## OKS 490

| Version | Revision Date: | Date of last issue: 05.12.2025 | Print Date: |
|---|---|---|---|
| 4.0 | 20.04.2026 | Date of first issue: 08.06.2016 | 20.04.2026 |

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

### 1.1 Product identifier

Product name : OKS 490

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

Use of the Substance/Mixture : Grease

Recommended restrictions on use : Restricted to professional users.

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

Company : OKS Spezialschmierstoffe GmbH
Ganghoferstr. 47
82216 Maisach
Germany
Tel.: +49 8142 3051-500
info@oks-germany.com

E-mail address of person responsible for the SDS : mcm@oks-germany.com

National contact :

### 1.4 Emergency telephone number

Emergency telephone number : +49 8142 3051 517
Warszawa: +48 22 619 66 54

## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture

**Classification (REGULATION (EC) No 1272/2008)**

Not a hazardous substance or mixture.

### 2.2 Label elements

**Labelling (REGULATION (EC) No 1272/2008)**

Not a hazardous substance or mixture.

**Additional Labelling**

EUH210 Safety data sheet available on request.

EUH208 Contains dibutyl [[bis[(2-ethylhexyl)oxy]phosphinothioyl]thio]succinate. May produce an allergic reaction.

### 2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

Ecological information: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Toxicological information: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

## SECTION 3: Composition/information on ingredients

### 3.2 Mixtures

Chemical nature : Mineral oil.
aluminium soap
graphite

**Components**

| Chemical name | CAS-No.<br>EC-No.<br><br>Index-No.<br>Registration number | Classification | specific concentration limit<br>M-Factor<br>Notes<br>Acute toxicity estimate | Concentration (% w/w) |
|---|---|---|---|---|
| Fatty acids, C16-18 and C18-unsatd., Me esters, sulfurized | 68390-93-2<br>269-913-1 | Aquatic Chronic 3; H412 | | >= 2,5 - < 10 |
| dibutyl [[bis[(2-ethylhexyl)oxy]phosphinothioyl]thio]succinate | 68413-48-9<br>270-220-1<br><br>01-2120786863-37-XXXX | Skin Sens. 1B; H317<br>Aquatic Chronic 4; H413 | | >= 0,25 - < 1 |
| Substances with a workplace exposure limit : | | | | |
| Residual oils (petroleum), solvent-dewaxed; Baseoil — unspecified | 64742-62-7<br>265-166-0<br><br>649-471-00-X | Not classified | Note L | >= 50 - < 70 |

| | | | | |
|---|---|---|---|---|
| | 01-2119480472-38-xxxx | | | |
| Asphalt | 8052-42-4<br>232-490-9<br><br>01-2119480172-44-XXXX | Not classified | | >= 10 - < 20 |
| Graphite (natural) | 7782-42-5<br>231-955-3 | Not classified | | >= 1 - < 10 |

For explanation of abbreviations see section 16.

## SECTION 4: First aid measures

### 4.1 Description of first aid measures

If inhaled : Obtain medical attention.
Remove person to fresh air. If signs/symptoms continue, get medical attention.
Keep patient warm and at rest.
If unconscious, place in recovery position and seek medical advice.
Keep respiratory tract clear.
If breathing is irregular or stopped, administer artificial respiration.

In case of skin contact : Take off all contaminated clothing immediately.
Wash off immediately with soap and plenty of water.
Get medical attention immediately if irritation develops and persists.
Wash clothing before reuse.
Thoroughly clean shoes before reuse.

In case of eye contact : Rinse immediately with plenty of water, also under the eyelids, for at least 10 minutes.
If eye irritation persists, consult a specialist.

If swallowed : Move the victim to fresh air.
If unconscious, place in recovery position and seek medical advice.
Keep respiratory tract clear.
Do not induce vomiting without medical advice.
Rinse mouth with water.
Never give anything by mouth to an unconscious person.

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

Symptoms : No symptoms known or expected.

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

Treatment : Treat symptomatically.

## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

Suitable extinguishing media : Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Unsuitable extinguishing media : High volume water jet

High volume water jet

### 5.2 Special hazards arising from the substance or mixture

Hazardous combustion products : Carbon oxides
Sulphur oxides
Oxides of phosphorus
Metal oxides

### 5.3 Advice for firefighters

Special protective equipment for firefighters : In the event of fire, wear self-contained breathing apparatus. Use personal protective equipment. Exposure to decomposition products may be a hazard to health.

Further information : Standard procedure for chemical fires.

## SECTION 6: Accidental release measures

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

Personal precautions : Evacuate personnel to safe areas.
Ensure adequate ventilation.
Do not breathe vapours, aerosols.
Refer to protective measures listed in sections 7 and 8.

### 6.2 Environmental precautions

Environmental precautions : Try to prevent the material from entering drains or water courses.
Local authorities should be advised if significant spillages cannot be contained.

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

Methods for cleaning up : Pick up and transfer to properly labelled containers.

### 6.4 Reference to other sections

For personal protection see section 8.

## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

Advice on safe handling : Avoid contact with skin and eyes.
For personal protection see section 8.
Smoking, eating and drinking should be prohibited in the application area.
Wash hands and face before breaks and immediately after handling the product.
Do not get in eyes or mouth or on skin.
Do not get on skin or clothing.
Do not ingest.
Do not repack.
These safety instructions also apply to empty packaging which may still contain product residues.
Keep container closed when not in use.

Hygiene measures : Wash face, hands and any exposed skin thoroughly after handling.

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

Requirements for storage areas and containers : Store in original container. Keep container closed when not in use. Keep in a dry, cool and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Store in accordance with the particular national regulations. Keep in properly labelled containers.

### 7.3 Specific end use(s)

Specific use(s) : Specific instructions for handling, not required.

## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

**Occupational Exposure Limits**

| Components | CAS-No. | Value type (Form of exposure) | Control parameters | Basis |
|---|---|---|---|---|
| Residual oils (petroleum), | 64742-62-7 | NDS (inhalable fraction) | 5 mg/m3 | PL OEL (2021-02-19) |

| | | | | |
|---|---|---|---|---|
| solvent-dewaxed; Baseoil — unspecified | | | | |
| Asphalt | 8052-42-4 | NDS (inhalable fraction) | 5 mg/m3 | PL OEL (2021-02-19) |
| | | NDSch (inhalable fraction) | 10 mg/m3 | PL OEL (2021-02-19) |
| Graphite (natural) | 7782-42-5 | NDS (inhalable fraction) | 4 mg/m3 | PL OEL (2021-02-19) |
| | | NDS (respirable fraction) | 1 mg/m3 | PL OEL (2021-02-19) |

**Derived No Effect Level (DNEL) according to Regulation (EC) No. 1907/2006**

| Substance name | End Use | Exposure routes | Potential health effects | Value |
|---|---|---|---|---|
| Residual oils (petroleum), solvent-dewaxed; Baseoil — unspecified | Workers | Inhalation | Long-term systemic effects | 2,73 mg/m3 |
| | Workers | Inhalation | Long-term local effects | 5,58 mg/m3 |
| | Workers | Dermal | Long-term systemic effects | 0,97 mg/kg |
| Reaction mass of p-t-butylphenyldiphenyl phosphate and bis(p-t-butylphenyl) phenyl phosphate | Workers | Inhalation | Long-term systemic effects | 2,03 mg/m3 |
| | Workers | Inhalation | Long-term local effects | 0,2 mg/m3 |
| | Workers | Dermal | Long-term systemic effects | 0,056 mg/kg bw/day |
| | Workers | Dermal | Long-term local effects | 0,001 mg/cm2 |

**Predicted No Effect Concentration (PNEC) according to Regulation (EC) No. 1907/2006**

| Substance name | Environmental Compartment | Value |
|---|---|---|
| Residual oils (petroleum), solvent-dewaxed; Baseoil — unspecified | Oral | 9,33 mg/kg |
| Reaction mass of p-t-butylphenyldiphenyl phosphate and bis(p-t-butylphenyl) phenyl phosphate | Fresh water | 0,000116 mg/l |
| | Marine water | 0,000012 mg/l |
| | Microbiological Activity in Sewage Treatment Systems | 1 mg/l |
| | Fresh water sediment | 0,51 mg/kg |
| | Marine sediment | 0,051 mg/kg |
| | Soil | 0,118 mg/kg |

### 8.2 Exposure controls

**Engineering measures**

Handle only in a place equipped with local exhaust (or other appropriate exhaust).

**Personal protective equipment**

| | | |
|---|---|---|
| Eye/face protection | : | Safety glasses |
| Hand protection | | |
| Material | : | Nitrile rubber |
| Break through time | : | > 10 min |
| Protective index | : | Class 1 |
| Remarks | : | Wear protective gloves. The break through time depends amongst other things on the material, the thickness and the type of glove and therefore has to be measured for each case.<br>The selected protective gloves have to satisfy the specifications of Regulation (EU) 2016/425 and the standard EN 374 derived from it. |
| Skin and body protection | : | Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place. |
| Respiratory protection | : | Not required; except in case of aerosol formation. |
| Filter type | : | Filter type P |
| Protective measures | : | The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace. |

**Environmental exposure controls**

| | | |
|---|---|---|
| Air | : | No special environmental precautions required. |
| Soil | : | The product should not be allowed to enter drains, water courses or the soil. |
| Water | : | The product should not be allowed to enter drains, water courses or the soil. |

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

| | | |
|---|---|---|
| Physical state | : | solid |
| Form | : | paste |

| | | |
|---|---|---|
| Colour | : | black |
| Odour | : | characteristic |
| Odour Threshold | : | No data available |
| Melting point/ range | : | No data available |
| Boiling point/boiling range | : | > 300 °C |
| Flammability | : | Flammability (solid, gas): Combustible Solids |
| Upper explosion limit / Upper flammability limit | : | No data available |
| Lower explosion limit / Lower flammability limit | : | No data available |
| Flash point | : | Not applicable |
| Auto-ignition temperature | : | No data available |
| Decomposition temperature | : | No data available |
| pH | : | Not applicable |
| Viscosity | | |
| Viscosity, dynamic | : | No data available |
| Viscosity, kinematic | : | Not applicable |
| Solubility(ies) | | |
| Water solubility | : | insoluble |
| Solubility in other solvents | : | No data available |

| | | |
|---|---|---|
| Partition coefficient: n-octanol/water | : | No data available |
| Vapour pressure | : | < 0,001 hPa (20 °C) |
| Relative density | : | 0,98 (20 °C)<br>Reference substance: Water<br>The value is calculated |
| Density | : | 0,98 g/cm3<br>(20 °C) |
| Bulk density | : | No data available |
| Relative vapour density | : | No data available |
| Particle characteristics | | |
| Particle size | : | Not applicable |
| Particle Size Distribution | : | Not applicable |

**9.2 Other information**

| | | |
|---|---|---|
| Explosives | : | Not explosive |
| Oxidizing properties | : | No data available |
| Self-ignition | : | No data available |
| Evaporation rate | : | No data available |
| Sublimation point | : | No data available |

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

No hazards to be specially mentioned.

### 10.2 Chemical stability

Stable under normal conditions.

### 10.3 Possibility of hazardous reactions

Hazardous reactions : No dangerous reaction known under conditions of normal use.

### 10.4 Conditions to avoid

Conditions to avoid : No conditions to be specially mentioned.

### 10.5 Incompatible materials

Materials to avoid : No materials to be especially mentioned.

### 10.6 Hazardous decomposition products

No decomposition if stored and applied as directed.

## SECTION 11: Toxicological information

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

**Acute toxicity**

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

**Product:**

Acute oral toxicity : Remarks: This information is not available.

Acute inhalation toxicity : Remarks: This information is not available.

Acute dermal toxicity : Symptoms: Redness, Local irritation

**Components:**

**dibutyl [[bis[(2-ethylhexyl)oxy]phosphinothioyl]thio]succinate:**

Acute oral toxicity : LD50 (Rat): 11.300 mg/kg
Method: OECD Test Guideline 401

**Residual oils (petroleum), solvent-dewaxed; Baseoil — unspecified:**

Acute oral toxicity : LD50 (Rat): > 5.000 mg/kg
Method: OECD Test Guideline 401
GLP: yes

Acute dermal toxicity : LD50 (Rabbit): > 5.000 mg/kg

Method: OECD Test Guideline 402
GLP: yes

**Asphalt:**

Acute oral toxicity : LD50 (Rat): > 5.000 mg/kg
Method: OECD Test Guideline 401

Acute dermal toxicity : LD50 (Rabbit): > 2.000 mg/kg
Method: OECD Test Guideline 402
Assessment: The substance or mixture has no acute dermal toxicity

**Graphite (natural):**

Acute oral toxicity : LD50 (Rat): > 2.000 mg/kg
Method: OECD Test Guideline 423
Assessment: The substance or mixture has no acute oral toxicity

Acute inhalation toxicity : LC50 (Rat): > 2.000 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist
Method: OECD Test Guideline 403
Assessment: The substance or mixture has no acute inhalation toxicity

**Skin corrosion/irritation**

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

**Product:**

Remarks : This information is not available.

**Components:**

**dibutyl [[bis[(2-ethylhexyl)oxy]phosphinothioyl]thio]succinate:**

Species : Rabbit
Assessment : No skin irritation
Result : No skin irritation

**Residual oils (petroleum), solvent-dewaxed; Baseoil — unspecified:**

Species : Rabbit
Assessment : No skin irritation
Method : OECD Test Guideline 404
Result : No skin irritation
GLP : yes

**Asphalt:**

Species : Rabbit
Assessment : No skin irritation

Method : OECD Test Guideline 404
Result : No skin irritation

**Graphite (natural):**

Species : Rabbit
Assessment : No skin irritation
Method : OECD Test Guideline 404
Result : No skin irritation

**Serious eye damage/eye irritation**

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

**Product:**

Remarks : This information is not available.

**Components:**

**dibutyl [[bis[(2-ethylhexyl)oxy]phosphinothioyl]thio]succinate:**

Species : Rabbit
Assessment : No eye irritation
Result : No eye irritation

**Residual oils (petroleum), solvent-dewaxed; Baseoil — unspecified:**

Species : Rabbit
Assessment : No eye irritation
Method : OECD Test Guideline 405
Result : No eye irritation
GLP : yes

**Asphalt:**

Species : Rabbit
Assessment : No eye irritation
Method : OECD Test Guideline 405
Result : No eye irritation

**Graphite (natural):**

Species : Rabbit
Assessment : No eye irritation
Method : OECD Test Guideline 405
Result : No eye irritation

**Respiratory or skin sensitisation**

**Skin sensitisation**

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

**Respiratory sensitisation**

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

**Product:**

Remarks : This information is not available.

**Components:**

**dibutyl [[bis[(2-ethylhexyl)oxy]phosphinothioyl]thio]succinate:**

Assessment : The product is a skin sensitiser, sub-category 1B.
Result : The product is a skin sensitiser, sub-category 1B.

**Residual oils (petroleum), solvent-dewaxed; Baseoil — unspecified:**

Species : Guinea pig
Assessment : Did not cause sensitisation on laboratory animals.
Method : OECD Test Guideline 406
Result : Did not cause sensitisation on laboratory animals.
GLP : yes

**Asphalt:**

Species : Guinea pig
Assessment : Does not cause skin sensitisation.
Method : OECD Test Guideline 406
Result : Does not cause skin sensitisation.

**Graphite (natural):**

Species : Mouse
Method : OECD Test Guideline 429
Result : negative

**Germ cell mutagenicity**

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

**Product:**

Genotoxicity in vitro : Remarks: No data available

Genotoxicity in vivo : Remarks: No data available

**Components:**

**Residual oils (petroleum), solvent-dewaxed; Baseoil — unspecified:**

Germ cell mutagenicity-Assessment : Tests on bacterial or mammalian cell cultures did not show mutagenic effects.

**Graphite (natural):**

Genotoxicity in vitro : Test Type: Microbial mutagenesis assay (Ames test)

Method: OECD Test Guideline 471
Result: negative

Test Type: gene mutation test
Method: OECD Test Guideline 476
Result: negative

Test Type: Chromosome aberration test in vitro
Method: OECD Test Guideline 473
Result: negative

**Carcinogenicity**

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

**Product:**

Remarks : No data available

**Components:**

**Residual oils (petroleum), solvent-dewaxed; Baseoil — unspecified:**

Carcinogenicity - Assessment : No evidence of carcinogenicity in animal studies.

**Reproductive toxicity**

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

**Product:**

Effects on fertility : Remarks: No data available

Effects on foetal development : Remarks: No data available

**Components:**

**Residual oils (petroleum), solvent-dewaxed; Baseoil — unspecified:**

Reproductive toxicity - Assessment : - Fertility -

No toxicity to reproduction
- Teratogenicity -

No effects on or via lactation

**Graphite (natural):**

Effects on fertility : Species: Rat
Application Route: Oral
General Toxicity F1: NOAEL: 813 mg/kg body weight
Method: OECD Test Guideline 422

**STOT - single exposure**

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

**Product:**

Remarks : No data available

**Components:**

**Asphalt:**

Assessment : The substance or mixture is not classified as specific target organ toxicant, single exposure.

**STOT - repeated exposure**

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

**Product:**

Remarks : No data available

**Components:**

**Asphalt:**

Assessment : The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

**Repeated dose toxicity**

**Product:**

Remarks : This information is not available.

**Components:**

**Graphite (natural):**

| | | |
|---|---|---|
| Species | : | Rat |
| NOAEL | : | 813 mg/kg |
| Application Route | : | Oral |
| Method | : | OECD Test Guideline 422 |

| | | |
|---|---|---|
| Species | : | Rat |
| NOAEL | : | > 2 mg/l |
| Application Route | : | inhalation (dust/mist/fume) |
| Method | : | OECD Test Guideline 412 |

**Aspiration toxicity**

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

**Product:**

This information is not available.

**Components:**

**Residual oils (petroleum), solvent-dewaxed; Baseoil — unspecified:**
No aspiration toxicity classification

**Asphalt:**
No aspiration toxicity classification

### 11.2 Information on other hazards

**Endocrine disrupting properties**
Based on available data, the classification criteria are not met.

**Product:**

| | | |
|---|---|---|
| Assessment | : | The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher. |

**Further information**

**Product:**

| | | |
|---|---|---|
| Remarks | : | Information given is based on data on the components and the toxicology of similar products. |

## SECTION 12: Ecological information

### 12.1 Toxicity

**Product:**

| | | |
|---|---|---|
| Toxicity to fish | : | Remarks: No data available |
| Toxicity to daphnia and other aquatic invertebrates | : | Remarks: No data available |
| Toxicity to algae/aquatic plants | : | Remarks: No data available |
| Toxicity to microorganisms | : | Remarks: No data available |

**Components:**

**Fatty acids, C16-18 and C18-unsatd., Me esters, sulfurized:**

| | | |
|---|---|---|
| Toxicity to daphnia and other aquatic invertebrates | : | EC50 (Daphnia magna (Water flea)): 13 mg/l<br>Exposure time: 48 h |

| | | |
|---|---|---|
| Toxicity to algae/aquatic plants | : | EC50 (algae): > 100 mg/l<br>Exposure time: 72 h |

**dibutyl [[bis[(2-ethylhexyl)oxy]phosphinothioyl]thio]succinate:**

| | | |
|---|---|---|
| Toxicity to fish | : | LC50 (Oncorhynchus mykiss (rainbow trout)): > 0,002 mg/l<br>Exposure time: 96 h<br>Test Type: semi-static test<br>Method: OECD Test Guideline 203<br>GLP: yes<br>Remarks: No toxicity at the limit of solubility |
| Toxicity to daphnia and other aquatic invertebrates | : | EC50 (Daphnia magna (Water flea)): > 100 mg/l<br>Exposure time: 48 h<br>Test Type: static test<br>Method: OECD Test Guideline 202 |
| Toxicity to algae/aquatic plants | : | EC50 (Desmodesmus subspicatus (green algae)): > 100 mg/l<br>Exposure time: 72 h<br>Test Type: static test<br>Method: OECD Test Guideline 201 |

**Residual oils (petroleum), solvent-dewaxed; Baseoil — unspecified:**

| | | |
|---|---|---|
| Toxicity to fish | : | LC50 (Pimephales promelas (fathead minnow)): > 100 mg/l<br>Exposure time: 96 h<br>Test Type: static test<br>Method: OECD Test Guideline 203<br>GLP: yes<br><br>NOEC (Pimephales promelas (fathead minnow)): >= 100 mg/l<br>Exposure time: 96 h<br>Method: OECD Test Guideline 203<br>GLP: yes |
| Toxicity to daphnia and other aquatic invertebrates | : | LC50 : > 10.000 mg/l<br>Exposure time: 96 h<br>Test Type: semi-static test<br>Method: OECD Test Guideline 202<br><br>NOEC : >= 10.000 mg/l<br>Exposure time: 96 h<br>Test Type: semi-static test<br>Method: OECD Test Guideline 202 |
| Toxicity to algae/aquatic plants | : | NOEC (Pseudokirchneriella subcapitata (green algae)): >= 100 mg/l<br>Exposure time: 72 h<br>Test Type: static test<br>Method: OECD Test Guideline 201 |

**Graphite (natural):**

| | | |
|---|---|---|
| Toxicity to fish | : | LC50 (Danio rerio (zebra fish)): > 100 mg/l<br>Exposure time: 96 h<br>Method: OECD Test Guideline 203 |
| Toxicity to daphnia and other aquatic invertebrates | : | (Daphnia magna (Water flea)): > 100 mg/l<br>Exposure time: 48 h<br>Method: OECD Test Guideline 202 |
| Toxicity to algae/aquatic plants | : | EC50 (Pseudokirchneriella subcapitata (green algae)): > 100 mg/l<br>Exposure time: 72 h<br>Method: OECD Test Guideline 201 |

### 12.2 Persistence and degradability

**Product:**

| | | |
|---|---|---|
| Biodegradability | : | Remarks: No data available |
| Physico-chemical removability | : | Remarks: No data available |

**Components:**

**Fatty acids, C16-18 and C18-unsatd., Me esters, sulfurized:**

| | | |
|---|---|---|
| Biodegradability | : | Result: Not readily biodegradable.<br>Biodegradation: 35 %<br>Exposure time: 28 d<br>Method: OECD Test Guideline 301B |

**dibutyl [[bis[(2-ethylhexyl)oxy]phosphinothioyl]thio]succinate:**

| | | |
|---|---|---|
| Biodegradability | : | Test Type: aerobic<br>Inoculum: activated sludge<br>Result: Not rapidly biodegradable<br>Biodegradation: 12,1 %<br>Exposure time: 28 d<br>Method: OECD Test Guideline 301B |

**Residual oils (petroleum), solvent-dewaxed; Baseoil — unspecified:**

| | | |
|---|---|---|
| Biodegradability | : | Test Type: aerobic<br>Inoculum: activated sludge<br>Result: Not rapidly biodegradable<br>Biodegradation: 3 %<br>Exposure time: 28 d<br>Method: OECD Test Guideline 301B<br>GLP: yes |

**Graphite (natural):**

Biodegradability : Remarks: The methods for determining biodegradability are not applicable to inorganic substances.

### 12.3 Bioaccumulative potential

**Product:**

Bioaccumulation : Remarks: No data available

**Components:**

**dibutyl [[bis[(2-ethylhexyl)oxy]phosphinothioyl]thio]succinate:**

Partition coefficient: n-octanol/water : log Pow: > 6,5
Method: OECD Test Guideline 117
GLP: yes

**Residual oils (petroleum), solvent-dewaxed; Baseoil — unspecified:**

Bioaccumulation : Remarks: No data available

Partition coefficient: n-octanol/water : Pow: > 3,5

### 12.4 Mobility in soil

**Product:**

Mobility : Remarks: No data available

Distribution among environmental compartments : Remarks: No data available

### 12.5 Results of PBT and vPvB assessment

**Product:**

Assessment : This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

**Components:**

**Residual oils (petroleum), solvent-dewaxed; Baseoil — unspecified:**

Assessment : Not very persistent and very bioaccumulative (vPvB).. Not persistent, bioaccumulative, and toxic (PBT).

**Asphalt:**

Assessment : Non-classified vPvB substance. Non-classified PBT substance

### 12.6 Endocrine disrupting properties

**Product:**

Assessment : The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

### 12.7 Other adverse effects

**Product:**

Additional ecological information : No information on ecology is available.

## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods

Product : The product should not be allowed to enter drains, water courses or the soil.
Do not dispose of with domestic refuse.
Dispose of as hazardous waste in compliance with local and national regulations.

Waste codes should be assigned by the user based on the application for which the product was used.

Contaminated packaging : Packaging that is not properly emptied must be disposed of as the unused product.
Dispose of waste product or used containers according to local regulations.

The following Waste Codes are only suggestions:

Waste Code : used product, unused product
12 01 12*, spent waxes and fats

uncleaned packagings
15 01 10*, packaging containing residues of or contaminated by hazardous substances

## SECTION 14: Transport information

### 14.1 UN number or ID number

**ADN** : Not regulated as a dangerous good

| | | |
|---|---|---|
| **ADR** | : | Not regulated as a dangerous good |
| **RID** | : | Not regulated as a dangerous good |
| **IMDG** | : | Not regulated as a dangerous good |
| **IATA** | : | Not regulated as a dangerous good |

**14.2 UN proper shipping name**

| | | |
|---|---|---|
| **ADN** | : | Not regulated as a dangerous good |
| **ADR** | : | Not regulated as a dangerous good |
| **RID** | : | Not regulated as a dangerous good |
| **IMDG** | : | Not regulated as a dangerous good |
| **IATA** | : | Not regulated as a dangerous good |

**14.3 Transport hazard class(es)**

| | | |
|---|---|---|
| **ADN** | : | Not regulated as a dangerous good |
| **ADR** | : | Not regulated as a dangerous good |
| **RID** | : | Not regulated as a dangerous good |
| **IMDG** | : | Not regulated as a dangerous good |
| **IATA** | : | Not regulated as a dangerous good |

**14.4 Packing group**

| | | |
|---|---|---|
| **ADN** | : | Not regulated as a dangerous good |
| **ADR** | : | Not regulated as a dangerous good |
| **RID** | : | Not regulated as a dangerous good |
| **IMDG** | : | Not regulated as a dangerous good |
| **IATA (Cargo)** | : | Not regulated as a dangerous good |
| **IATA (Passenger)** | : | Not regulated as a dangerous good |

**14.5 Environmental hazards**

| | | |
|---|---|---|
| **ADN** | : | Not regulated as a dangerous good |
| **ADR** | : | Not regulated as a dangerous good |
| **RID** | : | Not regulated as a dangerous good |
| **IMDG** | : | Not regulated as a dangerous good |

**14.6 Special precautions for user**

Not applicable

**14.7 Maritime transport in bulk according to IMO instruments**

| | | |
|---|---|---|
| Remarks | : | Not applicable for product as supplied. |

## OKS 490

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## SECTION 15: Regulatory information

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

| | | |
|---|---|---|
| REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles (Annex XVII) | : | Not applicable |
| REACH - Candidate List of Substances of Very High Concern for Authorisation (Article 59).<br>(EU SVHC) | : | This product does not contain substances of very high concern (Regulation (EC) No 1907/2006 (REACH), Article 57). |
| Regulation (EU) No 2024/590 on substances that deplete the ozone layer<br>(EC 2024/590) | : | Not applicable |
| Regulation (EU) 2019/1021 on persistent organic pollutants (recast)<br>(EU POP) | : | Not applicable |
| Regulation (EU) No 649/2012 of the European Parliament and the Council concerning the export and import of dangerous chemicals<br>(EU PIC) | : | Not applicable |
| REACH - List of substances subject to authorisation (Annex XIV)<br>(EU. REACH-Annex XIV) | : | Not applicable |
| Regulation (EU) 2019/1148 on the marketing and use of explosives precursors | | Not applicable |
| Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances. | | Not applicable |

Volatile organic compounds : Directive 2010/75/EU of 24 November 2010 on industrial and livestock rearing emissions (integrated pollution prevention and control)
Volatile organic compounds (VOC) content: 3,93 %

**Other regulations:**

Act of February 25, 2011 on chemical substances and their mixtures (i.e. Journal of Laws of 2020, item 2289)
Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006 (Official Journal of the European Union L 353 from 31.12.2008) with further adaptation to technical progress (ATP).
Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC (Official Journal of the European Union L 396 from 30.12.2006, as amended).
Commission Regulation (EU) 2020/878 of 18 June 2020 amending Annex II to Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH)
Ordinance of the Minister of Family, Labour and Social Policy of 12 June 2018 concerning the highest allowable concentrations and levels of the agents harmful for health in the workplace (Dz.U 2018 pos 1286, with later amendments).
Ordinance of the Minister of Health of 2nd February 2011 concerning tests and measurement of agents harmful for health in the workplace (Dz. U. Nr. 33, item 166 with later amendments).
Ordinance of the Minister of Health of 30th December 2004 on the health and safety of workers related to chemical agents at work (consolidated text, Journal of Laws 2016 no. 0 item 1488)
Act of 14 December 2012. on Waste (Journal of Laws of 2013. pos. 21, as amended).
Act of 13 June 2013. On packaging and packaging waste (Journal. U. of 2013. Item. 888, as amended).
Ordinance of the Minister of Climate of 2nd January 2020 on Waste Catalog (Dz. U. 2020 item 10).
Ordinance of the Minister of Environment on the requirements for carrying out the process of thermal treatment of waste and how to deal with waste produced in the process. (Dz. U. of 2016., Pos. 108)
Act of 19 August 2011 on transport of dangerous goods (Dz. U. Nr. 227, item 1367, as amended).
Government Statement of February 15, 2021 on the entry into force of amendments to Annexes A and B to Agreement concerning the International Carriage of Dangerous Goods by Road (ADR), drawn up in Geneva on September 30, 1957 (Journal of Laws 202 poz.874 as amended)
Act of July 29, 2005 on drug addiction prevention (Journal of Laws of 2005, No. 179, item 1485, with later amendments)
Regulation (EU) 2016/425 of the European Parliament and of the Council of 9 March 2016 on personal protective equipment and repealing Council Directive 89/686/EEC

### 15.2 Chemical safety assessment

This information is not available.

## SECTION 16: Other information

**Full text of H-Statements**

| | | |
|---|---|---|
| H317 | : | May cause an allergic skin reaction. |
| H412 | : | Harmful to aquatic life with long lasting effects. |
| H413 | : | May cause long lasting harmful effects to aquatic life. |

**Full text of other abbreviations**

| | | |
|---|---|---|
| Aquatic Chronic | : | Long-term (chronic) aquatic hazard |
| 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), in which case a classification in accordance with Title II of this Regulation shall be performed also for that hazard class. |
| Skin Sens. | : | Skin sensitisation |
| PL OEL | : | Ordinance of the Minister of Family, Labour and Social Policy of 12 June 2018 concerning the highest allowable concentrations and levels of the agents harmful for health in the workplace (Dz.U 2018 pos 1286, with later amendments) |
| PL OEL / NDS | : | Maximal Admissible Concentration |
| PL OEL / NDSch | : | Maximal Admissible Temporary Concentration |

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - Agreement concerning the International Carriage of Dangerous Goods by Road; AIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECHA - European Chemicals Agency; EC-Number - European Community number; ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; GHS - Globally Harmonised System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organisation; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardisation; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; NO(A)EC - No Observed (Adverse) Effect

Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NZIoC - New Zealand Inventory of Chemicals; OECD - Organisation for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RID - Regulations concerning the International Carriage of Dangerous Goods by Rail; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; SVHC - Substance of Very High Concern; TCSI - Taiwan Chemical Substance Inventory; TECI - Thailand Existing Chemicals Inventory; TRGS - Technical Rule for Hazardous Substances; TSCA - Toxic Substances Control Act (United States); UN - United Nations; vPvB - Very Persistent and Very Bioaccumulative

**Further information**

|| Relevant changes compared to the last edition are highlighted at the left margin. This version replaces all previous editions.

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