Safety data sheet according to Regulation (EC) No 1907/2006, Annex II

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

1.1 Product identifier
VSL 32  
VSL 68  
VSL 100

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

Uses advised against:
No information available at present.

1.3 Details of the supplier of the safety data sheet
Busch Produktions GmbH, Schauinslandstraße 1, 79689 Maulburg, Germany
Phone:+49 (0)7622 681-0, Fax:---
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 information services / official advisory body:
National Poisons Information Centre, Beaumont Hospital, Dublin 9, Ireland, Tel.:
+353 (0)1 809 2166 (Public Poisons Info Line, 8am-10pm, 7 days a week)
+353 (0)1 809 2566 (Info for Healthcare Professionals ONLY, 24 h, 7 days a week)
Telephone number of the company in case of emergencies:
+49 (0) 700 / 24 112 112 (BPC)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture
Classification according to Regulation (EC) 1272/2008 (CLP)
<table>
<thead>
<tr>
<th>Hazard class</th>
<th>Hazard category</th>
<th>Hazard statement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aquatic Chronic</td>
<td>3</td>
<td>H412-Harmful to aquatic life with long lasting effects.</td>
</tr>
</tbody>
</table>

2.2 Label elements
Labeling according to Regulation (EC) 1272/2008 (CLP)
H412—Harmful to aquatic life with long lasting effects.

P273—Avoid release to the environment.
P501—Dispose of contents/container safely.

EUH208—Contains N-1-Naphthylaniline. May produce an allergic reaction.

### 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 %).

## SECTION 3: Composition/information on ingredients

### 3.1 Substance
n.a.

### 3.2 Mixture

<table>
<thead>
<tr>
<th>Substance</th>
<th>Registration number (REACH)</th>
<th>Index</th>
<th>EINECS, ELINCS, NLP</th>
<th>CAS</th>
<th>content %</th>
<th>Classification according to Regulation (EC) 1272/2008 (CLP)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2,6-di-tert-butyl-p-cresol</td>
<td>---</td>
<td>---</td>
<td>204-881-4</td>
<td>128-37-0</td>
<td>1-&lt;2,5</td>
<td>Aquatic Acute 1, H400 (M=1) Aquatic Chronic 1, H410 (M=1)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Substance</th>
<th>Registration number (REACH)</th>
<th>Index</th>
<th>EINECS, ELINCS, NLP</th>
<th>CAS</th>
<th>content %</th>
<th>Classification according to Regulation (EC) 1272/2008 (CLP)</th>
</tr>
</thead>
<tbody>
<tr>
<td>N-1-Naphthylaniline</td>
<td>01-2119488764-27-XXXX</td>
<td>---</td>
<td>201-983-0</td>
<td>90-30-2</td>
<td>0,25-&lt;1</td>
<td>Acute Tox. 4, H302 Skin Sens. 1, H317 STOT RE 2, H373 Aquatic Acute 1, H400 (M=1) Aquatic Chronic 1, H410 (M=1)</td>
</tr>
</tbody>
</table>

For the text of the H-phrases and classification codes (GHS/CLP), see Section 16. The substances named in this section are given with their actual, appropriate classification! For substances that are listed in appendix VI, table 3.1/3.2 of the regulation (EC) no. 1272/2008 (CLP regulation) this means that all notes that may be given here for the named classification have been taken into account.

## SECTION 4: First aid measures

### 4.1 Description of first aid measures
Never pour anything into the mouth of an unconscious person!

**Inhalation**
Remove person from danger area.
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. Give copious water to drink - consult doctor immediately. Do not feed fats, oils or milk.

### 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. Sensitive individuals: Allergic reaction possible.

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

---

**SECTION 5: Firefighting measures**

#### 5.1 Extinguishing media

**Suitable extinguishing media**
Adapt to the nature and extent of fire.
Water jet spray/foam/CO2/dry extinguisher

**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 nitrogen
- Toxic gases

#### 5.3 Advice for firefighters
In case of fire and/or explosion do not breathe fumes. Protective respirator with independent air supply. According to size of fire 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 surface and ground-water infiltration, as well as ground penetration. 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.

#### 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 contact with eyes.

Avoid long lasting or intensive contact with skin.

Eating, drinking, smoking, as well as food-storage, is prohibited in work-room.

Observe directions on label and instructions for use.

Use working methods according to operating instructions.

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

Keep out of access to unauthorised individuals.

Store product closed and only in original packing.

Not to be stored in gangways or stair wells.

Store in a well-ventilated place.

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>Content %: 1-&lt;2,5</th>
</tr>
</thead>
<tbody>
<tr>
<td>2,6-di-tert-butyl-p-cresol</td>
<td>WEL-TWA: 10 mg/m³</td>
</tr>
<tr>
<td></td>
<td>WEL-STEL: ---</td>
</tr>
<tr>
<td></td>
<td>Monitoring procedures: ---</td>
</tr>
<tr>
<td></td>
<td>BMGV: ---</td>
</tr>
<tr>
<td></td>
<td>Other information: ---</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Content %: 1-&lt;2,5</th>
</tr>
</thead>
<tbody>
<tr>
<td>2,6-di-tert-butyl-p-cresol</td>
<td>OELV-8h: 10 mg/m³</td>
</tr>
<tr>
<td></td>
<td>OELV-15min: ---</td>
</tr>
<tr>
<td></td>
<td>Monitoring procedures: ---</td>
</tr>
<tr>
<td></td>
<td>BLV: ---</td>
</tr>
<tr>
<td></td>
<td>Other information: ---</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Content %: 0,25-&lt;1</th>
</tr>
</thead>
<tbody>
<tr>
<td>N-1-Naphthylaniline</td>
<td>OELV-8h: ---</td>
</tr>
<tr>
<td></td>
<td>OELV-15min: ---</td>
</tr>
<tr>
<td></td>
<td>Monitoring procedures: ---</td>
</tr>
<tr>
<td></td>
<td>BLV: 1,5% of hemoglobin (Methemoglobin in blood, during or end of shift) (Methemoglobin inducers) (ACGIH-BEI)</td>
</tr>
<tr>
<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.

### N-1-Naphthylaniline

<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>Environment - freshwater</td>
<td>PNEC</td>
<td>0,0002</td>
<td>mg/l</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Environment - sediment, freshwater</td>
<td>PNEC</td>
<td>0,0344</td>
<td>mg/kg</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Environment - marine</td>
<td>PNEC</td>
<td>0,0002</td>
<td>mg/l</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Environment - sediment, marine</td>
<td>PNEC</td>
<td>0,00344</td>
<td>mg/kg</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Environment - soil</td>
<td>PNEC</td>
<td>0,0068</td>
<td>mg/kg</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Environment - sewage treatment plant</td>
<td>PNEC</td>
<td>100</td>
<td>mg/l</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### Consumer

| Human - oral | Long term, systemic effects | DNEL | 0,06 | mg/kg body weight/day |
| Human - dermal | Long term, systemic effects | DNEL | 0,06 | mg/kg body weight/day |
| Human - inhalation | Long term, systemic effects | DNEL | 0,1 | mg/m³ |

#### Workers / employees

| Human - inhalation | Long term, systemic effects | DNEL | 0,12 | mg/kg body weight/day |

### 2,6-di-tert-butyl-p-cresol

<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>
</tr>
</thead>
<tbody>
<tr>
<td>Environment - soil</td>
<td>PNEC</td>
<td>1,04</td>
<td>mg/kg wwt</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Environment - sewage treatment plant</td>
<td>PNEC</td>
<td>100</td>
<td>mg/l</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Environment - sediment</td>
<td>PNEC</td>
<td>1,29</td>
<td>mg/kg wwt</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Environment - marine</td>
<td>PNEC</td>
<td>0,4</td>
<td>µg/l</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Environment - periodic release</td>
<td>PNEC</td>
<td>4</td>
<td>µg/l</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Environment - freshwater</td>
<td>PNEC</td>
<td>4</td>
<td>µg/l</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Environment - oral (animal feed)</td>
<td>PNEC</td>
<td>16,7</td>
<td>mg/kg</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Environment - soil</td>
<td>PNEC</td>
<td>1,23</td>
<td>mg/kg</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### Consumer

| Human - inhalation | Long term, systemic effects | DNEL | 1,74 | mg/m³ |
| Human - dermal | Long term, systemic effects | DNEL | 5 | mg/kg body weight/day |

#### Workers / employees

| Human - inhalation | Long term, systemic effects | DNEL | 5,8 | mg/m³ |
| Human - dermal | Long term, systemic effects | DNEL | 8,3 | mg/kg body weight/day |

### 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 with side protection (EN 166).

Skin protection - Hand protection:

Chemical resistant protective gloves (EN 374).

Recommended

Protective nitrile gloves (EN 374)

Protective gloves made of polyvinyl alcohol (EN 374)

Minimum layer thickness in mm:

0.5

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.

In aerosol misting:

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.
9.1 Information on basic physical and chemical properties

Physical state: Liquid
Colour: Clear
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: 235-238 °C
Evaporation rate: Not determined
Flammability (solid, gas): n.a.
Lower explosive limit: Not determined
Upper explosive limit: Not determined
Vapour pressure: Not determined
Vapour density (air = 1): Not determined
Density: 0,832-0,848 g/cm³
Bulk density: n.a.
Solubility (ies): Not determined
Water solubility: Not determined
Partition coefficient (n-octanol/water): Not determined
Auto-ignition temperature: Not determined
Decomposition temperature: Not determined
Viscosity: 34,5 - 98,5 mm²/s (40°C)
Explosive properties: Product is not explosive.
Oxidising properties: No

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
No dangerous reactions are known.

10.4 Conditions to avoid
Protect from humidity.

10.5 Incompatible materials
Avoid contact with strong oxidizing agents.
Avoid contact with strong alkalis.
Avoid contact with strong acids.

10.6 Hazardous decomposition products
No decomposition when used as directed.

SECTION 11: Toxicological information

11.1 Information on toxicological effects
Possibly more information on health effects, see Section 2.1 (classification).
<table>
<thead>
<tr>
<th>Toxicity / effect</th>
<th>Endpoint</th>
<th>Value</th>
<th>Unit</th>
<th>Organism</th>
<th>Test method</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute toxicity, by dermal route:</td>
<td>n.d.a.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Acute toxicity, by inhalation:</td>
<td>n.d.a.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Skin corrosion/irritation:</td>
<td>n.d.a.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Serious eye damage/irritation:</td>
<td>n.d.a.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Respiratory or skin sensitisation:</td>
<td>n.d.a.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Germ cell mutagenicity:</td>
<td>n.d.a.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Carcinogenicity:</td>
<td>n.d.a.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reproductive toxicity:</td>
<td>n.d.a.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Aspiration hazard:</td>
<td>n.d.a.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Symptoms:</td>
<td>n.d.a.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**2,6-di-tert-butyl-p-cresol**

<table>
<thead>
<tr>
<th>Toxicity / effect</th>
<th>Endpoint</th>
<th>Value</th>
<th>Unit</th>
<th>Organism</th>
<th>Test method</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute toxicity, by oral route:</td>
<td>LD50</td>
<td>&gt;5000</td>
<td>mg/kg</td>
<td>Rat</td>
<td>OECD 401 (Acute Oral Toxicity)</td>
<td></td>
</tr>
<tr>
<td>Acute toxicity, by oral route:</td>
<td>LD50</td>
<td>&gt;2930</td>
<td>mg/kg</td>
<td>Rat</td>
<td>OECD 402 (Acute Dermal Toxicity)</td>
<td></td>
</tr>
<tr>
<td>Acute toxicity, by dermal route:</td>
<td>LD50</td>
<td>&gt;5000</td>
<td>mg/kg</td>
<td>Rabbit</td>
<td>OECD 402 (Acute Dermal Toxicity)</td>
<td></td>
</tr>
<tr>
<td>Acute toxicity, by dermal route:</td>
<td>LD50</td>
<td>&gt;2000</td>
<td>mg/kg</td>
<td>Rat</td>
<td>OECD 402 (Acute Dermal Toxicity)</td>
<td></td>
</tr>
<tr>
<td>Skin corrosion/irritation:</td>
<td>Rabbit</td>
<td></td>
<td></td>
<td></td>
<td>(Draize-Test)</td>
<td>Slightly irritant</td>
</tr>
<tr>
<td>Serious eye damage/irritation:</td>
<td>Rabbit</td>
<td></td>
<td></td>
<td></td>
<td>Human being</td>
<td>Not sensitizing</td>
</tr>
<tr>
<td>Respiratory or skin sensitisation:</td>
<td>Human being</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Germ cell mutagenicity:</td>
<td>Mammalian</td>
<td></td>
<td></td>
<td></td>
<td>(Ames-Test)</td>
<td>Negative</td>
</tr>
<tr>
<td>Germ cell mutagenicity:</td>
<td>Mammalian</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Negative</td>
</tr>
<tr>
<td>Reproductive toxicity:</td>
<td>NOAEL</td>
<td>100</td>
<td>mg/kg</td>
<td>Rat</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Specific target organ toxicity - repeated exposure (STOT-RE):</td>
<td>NOEL</td>
<td>25</td>
<td>mg/kg</td>
<td>Rat</td>
<td>(28 d)</td>
<td>mucous membrane irritation</td>
</tr>
<tr>
<td>Symptoms:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**N-1-Naphthylaniline**

<table>
<thead>
<tr>
<th>Toxicity / effect</th>
<th>Endpoint</th>
<th>Value</th>
<th>Unit</th>
<th>Organism</th>
<th>Test method</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute toxicity, by oral route:</td>
<td>LD50</td>
<td>1625</td>
<td>mg/kg</td>
<td>Rat</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Acute toxicity, by dermal route:</td>
<td>LD50</td>
<td>&gt;5000</td>
<td>mg/kg</td>
<td>Rabbit</td>
<td>OECD 404 (Acute Dermal Irritation/Corrosion)</td>
<td>Not irritant</td>
</tr>
<tr>
<td>Skin corrosion/irritation:</td>
<td>Rabbit</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### SECTION 12: Ecological information

Possibly more information on environmental effects, see Section 2.1 (classification).

VSL 32  
VSL 68  
VSL 100

<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. 5. Results of PBT and vPvB assessment</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>n.d.a.</td>
</tr>
<tr>
<td>12. 6. Other adverse effects:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>n.d.a.</td>
</tr>
</tbody>
</table>

<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>2,6-di-tert-butyl-p-cresol</td>
<td>LC50</td>
<td>96h</td>
<td>&gt;0,57</td>
<td>mg/l</td>
<td>Oryzias latipes</td>
<td>QSAR</td>
<td>OECD 210 (Fish, Early-Life Stage Toxicity Test)</td>
</tr>
<tr>
<td>12. 1. Toxicity to daphnia:</td>
<td>NOEC/NOEL</td>
<td>42d</td>
<td>0,053</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 fish:</td>
<td>NOEC/NOEL</td>
<td>21d</td>
<td>0,07</td>
<td>mg/l</td>
<td>Daphnia magna</td>
<td>OECD 202 (Daphnia sp. Acute Immobilisation Test)</td>
<td></td>
</tr>
</tbody>
</table>
### 12.1. Toxicity to algae:

<table>
<thead>
<tr>
<th>Endpoint</th>
<th>Time</th>
<th>Value</th>
<th>Unit</th>
<th>Organism</th>
<th>Test method</th>
</tr>
</thead>
<tbody>
<tr>
<td>EC50</td>
<td>72h</td>
<td>0,5</td>
<td>mg/l</td>
<td>Desmodesmus subspicatus</td>
<td>OECD 201 (Alga, Growth Inhibition Test)</td>
</tr>
<tr>
<td>NOEC/NOEL</td>
<td>72h</td>
<td>1</td>
<td>mg/l</td>
<td></td>
<td>OECD 201 (Alga, Growth Inhibition Test)</td>
</tr>
</tbody>
</table>

### 12.2. Persistence and degradability:

<table>
<thead>
<tr>
<th>Time</th>
<th>Value</th>
<th>%</th>
<th>Test method</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>28d</td>
<td>4,5</td>
<td>%</td>
<td>OECD 301 C (Ready Biodegradability - Modified MITI Test (I))</td>
<td>Not readily biodegradable</td>
</tr>
</tbody>
</table>

### 12.3. Bioaccumulative potential:

<table>
<thead>
<tr>
<th>Time</th>
<th>Value</th>
<th>Organism</th>
<th>Test method</th>
</tr>
</thead>
<tbody>
<tr>
<td>28d</td>
<td>230-2500</td>
<td>Cyprinus caprio</td>
<td>OECD 305 (Bioconcentration - Flow-Through Fish Test)</td>
</tr>
</tbody>
</table>

### 12.3. Bioaccumulative potential:

| Log Pow | 5,1 | High |

### 12.5. Results of PBT and vPvB assessment

**Toxicity to bacteria:**

<table>
<thead>
<tr>
<th>Endpoint</th>
<th>Time</th>
<th>Value</th>
<th>Unit</th>
<th>Organism</th>
<th>Test method</th>
</tr>
</thead>
<tbody>
<tr>
<td>EC50</td>
<td>3h</td>
<td>&gt;10000</td>
<td>mg/l</td>
<td>activated sludge</td>
<td></td>
</tr>
</tbody>
</table>

**Other information:**

- Does not contain any organically bound halogens which can contribute to the AOX value in waste water.

**Water solubility:**

<table>
<thead>
<tr>
<th>Value</th>
<th>Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>0,00076</td>
<td>g/l</td>
</tr>
</tbody>
</table>

### N-1-Naphthylaniline

<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>
</tr>
</thead>
<tbody>
<tr>
<td>12.1. Toxicity to fish:</td>
<td>LC50</td>
<td>96h</td>
<td>0,74</td>
<td>mg/l</td>
<td>Oncorhynchus mykiss</td>
<td></td>
</tr>
<tr>
<td>12.1. Toxicity to fish:</td>
<td>LC50</td>
<td>96h</td>
<td>0,82</td>
<td>mg/l</td>
<td>Lepomis macrochirus</td>
<td></td>
</tr>
<tr>
<td>12.1. Toxicity to daphnia:</td>
<td>EC50</td>
<td>48h</td>
<td>0,88</td>
<td>mg/l</td>
<td>Daphnia magna</td>
<td></td>
</tr>
<tr>
<td>12.1. Toxicity to daphnia:</td>
<td>NOEC/NOEL</td>
<td>21d</td>
<td>0,025</td>
<td>mg/l</td>
<td>Daphnia magna</td>
<td></td>
</tr>
<tr>
<td>12.1. Toxicity to algae:</td>
<td>EC50</td>
<td>72h</td>
<td>0,25</td>
<td>mg/l</td>
<td>Scenedesmus subspicatus</td>
<td></td>
</tr>
</tbody>
</table>
12.2. Persistence and degradability: 0 %

Water solubility: <0,01 g/l @21°C

SECTION 13: Disposal considerations

13.1 Waste treatment methods
For the substance / mixture / residual amounts

EC disposal code no.:
The waste codes are recommendations based on the scheduled use of this product.
Owing to the user’s specific conditions for use and disposal, other waste codes may be allocated under certain circumstances. (2014/955/EU)
07 06 99 wastes not otherwise specified
Recommendation:
Sewage disposal shall be discouraged.
Pay attention to local and national official regulations.
E.g. suitable incineration plant.
E.g. dispose at suitable refuse site.
For contaminated packing material
Pay attention to local and national official regulations.
Empty container completely.
Uncontaminated packaging can be recycled.
Dispose of packaging that cannot be cleaned in the same manner as the substance.

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:
Comply with trade association/occupational health regulations.

Directive 2010/75/EU (VOC): < 0,01 %
Directive 2010/75/EU (VOC): < 0,04 g/l

15.2 Chemical safety assessment

A chemical safety assessment is not provided for mixtures.

SECTION 16: Other information

Revised sections: 3, 8, 9, 11, 12, 15

These details refer to the product as it is delivered.
Employee instruction/training in handling hazardous materials is required.

Classification and processes used to derive the classification of the mixture in accordance with the ordinance (EG) 1272/2008 (CLP):

<table>
<thead>
<tr>
<th>Classification in accordance with regulation (EC) No. 1272/2008 (CLP)</th>
<th>Evaluation method used</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aquatic Chronic 3, H412</td>
<td>Classification according to calculation procedure.</td>
</tr>
</tbody>
</table>

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).
H302 Harmful if swallowed.
H317 May cause an allergic skin reaction.
H373 May cause damage to organs through prolonged or repeated exposure.
H400 Very toxic to aquatic life.
H410 Very toxic to aquatic life with long lasting effects.

Aquatic Chronic — Hazardous to the aquatic environment - chronic
Aquatic Acute — Hazardous to the aquatic environment - acute
Acute Tox. — Acute toxicity - oral
Skin Sens. — Skin sensitization
STOT RE — Specific target organ toxicity - repeated exposure

Any abbreviations and acronyms used in this document:

AC  Article Categories
acc., acc. to according, 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)
AEOL  Acceptable Operator Exposure Level
AOX  Adsorbable organic halogen compounds
approx. approximately
Art., 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)
BMG V Biological monitoring guidance value (EH40, UK)
BOD Biochemical 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
ECB European Chemicals Agency
Economic Area
EEA European Economic Area
ECC European Economic Community
EINECS European Inventory of Existing Commercial Chemical Substances
ELINCS European List of Notified Chemical Substances
EN European Norms
EPA United States Environmental Protection Agency (United States of America)
ERC Environmental Release Categories
ES Exposure scenario
e.t.c. etcetera
EU European Union
EWC European Waste Catalogue
Fax Fax number
gen. general
GHS Globally Harmonized System of Classification and Labelling of Chemicals
GWP Global warming potential
HET-CAM Hen's Egg Test - Chorionallantoic Membrane
HGWP Halocarbon Global Warming Potential
IARC International Agency for Research on Cancer
IATA International Air Transport Association
IBC Intermediate Bulk Container
IBC (Code) International Bulk Chemical (Code)
IC Inhibitory concentration
IMDG-code International Maritime Code for Dangerous Goods
incl. including, inclusive
IUCN International Union for Conservation of Nature
LC lethal concentration
LC50 lethal concentration 50 percent kill
LCLo lowest published lethal concentration
LD Lethal Dose of a chemical
LD50 Lethal Dose, 50% kill
LDLo Lethal Dose Low
LOAEL Lowest Observed Adverse Effect Level
LOEC Lowest Observed Effect Concentration
LOEL Lowest Observed Effect Level
LQ Limited Quantities
MARPOL International Convention for the Prevention of Marine Pollution from Ships
n.a. not applicable
n.av. not available
n.c. not checked
n.d.a. no data available
NIOSH National Institute of Occupational Safety and Health (United States of America)
NOAEC No Observed Adverse Effective Concentration
NOAEI No Observed Adverse Effect Level
NOEC No Observed Effect Concentration
NOEL No Observed Effect Level
ODP Ozone Depletion Potential
OECD Organisation for Economic Co-operation and Development
org. organic
PAH polycyclic aromatic hydrocarbon
PBT persistent, bioaccumulative and toxic
PC Chemical product category
PE Polyethylene
PNEC Predicted No Effect Concentration
POCP Photochemical ozone creation potential
ppm parts per million
PROC Process category
PTFE Polytetrafluoroethylene
REACH Registration, Evaluation, Authorisation and Restriction of Chemicals (REGULATION (EC) No 1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals)
REACH-IT List-No. 9xx-xxx-x No. is automatically assigned, e.g. to pre-registrations without a CAS No. or other numerical identifier. List Numbers do not have any legal significance, rather they are purely technical identifiers for processing a submission via REACH-IT.
RID Règlement concernant le transport International ferroviaire de marchandises Dangereuses (= Regulation concerning the International Carriage of Dangerous Goods by Rail)
SADT Self-Accelerating Decomposition Temperature
SAR Structure Activity Relationship
SU Sector of use
SVHC Substances of Very High Concern
Tel. Telephone
ThOD Theoretical oxygen demand
TOC Total organic carbon
TRGS Technische Regeln für Gefahrstoffe (=Technical Regulations for Hazardous Substances)
UN RTDG United Nations Recommendations on the Transport of Dangerous Goods
VbF Verordnung über brennbare Flüssigkeiten (= Regulation for flammable liquids (Austria))
VOC Volatile organic compounds
vPvB very persistent and very bioaccumulative
WHO World Health Organization
wwt wet weight

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
© by Chemical Check GmbH Gefahrstoffberatung. The copying or changing of this document is forbidden except with consent of the Chemical Check GmbH Gefahrstoffberatung.