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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 VSH SAE 0W-20

Article No.:

1111154

UFI:

TF8Y-WG5M-UM7D-Q1Q4

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

Use of the substance/mixture:

Lubricant

* **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 |
|--|--|--------------------------|
| Respiratory or skin sensitisation (<i>Skin Sens. 1</i>) | H317: May cause an allergic skin reaction. | Calculation method. |

* **2.2. Label elements**

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

Hazard pictograms:



GHS07

Exclamation mark

Signal word: Warning



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Hazard components for labelling:

Benzoic acid, 2-hydroxy-, mono-C14-18-alkyl derivs., calcium salts; Alkyl (C18-C28) toluenesulfonic acid, calcium salts, borated

Hazard statements for health hazards

| | |
|------|--------------------------------------|
| H317 | May cause an allergic skin reaction. |
|------|--------------------------------------|

Precautionary statements Prevention

| | |
|------|---|
| P261 | Avoid breathing vapours and spray. |
| P280 | Wear protective gloves and eye/face protection. |

Precautionary statements Response

| | |
|-------------|--|
| P302 + P352 | IF ON SKIN: Wash with plenty of soap and water. |
| P333 + P313 | If skin irritation or rash occurs: Get medical advice/attention. |

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 Classification according to Regulation (EC) No 1272/2008 [CLP] | Concentration |
|--|--|-----------------------|
| CAS No.: 64742-54-7 EC No.: 265-157-1 REACH No.: 01-2119484627-25 | Distillates (petroleum), hydrotreated heavy paraffinic; Base oil - not specified Asp. Tox. 1 (H304) Danger | 45 - < 90 weight-% |
| CAS No.: 125643-61-0 EC No.: 406-040-9 Index No.: 607-530-00-7 REACH No.: 01-0000015551-76 | Isomer mixture of C7-9-alkyl-3- (3,5-di-trans-butyl-4-hydroxyphenyl) propionate Aquatic Chronic 4 (H413) | 1 - < 2 weight-% |
| CAS No.: 114959-46-5 EC No.: 931-276-9 | Benzoic acid, 2-hydroxy-, mono-C14-18-alkyl derivs., calcium salts Aquatic Chronic 4 (H413), Skin Sens. 1 (H317) Warning | 1 - < 2 weight-% |
| EC No.: 953-650-0 | Alkyl (C18-C28) toluenesulfonic acid, calcium salts, borated Repr. 2 (H361d), Skin Sens. 1B (H317) Warning | 0 - < 0.9 weight-% |
| CAS No.: 64742-47-8 EC No.: 920-107-4 Index No.: 649-422-00-2 REACH No.: 01-2119453414-43-0000 | Hydrocarbons, C12-C15, n-alkanes, iso-alkanes, cyclenes, <2% aromatics Asp. Tox. 1 (H304) Danger | 0 - < 0.02 weight-% |
| CAS No.: 64742-94-5 REACH No.: 01-2119463588-24 | Hydrocarbons, C10-C13, Aromatics, >1% Naphthalene Aquatic Chronic 2 (H411), Asp. Tox. 1 (H304), Carc. 2 (H351), STOT SE 3 (H336) Danger | 0 - < 0.003 weight-% |
| CAS No.: 91-20-3 EC No.: 202-049-5 Index No.: 601-052-00-2 | naphthalene Acute Tox. 4 (H302), Aquatic Acute 1 (H400), Aquatic Chronic 1 (H410), Carc. 2 (H351) Warning | 0 - < 0.0005 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:

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.



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If unconscious but breathing normally, place in recovery position and seek medical advice. Do not leave affected person unattended.

Following inhalation:

Provide fresh air. Consult a doctor immediately.

In case of skin contact:

After contact with skin, wash immediately with plenty of water and soap. Consult a doctor immediately.

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.

Following ingestion:

Rinse mouth thoroughly with water. Do NOT induce vomiting. Consult a doctor immediately.

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 produce an allergic reaction.

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

Treat symptomatically. Observe risk of aspiration if vomiting occurs.

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

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

During heating or in case of fire, toxic gases is possible.

The formation of combustible vapours is possible at temperatures above: Flash point

When hot, product develops flammable vapours.

Hazardous combustion products:

Carbon monoxide, Carbon dioxide (CO₂), Nitrogen oxides (NO_x), Gases/vapours, toxic

During heating or in case of fire, toxic gases is possible.

5.3. Advice for firefighters

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

5.4. Additional information

Do not inhale explosion and combustion gases. Move undamaged containers from immediate hazard area if it can be done safely. 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. Special danger of slipping by leaking/spilling product.

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 personal protection equipment.



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6.2. Environmental precautions

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

Safe handling: see section 7

Disposal: see section 13

Personal protection equipment: see section 8

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:

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:

No special fire protection measures are necessary.

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 in a cool, well-ventilated place.

Requirements for storage rooms and vessels:

Suitable container/equipment material: Floors should be impervious, resistant to liquids and easy to clean. Shafts and sewers must be protected from entry of the product.

Keep/Store only in original container.

Hints on storage assembly:

not required

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

Further information on storage conditions:

Store in a cool dry place. Keep away from heat.

7.3. Specific end use(s)

Recommendation:

Observe technical data sheet.



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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 ② Short-term occupational exposure limit value ③ Instantaneous value ④ Monitoring and observation processes ⑤ Remark |
|---|--|--|
| TRGS 900 (DE) | Hydrocarbons, C12-C15, n-alkanes, iso-alkanes, cyclenes, <2% aromatics CAS No.: 64742-47-8 EC No.: 920-107-4 | ① 300 mg/m ³ ② 600 mg/m ³ ⑤ (C9-C14 Aliphaten) |
| VLA (FR) | Hydrocarbons, C12-C15, n-alkanes, iso-alkanes, cyclenes, <2% aromatics CAS No.: 64742-47-8 EC No.: 920-107-4 | ① 1,000 mg/m ³ ② 1,500 mg/m ³ ⑤ (hydrocarbures C9-C12) |
| NO | Hydrocarbons, C12-C15, n-alkanes, iso-alkanes, cyclenes, <2% aromatics CAS No.: 64742-47-8 EC No.: 920-107-4 | ① 50 ppm (275 mg/m ³) ⑤ (White Spirit (aromatinnhold < 22 %)) |
| DFG (DE) | Hydrocarbons, C12-C15, n-alkanes, iso-alkanes, cyclenes, <2% aromatics CAS No.: 64742-47-8 EC No.: 920-107-4 | ① 5 mg/m ³ ② 20 mg/m ³ ⑤ (Aerosol, alveolengängige Fraktion) |
| MAK (AT) | Hydrocarbons, C12-C15, n-alkanes, iso-alkanes, cyclenes, <2% aromatics CAS No.: 64742-47-8 EC No.: 920-107-4 | ① 200 mL/m ³ ② 400 mL/m ³ ⑤ (für Kohlenwasserstoffgemische mit einem Gehalt an aromatischen Kohlenwasserstoffen von weniger als 1 %, an n-Hexan von weniger als 5 % und an Cyclo-/Isohexanen von weniger als 25 %) |
| MAK (AT) | Hydrocarbons, C12-C15, n-alkanes, iso-alkanes, cyclenes, <2% aromatics CAS No.: 64742-47-8 EC No.: 920-107-4 | ① 170 mL/m ³ ② 340 mL/m ³ ⑤ (für Kohlenwasserstoffgemische mit einem Gehalt an aromatischen Kohlenwasserstoffen von weniger als 1 %, an n-Hexan von weniger als 5 % und an Cyclo-/Isohexanen von 25 % oder mehr) |
| WEL (GB) | Hydrocarbons, C12-C15, n-alkanes, iso-alkanes, cyclenes, <2% aromatics CAS No.: 64742-47-8 EC No.: 920-107-4 | ① 1,200 mg/m ³ ⑤ (> or = C7, Normal and branched chain alkanes) |
| WEL (GB) | Hydrocarbons, C12-C15, n-alkanes, iso-alkanes, cyclenes, <2% aromatics CAS No.: 64742-47-8 EC No.: 920-107-4 | ① 800 mg/m ³ ⑤ (> or = C7, Cycloalkanes) |
| DFG (DE) | Hydrocarbons, C12-C15, n-alkanes, iso-alkanes, cyclenes, <2% aromatics CAS No.: 64742-47-8 EC No.: 920-107-4 | ① 50 ppm (350 mg/m ³) ② 100 ppm (700 mg/m ³) ⑤ (Dampf) |
| RU | Hydrocarbons, C12-C15, n-alkanes, iso-alkanes, cyclenes, <2% aromatics CAS No.: 64742-47-8 EC No.: 920-107-4 | ① 100 mg/m ³ ③ 300 mg/m ³ |
| CH | Hydrocarbons, C12-C15, n-alkanes, iso-alkanes, cyclenes, <2% aromatics CAS No.: 64742-47-8 EC No.: 920-107-4 | ① 50 ppm (350 mg/m ³) ② 100 ppm (700 mg/m ³) ⑤ (Dampf) SSC; Tox: ZNS; Messmeth: OSHA |
| SI | Hydrocarbons, C12-C15, n-alkanes, iso-alkanes, cyclenes, <2% aromatics CAS No.: 64742-47-8 EC No.: 920-107-4 | ① 700 mg/m ³ |



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| Limit value type (country of origin) | Substance name | ① Long-term occupational exposure limit value ② Short-term occupational exposure limit value ③ Instantaneous value ④ Monitoring and observation processes ⑤ Remark |
|--------------------------------------|--|---|
| RO | Hydrocarbons, C12-C15, n-alkanes, iso-alkanes, cyclenes, <2% aromatics CAS No.: 64742-47-8 EC No.: 920-107-4 | ① 700 mg/m ³ ② 1,000 mg/m ³ |
| CH | Hydrocarbons, C12-C15, n-alkanes, iso-alkanes, cyclenes, <2% aromatics CAS No.: 64742-47-8 EC No.: 920-107-4 | ① 5 mg/m ³ ⑤ (Aerosol; einatembare Fraktion) SSC; Tox: Lunge |
| TRGS 900 (DE) | Hydrocarbons, C10-C13, Aromatics, >1% Naphthalene CAS No.: 64742-94-5 | ① 50 mg/m ³ ② 100 mg/m ³ ⑤ (C9-C14 Aromaten) |
| VLA (FR) | Hydrocarbons, C10-C13, Aromatics, >1% Naphthalene CAS No.: 64742-94-5 | ① 150 mg/m ³ ⑤ (hydrocarbures, benzène C9-C12) |
| NO | Hydrocarbons, C10-C13, Aromatics, >1% Naphthalene CAS No.: 64742-94-5 | ① 25 ppm (120 mg/m ³) ⑤ (White Spirit (aromatinnhold > 22 %)) |
| CH | Hydrocarbons, C10-C13, Aromatics, >1% Naphthalene CAS No.: 64742-94-5 | ① 100 ppm (525 mg/m ³) ⑤ Messmeth: OSHA |
| MAK (AT) | Hydrocarbons, C10-C13, Aromatics, >1% Naphthalene CAS No.: 64742-94-5 | ① 20 mL/m ³ ② 40 mL/m ³ ⑤ (für Kohlenwasserstoffgemische mit einem Gehalt an aromatischen Kohlenwasserstoffen von mehr als 25 %) |
| MAK (AT) | Hydrocarbons, C10-C13, Aromatics, >1% Naphthalene CAS No.: 64742-94-5 | ① 70 mL/m ³ ② 140 mL/m ³ ⑤ (für Kohlenwasserstoffgemische mit einem Gehalt an aromatischen Kohlenwasserstoffen von 1 % bis 25 % und an Hexanen von weniger als 1 %) |
| WEL (GB) | Hydrocarbons, C10-C13, Aromatics, >1% Naphthalene CAS No.: 64742-94-5 | ① 500 mg/m ³ ⑤ (Aromatics) |
| SI | Hydrocarbons, C10-C13, Aromatics, >1% Naphthalene CAS No.: 64742-94-5 | ① 50 mg/m ³ |
| CH | naphthalene CAS No.: 91-20-3 EC No.: 202-049-5 | ① 10 ppm (50 mg/m ³) ⑤ (Dampf und Aerosol; kann über die Haut aufgenommen werden) H C2; Tox: Blut OAW Auge; Messmeth: NIOSH OSHA |
| BE | naphthalene CAS No.: 91-20-3 EC No.: 202-049-5 | ① 10 ppm (53 mg/m ³) ② 15 ppm (80 mg/m ³) ⑤ (peut être absorbé par la peau) D |
| CZ | naphthalene CAS No.: 91-20-3 EC No.: 202-049-5 | ① 9.4 ppm (50 mg/m ³) ② 18.8 ppm (100 mg/m ³) |
| PL | naphthalene CAS No.: 91-20-3 EC No.: 202-049-5 | ① 20 mg/m ³ ② 50 mg/m ³ ⑤ (może przenikać przez skórę do organizmu) skóra |
| NO | naphthalene CAS No.: 91-20-3 EC No.: 202-049-5 | ① 10 ppm (50 mg/m ³) ⑤ E |
| IE | naphthalene CAS No.: 91-20-3 EC No.: 202-049-5 | ① 10 ppm (50 mg/m ³) ⑤ IOELV |



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| Limit value type (country of origin) | Substance name | ① Long-term occupational exposure limit value ② Short-term occupational exposure limit value ③ Instantaneous value ④ Monitoring and observation processes ⑤ Remark |
|--------------------------------------|--|--|
| HTP (FI) | naphthalene CAS No.: 91-20-3 EC No.: 202-049-5 | ① 1 ppm (5 mg/m ³) ② 2 ppm (10 mg/m ³) |
| LT | naphthalene CAS No.: 91-20-3 EC No.: 202-049-5 | ① 10 ppm (50 mg/m ³) ⑤ (Kancerogeninés) K |
| SE | naphthalene CAS No.: 91-20-3 EC No.: 202-049-5 | ① 10 ppm (50 mg/m ³) ③ 15 ppm (80 mg/m ³) |
| NPEL (SK) | naphthalene CAS No.: 91-20-3 EC No.: 202-049-5 | ① 10 ppm (50 mg/m ³) ② 15 ppm (80 mg/m ³) |
| TRGS 900 (DE) | naphthalene CAS No.: 91-20-3 EC No.: 202-049-5 | ① 0.4 ppm (2 mg/m ³) ② 1.6 ppm (8 mg/m ³) ⑤ (Aerosol und Dampf, kann über die Haut aufgenommen werden) AGS, H, Y, 11, 27 |
| DK | naphthalene CAS No.: 91-20-3 EC No.: 202-049-5 | ① 10 ppm (50 mg/m ³) ② 20 ppm (100 mg/m ³) |
| BG | naphthalene CAS No.: 91-20-3 EC No.: 202-049-5 | ① 50 mg/m ³ ② 75 mg/m ³ |
| HR | naphthalene CAS No.: 91-20-3 EC No.: 202-049-5 | ① 10 ppm (50 mg/m ³) |
| ES | naphthalene CAS No.: 91-20-3 EC No.: 202-049-5 | ① 10 ppm (53 mg/m ³) ② 15 ppm (80 mg/m ³) ⑤ (puede ser absorbido a través dérmica) |
| RO | naphthalene CAS No.: 91-20-3 EC No.: 202-049-5 | ① 10 ppm (50 mg/m ³) ⑤ C2 |
| EE | naphthalene CAS No.: 91-20-3 EC No.: 202-049-5 | ① 10 ppm (50 mg/m ³) |
| LV | naphthalene CAS No.: 91-20-3 EC No.: 202-049-5 | ① 10 ppm (50 mg/m ³) |
| Alberta (CA) | naphthalene CAS No.: 91-20-3 EC No.: 202-049-5 | ① 10 ppm (52 mg/m ³) ② 15 ppm (79 mg/m ³) |
| BC (CA) | naphthalene CAS No.: 91-20-3 EC No.: 202-049-5 | ① 10 ppm ⑤ (may be absorbed through the skin) Skin; 2B |
| MY | naphthalene CAS No.: 91-20-3 EC No.: 202-049-5 | ① 10 ppm (52 mg/m ³) |
| IOELV (EU) | naphthalene CAS No.: 91-20-3 EC No.: 202-049-5 | ① 10 ppm (50 mg/m ³) |
| VLA (FR) | naphthalene CAS No.: 91-20-3 EC No.: 202-049-5 | ① 10 ppm (50 mg/m ³) |
| SI | naphthalene CAS No.: 91-20-3 EC No.: 202-049-5 | ① 50 mg/m ³ ② 50 mg/m ³ ⑤ (frakcija ki jo je mogoče vdihniti računati je treba z možnostjo prodiranja skozi kožo) K, Y, EUO |



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| Limit value type (country of origin) | Substance name | ① Long-term occupational exposure limit value ② Short-term occupational exposure limit value ③ Instantaneous value ④ Monitoring and observation processes ⑤ Remark |
|--------------------------------------|--|--|
| TW | naphthalene CAS No.: 91-20-3 EC No.: 202-049-5 | ① 10 ppm (52 mg/m ³) |
| KR | naphthalene CAS No.: 91-20-3 EC No.: 202-049-5 | ① 10 ppm (50 mg/m ³) ② 15 ppm (75 mg/m ³) |
| IS | naphthalene CAS No.: 91-20-3 EC No.: 202-049-5 | ① 10 ppm (50 mg/m ³) |
| CN | naphthalene CAS No.: 91-20-3 EC No.: 202-049-5 | ① 50 mg/m ³ ② 75 mg/m ³ ⑤ (#####) |
| RU | naphthalene CAS No.: 91-20-3 EC No.: 202-049-5 | ③ 20 mg/m ³ |
| HU | naphthalene CAS No.: 91-20-3 EC No.: 202-049-5 | ① 50 mg/m ³ ⑤ i |
| GR | naphthalene CAS No.: 91-20-3 EC No.: 202-049-5 | ① 10 ppm (50 mg/m ³) |
| NL | naphthalene CAS No.: 91-20-3 EC No.: 202-049-5 | ① 50 mg/m ³ ② 80 mg/m ³ |
| MAK (AT) | naphthalene CAS No.: 91-20-3 EC No.: 202-049-5 | ① 10 ppm (50 mg/m ³) ⑤ (kann über die Haut aufgenommen werden) III B, H |
| SI | naphthalene CAS No.: 91-20-3 EC No.: 202-049-5 | ① 10 ppm ② 10 ppm ⑤ (računati je treba z možnostjo prodiranja skozi kožo) K, Y, EU0 |
| TR | naphthalene CAS No.: 91-20-3 EC No.: 202-049-5 | ① 10 ppm (50 mg/m ³) |
| IDLH (US) | naphthalene CAS No.: 91-20-3 EC No.: 202-049-5 | ① 250 ppm |
| Québec (CA) | naphthalene CAS No.: 91-20-3 EC No.: 202-049-5 | ① 10 ppm (52 mg/m ³) ② 15 ppm (79 mg/m ³) |
| OSHA (US) | naphthalene CAS No.: 91-20-3 EC No.: 202-049-5 | ① 10 ppm (50 mg/m ³) |
| NIOSH (US) | naphthalene CAS No.: 91-20-3 EC No.: 202-049-5 | ① 10 ppm (50 mg/m ³) ② 15 ppm (75 mg/m ³) |
| ACGIH (US) | naphthalene CAS No.: 91-20-3 EC No.: 202-049-5 | ① 10 ppm (52 mg/m ³) ② 15 ppm (79 mg/m ³) ⑤ (may be absorbed through the skin) |

8.1.2. Biological limit values

No data available



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8.1.3. DNEL-/PNEC-values

| Substance name | DNEL value | ① DNEL type ② Exposure route |
|--|------------------------|---|
| Isomer mixture of C7-9-alkyl-3- (3,5-di-trans-butyl-4-hydroxyphenyl) propionate CAS No.: 125643-61-0 EC No.: 406-040-9 | 2.33 mg/m ³ | ① DNEL worker ② Long-term - inhalation, systemic effects |
| Benzoic acid, 2-hydroxy-, mono-C14-18-alkyl derivs., calcium salts CAS No.: 114959-46-5 EC No.: 931-276-9 | 100 mg/kg | ① DNEL worker ② Long-term - dermal, systemic effects |
| naphthalene CAS No.: 91-20-3 EC No.: 202-049-5 | 25 mg/m ³ | ① DNEL worker ② Long-term - inhalation, systemic effects |
| naphthalene CAS No.: 91-20-3 EC No.: 202-049-5 | 25 mg/m ³ | ① DNEL worker ② Long-term - inhalation, local effects |
| naphthalene CAS No.: 91-20-3 EC No.: 202-049-5 | 3.57 mg/kg bw/day | ① DNEL worker ② Long-term - dermal, systemic effects |

| Substance name | PNEC Value | ① PNEC type |
|---|------------|--------------------------------------|
| Benzoic acid, 2-hydroxy-, mono-C14-18-alkyl derivs., calcium salts CAS No.: 114959-46-5 EC No.: 931-276-9 | 10 mg/L | ① PNEC aquatic, freshwater |
| Benzoic acid, 2-hydroxy-, mono-C14-18-alkyl derivs., calcium salts CAS No.: 114959-46-5 EC No.: 931-276-9 | 4.02 mg/kg | ① PNEC sediment, freshwater |
| naphthalene CAS No.: 91-20-3 EC No.: 202-049-5 | 2.4 µg/L | ① PNEC aquatic, freshwater |
| naphthalene CAS No.: 91-20-3 EC No.: 202-049-5 | 2.4 µg/L | ① PNEC aquatic, marine water |
| naphthalene CAS No.: 91-20-3 EC No.: 202-049-5 | 2.9 mg/L | ① PNEC sewage treatment plant |
| naphthalene CAS No.: 91-20-3 EC No.: 202-049-5 | 20 µg/L | ① PNEC aquatic, intermittent release |

8.2. Exposure controls

8.2.1. Appropriate engineering controls

See section 7. No additional measures necessary.

8.2.2. Personal protection equipment



Eye/face protection:

During transfer: Eye glasses with side protection
 Wear eye/face protection. EN 166

Skin protection:

Hand protection

Suitable material: NBR (Nitrile rubber), PVC (polyvinyl chloride), CR (polychloroprene, chloroprene 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.

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.



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Tested protective gloves must be worn: EN ISO 374
 Suitable protective clothing: Protective clothing

Respiratory protection:

Usually no personal respiratory protection necessary.

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: green

Odour: characteristic

Safety relevant basis data

| Parameter | Value | at °C | ① Method ② Remark |
|--|-----------------------|-------|----------------------|
| pH | <i>not applicable</i> | | |
| Melting point | <i>not determined</i> | | |
| Freezing point | <i>not determined</i> | | |
| Initial boiling point and boiling range | <i>not determined</i> | | |
| Decomposition temperature | <i>not applicable</i> | | |
| Flash point | 232 °C | | |
| Evaporation rate | <i>not determined</i> | | |
| Auto-ignition temperature | <i>not determined</i> | | |
| Upper/lower flammability or explosive limits | <i>not determined</i> | | |
| Vapour pressure | <i>not determined</i> | | |
| Vapour density | <i>not determined</i> | | |
| Density | 849 kg/m ³ | 15 °C | |
| Relative density | <i>not applicable</i> | | |
| Bulk density | <i>not applicable</i> | | |
| Water solubility | practically insoluble | | |
| Partition coefficient: n-octanol/water | <i>not applicable</i> | | |
| Dynamic viscosity | <i>not determined</i> | | |
| Kinematic viscosity | 44 mm ² /s | 40 °C | |

9.2. Other information

Not applicable

SECTION 10: Stability and reactivity

10.1. Reactivity

No known hazardous reactions. Risk of explosion if heated under confinement.

10.2. Chemical stability

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

10.3. Possibility of hazardous reactions

No hazardous reaction when handled and stored according to provisions.

10.4. Conditions to avoid

To avoid thermal decomposition do not overheat.

10.5. Incompatible materials

Materials to avoid: Acid, Oxidizing agent, Reducing agent

10.6. Hazardous decomposition products

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

Further information

No information available.



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SECTION 11: Toxicological information

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

| |
|--|
| Distillates (petroleum), hydrotreated heavy paraffinic; Base oil - not specified CAS No.: 64742-54-7 EC No.: 265-157-1 |
| LD₅₀ oral: 5,000 mg/kg (Rat) OECD 401 |
| LD₅₀ dermal: 5,000 mg/kg (Rabbit) OECD 402 |
| LC₅₀ Acute inhalation toxicity (dust/mist): 5.53 mg/L 4 h (Rat) OECD 403 |
| Isomer mixture of C7-9-alkyl-3- (3,5-di-trans-butyl-4-hydroxyphenyl) propionate CAS No.: 125643-61-0 EC No.: 406-040-9 |
| LD₅₀ oral: >2,000 mg/kg (Ratte) |
| LD₅₀ dermal: >2,000 mg/kg (Ratte) |
| Benzoic acid, 2-hydroxy-, mono-C14-18-alkyl derivs., calcium salts CAS No.: 114959-46-5 EC No.: 931-276-9 |
| LD₅₀ oral: >5,000 mg/kg (rat) OECD 402 |
| LD₅₀ dermal: >2,000 mg/kg (rat) OECD 402 |
| Hydrocarbons, C12-C15, n-alkanes, iso-alkanes, cyclenes, <2% aromatics CAS No.: 64742-47-8 EC No.: 920-107-4 |
| LD₅₀ oral: >5,000 mg/kg (Rat) |
| LD₅₀ dermal: >5,000 mg/kg (Rabbit) |
| LC₅₀ Acute inhalation toxicity (vapour): 4,951 mg/L 4 h |
| naphthalene CAS No.: 91-20-3 EC No.: 202-049-5 |
| LD₅₀ oral: >533 mg/kg (Mouse) |
| LD₅₀ dermal: >16,000 mg/kg (Rat) |
| LC₅₀ Acute inhalation toxicity (dust/mist): >0.4 mg/L 4 h (Rat) |

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:

May cause an allergic skin reaction.

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:

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 does not contain a substance that has endocrine disrupting properties with respect to humans as no components meets the criteria.



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SECTION 12: Ecological information

* 12.1. Toxicity

| |
|--|
| Distillates (petroleum), hydrotreated heavy paraffinic; Base oil - not specified CAS No.: 64742-54-7 EC No.: 265-157-1 |
| LC ₅₀ : 100 mg/L 4 d (fish) |
| LC ₅₀ : 10,000 mg/L 4 d (crustaceans) |
| EC ₅₀ : 10,000 mg/L 2 d (crustaceans) |
| NOEC: 100 mg/L 4 d (fish) |
| NOEC: 100 mg/L 3 d (Algae/water plant) |
| NOEC: ≥100 mg/L 3 d (Algae/water plant, Algen) |
| Isomer mixture of C7-9-alkyl-3- (3,5-di-trans-butyl-4-hydroxyphenyl) propionate CAS No.: 125643-61-0 EC No.: 406-040-9 |
| NOEC: >3 mg/L 3 d (Algae/water plant, Alge) |
| EC ₅₀ : >100 mg/L 2 d (crustaceans, Daphnie) |
| Benzoic acid, 2-hydroxy-, mono-C14-18-alkyl derivs., calcium salts CAS No.: 114959-46-5 EC No.: 931-276-9 |
| LC ₅₀ : >1,000 mg/L 4 d (fish) |
| Hydrocarbons, C12-C15, n-alkanes, iso-alkanes, cyclenes, <2% aromatics CAS No.: 64742-47-8 EC No.: 920-107-4 |
| LC ₅₀ : >100 mg/L 4 d (fish, Oncorhynchus mykiss (Rainbow trout)) |
| EC ₅₀ : >100 mg/L 2 d (crustaceans, Daphnia magna (Big water flea)) |
| ErC ₅₀ : >100 mg/L 3 d (Algae/water plant, Skeletonema costatum) |
| naphthalene CAS No.: 91-20-3 EC No.: 202-049-5 |
| LC ₅₀ : >1.2 - <2.1 mg/L 4 d (fish) |
| EC ₅₀ : >2.16 mg/L 2 d (crustaceans) |
| EC ₅₀ : >2.96 mg/L 4 d (Algae/water plant) |

Assessment/classification:

The substance/mixture does not fulfill the criteria of the acute aquatic toxicity according to Regulation (EC) No 1272/2008 [CLP], Annex I.

Additional ecotoxicological information:

Do not allow uncontrolled discharge of product into the environment.

* 12.2. Persistence and degradability

Biodegradation:

Not readily biodegradable (according to OECD criteria)

* 12.3. Bioaccumulative potential

| |
|---|
| Hydrocarbons, C12-C15, n-alkanes, iso-alkanes, cyclenes, <2% aromatics CAS No.: 64742-47-8 EC No.: 920-107-4 |
| Log K _{ow} : 7 |
| naphthalene CAS No.: 91-20-3 EC No.: 202-049-5 |
| Log K _{ow} : 3.7 |
| Bioconcentration factor (BCF): 168 |

Partition coefficient: n-octanol/water:

not applicable

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

| |
|--|
| Distillates (petroleum), hydrotreated heavy paraffinic; Base oil - not specified CAS No.: 64742-54-7 EC No.: 265-157-1 |
| Results of PBT and vPvB assessment: This substance does not meet the PBT/vPvB criteria of REACH, Annex XIII. |
| Isomer mixture of C7-9-alkyl-3- (3,5-di-trans-butyl-4-hydroxyphenyl) propionate CAS No.: 125643-61-0 EC No.: 406-040-9 |
| Results of PBT and vPvB assessment: This substance does not meet the PBT/vPvB criteria of REACH, Annex XIII. |



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| |
|--|
| Benzoic acid, 2-hydroxy-, mono-C14-18-alkyl derivs., calcium salts CAS No.: 114959-46-5 EC No.: 931-276-9 |
| Results of PBT and vPvB assessment: This substance does not meet the PBT/vPvB criteria of REACH, Annex XIII. |
| Alkyl (C18-C28) toluenesulfonic acid, calcium salts, borated EC No.: 953-650-0 |
| Results of PBT and vPvB assessment: This substance does not meet the PBT/vPvB criteria of REACH, Annex XIII. |
| Hydrocarbons, C12-C15, n-alkanes, iso-alkanes, cyclenes, <2% aromatics CAS No.: 64742-47-8 EC No.: 920-107-4 |
| Results of PBT and vPvB assessment: This substance does not meet the PBT/vPvB criteria of REACH, Annex XIII. |
| Hydrocarbons, C10-C13, Aromatics, >1% Naphthalene CAS No.: 64742-94-5 |
| 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. |

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

12.6. Endocrine disrupting properties

This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

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

Waste code packaging

Remark:

Dispose of waste according to applicable legislation.

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 |



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14.7. Maritime transport in bulk according to IMO instruments

Not applicable

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):

Directive 2012/18/EU on the control of major-accident hazards involving dangerous substances [Seveso-III-Directive]: This product is not assigned to a hazard category.
Safety data sheet available on request.

15.1.2. National regulations

[DE] National regulations

Restrictions of occupation

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

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 - deutlich wassergefährdend

Source:

Self-classification (mixture; calculation rule).
Identification number 436

Technische Regeln für Gefahrstoffe

TRGS 510

TRGS 500

Berufsgenossenschaftliche Vorschriften (DGUV-Vorschriften)

Berufsgenossenschaftliche Informationen (DGUV-Informationen) 868

Berufsgenossenschaftliche Regeln (DGUV-Regeln) 189, 190, 192, 195

Other regulations, restrictions and prohibition regulations

Altöl-Verordnung (AltöIV)

[DK] National regulations

Other regulations, restrictions and prohibition regulations

Dänemark: Bekendtgørelse af lov om arbejdsmiljø: Beskæftigelsesministeriets lovbekendtgørelse nr. 1072 af 7. september 2010

Lister over stoffer og processer, der anses for at være kræftfremkaldende

[FR] National regulations

Other regulations, restrictions and prohibition regulations

Frankreich: Tableaux de maladies professionnelles

Nomenclature des installations classées pour la protection de l'environnement

Articles L. 4523-1 à L. 4523-17, L. 4611-1 à L. 4614-16, R. 4523-1 à R. 4523-17 et R. 4612-1 à R. 4615-21 du Code du travail

[NL] National regulations

Other regulations, restrictions and prohibition regulations

Niederlande: Lijst vankankerverwekkende, mutagene en voor de voortplanting giftige stoffen (SZW)

Algemeene beoordelingsmethodiek Water (ABM)

Nederlandse emissierichtlijn (NeR)

NIET-Limitatieve lijst an voor de voortplanting giftige stoffen - Borstvoeding

NIET-Limitatieve lijst an voor de voortplanting giftige stoffen - Vruchtbaarheid

NIET-Limitatieve lijst an voor de voortplanting giftige stoffen - Ontwikkeling

SZW-lijst van kankerverwekkende stoffen

SZW-lijst van mutagene stoffen

Wet van 18 maart 1999, houdende bepalingen ter verbetering van de arbeidsomstandigheden

(Arbeidsomstandighedenwet)



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Wet op de ondernemingsraden 1971

+ [CH] National regulations

Other regulations, restrictions and prohibition regulations

Mengenschwelle (Schweiz - StFV)

Gefahrencode

Brandverhütung, BVD (Schweiz)

15.2. Chemical Safety Assessment

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

15.3. Additional information

No data available.

SECTION 16: Other information

* **16.1. Indication of changes**

| | |
|-------|--|
| 1.1. | Product identifier |
| 1.3. | Details of the supplier of the safety data sheet |
| 1.4. | Emergency telephone number |
| 2.2. | Label elements |
| 3.2. | Mixtures |
| 4.2. | Most important symptoms and effects, both acute and delayed |
| 8.1. | Control parameters |
| 9.1. | Information on basic physical and chemical properties |
| 11.1. | Information on hazard classes as defined in Regulation (EC) No 1272/2008 |
| 12.1. | Toxicity |
| 12.2. | Persistence and degradability |
| 12.3. | Bioaccumulative potential |
| 12.5. | Results of PBT and vPvB assessment |
| 16.1. | Indication of changes |
| 16.5. | Relevant R-, H- and EUH-phrases (Number and full text) |

16.2. Abbreviations and acronyms

See overview table at www.euphrac.eu

For abbreviations and acronyms, see: ECHA Guidance on information requirements and chemical safety assessment, chapter R.20 (Table of terms and abbreviations).

16.3. Key literature references and sources for data

67/548/EEC - Dangerous Substances Directive

1999/45/EEC - Dangerous Preparations Directive

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)

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 |
|--|--|--------------------------|
| Respiratory or skin sensitisation (<i>Skin Sens. 1</i>) | H317: May cause an allergic skin reaction. | Calculation method. |

* **16.5. Relevant R-, H- and EUH-phrases (Number and full text)**

| Hazard statements | |
|-------------------|---|
| H302 | Harmful if swallowed. |
| H304 | May be fatal if swallowed and enters airways. |



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Hazard statements

| | |
|-------|---|
| H317 | May cause an allergic skin reaction. |
| H336 | May cause drowsiness or dizziness. |
| H351 | Suspected of causing cancer. |
| H361d | Suspected of damaging the unborn child. |
| 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. |
| H413 | May cause long lasting harmful effects to aquatic life. |

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.

* Data changed compared with the previous version.