 3-[[bis(2-methylpropoxy)phosphinothioyl]thio]-2-methyl-(9CI). May produce an allergic reaction.

### Further Information

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.)*