

**Safety Data Sheet**

according to Regulation (EC) No 1907/2006

SRS Wiolin HGAV 80W-90

Revision: 01.07.2025

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SECTION 1: Identification of the substance/mixture and of the company/undertaking**1.1. Product identifier**

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

Industrial uses

Uses advised against

none

1.3. Details of the supplier of the safety data sheet

Company name: SRS Schmierstoff Vertrieb GmbH
Street: Neuenkirchener Straße 8
Place: D-48497 Salzbergen
Telephone: 05976 - 945-0
Responsible Department: Abt. Produktsicherheit: info.reach@srs-oil.de
1.4. Emergency telephone number: Gift-Informationszentrum Nord (Göttingen) - Telefon 0551-19240

SECTION 2: Hazards identification**2.1. Classification of the substance or mixture****Regulation (EC) No 1272/2008**

This mixture is not classified as hazardous in accordance with Regulation (EC) No 1272/2008.

2.2. Label elements**Regulation (EC) No 1272/2008****Special labelling of certain mixtures**

EUH208 Contains Reaction products of bis(4-methylpentan-2-yl)dithiophosphoric acid with phosphorus oxide, propylene oxide and amines, C12-14 alkyl (branched). May produce an allergic reaction.
EUH210 Safety data sheet available on request.

2.3. Other hazards

This mixture contains no substances of very high concern (SVHC) (>0,1%) which are included in the Candidate List according to Article 59 of REACH.
For information or further instructions, see also section 11 or 12.

SECTION 3: Composition/information on ingredients**3.2. Mixtures****Relevant ingredients**

| CAS No | Chemical name | | | Quantity |
|--------|---|----------|------------------|-----------|
| | EC No | Index No | REACH No | |
| | Classification (Regulation (EC) No 1272/2008) | | | |
| | Mineral Oil* (64742-54-7, 64742-65-0, 64742-55-8, 64742-56-9) | | | 1 - < 3 % |
| | Asp. Tox. 1; H304 | | | |
| | Mineral oil (typical: 64742-54-7, alternative: 64742-65-0, 64742-55-8, 64742-56-9, 72623-86-0) | | | 1 - < 3 % |
| | Asp. Tox. 1; H304 | | | |
| | Reaction products of bis(4-methylpentan-2-yl)dithiophosphoric acid with phosphorus oxide, propylene oxide and amines, C12-14 alkyl (branched) | | | 1 - < 3 % |
| | 931-384-6 | | 01-2119493620-38 | |

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| | | |
|-----------|--|------------------|
| | Acute Tox. 4, Eye Irrit. 2, Skin Sens. 1, Aquatic Chronic 2; H302 H319 H317 H411 | |
| | Reaction Products of Dimethyl hydrogen phosphite and Alcohols C14-18, Even, Linear | 1 - < 3 % |
| 944-574-9 | | 01-2120267217-54 |
| | Skin Sens. 1B; H317 | |
| | Hydrocarbons, C10, aromatics, >1% naphthalene | 0.1 - < 0.2 % |
| 919-284-0 | | 01-2119463588-24 |
| | Carc. 2, STOT SE 3, Asp. Tox. 1, Aquatic Chronic 2; H351 H336 H304 H411 EUH066 | |

Full text of H and EUH statements: see section 16.

Specific Conc. Limits, M-factors and ATE

| CAS No | EC No | Chemical name | Quantity |
|--------|-----------|---|---------------|
| | | Specific Conc. Limits, M-factors and ATE | |
| | 931-384-6 | Reaction products of bis(4-methylpentan-2-yl)dithiophosphoric acid with phosphorus oxide, propylene oxide and amines, C12-14 alkyl (branched) | 1 - < 3 % |
| | | oral: LD50 = > 2000 mg/kg Eye Irrit. 2; H319: >= 50 - 100 Skin Sens. 1; H317: >= 9,39 - 100 | |
| | 944-574-9 | Reaction Products of Dimethyl hydrogen phosphite and Alcohols C14-18, Even, Linear | 1 - < 3 % |
| | | dermal: LD50 = > 2000 mg/kg; oral: LD50 = >2000 mg/kg Skin Sens. 1B; H317: >= 31,6 - 100 | |
| | 919-284-0 | Hydrocarbons, C10, aromatics, >1% naphthalene | 0.1 - < 0.2 % |
| | | inhalation: LC50 = [> 4,688] mg/l (vapours); dermal: LD50 = > 2000 mg/kg; oral: LD50 = 10650 mg/kg | |

Further Information

*The mineral oil can be described by one or more EINECS numbers. 265-157-1, 265-169-7, 265-158-7, 265-159-2, (REACH-no.: 01-2119484627-25, 01-2119471299-27, 01-2119487077-29, 01-2119480132-48)

Note L: The harmonised classification as a carcinogen applies unless it can be shown that the substance contains less than 3 % of dimethyl sulphoxide extract as measured by IP 346 ("Determination of polycyclic aromatics in unused lubricating base oils and asphaltene free petroleum fractions – Dimethyl sulphoxide extraction refractive index method" Institute of Petroleum, London).

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).

After inhalation

In case of accident by inhalation: remove casualty to fresh air and keep at rest. In case of allergic symptoms, especially in the breathing area, seek medical advice immediately.

After contact with skin

After contact with skin, wash immediately with plenty of water and soap. Take off immediately all contaminated clothing. In case of skin irritation, seek medical treatment.

After contact with eyes

Rinse immediately carefully and thoroughly with eye-bath or water. In case of troubles or persistent symptoms, consult an ophthalmologist.

After ingestion

Do NOT induce vomiting. Rinse mouth thoroughly with water. Let water be drunken in little sips (dilution effect). Never give anything by mouth to an unconscious person or a person with cramps. When in doubt or if symptoms are observed, get medical advice.

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

If swallowed or in the event of vomiting, risk of entering the lungs.

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

Treat symptomatically.

SECTION 5: Firefighting measures**5.1. Extinguishing media****Suitable extinguishing media**Sand. Foam. Carbon dioxide (CO₂). Extinguishing powder. In case of major fire and large quantities: Water spray jet. Water mist.**Unsuitable extinguishing media**

High power water jet.

5.2. Special hazards arising from the substance or mixture

Burning produces heavy smoke.

In case of fire may be liberated: Carbon monoxide (CO). Carbon dioxide (CO₂) Sulphur dioxide (SO₂)Nitrogen oxides (NO_x)**5.3. Advice for firefighters**

In case of fire and/or explosion do not breathe fumes. In case of fire: Wear self-contained breathing apparatus.

Additional information

Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

Co-ordinate fire-fighting measures to the fire surroundings.

SECTION 6: Accidental release measures**6.1. Personal precautions, protective equipment and emergency procedures****General advice**

Ventilate affected area.

Special danger of slipping by leaking/spilling product.

For non-emergency personnel

Wear personal protection equipment (refer to section 8).

For emergency responders

No special precautionary measures are necessary.

6.2. Environmental precautions

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

6.3. Methods and material for containment and cleaning up**For containment**

Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents).

Treat the recovered material as prescribed in the section on waste disposal.

For cleaning up

Clean contaminated articles and floor according to the environmental legislation.

6.4. Reference to other sections

No information available.

SECTION 7: Handling and storage**7.1. Precautions for safe handling****Advice on safe handling**

Wear suitable protective clothing. (See section 8.)

Avoid formation of oil dust.

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Advice on protection against fire and explosion

Usual measures for fire prevention. Keep away from sources of ignition - No smoking.

Fire class B

Advice on general occupational hygiene

Clean skin thoroughly after working.

Do not put any product-impregnated cleaning rags into your trouser pockets.

Contaminated work clothing should not be allowed out of the workplace.

Wash contaminated clothing before reuse.

Further information on handling

Do not breathe vapour/aerosol.

Avoid contact with eyes and skin.

General protection and hygiene measures: See section 8.

7.2. Conditions for safe storage, including any incompatibilities**Requirements for storage rooms and vessels**

Keep container tightly closed in a cool, well-ventilated place. Only use containers specifically approved for the substance/product.

Hints on joint storage

Do not store together with: Gas. Explosives. Oxidizing solids. Oxidizing liquids. Radioactive substances.

Infectious substances

Further information on storage conditions

Temperature control required. Protect from light. Keep container tightly closed. Do not allow contact with air.

7.3. Specific end use(s)

See section 1.

SECTION 8: Exposure controls/personal protection**8.1. Control parameters****DNEL/DMEL values**

| CAS No | Name of agent | | | |
|--------------------------|---|----------------|----------|-------------------|
| DNEL type | | Exposure route | Effect | Value |
| | Reaction products of bis(4-methylpentan-2-yl)dithiophosphoric acid with phosphorus oxide, propylene oxide and amines, C12-14 alkyl (branched) | | | |
| Worker DNEL, long-term | | inhalation | systemic | 4,28 mg/m³ |
| Worker DNEL, long-term | | dermal | systemic | 12,5 mg/kg bw/day |
| Consumer DNEL, long-term | | inhalation | systemic | 1,09 mg/m³ |
| Consumer DNEL, long-term | | dermal | systemic | 6,25 mg/kg bw/day |
| Consumer DNEL, acute | | dermal | local | 0.024 mg/cm² |
| Consumer DNEL, long-term | | oral | systemic | 0,25 mg/kg bw/day |
| | Reaction Products of Dimethyl hydrogen phosphite and Alcohols C14-18, Even, Linear | | | |
| Worker DNEL, long-term | | dermal | local | 0,515 mg/cm² |
| Consumer DNEL, long-term | | dermal | local | 0,515 mg/cm² |
| | Hydrocarbons, C10, aromatics, >1% naphthalene | | | |
| Worker DNEL, long-term | | inhalation | systemic | 151 mg/m³ |
| Worker DNEL, long-term | | dermal | systemic | 12,5 mg/kg bw/day |

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|--------------------------|--------|----------|------------------|
| Consumer DNEL, long-term | dermal | systemic | 7,5 mg/kg bw/day |
| Consumer DNEL, long-term | oral | systemic | 7,5 mg/kg bw/day |

PNEC values

| CAS No | Name of agent |
|--|---|
| Environmental compartment | Value |
| | Reaction products of bis(4-methylpentan-2-yl)dithiophosphoric acid with phosphorus oxide, propylene oxide and amines, C12-14 alkyl (branched) |
| Freshwater | 0,0024 mg/l |
| Freshwater (intermittent releases) | 0,15 mg/l |
| Marine water | 0,00024 mg/l |
| Freshwater sediment | 0,0129 mg/kg |
| Marine sediment | 0,00129 mg/kg |
| Secondary poisoning | 10 mg/kg |
| Micro-organisms in sewage treatment plants (STP) | 24,33 mg/l |
| Soil | 0,00117 mg/kg |

Additional advice on limit values

Air limit values:

Possibility of exposure to Aerosol (Mineral oil)

Limit value (TLV-TWA) = 5 mg/ m3 - Source: ACGIH

Limit value (TLV-STEL) = 10 mg/ m3 - Source: ACGIH

STEL: short-term exposure limits

TLV: Threshold Limiting Value

TWA: time weighted average

ACGIH: American Conference of Governmental Industrial Hygienists

8.2. Exposure controls



Appropriate engineering controls

Provide adequate ventilation.

Individual protection measures, such as personal protective equipment

Eye/face protection

Safety goggles with side protection. In case of increased risk add protective face shield. EN 166

Hand protection

Use safety gloves of following materials: NBR (nitrile) / neopren / viton (permeationslevel 5 - 6), Cat. II according to norm EN 374/EN 388.

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.

Gloves must be periodically inspected and changed in case of wear, perforations or contaminations.

In the case of wanting to use the gloves again, clean them before taking off and air them well.

Skin protection

Oil-resistant and hardly inflammable protective clothing.

Respiratory protection

With correct and proper use, and under normal conditions, breathing protection is not required.

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Respiratory protection necessary at:

-aerosol or mist formation

-Exceeding exposure limit values

Suitable respiratory protection apparatus: Respiratory equipment in case of nebulosity or aerosol: Use a mask with a filter type A2, A2/P2 or ABEK.

The filter class must be suitable for the maximum contaminant concentration

(gas/vapour/aerosol/particulates) that may arise when handling the product. If the concentration is exceeded, self-contained breathing apparatus must be used.

Thermal hazards

Wear protective clothing for operations with hot material: heat resistant coveralls (with trousers legs over boots and sleeves over cuffs of gloves), heat resistant heavy duty antiskid boots (e. g. leather).

Environmental exposure controls

No information available.

SECTION 9: Physical and chemical properties**9.1. Information on basic physical and chemical properties**

| | |
|-----------------|----------------|
| Physical state: | Liquid |
| Colour: | clear |
| Odour: | characteristic |

Test method

| | |
|---|--|
| Melting point/freezing point: | No information available. |
| Boiling point or initial boiling point and boiling range: | No information available. |
| Flammability: | No information available. |
| Lower explosion limits: | No information available. |
| Upper explosion limits: | No information available. |
| Flash point: | 214 °C |
| Auto-ignition temperature: | No information available. |
| Decomposition temperature: | No information available. |
| pH-Value: | No information available. |
| Viscosity / kinematic: (at 40 °C) | 141,3 mm ² /s DIN EN ISO 3104 |
| Water solubility: | Immiscible |
| Solubility in other solvents | |
| No information available. | |
| Partition coefficient n-octanol/water: | No information available. |
| Vapour pressure: (at 20 °C) | No information available. |
| Vapour pressure: (at 50 °C) | No information available. |
| Density (at 15 °C): | 0,8926 g/cm ³ DIN 51757 |
| Bulk density: | No information available. |
| Relative vapour density: | No information available. |
| Particle characteristics: | No information available. |

9.2. Other information**Information with regard to physical hazard classes**

Explosive properties

none

Sustained combustibility:

No data available

Self-ignition temperature

Solid:

No information available.

Gas:

No information available.

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Oxidizing properties
none

Other safety characteristics

| | |
|--------------------------|---------------------------|
| Evaporation rate: | No information available. |
| Solvent separation test: | No information available. |
| Solvent content: | No information available. |
| Solid content: | No information available. |
| Sublimation point: | No information available. |
| Softening point: | No information available. |
| Pour point: | -33 °C |
| Viscosity / dynamic: | No information available. |
| Flow time: | No information available. |

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

No information available.

10.2. Chemical stability

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

10.3. Possibility of hazardous reactions

No hazardous reactions known.
Refer to chapter 10.5.

10.4. Conditions to avoid

No information available.

10.5. Incompatible materials

Oxidising agent, strong

10.6. Hazardous decomposition products

No known hazardous decomposition products.

SECTION 11: Toxicological information**11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008****Toxicokinetics, metabolism and distribution**

No information available.

Acute toxicity

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

ATEmix calculated

ATE (oral) > 5000 mg/kg; ATE (dermal) > 2000 mg/kg; ATE (inhalation vapour) > 20 mg/l; ATE (inhalation dust/mist) > 5 mg/l

| CAS No | Chemical name | | | | |
|--------|---|-------------------|---------|--------------|--------------------|
| | Exposure route | Dose | Species | Source | Method |
| | Reaction products of bis(4-methylpentan-2-yl)dithiophosphoric acid with phosphorus oxide, propylene oxide and amines, C12-14 alkyl (branched) | | | | |
| | oral | LD50 > 2000 mg/kg | Rat | ECHA Dossier | OECD Guideline 401 |
| | Reaction Products of Dimethyl hydrogen phosphite and Alcohols C14-18, Even, Linear | | | | |
| | oral | LD50 >2000 mg/kg | Rat | ECHA Dossier | |

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| | | | | | | |
|--|---|---------------|-----------|--------|--------------|--------------------|
| | dermal | LD50 mg/kg | > 2000 | Rat | ECHA Dossier | OECD Guideline 402 |
| | Hydrocarbons, C10, aromatics, >1% naphthalene | | | | | |
| | oral | LD50 mg/kg | 10650 | Rat | ECHA Dossier | READ ACROSS |
| | dermal | LD50 mg/kg | > 2000 | Rabbit | ECHA Dossier | OECD Guideline 402 |
| | inhalation (4 h) vapour | LC50 mg/l | [> 4,688] | Rat | ECHA Dossier | OECD 403 |

Irritation and corrosivity

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

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

Sensitising effects

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

Contains Reaction products of bis(4-methylpentan-2-yl)dithiophosphoric acid with phosphorus oxide, propylene oxide and amines, C12-14 alkyl (branched). May produce an allergic reaction.

May cause sensitisation especially in sensitive humans.

Carcinogenic/mutagenic/toxic effects for reproduction

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.

Reaction products of bis(4-methylpentan-2-yl)dithiophosphoric acid with phosphorus oxide, propylene oxide and amines, C12-14 alkyl (branched):

In vitro mutagenicity/genotoxicity: Method: OECD Guideline 476 (In vitro Mammalian Cell Gene Mutation Test); Result: negative Literature information: REACH Dossier; Reproductive toxicity: Species: Rat

(Wistar);Method: OECD Guideline 421 (Reproduction / Developmental Toxicity Screening Test); Result:

NOAEL = 150 mg/kg Literature information: REACH Dossier; Developmental toxicity/teratogenicity: Species:

Rat (Wistar);Method: other guideline: Reproduction/developmental screening test. Result: NOAEL = 150

mg/kg; Literature information: REACH Dossier

Reaction Products of Dimethyl hydrogen phosphite and Alcohols C 14-18, Even, Linear:

In-vitro mutagenicity:

Method: OECD Guideline 471 (Bacterial Reverse Mutation Assay)

Method: OECD Guideline 473 (In vitro Mammalian Chromosome Aberration Test)

Method: OECD Guideline 476 (In vitro Mammalian Cell Gene Mutation Test)

Result: negative

Reproductive toxicity/Developmental toxicity/teratogenicity:

Method: OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test)

Species: Rat

Result: NOAEL >= 1000 mg/kg

Literature information: REACH Dossier

Hydrocarbons, C10, aromatics, >1% naphthalene:

In-vitro mutagenicity:

Method: OECD Guideline 471 (Bacterial Reverse Mutation Assay)

Result: negative

Literature information: REACH Dossier

STOT-single exposure

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

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STOT-repeated exposure

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

Reaction products of bis(4-methylpentan-2-yl)dithiophosphoric acid with phosphorus oxide, propylene oxide and amines, C12-14 alkyl (branched):

Subacute oral toxicity: Method: -; Species: Rat; Results: NOAEL = 150 mg/kg; Literature information: REACH Dossier

Reaction Products of Dimethyl hydrogen phosphite and Alcohols C 14-18, Even, Linear:

Subacute oral toxicity:

Method: OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction /Developmental Toxicity Screening Test)

Species: Rat (Sprague Dawley)

Results: NOAEL >= 1000 mg/kg

Literature information: REACH Dossier

Hydrocarbons, C10, aromatics, >1% naphthalene:

subchronic inhalation toxicity:

Method OECD Guideline 413 (Subchronic Inhalation Toxicity: 90-Day)

Species: Rat

Exposure duration: 90 d

Result: NOAEC = 66 ppm. (0,38 mg/kg)

Literature information: REACH Dossier

Aspiration hazard

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

11.2. Information on other hazards**Endocrine disrupting properties**

This product does not contain a substance (> 0,1 %) that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

Other information

Frequent contact specially if dried out may cause skin and eye irritations.

SECTION 12: Ecological information**12.1. Toxicity**

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

| CAS No | Chemical name | | | | | |
|--------|---|------------------------|-----------|---------------------------------|--------------|--------------------|
| | Aquatic toxicity | Dose | [h] [d] | Species | Source | Method |
| | Reaction products of bis(4-methylpentan-2-yl)dithiophosphoric acid with phosphorus oxide, propylene oxide and amines, C12-14 alkyl (branched) | | | | | |
| | Acute fish toxicity | LC50 ca. 8,5 mg/l | 96 h | Oncorhynchus mykiss | ECHA Dossier | OECD Guideline 203 |
| | Acute algae toxicity | ErC50 6,4 mg/l | 96 h | Raphidocelis subcapitata | ECHA Dossier | OECD Guideline 201 |
| | Acute crustacea toxicity | EL50 ca. 91,4 mg/l | 48 h | Daphnia magna | ECHA Dossier | OECD Guideline 202 |
| | Acute bacteria toxicity | EC50 ca. 2433 mg/l () | 3 h | activated sludge, domestic | ECHA Dossier | OECD Guideline 209 |
| | Reaction Products of Dimethyl hydrogen phosphite and Alcohols C14-18, Even, Linear | | | | | |
| | Acute fish toxicity | LL50 > 100 mg/l | 96 h | Oncorhynchus mykiss | ECHA Dossier | OECD Guideline 203 |
| | Acute algae toxicity | ErC50 > 100 mg/l | 72 h | Pseudokirchneriella subcapitata | ECHA Dossier | OECD Guideline 201 |



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| | Acute bacteria toxicity | EC50 > 100 mg/l () | 3 h | activated sludge of a predominantly domestic sewage | ECHA Dossier | OECD Guideline 209 |
| | Hydrocarbons, C10, aromatics, >1% naphthalene | | | | | |
| | Acute fish toxicity | LC50 2 - 5 (LL50) mg/l | 96 h | Oncorhynchus mykiss (OECD 203) | ECHA Dossier | |
| | Acute algae toxicity | ErC50 > 1 - < 3 mg/l | 72 h | Pseudokirchneriella subcapitata | ECHA Dossier | OECD Guideline 201 |
| | Acute crustacea toxicity | EC50 3-10 (EL 50) mg/l | 48 h | daphnia magna (OECD 202) | ECHA Dossier | |
| | Fish toxicity | NOEC 0,487 mg/l | 28 d | Oncorhynchus mykiss | ECHA Dossier | QSAR |
| | Crustacea toxicity | NOEC 0,851 mg/l | 21 d | Daphnia magna | CONCAWE | QSAR |

12.2. Persistence and degradability

The product is slightly soluble in water. It can be largely eliminated from the water by abiotic processes, e.g. mechanical separation.

| CAS No | Chemical name | | | |
|--------|---|--------|----|--------------|
| | Method | Value | d | Source |
| | Evaluation | | | |
| | Reaction products of bis(4-methylpentan-2-yl)dithiophosphoric acid with phosphorus oxide, propylene oxide and amines, C12-14 alkyl (branched) | | | |
| | ASTM D-5864-95 | 3,6% | 28 | ECHA Dossier |
| | not readily degradable | | | |
| | Reaction Products of Dimethyl hydrogen phosphite and Alcohols C14-18, Even, Linear | | | |
| | OECD Guideline 301 B | 73% | 28 | ECHA Dossier |
| | Readily biodegradable (according to OECD criteria). | | | |
| | Hydrocarbons, C10, aromatics, >1% naphthalene | | | |
| | OECD 301F / ISO 9408 / EEC 92/69 annex V, C.4-D | 57,95% | 28 | |
| | Not easily bio-degradable (according to OECD-criteria). | | | |

12.3. Bioaccumulative potential

No indication of bioaccumulation potential.

Partition coefficient n-octanol/water

| CAS No | Chemical name | Log Pow |
|--------|---|---------|
| | Reaction products of bis(4-methylpentan-2-yl)dithiophosphoric acid with phosphorus oxide, propylene oxide and amines, C12-14 alkyl (branched) | < 0,3 |
| | Reaction Products of Dimethyl hydrogen phosphite and Alcohols C14-18, Even, Linear | > 10 |

BCF

| CAS No | Chemical name | BCF | Species | Source |
|--------|---|------|----------------------|--------------|
| | Reaction products of bis(4-methylpentan-2-yl)dithiophosphoric acid with phosphorus oxide, propylene oxide and amines, C12-14 alkyl (branched) | 436 | Onchorhynchus mykiss | ECHA Dossier |
| | Reaction Products of Dimethyl hydrogen phosphite and Alcohols C14-18, Even, Linear | 96,5 | | ECHA Dossier |

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12.4. Mobility in soil

No information available.

12.5. Results of PBT and vPvB assessment

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

The aforementioned statement applies to substances contained in the product with a minimum content of 0.1%.

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.

The aforementioned statement applies to substances contained in the product with a minimum content of 0.1%.

12.7. Other adverse effects

No information available.

Further information

Ozone depletion potential (ODP): No information available.

SECTION 13: Disposal considerations**13.1. Waste treatment methods****Disposal recommendations**

Dispose of waste according to applicable legislation. Consult the appropriate local waste disposal expert about waste disposal. Non-contaminated packages may be recycled. The allocation of waste identity numbers/waste descriptions must be carried out according to the EEC, specific to the industry and process.

List of Wastes Code - contaminated packaging

150110 WASTE PACKAGING; ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED; packaging (including separately collected municipal packaging waste); packaging containing residues of or contaminated by hazardous substances; hazardous waste

Contaminated packaging

Handle contaminated packages in the same way as the substance itself.

SECTION 14: Transport information**Land transport (ADR/RID)****14.1. UN number or ID number:**

No dangerous good in sense of this transport regulation.

14.2. UN proper shipping name:

No dangerous good in sense of this transport regulation.

14.3. Transport hazard class(es):

No dangerous good in sense of this transport regulation.

14.4. Packing group:

No dangerous good in sense of this transport regulation.

Inland waterways transport (ADN)**14.1. UN number or ID number:**

No dangerous good in sense of this transport regulation.

14.2. UN proper shipping name:

No dangerous good in sense of this transport regulation.

14.3. Transport hazard class(es):

No dangerous good in sense of this transport regulation.

14.4. Packing group:

No dangerous good in sense of this transport regulation.

Marine transport (IMDG)**14.1. UN number or ID number:**

No dangerous good in sense of this transport regulation.

14.2. UN proper shipping name:

No dangerous good in sense of this transport regulation.

14.3. Transport hazard class(es):

No dangerous good in sense of this transport regulation.

14.4. Packing group:

No dangerous good in sense of this transport regulation.

Air transport (ICAO-TI/IATA-DGR)**14.1. UN number or ID number:**

No dangerous good in sense of this transport regulation.

14.2. UN proper shipping name:

No dangerous good in sense of this transport regulation.

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14.3. Transport hazard class(es): No dangerous good in sense of this transport regulation.**14.4. Packing group:** No dangerous good in sense of this transport regulation.**14.5. Environmental hazards**

ENVIRONMENTALLY HAZARDOUS: No

14.6. Special precautions for user

Informations for safe handling see chapter 7.

Informations for personal protective equipment see chapter 8.

14.7. Maritime transport in bulk according to IMO instruments

not relevant

SECTION 15: Regulatory information**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture****EU regulatory information**

Restrictions on use (REACH, annex XVII):

Entry 75

Directive 2010/75/EU on industrial emissions: No information available.

Directive 2004/42/EC on VOC in paints and varnishes: No information available.

Information according to Directive 2012/18/EU (SEVESO III): Not subject to 2012/18/EU (SEVESO III)

Additional information

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This mixture is classified as not hazardous according to Regulation (EC) 1272/2008 [CLP].

REACH 1907/2006 Appendix XVII, No (mixture): 75

Observe in addition any national regulations!

National regulatory information

Water hazard class (D): 2 - obviously hazardous to water

Additional information

Regulation (EU) No. 649/2012 of the European parliament and of the council concerning the export and import of dangerous chemicals: not relevant

15.2 Chemical Safety Assessment
not applicable.**SECTION 16: Other information****Changes**

This data sheet contains changes from the previous version in section(s): 1,4,5,7,8,9,11,12,15,16.

Rev. : 1,0 - 25.07.2023

Rev.: 2.0 - 16.07.2024, Changes in chapter: 3.2, 11.7, 12.1,16

Rev.: 3.0 - 01.07.2025, Changes in chapter: 3.2, 8.1, 11.1, 12.1, 12.2, 15.1,16

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Abbreviations and acronyms

Acute Tox. 4: Acute toxicity, hazard category 4
Asp. Tox. 1: Aspiration hazard, hazard category 1
Eye Irrit. 2: Eye irritation, hazard category 2
Skin Sens. 1: Skin sensitisation, hazard category 1
Carc. 2: Carcinogenicity, hazard category 2
STOT SE 3: Specific target organ toxicity - single exposure, hazard category 3
Aquatic Chronic 2: Hazardous to the aquatic environment, long-term hazard category: Chronic 2
ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
CAS: Chemical Abstracts Service
CLP: Classification, Labelling and Packaging of substances and mixtures
d: day(s)
DNEL: Derived No Effect Level
IARC: INTERNATIONAL AGENCY FOR RESEARCH ON CANCER
EINECS: European INventory of Existing Commercial chemical Substances
ELINCS: European List of Notified Chemical Substances
ECHA: European Chemicals Agency
EWC: European Waste Catalogue
IARC: INTERNATIONAL AGENCY FOR RESEARCH ON CANCER
IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)
ICAO: International Civil Aviation Organization
ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO)
GHS: Globally Harmonized System of Classification and Labelling of Chemicals
GefStoffV: Gefahrstoffverordnung (Ordinance on Hazardous Substances, Germany)
h: hour
LOAEL: Lowest observed adverse effect level
LOAEC: Lowest observed adverse effect concentration
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
NOAEL: No observed adverse effect level
NOAEC: No observed adverse effect concentration
NLP: No-Longer Polymers
NTP: National Toxicology Program
N/A: not applicable
OECD: Organisation for Economic Co-operation and Development
PNEC: predicted no effect concentration
PBT: Persistent bioaccumulative toxic
PMT: Persistent, mobile and toxic
REACH: Registration, Evaluation, Authorisation of Chemicals
RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
SVHC: substance of very high concern
TRGS: Technische Regeln für Gefahrstoffe
UN: United Nations
TSCA: Toxic Substances Control Act
vPvM: very persistent and very mobile
vPvB: very persistent and very bioaccumulative
VOC: Volatile Organic Compounds
WGK: Water Hazard Class (Germany)

Key literature references and sources for data

<https://echa.europa.eu/>
<https://www.dguv.de/ifa/gestis/gestis-stoffdatenbank/index.jsp>

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<https://cfpub.epa.gov/ecotox/search.cfm>
<http://www.inchem.org/#/search>
<https://pubchem.ncbi.nlm.nih.gov/>
<http://ccinfoweb.ccohs.ca/rtecs/search.html>
<https://webriigoletto.uba.de/rigoletto/>

Relevant H and EUH statements (number and full text)

| | |
|--------|---|
| H302 | Harmful if swallowed. |
| H304 | May be fatal if swallowed and enters airways. |
| H317 | May cause an allergic skin reaction. |
| H319 | Causes serious eye irritation. |
| H336 | May cause drowsiness or dizziness. |
| H351 | Suspected of causing cancer. |
| H411 | Toxic to aquatic life with long lasting effects. |
| EUH066 | Repeated exposure may cause skin dryness or cracking. |
| EUH208 | Contains Reaction products of bis(4-methylpentan-2-yl)dithiophosphoric acid with phosphorus oxide, propylene oxide and amines, C12-14 alkyl (branched). May produce an allergic reaction. |
| EUH210 | Safety data sheet available on request. |

Further Information

Classification according to Regulation (EC) No 1272/2008 [CLP] - Classification procedure:
Health hazards: Calculation method.
Environmental hazards: Calculation method.
Physical hazards: On basis of test data

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.

(The data for the relevant ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)