# Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH)

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

### 1.1. Product identifier

**Trade name/designation:**

RAVENOL Diesel Power Performance

**Article No.:**
1390246

**UFI:**
SXHD-CD6U-7YHX-5QEA

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

**Use of the substance/mixture:**
Fuel additive

### 1.3. Details of the supplier of the safety data sheet

**Supplier (manufacturer/importer/only representative/downstream user/distributor):**

**Ravensberger Schmierstoffvertrieb GmbH**
Produktsicherheit
Jöllenbecker Str. 2
33824 Werther
Germany
**Telephone:** +49 5203 9719 0
**Telefax:** +49 5203 9719 40
**E-mail:** kontakt@ravenol.de
**Website:** www.ravenol.de

**E-mail (competent person):** sdb@ravenol.de

### 1.4. Emergency telephone number

24 hr. emergency phone number, 24h: +49 700 24 112 112 (Contract ID: RAV) / +1 872 5888271 (Contract ID: RAV)

## SECTION 2: Hazards identification

### 2.1. Classification of the substance or mixture

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

| Hazard classes and hazard categories | Hazard statements | Classification procedure |
|---|---|---|
| Aspiration hazard *(Asp. Tox. 1)* | H304: May be fatal if swallowed and enters airways. | Calculation method. |
| Hazardous to the aquatic environment *(Aquatic Chronic 3)* | H412: Harmful to aquatic life with long lasting effects. | Calculation method. |

### 2.2. Label elements

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

**Hazard pictograms:**

**GHS08**
Health hazard

**Signal word:** Danger

**Hazard components for labelling:**
Hydrocarbons, C14-C18, n-alcanes, isoalcanes, cyclics, aromatics (2-30%); 2-ethylhexyl nitrate; Hydrocarbons, C10, aromatics, <1% naphthalene

| Hazard statements for health hazards | |
|---|---|
| H304 | May be fatal if swallowed and enters airways. |

| Hazard statements for environmental hazards | |
|---|---|
| H412 | Harmful to aquatic life with long lasting effects. |

**Supplemental hazard information:** none

| Precautionary statements | |
|---|---|
| P102 | Keep out of reach of children. |

| Precautionary statements Prevention | |
|---|---|
| P273 | Avoid release to the environment. |

| Precautionary statements Response | |
|---|---|
| P301 + P310 | IF SWALLOWED: Immediately call a POISON CENTER/doctor/Emergency telephone number. |
| P331 | Do NOT induce vomiting. |

| Precautionary statements Storage | |
|---|---|
| P405 | Store locked up. |

| Precautionary statements Disposal | |
|---|---|
| P501 | Dispose of contents/container to an appropriate recycling or disposal facility. |

## 2.3. Other hazards

**Other adverse effects:**
The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

# SECTION 3: Composition/information on ingredients

## 3.2. Mixtures

**Hazardous ingredients / Hazardous impurities / Stabilisers:**

| Product identifiers | Substance name<br>Classification according to Regulation (EC) No 1272/2008 [CLP] | Concentration |
|---|---|---|
| EC No.: 920-360-0<br>REACH No.:<br>01-2119448343-41-0000 | **Hydrocarbons, C14-C18, n-alcanes, isoalcanes, cyclics, aromatics (2-30%)**<br>Asp. Tox. 1 (H304)<br>Danger<br>**Acute Toxicity Estimate**<br>ATE (oral) > 4,150 mg/kg<br>ATE (dermal) > 2,000 mg/kg<br>ATE (inhalation, dust/mist) > 5.28 mg/L | 45 – < 85<br>weight-% |
| CAS No.: 27247-96-7<br>EC No.: 248-363-6<br>REACH No.:<br>01-2119539586-27 | **2-ethylhexyl nitrate**<br>Acute Tox. 4 (H302, H312, H332), Aquatic Chronic 2 (H411)<br>Warning<br>**Acute Toxicity Estimate**<br>ATE (oral) > 9,640 mg/kg<br>ATE (dermal) > 4,820 mg/kg<br>ATE (inhalation, vapour) 11 mg/L | 8 – < 15<br>weight-% |
| EC No.: 926-141-6<br>Index No.: 649-422-00-2<br>REACH No.:<br>01-2119456620-43 | **Hydrocarbons, C11-C14, n-alkanes, iso-alkanes, cyclenes, <2% aromatics**<br>Asp. Tox. 1 (H304)<br>Danger<br>**Acute Toxicity Estimate**<br>ATE (oral) > 5,000 mg/kg<br>ATE (dermal) > 5,000 mg/kg<br>ATE (inhalation, vapour) > 50 mg/L | 2 – < 5<br>weight-% |
| CAS No.: 1189173-42-9<br>EC No.: 918-811-1<br>REACH No.:<br>01-2119463583-34 | **Hydrocarbons, C10, aromatics, <1% naphthalene**<br>Aquatic Chronic 2 (H411), Asp. Tox. 1 (H304), STOT SE 3 (H336)<br>Danger<br>**Acute Toxicity Estimate**<br>ATE (oral) = 6,318 mg/kg<br>ATE (dermal) > 2,000 mg/kg<br>ATE (inhalation, dust/mist) ≥ 6.193 mg/L | 0 – < 1.2<br>weight-% |

| Product identifiers | Substance name<br>Classification according to Regulation (EC) No 1272/2008 [CLP] | Concentration |
|---|---|---|
| CAS No.: 91-20-3<br>EC No.: 202-049-5<br>Index No.: 601-052-00-2 | **naphthalene**<br>Acute Tox. 4 (H302), Aquatic Acute 1 (H400), Aquatic Chronic 1 (H410), Carc. 2 (H351)<br>  Warning<br>**Acute Toxicity Estimate**<br>ATE (oral) > 2,000 mg/kg<br>ATE (dermal) > 2,500 mg/kg<br>ATE (inhalation, vapour) > 0.34 mg/L<br>ATE (inhalation, dust/mist) > 0.4 mg/L | 0 – < 0.01 weight-% |
| CAS No.: 121158-58-5<br>EC No.: 310-154-3<br>Index No.: 604-092-00-9<br>REACH No.: 01-2119513207-49 | **Phenol, dodecyl-, branched**<br>*Candidate List of Substances of Very High Concern for Authorisation!*<br>Aquatic Acute 1 (H400), Aquatic Chronic 1 (H410), Eye Dam. 1 (H318), Repr. 1B (H360F), Skin Corr. 1C (H314)<br>  Danger<br>M-factor (acute): 10 M-factor (chronic): 10<br>**Acute Toxicity Estimate**<br>ATE (oral) 2,100 – 2,200 mg/kg<br>**Additional information:** This substance has endocrine disrupting properties with respect to humans. This substance has endocrine disrupting properties with respect to non-target organisms. | 0 – < 0.002 weight-% |

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

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

**General information:**
Never give anything by mouth to an unconscious person or a person with cramps. In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible). Remove victim out of the danger area. Remove contaminated, saturated clothing. If unconscious but breathing normally, place in recovery position and seek medical advice. Do not leave affected person unattended.

**Following inhalation:**
Remove person to fresh air and keep comfortable for breathing. When in doubt or if symptoms are observed, get medical advice.

**In case of skin contact:**
After contact with skin, wash immediately with plenty of water and soap. Take off immediately all contaminated clothing and wash it before reuse. When in doubt or if symptoms are observed, get medical advice.

**After eye contact:**
In case of contact with eyes flush immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart and consult an ophthalmologist. Remove contact lenses, if present and easy to do. Continue rinsing.

**Following ingestion:**
Rinse mouth thoroughly with water. Do NOT induce vomiting. Observe risk of aspiration if vomiting occurs. Call a physician in any case!

**Self-protection of the first aider:**
Use personal protection equipment. No direct artificial respiration to be given by first aider.

### 4.2. Most important symptoms and effects, both acute and delayed

May be fatal if swallowed and enters airways.
Harmful: may cause lung damage if swallowed.

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

Treat symptomatically. Call a POISON CENTER. Symptoms can occur only after several hours. Aspiration hazard

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

**Suitable extinguishing media:**
Co-ordinate fire-fighting measures to the fire surroundings.
Carbon dioxide (CO2)
Extinguishing powder

Water mist
alcohol resistant foam
Use water spray jet to protect personnel and to cool endangered containers.

**Unsuitable extinguishing media:**
Full water jet

### 5.2. Special hazards arising from the substance or mixture
Do not inhale explosion and combustion gases. Danger of suffocation in case of accumulation in lowlying or closed rooms.

**Hazardous combustion products:**
Nitrogen oxides (NOx) Carbon monoxide Carbon dioxide (CO2)
During heating or in case of fire, toxic gases is possible.

### 5.3. Advice for firefighters
Do not inhale explosion and combustion gases. Move undamaged containers from immediate hazard area if it can be done safely. In case of fire: Wear self-contained breathing apparatus.

### 5.4. Additional information
Use water spray jet to protect personnel and to cool endangered containers.
Suppress gases/vapours/mists with water spray jet.
Fire class: B
Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

#### 6.1.1. For non-emergency personnel

**Personal precautions:**
Use personal protection equipment.
Do not breathe dust/fume/gas/mist/vapours/spray.
Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
Avoid contact with eyes and skin.

**Protective equipment:**
Personal protection equipment: see section 8

**Emergency procedures:**
Eliminate all ignition sources if safe to do so. Remove persons to safety. Provide adequate ventilation.

#### 6.1.2. For emergency responders

**Personal protection equipment:**
Use appropriate respiratory protection. Personal protection equipment: see section 8

### 6.2. Environmental precautions
Do not allow uncontrolled discharge of product into the environment. Danger of explosion. Prevent spread over a wide area (e.g. by containment or oil barriers). 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.

### 6.3. Methods and material for containment and cleaning up

**For containment:**
Suitable material for taking up: Sand, Kieselguhr, Universal binder, Chemical binding agents, containing acids
Prevent spread over a wide area (e.g. by containment or oil barriers).

**For cleaning up:**
Remove from the water surface (e.g. skimming, sucking). Absorb with liquid-binding material (sand, diatomaceous earth, acid- or universal binding agents).

**Other information:**
Treat the recovered material as prescribed in the section on waste disposal.

### 6.4. Reference to other sections
SECTION 7: Handling and storage
SECTION 8: Exposure controls/personal protection
SECTION 13: Disposal considerations

### 6.5. Additional information
Clear spills immediately. Use appropriate container to avoid environmental contamination.

# SECTION 7: Handling and storage

## 7.1. Precautions for safe handling

### Protective measures

**Advices on safe handling:**
Use only in well-ventilated areas. Do not breathe gas/fumes/vapour/spray.
Wear personal protection equipment (refer to section 8).
When using do not eat, drink, smoke, sniff. Wash hands before breaks and after work. Do not put any product-impregnated cleaning rags into your trouser pockets. Clear spills immediately. Use appropriate container to avoid environmental contamination.

**Fire prevent measures:**
Keep away from sources of ignition - No smoking.

**Measures to prevent aerosol and dust generation:**
See protective measures under point 7 and 8.

**Environmental precautions:**
Shafts and sewers must be protected from entry of the product.

### Advices on general occupational hygiene

Minimum standard for preventive measures while handling with working materials are specified in the TRGS 500.

## 7.2. Conditions for safe storage, including any incompatibilities

**Technical measures and storage conditions:**
Keep container tightly closed. Keep locked up and out of reach of children. Keep only in original container. Keep in a cool, well-ventilated place. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

**Packaging materials:**
Keep/Store only in original container.

**Requirements for storage rooms and vessels:**
Shafts and sewers must be protected from entry of the product. Floors should be impervious, resistant to liquids and easy to clean.
Keep only in the original container in a cool, well-ventilated place.
Do not store at temperatures above 50°C.
Take precautionary measures against static discharge.

**Hints on storage assembly:**
TRGS 510
Do not store together with: Oxidising agent, Pyrophoric or self-heating substances, Food and feedingstuffs

**Storage class (TRGS 510, Germany):** 10 – Combustible liquids that cannot be assigned to any of the above storage classes

**Further information on storage conditions:**
Observe technical data sheet. Store in a cool dry place.

## 7.3. Specific end use(s)

**Recommendation:**
Observe technical data sheet.

# SECTION 8: Exposure controls/personal protection

## 8.1. Control parameters

### 8.1.1. Occupational exposure limit values

| **Limit value type (country of origin)** | **Substance name** | **① Long-term occupational exposure limit value<br>② Short-term occupational exposure limit value<br>③ Instantaneous value<br>④ Monitoring and observation processes<br>⑤ Remark** |
|---|---|---|
| PL | **2-ethylhexyl nitrate**<br>CAS No.: 27247-96-7<br>EC No.: 248-363-6 | ① 3.5 mg/m³<br>② 7 mg/m³ |
| CH<br>from 1 Jan 2022 | **naphthalene**<br>CAS No.: 91-20-3<br>EC No.: 202-049-5 | ① 10 ppm (50 mg/m³)<br>⑤ (Dampf und Aerosol; kann über die Haut aufgenommen werden) H C2; Tox: Blut OAW Auge; Messmeth: NIOSH OSHA |

| Limit value type (country of origin) | Substance name | ① Long-term occupational exposure limit value<br>② Short-term occupational exposure limit value<br>③ Instantaneous value<br>④ Monitoring and observation processes<br>⑤ Remark |
|---|---|---|
| BE | **naphthalene**<br>CAS No.: 91-20-3<br>EC No.: 202-049-5 | ① 10 ppm (53 mg/m³)<br>② 15 ppm (80 mg/m³)<br>⑤ (peut être absorbé par la peau) D |
| CZ<br>from 1 Mar 2020 | **naphthalene**<br>CAS No.: 91-20-3<br>EC No.: 202-049-5 | ① 9.4 ppm (50 mg/m³)<br>② 18.8 ppm (100 mg/m³) |
| PL<br>from 12 Jun 2018 | **naphthalene**<br>CAS No.: 91-20-3<br>EC No.: 202-049-5 | ① 20 mg/m³<br>② 50 mg/m³<br>⑤ (może przenikać przez skórę do organizmu) skóra |
| NO | **naphthalene**<br>CAS No.: 91-20-3<br>EC No.: 202-049-5 | ① 10 ppm (50 mg/m³)<br>⑤ E |
| IE<br>from 17 Jan 2020 | **naphthalene**<br>CAS No.: 91-20-3<br>EC No.: 202-049-5 | ① 10 ppm (50 mg/m³)<br>⑤ IOELV |
| HTP (FI) | **naphthalene**<br>CAS No.: 91-20-3<br>EC No.: 202-049-5 | ① 1 ppm (5 mg/m³)<br>② 2 ppm (10 mg/m³) |
| LT | **naphthalene**<br>CAS No.: 91-20-3<br>EC No.: 202-049-5 | ① 10 ppm (50 mg/m³)<br>⑤ (kancerogeninis) K |
| SE | **naphthalene**<br>CAS No.: 91-20-3<br>EC No.: 202-049-5 | ① 10 ppm (50 mg/m³)<br>③ 15 ppm (80 mg/m³) |
| NPEL (SK)<br>from 23 Nov 2011 | **naphthalene**<br>CAS No.: 91-20-3<br>EC No.: 202-049-5 | ① 10 ppm (50 mg/m³)<br>② 15 ppm (80 mg/m³)<br>⑤ K |
| TRGS 900 (DE)<br>from 23 Jun 2022 | **naphthalene**<br>CAS No.: 91-20-3<br>EC No.: 202-049-5 | ① 0.4 ppm (2 mg/m³)<br>② 1.6 ppm (8 mg/m³)<br>⑤ (Aerosol und Dampf, kann über die Haut aufgenommen werden) AGS, H, Y, EU, 11, 27 |
| DK | **naphthalene**<br>CAS No.: 91-20-3<br>EC No.: 202-049-5 | ① 10 ppm (50 mg/m³)<br>② 20 ppm (100 mg/m³)<br>⑤ EK |
| BG | **naphthalene**<br>CAS No.: 91-20-3<br>EC No.: 202-049-5 | ① 50 mg/m³<br>② 75 mg/m³ |
| HR | **naphthalene**<br>CAS No.: 91-20-3<br>EC No.: 202-049-5 | ① 10 ppm (50 mg/m³) |
| ES | **naphthalene**<br>CAS No.: 91-20-3<br>EC No.: 202-049-5 | ① 10 ppm (53 mg/m³)<br>② 15 ppm (80 mg/m³)<br>⑤ (puede ser absorbido a través dérmica) vía dérmica, VLI |
| RO<br>from 21 Aug 2018 | **naphthalene**<br>CAS No.: 91-20-3<br>EC No.: 202-049-5 | ① 10 ppm (50 mg/m³)<br>⑤ C2 |
| EE | **naphthalene**<br>CAS No.: 91-20-3<br>EC No.: 202-049-5 | ① 10 ppm (50 mg/m³) |
| LV | **naphthalene**<br>CAS No.: 91-20-3<br>EC No.: 202-049-5 | ① 10 ppm (50 mg/m³) |

| Limit value type (country of origin) | Substance name | ① Long-term occupational exposure limit value<br>② Short-term occupational exposure limit value<br>③ Instantaneous value<br>④ Monitoring and observation processes<br>⑤ Remark |
|---|---|---|
| Alberta (CA)<br>from 1 Dec 2021 | **naphthalene**<br>CAS No.: 91-20-3<br>EC No.: 202-049-5 | ① 10 ppm (52 mg/m³)<br>② 15 ppm (79 mg/m³)<br>⑤ (may be absorbed through the skin) 1 |
| BC (CA)<br>from 1 Jun 2018 | **naphthalene**<br>CAS No.: 91-20-3<br>EC No.: 202-049-5 | ① 10 ppm<br>⑤ (may be absorbed through the skin) Skin; 2B |
| MY<br>from 1 Jan 2000 | **naphthalene**<br>CAS No.: 91-20-3<br>EC No.: 202-049-5 | ① 10 ppm (52 mg/m³) |
| IOELV (EU) | **naphthalene**<br>CAS No.: 91-20-3<br>EC No.: 202-049-5 | ① 10 ppm (50 mg/m³) |
| VLA (FR) | **naphthalene**<br>CAS No.: 91-20-3<br>EC No.: 202-049-5 | ① 10 ppm (50 mg/m³) |
| SI<br>from 4 Dec 2018 | **naphthalene**<br>CAS No.: 91-20-3<br>EC No.: 202-049-5 | ① 50 mg/m³<br>② 50 mg/m³<br>⑤ (frakcija ki jo je mogoče vdihniti računati je treba z možnostjo prodiranja skozi kožo) K, Y, EU0 |
| TW | **naphthalene**<br>CAS No.: 91-20-3<br>EC No.: 202-049-5 | ① 10 ppm (52 mg/m³) |
| KR | **naphthalene**<br>CAS No.: 91-20-3<br>EC No.: 202-049-5 | ① 10 ppm (50 mg/m³)<br>② 15 ppm (75 mg/m³) |
| IS | **naphthalene**<br>CAS No.: 91-20-3<br>EC No.: 202-049-5 | ① 10 ppm (50 mg/m³) |
| CN<br>from 1 Apr 2020 | **naphthalene**<br>CAS No.: 91-20-3<br>EC No.: 202-049-5 | ① 50 mg/m³<br>② 75 mg/m³<br>⑤ (##############) |
| RU | **naphthalene**<br>CAS No.: 91-20-3<br>EC No.: 202-049-5 | ③ 20 mg/m³ |
| HU | **naphthalene**<br>CAS No.: 91-20-3<br>EC No.: 202-049-5 | ① 50 mg/m³<br>⑤ i |
| GR<br>from 1 Oct 2016 | **naphthalene**<br>CAS No.: 91-20-3<br>EC No.: 202-049-5 | ① 10 ppm (50 mg/m³) |
| NL | **naphthalene**<br>CAS No.: 91-20-3<br>EC No.: 202-049-5 | ① 50 mg/m³<br>② 80 mg/m³ |
| NL<br>from 1 Jan 2023 | **naphthalene**<br>CAS No.: 91-20-3<br>EC No.: 202-049-5 | ① 10 ppm (50 mg/m³)<br>② 16 ppm (80 mg/m³) |
| MAK (AT) | **naphthalene**<br>CAS No.: 91-20-3<br>EC No.: 202-049-5 | ① 10 ppm (50 mg/m³)<br>⑤ (kann über die Haut aufgenommen werden) III B, H |
| SI<br>from 4 Dec 2018 | **naphthalene**<br>CAS No.: 91-20-3<br>EC No.: 202-049-5 | ① 10 ppm<br>② 10 ppm<br>⑤ (računati je treba z možnostjo prodiranja skozi kožo) K, Y, EU0 |
| TR | **naphthalene**<br>CAS No.: 91-20-3<br>EC No.: 202-049-5 | ① 10 ppm (50 mg/m³) |

| Limit value type (country of origin) | Substance name | ① Long-term occupational exposure limit value<br>② Short-term occupational exposure limit value<br>③ Instantaneous value<br>④ Monitoring and observation processes<br>⑤ Remark |
|---|---|---|
| IDLH (US)<br>from 1 Jan 1994 | **naphthalene**<br>CAS No.: 91-20-3<br>EC No.: 202-049-5 | ① 250 ppm |
| Québec (CA)<br>from 1 Apr 2022 | **naphthalene**<br>CAS No.: 91-20-3<br>EC No.: 202-049-5 | ① 10 ppm<br>⑤ (may be absorbed through the skin) |
| OSHA (US) | **naphthalene**<br>CAS No.: 91-20-3<br>EC No.: 202-049-5 | ① 10 ppm (50 mg/m³) |
| NIOSH (US) | **naphthalene**<br>CAS No.: 91-20-3<br>EC No.: 202-049-5 | ① 10 ppm (50 mg/m³)<br>② 15 ppm (75 mg/m³) |
| ACGIH (US) | **naphthalene**<br>CAS No.: 91-20-3<br>EC No.: 202-049-5 | ① 10 ppm (52 mg/m³)<br>② 15 ppm (79 mg/m³)<br>⑤ (may be absorbed through the skin) |

### 8.1.2. Biological limit values

No data available

### 8.1.3. DNEL-/PNEC-values

| Substance name | DNEL value | ① DNEL type<br>② Exposure route |
|---|---|---|
| **2-ethylhexyl nitrate**<br>CAS No.: 27247-96-7<br>EC No.: 248-363-6 | 0.35 mg/m³ | ① DNEL worker<br>② Long-term – inhalation, systemic effects |
| **2-ethylhexyl nitrate**<br>CAS No.: 27247-96-7<br>EC No.: 248-363-6 | 1 mg/kg bw/day | ① DNEL worker<br>② Long-term - dermal, systemic effects |
| **2-ethylhexyl nitrate**<br>CAS No.: 27247-96-7<br>EC No.: 248-363-6 | 0.52 mg/kg bw/day | ① DNEL Consumer<br>② Long-term - dermal, systemic effects |
| **2-ethylhexyl nitrate**<br>CAS No.: 27247-96-7<br>EC No.: 248-363-6 | 0.025 mg/kg bw/day | ① DNEL Consumer<br>② Long-term - oral, systemic effects |
| **naphthalene**<br>CAS No.: 91-20-3<br>EC No.: 202-049-5 | 25 mg/m³ | ① DNEL worker<br>② Long-term – inhalation, systemic effects |
| **naphthalene**<br>CAS No.: 91-20-3<br>EC No.: 202-049-5 | 25 mg/m³ | ① DNEL worker<br>② Acute - inhalation, local effects |
| **Phenol, dodecyl-, branched**<br>CAS No.: 121158-58-5<br>EC No.: 310-154-3 | 44.18 mg/m³ | ① DNEL worker<br>② Acute - inhalation, systemic effects |
| **Phenol, dodecyl-, branched**<br>CAS No.: 121158-58-5<br>EC No.: 310-154-3 | 0.25 mg/kg | ① DNEL worker<br>② Long-term - dermal, systemic effects |
| **Phenol, dodecyl-, branched**<br>CAS No.: 121158-58-5<br>EC No.: 310-154-3 | 166 mg/kg | ① DNEL worker<br>② Acute – dermal, systemic effects |

| Substance name | PNEC Value | ① PNEC type |
|---|---|---|
| **2-ethylhexyl nitrate**<br>CAS No.: 27247-96-7<br>EC No.: 248-363-6 | 0.0008 mg/L | ① PNEC aquatic, freshwater |
| **2-ethylhexyl nitrate**<br>CAS No.: 27247-96-7<br>EC No.: 248-363-6 | 0.00008 mg/L | ① PNEC aquatic, marine water |

| Substance name | PNEC Value | ① PNEC type |
|---|---|---|
| **2-ethylhexyl nitrate**<br>CAS No.: 27247-96-7<br>EC No.: 248-363-6 | 10 mg/L | ① PNEC sewage treatment plant |
| **2-ethylhexyl nitrate**<br>CAS No.: 27247-96-7<br>EC No.: 248-363-6 | 0.00074 mg/kg | ① PNEC sediment, freshwater |
| **2-ethylhexyl nitrate**<br>CAS No.: 27247-96-7<br>EC No.: 248-363-6 | 0.00074 mg/kg | ① PNEC sediment, marine water |
| **2-ethylhexyl nitrate**<br>CAS No.: 27247-96-7<br>EC No.: 248-363-6 | 0.000191 mg/kg | ① PNEC soil |
| **Phenol, dodecyl-, branched**<br>CAS No.: 121158-58-5<br>EC No.: 310-154-3 | 0.074 µg/L | ① PNEC aquatic, freshwater |
| **Phenol, dodecyl-, branched**<br>CAS No.: 121158-58-5<br>EC No.: 310-154-3 | 0.0074 µg/L | ① PNEC aquatic, marine water |
| **Phenol, dodecyl-, branched**<br>CAS No.: 121158-58-5<br>EC No.: 310-154-3 | 100 mg/L | ① PNEC sewage treatment plant |
| **Phenol, dodecyl-, branched**<br>CAS No.: 121158-58-5<br>EC No.: 310-154-3 | 0.226 mg/kg | ① PNEC sediment, freshwater |
| **Phenol, dodecyl-, branched**<br>CAS No.: 121158-58-5<br>EC No.: 310-154-3 | 0.0266 mg/kg | ① PNEC sediment, marine water |
| **Phenol, dodecyl-, branched**<br>CAS No.: 121158-58-5<br>EC No.: 310-154-3 | 0.37 µg/L | ① PNEC aquatic, intermittent release |

## 8.2. Exposure controls

### 8.2.1. Appropriate engineering controls

Avoid exposure. Do not breathe gas/fumes/vapour/spray.

### 8.2.2. Personal protection equipment

**Eye/face protection:**

During transfer: Eye glasses with side protection
DIN-/EN-Norms EN 166

**Skin protection:**

Hand protection
Suitable material: NBR (Nitrile rubber), FKM (fluoro rubber)
Thickness of the glove material: ≥ 0,4 mm
Breakthrough time: >480 min
Breakthrough times and swelling properties of the material must be taken into consideration.
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.
Tested protective gloves must be worn: EN ISO 374
Suitable protective clothing: Protective clothing solvent-resistant like: EN 465

**Respiratory protection:**

Usually no personal respirative protection necessary.
If technical exhaust or ventilation measures are not possible or insufficient, respiratory protection must be worn. Filtering device with filter or ventilator filtering device of type: AX

**Other protection measures:**

Wear suitable protective clothing. Take off immediately all contaminated clothing and wash it before reuse.

### 8.2.3. Environmental exposure controls

See section 7. No additional measures necessary.

# SECTION 9: Physical and chemical properties

## 9.1. Information on basic physical and chemical properties

### Appearance

**Physical state:** Liquid **Colour:** light yellow

**Odour:** characteristic

### Safety relevant basis data

| Parameter | Value | at °C | ① Method<br>② Remark |
|---|---|---|---|
| pH | *not applicable* | | |
| Melting point | *No data available* | | |
| Freezing point | *No data available* | | |
| Initial boiling point and boiling range | *No data available* | | |
| Flash point | > 100 °C | | |
| Evaporation rate | *No data available* | | |
| Auto-ignition temperature | *No data available* | | |
| Upper/lower flammability or explosive limits | *No data available* | | |
| Vapour pressure | *No data available* | | |
| Vapour density | *No data available* | | |
| Density | 841.6 kg/m³ | 15 °C | |
| Bulk density | *not applicable* | | |
| Water solubility | practically insoluble | | |
| Dynamic viscosity | *No data available* | | |
| Kinematic viscosity | 2.5 mm²/s | 40 °C | |

## 9.2. Other information

Not applicable

# SECTION 10: Stability and reactivity

## 10.1. Reactivity

The product is chemically stable under recommended conditions of storage, use and temperature.

## 10.2. Chemical stability

The product is stable under storage at normal ambient temperatures.

## 10.3. Possibility of hazardous reactions

No hazardous reaction when handled and stored according to provisions.

## 10.4. Conditions to avoid

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Take precautionary measures against static discharge.

## 10.5. Incompatible materials

Oxidizing agent, Pyrophoric or self-heating substances
Strong acid
Alkali (lye), concentrated

## 10.6. Hazardous decomposition products

Hazardous combustion products: Carbon monoxide, Carbon dioxide (CO2), Nitrogen oxides (NOx)
During heating or in case of fire, toxic gases is possible.
Do not inhale explosion and combustion gases. Danger of suffocation in case of accumulation in lowlying or closed rooms.

## Further information

Do not mix with other chemicals.

# SECTION 11: Toxicological information

## 11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

| |
|---|
| **Hydrocarbons, C14-C18, n-alcanes, isoalcanes, cyclics, aromatics (2-30%)** EC No.: 920-360-0 |
| **$LD_{50}$ oral:** >4,150 mg/kg (Rat) |
| **$LD_{50}$ dermal:** >2,000 mg/kg (Rabbit) |
| **$LC_{50}$ Acute inhalation toxicity (dust/mist):** >5.28 mg/L 4 h (Rat) |
| **2-ethylhexyl nitrate** CAS No.: 27247-96-7 EC No.: 248-363-6 |
| **ATE inhalativ Dämpfe:** 1.5 mg/L |
| **$LD_{50}$ oral:** >9,640 mg/kg (Rat) |
| **$LD_{50}$ dermal:** >4,820 mg/kg (Rabbit) |
| **$LC_{50}$ Acute inhalation toxicity (vapour):** 11 mg/L (Rat) |
| **Hydrocarbons, C11-C14, n-alkanes, iso-alkanes, cyclenes, <2% aromatics** EC No.: 926-141-6 |
| **$LD_{50}$ oral:** >5,000 mg/kg (Rat) |
| **$LD_{50}$ dermal:** >5,000 mg/kg (Rat) |
| **$LC_{50}$ Acute inhalation toxicity (vapour):** >50 mg/L 8 h (Rat) |
| **Hydrocarbons, C10, aromatics, <1% naphthalene** CAS No.: 1189173-42-9 EC No.: 918-811-1 |
| **$LD_{50}$ oral:** =6,318 mg/kg (rats) OECD TG 401 |
| **$LD_{50}$ dermal:** >2,000 mg/kg (rabbits) OECD TG 402 |
| **$LC_{50}$ Acute inhalation toxicity (dust/mist):** ≥6.193 mg/L (Rat) OECD TG 403 |
| **naphthalene** CAS No.: 91-20-3 EC No.: 202-049-5 |
| **$LD_{50}$ oral:** >2,000 mg/kg (rat) OECD Guideline 401 (Acute Oral Toxicity) |
| **$LD_{50}$ dermal:** >2,500 mg/kg (rat) |
| **$LC_{50}$ Acute inhalation toxicity (vapour):** >0.34 mg/L (Rat) |
| **$LC_{50}$ Acute inhalation toxicity (dust/mist):** >0.4 mg/L |
| **Phenol, dodecyl-, branched** CAS No.: 121158-58-5 EC No.: 310-154-3 |
| **$LD_{50}$ oral:** 2,100 – 2,200 mg/kg (rat) |
| **$LD_{50}$ dermal:** 15,000 mg/kg (rabbit) |

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

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

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

**Skin corrosion/irritation:**
Based on available data, the classification criteria are not met.

**Serious eye damage/irritation:**
Based on available data, the classification criteria are not met.

**Respiratory or skin sensitisation:**
Based on available data, the classification criteria are not met.

**Germ cell mutagenicity:**
Based on available data, the classification criteria are not met.

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

**Reproductive toxicity:**
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:**
May be fatal if swallowed and enters airways.
Observe risk of aspiration if vomiting occurs.
For viscosity data, see section 9.

**Additional information:**
Frequently or prolonged contact with skin may cause dermal irritation.

### 11.2. Information on other hazards

**Endocrine disrupting properties:**
This product contains a substance that has endocrine disrupting properties with respect to humans.

**Other information:**
No data available.

## SECTION 12: Ecological information

### 12.1. Toxicity

| |
|---|
| **Hydrocarbons, C14-C18, n-alcanes, isoalcanes, cyclics, aromatics (2-30%)** EC No.: 920-360-0 |
| **$LC_{50}$:** >1,000 mg/L 4 d (fish) |
| **$EC_{50}$:** >1,000 mg/L 2 d (crustaceans, Daphnia magna (Big water flea)) |
| **NOEC:** >5,000 mg/L 21 d (fish, fish) |
| **NOEC:** >1,400 mg/L 21 d (crustaceans, Daphnia magna (Big water flea)) |
| **2-ethylhexyl nitrate** CAS No.: 27247-96-7 EC No.: 248-363-6 |
| **$LC_{50}$:** 2 mg/L 4 d (fish, Danio rerio (zebrafish)) Study Report (2010) |
| **$LC_{50}$:** 2 mg/L 4 d (fish, Danio rerio (zebrafish)) OECD 203 |
| **$EC_{50}$:** >12.6 mg/L 2 d (crustaceans, Daphnia magna (Big water flea)) Study Report (1998) |
| **$EC_{50}$:** >10 mg/L (Algae/water plant) |
| **$EC_{50}$:** 10 mg/L 2 d (crustaceans, Daphnia magna (Big water flea)) OECD 202 |
| **$ErC_{50}$:** >12.6 mg/L 3 d (Algae/water plant, Pseudokirchneriella subcapitata) Study Report (1998) |
| **$ErC_{50}$:** 1 – 10 mg/L (fish) |
| **$ErC_{50}$:** >1 – 10 mg/L 3 d (Algae/water plant) OECD 201 |
| **Hydrocarbons, C11-C14, n-alkanes, iso-alkanes, cyclenes, <2% aromatics** EC No.: 926-141-6 |
| **$LC_{50}$:** >1,000 mg/L 2 d (fish, Daphnia magna (Big water flea)) |
| **$EC_{50}$:** >1,000 mg/L 3 d (crustaceans, Pseudokirchneriella subcapitata) |
| **$EC_{50}$:** >1,000 mg/L 4 d (Algae/water plant, Oncorhynchus mykiss (Rainbow trout)) |
| **Hydrocarbons, C10, aromatics, <1% naphthalene** CAS No.: 1189173-42-9 EC No.: 918-811-1 |
| **$LC_{50}$:** ≥2 – ≤5 mg/L 4 d (fish, rainbow trout) |
| **$LC_{50}$:** ≥3 – ≤10 mg/L 2 d (crustaceans, Daphnia magna) |
| **$LC_{50}$:** ≥2 – ≤5 mg/L 4 d (fish, Oncorhynchus mykiss (Rainbow trout)) |
| **$EC_{50}$:** ≥1 – ≤3 mg/L 3 d (Algae/water plant, Pseudokirchneriella subcapitata) |
| **$EC_{50}$:** ≥3 – ≤10 mg/L 2 d (crustaceans, Daphnia magna (Big water flea)) |
| **NOEC:** =0.441 mg/L 28 d (fish, rainbow trout) |
| **NOEC:** =0.771 mg/L 21 d (crustaceans, Daphnia magna) |
| **NOEC:** ≈1 mg/L 3 d (Algae/water plant, Pseudokirchneriella subcapitata) |
| **naphthalene** CAS No.: 91-20-3 EC No.: 202-049-5 |
| **$LC_{50}$:** 6.08 mg/L 3 d (fish, Pimephales promelas) |
| **$LC_{50}$:** 1.2 mg/L 4 d (fish, Oncorhynchus gorbuscha) |
| **$LC_{50}$:** 6.35 mg/L 2 d (fish, Pimephales promelas) |
| **$EC_{50}$:** 2.16 mg/L 2 d (crustaceans, Daphnia magna) OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test) |
| **NOEC:** 0.12 mg/L 40 d (fish, Oncorhynchus gorbuscha) |
| **LOEC:** 0.38 mg/L 40 d (fish, Oncorhynchus gorbuscha) |
| **$EC_{50}$:** 1.96 mg/L 2 d (crustaceans, Daphnia magna) |
| **Phenol, dodecyl-, branched** CAS No.: 121158-58-5 EC No.: 310-154-3 |
| **$LC_{50}$:** ≥40 mg/L 2 d (fish) |
| **$LC_{50}$:** ≥0.58 – 0.58 mg/L 4 d (crustaceans) |
| **NOEC:** ≥0.07 mg/L 3 d (Algae/water plant) |

**Aquatic toxicity:**
Harmful to aquatic life with long lasting effects.

**Additional ecotoxicological information:**
Do not allow uncontrolled discharge of product into the environment.

## 12.2. Persistence and degradability

| |
|---|
| **Hydrocarbons, C14-C18, n-alcanes, isoalcanes, cyclics, aromatics (2-30%)** EC No.: 920-360-0 |
| **Biodegradation:** Yes, rapidly |
| **Remark:** OECD 301F 60,7% 28d (ECHA Dossier) |
| **2-ethylhexyl nitrate** CAS No.: 27247-96-7 EC No.: 248-363-6 |
| **Biodegradation:** Poorly biodegradable. |

**Biodegradation:**
Not readily biodegradable (according to OECD criteria)

## 12.3. Bioaccumulative potential

| |
|---|
| **Hydrocarbons, C14-C18, n-alcanes, isoalcanes, cyclics, aromatics (2-30%)** EC No.: 920-360-0 |
| **Log $K_{OW}$:** 3.5 |
| **2-ethylhexyl nitrate** CAS No.: 27247-96-7 EC No.: 248-363-6 |
| **Log $K_{OW}$:** 5.24 |
| **Bioconcentration factor (BCF):** 1,332 |
| **naphthalene** CAS No.: 91-20-3 EC No.: 202-049-5 |
| **Log $K_{OW}$:** 3.45 |
| **Bioconcentration factor (BCF):** 168 |
| **Phenol, dodecyl-, branched** CAS No.: 121158-58-5 EC No.: 310-154-3 |
| **Log $K_{OW}$:** 7.14 |

**Accumulation / Evaluation:**
The product has not been tested.

## 12.4. Mobility in soil

The product has not been tested.

## 12.5. Results of PBT and vPvB assessment

| |
|---|
| **Hydrocarbons, C14-C18, n-alcanes, isoalcanes, cyclics, aromatics (2-30%)** EC No.: 920-360-0 |
| **Results of PBT and vPvB assessment:** This substance does not meet the PBT/vPvB criteria of REACH, Annex XIII. |
| **2-ethylhexyl nitrate** CAS No.: 27247-96-7 EC No.: 248-363-6 |
| **Results of PBT and vPvB assessment:** This substance does not meet the PBT/vPvB criteria of REACH, Annex XIII. |
| **Hydrocarbons, C11-C14, n-alkanes, iso-alkanes, cyclenes, <2% aromatics** EC No.: 926-141-6 |
| **Results of PBT and vPvB assessment:** This substance does not meet the PBT/vPvB criteria of REACH, Annex XIII. |
| **Hydrocarbons, C10, aromatics, <1% naphthalene** CAS No.: 1189173-42-9 EC No.: 918-811-1 |
| **Results of PBT and vPvB assessment:** This substance does not meet the PBT/vPvB criteria of REACH, Annex XIII. |
| **naphthalene** CAS No.: 91-20-3 EC No.: 202-049-5 |
| **Results of PBT and vPvB assessment:** This substance does not meet the PBT/vPvB criteria of REACH, Annex XIII. |
| **Phenol, dodecyl-, branched** CAS No.: 121158-58-5 EC No.: 310-154-3 |
| **Results of PBT and vPvB assessment:** This substance does not meet the PBT/vPvB criteria of REACH, Annex XIII. |

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

## 12.6. Endocrine disrupting properties

This product contains a substance that has endocrine disrupting properties with respect to non-target organisms.

## 12.7. Other adverse effects

No data available.

# SECTION 13: Disposal considerations

## 13.1. Waste treatment methods

Dispose of waste according to applicable legislation.

### 13.1.1. Product/Packaging disposal

### Waste codes/waste designations according to EWC/AVV

**Directive 2008/98/EC (Waste Framework Directive)**

| | |
|---|---|
| HP 5 | Specific Target Organ Toxicity (STOT)/Aspiration Toxicity |
| HP 14 | Ecotoxic |

### Waste treatment options

**Appropriate disposal / Product:**
Dispose of waste according to applicable legislation.

**Appropriate disposal / Package:**
Non-contaminated packages may be recycled.

**Other disposal recommendations:**
Consult the appropriate local waste disposal expert about waste disposal.

### 13.2. Additional information

The allocation of waste identity numbers/waste descriptions must be carried out according to the EEC, specific to the industry and process.

## SECTION 14: Transport information

| Land transport (ADR/RID) | Inland waterway craft (ADN) | Sea transport (IMDG) | Air transport (ICAO-TI / IATA-DGR) |
|---|---|---|---|
| **14.1. UN number or ID number** | | | |
| No dangerous good in sense of these transport regulations. | No dangerous good in sense of these transport regulations. | No dangerous good in sense of these transport regulations. | No dangerous good in sense of these transport regulations. |
| **14.2. UN proper shipping name** | | | |
| No dangerous good in sense of these transport regulations. | No dangerous good in sense of these transport regulations. | No dangerous good in sense of these transport regulations. | No dangerous good in sense of these transport regulations. |
| **14.3. Transport hazard class(es)** | | | |
| not relevant | not relevant | not relevant | not relevant |
| **14.4. Packing group** | | | |
| not relevant | not relevant | not relevant | not relevant |
| **14.5. Environmental hazards** | | | |
| not relevant | not relevant | not relevant | not relevant |
| **14.6. Special precautions for user** | | | |
| not relevant | not relevant | not relevant | not relevant |

### 14.7. Maritime transport in bulk according to IMO instruments

No transport as bulk according to IBC Code.

## SECTION 15: Regulatory information

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

#### 15.1.1. EU legislation

**Other regulations (EU):**
This product is not assigned to a hazard category.
Information according to 1999/13/EC about limitation of emissions of volatile organic compounds (VOC-guideline).
Volatile organic compounds (VOC) content in percent by weight: 6,2 % w/w
VOC-CH: 0,052 kg/l ( 6,2 % w/w)

**Directive 2004/42/EC on the limitation of emissions of volatile organic compounds:**
Volatile organic compounds (VOC) content in percent by weight: 6.2 weight-%

#### 15.1.2. National regulations

**[DE] National regulations**

**Restrictions of occupation**
Observe employment restrictions under the Maternity Protection Directive (92/85/EEC) for expectant or nursing mothers. Observe restrictions to employment for juveniles according to the 'juvenile work protection guideline' (94/33/EC).

**Annex Chemikalien-Verbotsverordnung (ChemVerbotsV)**
Not applicable

**Störfallverordnung (12. BImschV)**

**for substances contained in the product:**
This product is not assigned to a hazard category.

**Technische Anleitung zur Reinhaltung der Luft (TA-Luft)**

**Remark:**

To follow: 5.2.5

**Water hazard class**

**WGK:**

2 - obviously hazardous to water

**Source:**

Self-classification (mixture; calculation rule).

**Technische Regeln für Gefahrstoffe**

Minimum protective measures according to TRGS 500

**Berufsgenossenschaftliche Vorschriften (DGUV-Vorschriften)**

To follow: Berufsgenossenschaftliche Informationen (DGUV-Informationen) 868
Berufsgenossenschaftliche Regeln (DGUV-Regeln) 189, 190, 192, 195

### [DK] National regulations

**Other regulations, restrictions and prohibition regulations**

\P:ca19682f-639a-41b3-8f47-6f286be6adf7\

### [FR] National regulations

**Other regulations, restrictions and prohibition regulations**

\P:bcb06c4e-46f7-4a11-a0e6-1fd8cb65f728\

### [NL] National regulations

**Other regulations, restrictions and prohibition regulations**

\P:06b48189-0427-4de8-a01b-d5a2d680ad4e\

### [CH] National regulations

**Other regulations, restrictions and prohibition regulations**

Mengenschwelle (Schweiz - StFV)
Gefahrencode
Brandverhütung, BVD (Schweiz)
Störfallverordnung (StFV)

### [SK] National regulations

**Other regulations, restrictions and prohibition regulations**

Zákon č. 67/2010 Z.z., o podmienkach uvedenia chemických látok a chemických zmesí na trh a o zmene a doplnení niektorých zákonov (chemický zákon).
Zákon č. 124/2006 Z. z. o bezpečnosti a ochrane zdravia pri práci a o zmene a doplnení niektorých zákonov.
Zákon NR SR č. 355/2007 Z.z., o ochrane, podpore a rozvoji verejného zdravia a o zmene a doplnení niektorých zákonov, v znení neskorších predpisov.
Nariadenie vlády SR 471/2011 Z.z., ktorým sa mení nariadenie vlády Slovenskej republiky č. 355/2006 Z. z. o ochrane zamestnancov pred rizikami súvisiacimi s expozíciou chemickým faktorom pri práci, Príloha č.1.
Zákon č. 79/2015 Z.z. o odpadoch v znení neskorších predpisov.
Vyhláška MV SR č. 96/2004 Z.z., ktorou sa ustanovujú zásady protipožiarnej bezpečnosti pri manipulácii a skladovaní horľavých kvapalín, ťažkých vykurovacích olejov a rastlinných a živočíšnych tukov a olejov.
Zákon NR SR č. 137/2010 Z.z. o ovzduší v znení neskorších predpisov.
Zákon č. 319/2013 Z.z. o pôsobnosti orgánov štátnej správy pre sprístupňovanie biocídnych výrobkov na trh a ich používanie a o zmene a doplnení niektorých zákonov (biocídny zákon).

## 15.2. Chemical Safety Assessment

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

## 15.3. Additional information

Tactile warning according to EN/ISO 11683. Child-resistant fastenings (EN/862/ISO 8317).

# SECTION 16: Other information

## 16.1. Indication of changes

Not applicable

## 16.2. Abbreviations and acronyms

| | |
|---|---|
| ACGIH | American Conference of Governmental Industrial Hygienists |
| ADN | European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways |
| ADR | European Agreement concerning the International Carriage of Dangerous Goods by Road |

| | |
|---|---|
| BCF | Bioconcentration Factor |
| CAS | Chemical Abstracts Service |
| CLP | Classification, Labelling and Packaging |
| DIN | German Institute for Standardization / German Industrial Standard |
| DNEL | derived no-effect level |
| $EC_{50}$ | Effective Concentration 50% |
| ECHA | European Chemicals Agency |
| EN | European Standard |
| ES | Exposure scenario |
| EWC | European Waste Catalogue |
| IBC | Intermediate Bulk Container |
| ICAO | International Civil Aviation Organization |
| IMDG | International Maritime Dangerous Goods |
| IMO | International Maritime Organization |
| ISO | International Standards Organisation |
| KG | body weight |
| $LC_{50}$ | Lethal (fatal) Concentration 50% |
| $LD_{50}$ | Lethal (fatal) Dose 50% |
| MAK | Maximum concentration in the workplace air (CH) |
| NFPA | National Fire Protection Association |
| NIOSH | National Institute for Occupational Safety & Health |
| NOEC | No Observed Effect Concentration |
| OECD | Organisation for Economic Cooperation and Development |
| OSHA | Occupational Safety & Health Administration |
| PBT | persistent and bioaccumulative and toxic |
| PNEC | Predicted No Effect Concentration |
| REACH | Registration, Evaluation and Authorization of Chemicals |
| RID | Dangerous goods regulations for transport by rail |
| TRGS | Technische Regeln für Gefahrstoffe |
| UN | United Nations |

For abbreviations and acronyms, see: ECHA Guidance on information requirements and chemical safety assessment, chapter R.20 (Table of terms and abbreviations).
See overview table at www.euphrac.eu

## 16.3. Key literature references and sources for data

EC 1907/2006 - REACH Regulation
1272/2008 EC - Regulation on classification, labeling and packaging of substances and mixtures, and amending Directives 67/548/EEC and 1999/45/EC and Regulation (EC) No 1907/2006
Regulation (EC) No 1907/2006 (REACH), Annex II
European Chemicals Agency (ECHA), C & L classification and labeling inventory
European Chemicals Agency (ECHA), ECHA CHEM Registered substances
OECD The Global Portal to Information on Chemical Substances (ChemPortal)
Institute for Occupational Safety and Health of the German Social Accident Insurance (IFA): GESTIS substance database and International limit values for chemical substances
Federal Environment Agency, Section IV 2.4: Documentation and Information Centre substances hazardous to water Rigoletto (catalog substances hazardous to water)

| Substance name | Type | source of supply |
|---|---|---|
| **naphthalene**<br>CAS No.: 91-20-3<br>EC No.: 202-049-5 | $LD_{50}$ oral; $LD_{50}$ dermal; $LC_{50}$; $EC_{50}$; NOEC; LOEC | Source: European Chemicals Agency, http://echa.europa.eu/ |

## 16.4. Classification for mixtures and used evaluation method according to regulation (EC) No 1272/2008 [CLP]

| Hazard classes and hazard categories | Hazard statements | Classification procedure |
|---|---|---|
| Aspiration hazard *(Asp. Tox. 1)* | H304: May be fatal if swallowed and enters airways. | Calculation method. |
| Hazardous to the aquatic environment *(Aquatic Chronic 3)* | H412: Harmful to aquatic life with long lasting effects. | Calculation method. |

## 16.5. List of relevant hazard statements and/or precautionary statements from sections 2 to 15

| **Hazard statements** | |
|---|---|
| H302 | Harmful if swallowed. |
| H304 | May be fatal if swallowed and enters airways. |
| H312 | Harmful in contact with skin. |
| H314 | Causes severe skin burns and eye damage. |
| H318 | Causes serious eye damage. |
| H332 | Harmful if inhaled. |
| H336 | May cause drowsiness or dizziness. |
| H351 | Suspected of causing cancer. |
| H360F | May damage fertility. |
| 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. |

## 16.6. Training advice

No data available

## 16.7. Additional 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.