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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 Getriebeöl SLG SAE 80W-90

Article No.:

1223305

UFI:

DQU2-U1ED-43SN-82PD

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: technik@ravenol.de

Website: www.ravenol.de

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

1.4. Emergency telephone number

Abt. Produktsicherheit, 24h: +49 700 24 112 112 (Contract ID: RAV), +49 5203 9719 0 (Mo-Do 8.00 - 16.00 Uhr, Fr 8.00 - 13.00 Uhr) (Only available during office hours.)

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 |
|---|--|--------------------------|
| Skin corrosion/irritation (<i>Skin Irrit. 2</i>) | H315: Causes skin irritation. | Calculation method. |
| Respiratory or skin sensitisation (<i>Skin Sens. 1</i>) | H317: May cause an allergic skin reaction. | Calculation method. |
| Serious eye damage/eye irritation (<i>Eye Irrit. 2</i>) | H319: Causes serious eye irritation. | Calculation method. |
| Hazardous to the aquatic environment (<i>Aquatic Chronic 3</i>) | 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:



GHS07

Exclamation mark

Signal word: Warning

Hazard components for labelling:

C16-18-(even numbered, saturated and unsaturated)-alkylamines



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hazard statements for health hazards

| | |
|------|--------------------------------------|
| H315 | Causes skin irritation. |
| H317 | May cause an allergic skin reaction. |
| H319 | Causes serious eye irritation. |

Hazard statements for environmental hazards

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

Supplemental hazard information

| | |
|--------|---|
| EUH208 | Contains Amines, C10-14-tert-alkyl, Reaction products of bis (4-methyl pentan-2-yl) phosphoric acid with phosphorus oxide, propylene oxide and amines, C12-14-alkyl (branched). May produce an allergic reaction. |
|--------|---|

Precautionary statements Prevention

| | |
|------|--|
| P273 | Avoid release to the environment. |
| P280 | Wear protective gloves/protective clothing/eye protection/face protection. |

Precautionary statements Response

| | |
|--------------------|--|
| P302 + P352 | IF ON SKIN: Wash with plenty of soap and water. |
| P305 + P351 + P338 | IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. |
| P333 + P313 | If skin irritation or rash occurs: Get medical advice/attention. |
| P337 + P313 | If eye irritation persists: 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.: 1213789-63-9 EC No.: 627-034-4 REACH No.: 01-2119473797-19 | C16-18-(even numbered, saturated and unsaturated)-alkylamines Acute Tox. 4, Aquatic Acute 1, Aquatic Chronic 1, Asp. Tox. 1, Eye Dam. 1, STOT RE 2, STOT SE 3, Skin Corr. 1B Danger H302-H304-H314-H318-H335-H373-H400-H410 M-factor (acute): 10 M-factor (chronic): 10 | 0 - < 1 weight-% |
| EC No.: 701-175-2 REACH No.: 01-2119456798-18 | Amines, C10-14-tert-alkyl Acute Tox. 2, Acute Tox. 3, Acute Tox. 4, Aquatic Acute 1, Aquatic Chronic 1, Eye Dam. 1, Skin Corr. 1B, Skin Sens. 1A H302-H311-H314-H317-H318-H330-H400-H410 M-factor (acute): 1 M-factor (chronic): 1 | 0 - < 1 weight-% |
| EC No.: 931-384-6 REACH No.: 01-2119493620-38-0000 | Reaction products of bis (4-methyl pentan-2-yl) phosphoric acid with phosphorus oxide, propylene oxide and amines, C12-14-alkyl (branched) Acute Tox. 4, Aquatic Chronic 2, Eye Dam. 1, Skin Sens. 1 Warning H302-H317-H318-H411 | 0 - < 1 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.



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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. Causes serious eye irritation.

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. Serious eye damage/eye irritation.

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:

Wear protective gloves/protective clothing/eye protection/face protection.

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.



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* **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: 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



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8.1.3. DNEL-/PNEC-values

| Substance name | DNEL value | ① DNEL type ② Exposure route |
|--|------------------------|---|
| C16-18-(even numbered, saturated and unsaturated)-alkylamines CAS No.: 1213789-63-9 | 0.38 mg/m ³ | ① DNEL worker ② Long-term - inhalation, systemic effects |
| C16-18-(even numbered, saturated and unsaturated)-alkylamines CAS No.: 1213789-63-9 | 1 mg/m ³ | ① DNEL worker ② Long-term - inhalation, local effects |
| C16-18-(even numbered, saturated and unsaturated)-alkylamines CAS No.: 1213789-63-9 | 1 mg/cm ² | ① DNEL worker ② Acute - inhalation, local effects |
| Amines, C10-14-tert-alkyl | 2.5 mg/m ³ | ① DNEL Consumer ② Long-term - inhalation, systemic effects |
| Amines, C10-14-tert-alkyl | 12.1 mg/m ³ | ① DNEL worker ② Long-term - inhalation, local effects |
| Amines, C10-14-tert-alkyl | 1.2 mg/m ³ | ① DNEL Consumer ② Long-term - inhalation, local effects |
| Reaction products of bis (4-methyl pentan-2-yl) phosphoric acid with phosphorus oxide, propylene oxide and amines, C12-14-alkyl (branched) | 8.56 mg/m ³ | ① DNEL worker ② Long-term - inhalation, systemic effects |
| Reaction products of bis (4-methyl pentan-2-yl) phosphoric acid with phosphorus oxide, propylene oxide and amines, C12-14-alkyl (branched) | 12.5 mg/kg bw/day | ① DNEL worker ② Long-term - dermal, systemic effects |

| Substance name | PNEC Value | ① PNEC type |
|--|-------------------|--------------------------------------|
| C16-18-(even numbered, saturated and unsaturated)-alkylamines CAS No.: 1213789-63-9 | 0.26 µg/l | ① PNEC aquatic, freshwater |
| C16-18-(even numbered, saturated and unsaturated)-alkylamines CAS No.: 1213789-63-9 | 0.026 µg/l | ① PNEC aquatic, marine water |
| C16-18-(even numbered, saturated and unsaturated)-alkylamines CAS No.: 1213789-63-9 | 3.76 mg/kg | ① PNEC sediment, freshwater |
| C16-18-(even numbered, saturated and unsaturated)-alkylamines CAS No.: 1213789-63-9 | 0.376 mg/kg | ① PNEC sediment, marine water |
| C16-18-(even numbered, saturated and unsaturated)-alkylamines CAS No.: 1213789-63-9 | 10 mg/kg | ① PNEC soil |
| Reaction products of bis (4-methyl pentan-2-yl) phosphoric acid with phosphorus oxide, propylene oxide and amines, C12-14-alkyl (branched) | 1.2 µg/l | ① PNEC aquatic, freshwater |
| Reaction products of bis (4-methyl pentan-2-yl) phosphoric acid with phosphorus oxide, propylene oxide and amines, C12-14-alkyl (branched) | 0.12 µg/l | ① PNEC aquatic, marine water |
| Reaction products of bis (4-methyl pentan-2-yl) phosphoric acid with phosphorus oxide, propylene oxide and amines, C12-14-alkyl (branched) | 24.33 mg/l | ① PNEC sewage treatment plant |
| Reaction products of bis (4-methyl pentan-2-yl) phosphoric acid with phosphorus oxide, propylene oxide and amines, C12-14-alkyl (branched) | 14.4 mg/kg bw/day | ① PNEC sediment, freshwater |
| Reaction products of bis (4-methyl pentan-2-yl) phosphoric acid with phosphorus oxide, propylene oxide and amines, C12-14-alkyl (branched) | 1.44 mg/kg bw/day | ① PNEC sediment, marine water |
| Reaction products of bis (4-methyl pentan-2-yl) phosphoric acid with phosphorus oxide, propylene oxide and amines, C12-14-alkyl (branched) | 10 mg/kg bw/day | ① PNEC secondary poisoning |
| Reaction products of bis (4-methyl pentan-2-yl) phosphoric acid with phosphorus oxide, propylene oxide and amines, C12-14-alkyl (branched) | 85 µg/l | ① PNEC aquatic, intermittent release |



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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. DIN EN 166

Skin protection:

Hand protection

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

Thickness of the glove material: $\geq 0,4$ 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.

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.

8.3. Additional information

Mineral oil mist limits:

OSHA PEL - value $5 \text{ mg} / \text{m}^3$, ACGIH STEL - value of $10 \text{ mg} / \text{m}^3$

SECTION 9: Physical and chemical properties

* 9.1. Information on basic physical and chemical properties

Appearance

Physical state: Liquid

Colour: yellow

Odour: not determined

Safety relevant basis data

| parameter | | at °C | Method | Remark |
|--|-----------------------|-------|--------|--------|
| pH | 6.5 | 20 °C | | |
| Melting point | <i>not determined</i> | | | |
| Freezing point | -30 °C | | | |
| Initial boiling point and boiling range | <i>not determined</i> | | | |
| Decomposition temperature | <i>not determined</i> | | | |
| Flash point | 202 °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 | 890 kg/m^3 | 15 °C | | |
| Bulk density | <i>not determined</i> | | | |



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| parameter | | at °C | Method | Remark |
|--|--|-------|--------|--------|
| Water solubility | The study does not need to be conducted because the substance is known to be insoluble in water. | | | |
| Partition coefficient: n-octanol/water | <i>not determined</i> | | | |
| Dynamic viscosity | <i>not determined</i> | | | |
| Kinematic viscosity | 176 mm ² /s | 40 °C | | |

9.2. Other information

No data available

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 dioxide Carbon monoxide Nitrogen oxides (NO_x)

Further information

No information available.

SECTION 11: Toxicological information

* 11.1. Information on toxicological effects

| CAS No. | Substance name | Toxicological information |
|------------------|--|--|
| 121378 9-63-9 | C16-18-(even numbered, saturated and unsaturated)-alkylamines | LD₅₀ oral: >1,200 mg/kg (Rat) OECD 401 LD₅₀ dermal: >2,000 mg/kg (Rat) OECD 402 LC₅₀ Acute inhalation toxicity (dust/mist): >5 mg/l 4 h |
| | Amines, C10-14-tert-alkyl | LD₅₀ oral: 612 mg/kg (Rat) OECD TG 401 LD₅₀ dermal: 251 mg/kg (Rabbit) OECD TG 402 LC₅₀ Acute inhalation toxicity (dust/mist): >1.19 mg/l 4 h (Rat) |
| | Reaction products of bis (4-methyl pentan-2-yl) phosphoric acid with phosphorus oxide, propylene oxide and amines, C12-14-alkyl (branched) | LD₅₀ oral: ≥2,000 mg/kg (Rat) |

Acute oral toxicity:

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

Acute dermal toxicity:

No information available for acute dermal and inhalative toxicity.

Acute inhalation toxicity:

No information available for acute dermal and inhalative toxicity.



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Skin corrosion/irritation:

Frequently or prolonged contact with skin may cause dermal irritation.

Serious eye damage/irritation:

Causes serious eye irritation.

Respiratory or skin sensitisation:

May cause an allergic skin reaction.

Germ cell mutagenicity:

No indications of human germ cell mutagenicity exist.

Carcinogenicity:

No indication of human carcinogenicity.

Reproductive toxicity:

No indications of human reproductive toxicity exist.

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.

SECTION 12: Ecological information

* **12.1. Toxicity**

| CAS No. | Substance name | Toxicological information |
|------------------|--|---|
| 121378 9-63-9 | C16-18-(even numbered, saturated and unsaturated)-alkylamines | NOEC: >0.63 mg/l 4 d (fish) LC₅₀: >0.84 mg/l 4 d (fish) EC₅₀: >0.32 mg/l 2 d (crustaceans) EC₅₀: >0.39 mg/l 3 d (Algae/water plant) |
| | Amines, C10-14-tert-alkyl | LC₅₀: 1.3 mg/l 4 d (fish, rainbow trout) NOEC: 0.078 mg/l 56 d (fish, rainbow trout) EC₅₀: 2.5 mg/l 2 d (crustaceans, Daphnia magna) NOEC: 0.05 mg/l 3 d (Algae/water plant, Selenastrum capricornutum) EC₅₀: 0.435 mg/l 3 d (Algae/water plant, Selenastrum capricornutum) |
| | Reaction products of bis (4-methyl pentan-2-yl) phosphoric acid with phosphorus oxide, propylene oxide and amines, C12-14-alkyl (branched) | EC₅₀: 6.4 – 15 mg/l 4 d (Algae/water plant, Acute (short-term) toxicity to algae and cyanobacteria) NOEC: 1.7 – 3.3 mg/l 4 d (Algae/water plant, Acute (short-term) toxicity to algae and cyanobacteria) LC₅₀: 24 mg/l 4 d (fish) LOEC: 3.2 mg/l 4 d (fish) |

Assessment/classification:

The product has not been tested.

Additional ecotoxicological information:

Do not allow uncontrolled discharge of product into the environment.

* **12.2. Persistence and degradability**

| CAS No. | Substance name | Biodegradation | Remark |
|---------|--|----------------|--------|
| | Amines, C10-14-tert-alkyl | Yes, slowly | |
| | Reaction products of bis (4-methyl pentan-2-yl) phosphoric acid with phosphorus oxide, propylene oxide and amines, C12-14-alkyl (branched) | Yes, slowly | |

Biodegradation:

Not readily biodegradable (according to OECD criteria)

12.3. Bioaccumulative potential

Accumulation / Evaluation:

The product has not been tested.



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12.4. Mobility in soil

The product has not been tested.

* 12.5. Results of PBT and vPvB assessment

| CAS No. | Substance name | Results of PBT and vPvB assessment |
|------------------|--|--|
| 121378 9-63-9 | C16-18-(even numbered, saturated and unsaturated)-alkylamines | The substance in the mixture does not meet the PBT/vPvB criteria according to REACH, annex XIII. |
| | Amines, C10-14-tert-alkyl | The substance in the mixture does not meet the PBT/vPvB criteria according to REACH, annex XIII. |
| | Reaction products of bis (4-methyl pentan-2-yl) phosphoric acid with phosphorus oxide, propylene oxide and amines, C12-14-alkyl (branched) | The substance in the mixture does not meet the PBT/vPvB criteria according to REACH, annex XIII. |

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

* 12.6. Other adverse effects

The product has not been tested.

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. Consult the appropriate local waste disposal expert about waste disposal.

Appropriate disposal / Package:

Non-contaminated packages may be recycled.

* 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

No dangerous good in sense of these transport regulations.

| Land transport (ADR/RID) | Inland waterway craft (ADN) | Sea transport (IMDG) | Air transport (ICAO-TI / IATA-DGR) |
|--|--|--|--|
| 14.1. UN-No. | | | |
| 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 | | | |
| 14.4. Packing group | | | |
| not relevant | | | |
| 14.5. Environmental hazards | | | |
| not relevant | | | |
| 14.6. Special precautions for user | | | |
| not relevant | | | |



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- * **14.7. Transport in bulk according to Annex II of Marpol and the IBC Code**
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):

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.

15.1.2. National regulations

[DE] National regulations

Restrictions of occupation

Observe restrictions to employment for juvenils 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

for substances contained in the product:

This product is not assigned to a hazard category.
E1 Hazardous to the Aquatic Environment in Category Acute 1 or Chronic 1

Technische Anleitung 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
Minimum standard for preventive measures while handling with working materials are specified in the 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

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

[FR] National regulations

Other regulations, restrictions and prohibition regulations

Tableaux de maladies professionnelles
Nomenclature des installations classées pour la protection de l'environnement

[NL] National regulations

Other regulations, restrictions and prohibition regulations

Lijst van kankerverwekkende, mutagene, en voor de voortplanting giftige stoffen SZW
Algemeene beoordelingsmethodiek Water (ABM)
Nederlandse emissierichtlijn (NeR)



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+ [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.

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 |
| 4.2. | Most important symptoms and effects, both acute and delayed |
| 5.1. | Extinguishing media |
| 6.1. | Personal precautions, protective equipment and emergency procedures |
| 6.3. | Methods and material for containment and cleaning up |
| 6.5. | Additional information |
| 7.1. | Precautions for safe handling |
| 7.2. | Conditions for safe storage, including any incompatibilities |
| 8.1. | Control parameters |
| 9.1. | Information on basic physical and chemical properties |
| 11.1. | Information on toxicological effects |
| 12.1. | Toxicity |
| 12.2. | Persistence and degradability |
| 12.5. | Results of PBT and vPvB assessment |
| 12.6. | Other adverse effects |
| 13.1. | Waste treatment methods |
| 13.2. | Additional information |
| 14.1. | UN number |
| 14.2. | UN proper shipping name |
| 14.7. | Transport in bulk according to Annex II of Marpol and the IBC Code |
| 15.1. | Safety, health and environmental regulations/legislation specific for the substance or mixture |
| 16.1. | Indication of changes |
| 16.4. | Classification for mixtures and used evaluation method according to regulation (EC) No 1272/2008 [CLP] |
| 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)



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

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

| Hazard classes and hazard categories | Hazard statements | Classification procedure |
|---|--|--------------------------|
| Skin corrosion/irritation (<i>Skin Irrit. 2</i>) | H315: Causes skin irritation. | Calculation method. |
| Respiratory or skin sensitisation (<i>Skin Sens. 1</i>) | H317: May cause an allergic skin reaction. | Calculation method. |
| Serious eye damage/eye irritation (<i>Eye Irrit. 2</i>) | H319: Causes serious eye irritation. | Calculation method. |
| Hazardous to the aquatic environment (<i>Aquatic Chronic 3</i>) | H412: Harmful to aquatic life with long lasting effects. | 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. |
| H311 | Toxic in contact with skin. |
| H314 | Causes severe skin burns and eye damage. |
| H317 | May cause an allergic skin reaction. |
| H318 | Causes serious eye damage. |
| H330 | Fatal if inhaled. |
| H335 | May cause respiratory irritation. |
| H373 | May cause damage to organs through prolonged or repeated exposure. (...) |
| H400 | Very toxic to aquatic life. |
| H410 | Very toxic to aquatic life with long lasting effects. |
| 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.

* Data changed compared with the previous version