



Revision date: 9 Jan 2026 Version: 6 Print date: 9 Jan 2026

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 FLJ SAE 5W-30

Article No.:

1111143

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: +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 |
|-------------------------------------------------------------|----------------------------------------------------------|--------------------------|
| 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 components for labelling:

Phenol, dodecyl-, branched

Hazard statements for environmental hazards

| | |
|------|----------------------------------------------------|
| H412 | Harmful to aquatic life with long lasting effects. |
|------|----------------------------------------------------|

Supplemental hazard information: none

Precautionary statements Prevention

| | |
|------|-----------------------------------|
| P273 | Avoid release to the environment. |
|------|-----------------------------------|

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.



Revision date: 9 Jan 2026 Version: 6 Print date: 9 Jan 2026

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 Acute Toxicity Estimate ATE (oral) 5,000 mg/kg ATE (dermal) 5,000 mg/kg ATE (inhalation, dust/mist) 5.53 mg/L | 50 - < 95 weight-% |
| CAS No.: 36878-20-3 EC No.: 253-249-4 REACH No.: 01-2119488911-28 | bis(nonylphenyl)amine Aquatic Chronic 4 (H413) Acute Toxicity Estimate ATE (oral) > 5,000 mg/kg ATE (dermal) > 2,000 mg/kg ATE (inhalation, dust/mist) > 5 mg/L | 1 - < 4 weight-% |
| CAS No.: 125643-61-0 EC No.: 406-040-9 REACH No.: 01-0000015551-76 | Isomer mixture of C7-9-alkyl-3- (3,5-di-trans-butyl-4-hydroxyphenyl) propionate Aquatic Chronic 4 (H413) Acute Toxicity Estimate ATE (oral) > 2,000 mg/kg ATE (dermal) > 2,000 mg/kg ATE (inhalation, dust/mist) > 5 mg/L | 0 - < 1.5 weight-% |
| | Polymer Aquatic Chronic 4 (H413) | 0 - < 1.5 weight-% |
| CAS No.: 84605-29-8 EC No.: 283-392-8 REACH No.: 01-2119493626-26 | Phosphorodithioic acid, mixed O,O-bis(1,3-dimethylbutyl and iso-Pr) esters, zinc salts Aquatic Chronic 2 (H411), Eye Dam. 1 (H318), Skin Irrit. 2 (H315) Danger Specific concentration limit (SCL) Skin Irrit. 2; H315: 6.25% ≤ C < 100% Eye Irrit. 2; H319: 10% ≤ C < 12.5% Eye Dam. 1; H318: 12.5% ≤ C < 100% Acute Toxicity Estimate ATE (dermal) 2,002 mg/kg ATE (inhalation, vapour) 2.3 mg/L | 0 - < 1.1 weight-% |
| CAS No.: 121158-58-5 EC No.: 310-154-3 Index No.: 604-092-00-9 REACH No.: 01-2119513207-49 | Phenol, dodecyl-, branched <i>Candidate List of Substances of Very High Concern for Authorisation!</i> Aquatic Acute 1 (H400), Aquatic Chronic 1 (H410), Eye Dam. 1 (H318), Repr. 1B (H360F), Skin Corr. 1C (H314) Danger M-factor (acute): 10 M-factor (chronic): 10 Acute Toxicity Estimate ATE (oral) 2,100 - 2,200 mg/kg 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 - ≤ 0.0325 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. 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.



Revision date: 9 Jan 2026 Version: 6 Print date: 9 Jan 2026

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

No known symptoms to date.

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

Hazardous combustion products:

Carbon monoxide, Carbon dioxide (CO₂), Nitrogen oxides (NO_x),

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.

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).



Revision date: 9 Jan 2026 Version: 6 Print date: 9 Jan 2026

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:

Personal protection equipment: see 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.

SECTION 8: Exposure controls/personal protection

* **8.1. Control parameters**

8.1.1. Occupational exposure limit values

No data available

8.1.2. Biological limit values

No data available



Revision date: 9 Jan 2026 Version: 6 Print date: 9 Jan 2026

8.1.3. DNEL-/PNEC-values

| Substance name | DNEL value | ① DNEL type ② Exposure route |
|-------------------------------------------------------------------------------------------------------------------------------------------|-------------------------|---------------------------------------------------------------|
| bis(nonylphenyl)amine CAS No.: 36878-20-3 EC No.: 253-249-4 | 5 mg/kg bw/day | ① DNEL worker ② Long-term - dermal, systemic effects |
| 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 |
| Phosphorodithioic acid, mixed O,O-bis(1,3-dimethylbutyl and iso-Pr) esters, zinc salts CAS No.: 84605-29-8 EC No.: 283-392-8 | 8.31 mg/m ³ | ① DNEL worker ② Long-term - inhalation, systemic effects |
| Phosphorodithioic acid, mixed O,O-bis(1,3-dimethylbutyl and iso-Pr) esters, zinc salts CAS No.: 84605-29-8 EC No.: 283-392-8 | 2.11 mg/m ³ | ① DNEL Consumer ② Long-term - inhalation, systemic effects |
| Phosphorodithioic acid, mixed O,O-bis(1,3-dimethylbutyl and iso-Pr) esters, zinc salts CAS No.: 84605-29-8 EC No.: 283-392-8 | 12.1 mg/kg bw/day | ① DNEL worker ② Long-term - dermal, systemic effects |
| Phosphorodithioic acid, mixed O,O-bis(1,3-dimethylbutyl and iso-Pr) esters, zinc salts CAS No.: 84605-29-8 EC No.: 283-392-8 | 6.1 mg/kg bw/day | ① DNEL Consumer ② Long-term - dermal, systemic effects |
| Phosphorodithioic acid, mixed O,O-bis(1,3-dimethylbutyl and iso-Pr) esters, zinc salts CAS No.: 84605-29-8 EC No.: 283-392-8 | 0.24 mg/kg bw/day | ① DNEL Consumer ② Long-term - oral, systemic effects |
| Phenol, dodecyl-, branched CAS No.: 121158-58-5 EC No.: 310-154-3 | 44.18 mg/m ³ | ① DNEL worker ② Acute - inhalation, systemic effects |
| Phenol, dodecyl-, branched CAS No.: 121158-58-5 EC No.: 310-154-3 | 0.25 mg/kg | ① DNEL worker ② Long-term - dermal, systemic effects |
| Phenol, dodecyl-, branched CAS No.: 121158-58-5 EC No.: 310-154-3 | 166 mg/kg | ① DNEL worker ② Acute - dermal, systemic effects |

| Substance name | PNEC Value | ① PNEC type |
|-------------------------------------------------------------------------------------------------------------------------------------------|------------|--------------------------------------|
| bis(nonylphenyl)amine CAS No.: 36878-20-3 EC No.: 253-249-4 | 412 µg/L | ① PNEC aquatic, freshwater |
| bis(nonylphenyl)amine CAS No.: 36878-20-3 EC No.: 253-249-4 | 41.2 µg/L | ① PNEC aquatic, marine water |
| bis(nonylphenyl)amine CAS No.: 36878-20-3 EC No.: 253-249-4 | 1 mg/L | ① PNEC aquatic, intermittent release |
| Phosphorodithioic acid, mixed O,O-bis(1,3-dimethylbutyl and iso-Pr) esters, zinc salts CAS No.: 84605-29-8 EC No.: 283-392-8 | 4 µg/L | ① PNEC aquatic, freshwater |
| Phosphorodithioic acid, mixed O,O-bis(1,3-dimethylbutyl and iso-Pr) esters, zinc salts CAS No.: 84605-29-8 EC No.: 283-392-8 | 4.6 µg/L | ① PNEC aquatic, marine water |

Revision date: 9 Jan 2026 Version: 6 Print date: 9 Jan 2026

| Substance name | PNEC Value | ① PNEC type |
|-------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|--------------------------------------|
| Phosphorodithioic acid, mixed O,O-bis(1,3-dimethylbutyl and iso-Pr) esters, zinc salts CAS No.: 84605-29-8 EC No.: 283-392-8 | 100 mg/L | ① PNEC sewage treatment plant |
| Phosphorodithioic acid, mixed O,O-bis(1,3-dimethylbutyl and iso-Pr) esters, zinc salts CAS No.: 84605-29-8 EC No.: 283-392-8 | 0.02203 mg/kg bw/day | ① PNEC sediment, freshwater |
| Phosphorodithioic acid, mixed O,O-bis(1,3-dimethylbutyl and iso-Pr) esters, zinc salts CAS No.: 84605-29-8 EC No.: 283-392-8 | 0.002203 mg/kg bw/day | ① PNEC sediment, marine water |
| Phosphorodithioic acid, mixed O,O-bis(1,3-dimethylbutyl and iso-Pr) esters, zinc salts CAS No.: 84605-29-8 EC No.: 283-392-8 | 0.00206 mg/kg bw/day | ① PNEC soil |
| Phosphorodithioic acid, mixed O,O-bis(1,3-dimethylbutyl and iso-Pr) esters, zinc salts CAS No.: 84605-29-8 EC No.: 283-392-8 | 10.67 mg/kg bw/day | ① PNEC secondary poisoning |
| Phosphorodithioic acid, mixed O,O-bis(1,3-dimethylbutyl and iso-Pr) esters, zinc salts CAS No.: 84605-29-8 EC No.: 283-392-8 | 45 µg/L | ① PNEC aquatic, intermittent release |
| Phenol, dodecyl-, branched CAS No.: 121158-58-5 EC No.: 310-154-3 | 0.074 µg/L | ① PNEC aquatic, freshwater |
| Phenol, dodecyl-, branched CAS No.: 121158-58-5 EC No.: 310-154-3 | 0.0074 µg/L | ① PNEC aquatic, marine water |
| Phenol, dodecyl-, branched CAS No.: 121158-58-5 EC No.: 310-154-3 | 100 mg/L | ① PNEC sewage treatment plant |
| Phenol, dodecyl-, branched CAS No.: 121158-58-5 EC No.: 310-154-3 | 0.226 mg/kg | ① PNEC sediment, freshwater |
| Phenol, dodecyl-, branched CAS No.: 121158-58-5 EC No.: 310-154-3 | 0.0266 mg/kg | ① PNEC sediment, marine water |
| Phenol, dodecyl-, branched CAS No.: 121158-58-5 EC No.: 310-154-3 | 0.37 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



Revision date: 9 Jan 2026 Version: 6 Print date: 9 Jan 2026

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

Respiratory protection:

Usually no personal respirative 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**Form:** Liquid**Colour:** tawny**Odour:** characteristic**flammability:** Yes**Safety relevant basis data**

| Parameter | Value | at °C | ① Method ② Remark |
|----------------------------------------------|--------------------------|-------|----------------------|
| pH | <i>not applicable</i> | | |
| Melting point | <i>No data available</i> | | |
| Freezing point | <i>No data available</i> | | |
| Initial boiling point and boiling range | <i>No data available</i> | | |
| Flash point | 232 °C | | |
| Evaporation rate | <i>No data available</i> | | |
| Auto-ignition temperature | <i>No data available</i> | | |
| Upper/lower flammability or explosive limits | <i>No data available</i> | | |
| Vapour pressure | <i>No data available</i> | | |
| Vapour density | <i>No data available</i> | | |
| Density | 848 kg/m ³ | 15 °C | |
| Bulk density | <i>not applicable</i> | | |
| Water solubility | practically insoluble | | |
| Dynamic viscosity | <i>No data available</i> | | |
| Kinematic viscosity | 53 mm ² /s | 40 °C | |

9.2. Other information

Not applicable

SECTION 10: Stability and reactivity*** 10.1. Reactivity**

No known hazardous reactions.

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, Oxidising agent, Reducing agent

*** 10.6. Hazardous decomposition products**Hazardous combustion products: Carbon monoxide, Carbon dioxide (CO₂), Nitrogen oxides (NO_x),



Revision date: 9 Jan 2026 Version: 6 Print date: 9 Jan 2026

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

Further information

No information available.

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 |
| bis(nonylphenyl)amine CAS No.: 36878-20-3 EC No.: 253-249-4 |
| LD₅₀ oral: >5,000 mg/kg (Rat) |
| LD₅₀ dermal: >2,000 mg/kg (Rabbit) |
| LC₅₀ Acute inhalation toxicity (dust/mist): >5 mg/L |
| 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) |
| LC₅₀ Acute inhalation toxicity (dust/mist): >5 mg/L |
| Phosphorodithioic acid, mixed O,O-bis(1,3-dimethylbutyl and iso-Pr) esters, zinc salts CAS No.: 84605-29-8 EC No.: 283-392-8 |
| LD₅₀ dermal: 2,002 mg/kg |
| LC₅₀ Acute inhalation toxicity (vapour): 2.3 mg/L 4 h (Rat) |
| Phenol, dodecyl-, branched CAS No.: 121158-58-5 EC No.: 310-154-3 |
| LD₅₀ oral: 2,100 - 2,200 mg/kg (rat) |
| LD₅₀ 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:

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.



Revision date: 9 Jan 2026 Version: 6 Print date: 9 Jan 2026

* **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**

| |
|----------------------------------------------------------------------------------------------------------------------------------------|
| Distillates (petroleum), hydrotreated heavy paraffinic; Base oil - not specified CAS No.: 64742-54-7 EC No.: 265-157-1 |
| LC₅₀: 100 mg/L 4 d (fish) |
| LC₅₀: 10,000 mg/L 4 d (crustaceans) |
| EC₅₀: 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) |
| bis(nonylphenyl)amine CAS No.: 36878-20-3 EC No.: 253-249-4 |
| LC₅₀: >100 mg/L 4 d (fish) |
| EC₅₀: >100 mg/L 2 d (crustaceans) |
| EC₅₀: 600 mg/L 3 d (Algae/water plant) |
| 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 |
| EC₅₀: >100 mg/L 2 d (crustaceans, Daphnie) |
| NOEC: >3 mg/L 3 d (Algae/water plant, Alge) |
| Phosphorodithioic acid, mixed O,O-bis(1,3-dimethylbutyl and iso-Pr) esters, zinc salts CAS No.: 84605-29-8 EC No.: 283-392-8 |
| LC₅₀: 46 mg/L 4 d (fish) |
| NOEC: ≥0.4 - ≤0.8 mg/L 21 d (crustaceans) |
| NOEC: ≥21 - ≤24 mg/L 3 d (Algae/water plant) |
| Phenol, dodecyl-, branched CAS No.: 121158-58-5 EC No.: 310-154-3 |
| LC₅₀: ≥40 mg/L 2 d (fish) |
| LC₅₀: ≥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**

| |
|----------------------------------------------------------------------------------------------------------------------------------------|
| bis(nonylphenyl)amine CAS No.: 36878-20-3 EC No.: 253-249-4 |
| Biodegradation: — |
| Phosphorodithioic acid, mixed O,O-bis(1,3-dimethylbutyl and iso-Pr) esters, zinc salts CAS No.: 84605-29-8 EC No.: 283-392-8 |
| Biodegradation: not determined |
| Remark: Kenn-Nr. UBA: 10652 |

Biodegradation:

Not readily biodegradable (according to OECD criteria)

* **12.3. Bioaccumulative potential**

| |
|----------------------------------------------------------------------------------------------------------------------------------------|
| bis(nonylphenyl)amine CAS No.: 36878-20-3 EC No.: 253-249-4 |
| Log K_{ow}: 7.6 |
| Bioconcentration factor (BCF): 1,584.89 |
| Phosphorodithioic acid, mixed O,O-bis(1,3-dimethylbutyl and iso-Pr) esters, zinc salts CAS No.: 84605-29-8 EC No.: 283-392-8 |
| Log K_{ow}: 0.56 |



Revision date: 9 Jan 2026 Version: 6 Print date: 9 Jan 2026

| |
|--------------------------------------------------------------------------|
| 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**

| |
|----------------------------------------------------------------------------------------------------------------------------------|
| 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. |
|---------------------------------------------------------------------------------------------------------------------|

| |
|--------------------------------------------------------------------|
| bis(nonylphenyl)amine CAS No.: 36878-20-3 EC No.: 253-249-4 |
|--------------------------------------------------------------------|

| |
|---------------------------------------------------------------------------------------------------------------------|
| 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. |
|---------------------------------------------------------------------------------------------------------------------|

| |
|----------------|
| Polymer |
|----------------|

| |
|---------------------------------------------------------------------------------------------------------------------|
| Results of PBT and vPvB assessment: This substance does not meet the PBT/vPvB criteria of REACH, Annex XIII. |
|---------------------------------------------------------------------------------------------------------------------|

| |
|-----------------------------------------------------------------------------------------------|
| Phosphorodithioic acid, mixed O,O-bis(1,3-dimethylbutyl and iso-Pr) esters, zinc salts |
|-----------------------------------------------------------------------------------------------|

| |
|---------------------------------------|
| CAS No.: 84605-29-8 EC No.: 283-392-8 |
|---------------------------------------|

| |
|---------------------------------------------------------------------------------------------------------------------|
| 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.

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. |



Revision date: 9 Jan 2026 Version: 6 Print date: 9 Jan 2026

| Land transport (ADR/RID) | Inland waterway craft (ADN) | Sea transport (IMDG) | Air transport (ICAO-TI / IATA-DGR) |
|-------------------------------------------|-----------------------------|----------------------|------------------------------------|
| 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

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**

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:

1 - slightly hazardous to water

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)



Revision date: 9 Jan 2026 Version: 6 Print date: 9 Jan 2026

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
 (Arbidsomstandighedenwet)
 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

| | |
|-------|--------------------------------------------------------------------------------------------------------|
| 2.1. | Classification of the substance or mixture |
| 2.2. | Label elements |
| 2.3. | Other hazards |
| 3.2. | Mixtures |
| 4.1. | Description of first aid measures |
| 5.2. | Special hazards arising from the substance or mixture |
| 7.1. | Precautions for safe handling |
| 8.1. | Control parameters |
| 8.2. | Exposure controls |
| 9.1. | Information on basic physical and chemical properties |
| 10.1. | Reactivity |
| 10.6. | Hazardous decomposition products |
| 11.1. | Information on hazard classes as defined in Regulation (EC) No 1272/2008 |
| 11.2. | Information on other hazards |
| 12.1. | Toxicity |
| 12.2. | Persistence and degradability |
| 12.3. | Bioaccumulative potential |
| 12.5. | Results of PBT and vPvB assessment |
| 12.6. | Endocrine disrupting properties |
| 15.1. | Safety, health and environmental regulations/legislation specific for the substance or mixture |
| 16.1. | Indication of changes |
| 16.2. | Abbreviations and acronyms |
| 16.4. | Classification for mixtures and used evaluation method according to regulation (EC) No 1272/2008 [CLP] |
| 16.5. | List of relevant hazard statements and/or precautionary statements from sections 2 to 15 |

* 16.2. Abbreviations and acronyms

| | |
|------------------|-------------------------------------------------------------------------------------------------|
| 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 |
| DNEL | derived no-effect level |
| EC ₅₀ | Effective Concentration 50% |
| ICAO | International Civil Aviation Organization |
| IMDG | International Maritime Dangerous Goods |
| IMO | International Maritime Organization |



Revision date: 9 Jan 2026 Version: 6 Print date: 9 Jan 2026

| | |
|------------------|---------------------------------------------------------|
| KG | body weight |
| LC ₅₀ | Lethal (fatal) Concentration 50% |
| LD ₅₀ | Lethal (fatal) Dose 50% |
| NFPA | National Fire Protection Association |
| NOEC | No Observed Effect Concentration |
| OECD | Organisation for Economic Cooperation and Development |
| 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 |
| SCL | Specific concentration limit |
| TRGS | Technische Regeln für Gefahrstoffe |
| UN | United Nations |

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

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 |
|-------------------------------------------------------------|----------------------------------------------------------|--------------------------|
| 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 | |
|-------------------|---------------------------------------------------------|
| H304 | May be fatal if swallowed and enters airways. |
| H314 | Causes severe skin burns and eye damage. |
| H315 | Causes skin irritation. |
| H318 | Causes serious eye damage. |
| H319 | Causes serious eye irritation. |
| 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. |
| 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.