

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006 - DE  
(Commission Regulation (EU) 2020/878)



## OKS 464

|         |                |                                 |             |
|---------|----------------|---------------------------------|-------------|
| Version | Revision Date: | Date of last issue: 07.11.2022  | Print Date: |
| 1.4     | 09.02.2023     | Date of first issue: 13.06.2016 | 09.02.2023  |

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

### 1.1 Product identifier

Product name : OKS 464

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

Use of the Sub-  
stance/Mixture : Grease

Recommended restrictions : Restricted to professional users.  
on use

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

Company : OKS Spezialechmierstoffe GmbH  
Ganghoferstr. 47  
D-82216 Maisach-Gernlinden  
Tel.: +49 8142 3051 500  
Fax.: +49 8142 3051 599  
info@oks-germany.com

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

National contact :

### 1.4 Emergency telephone number

Emergency telephone num- : +49 8142 3051 517  
ber

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## 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.

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### 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 : Synthetic hydrocarbon oil  
lithium soap  
solid lubricant

#### 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) |
|---|---|--|--|-----------------------|
| Amines, C11-14-branched alkyl, mono-hexyl and dihexyl phosphates                                    | 80939-62-4<br>279-632-6<br><br>01-2119976322-36-XXXX      | Skin Irrit.2; H315<br>Eye Irrit.2; H319<br>Aquatic Chronic2;<br>H411 |  | $\geq 1 - < 2,5$      |
| 1,3,4-Thiadiazolidine-2,5-dithione, reaction products with hydrogen peroxide and tert-dodecanethiol | 939-692-2<br><br>01-2119983498-16-XXXX                    | Aquatic Chronic3;<br>H412  |  | $\geq 1 - < 2,5$      |
| Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene                               | 68411-46-1<br>270-128-1<br><br>01-2119491299-23-XXXX      | Repr.2; H361f<br>Aquatic Chronic3;<br>H412                           |  | $\geq 0,25 - < 1$     |

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| Substances with a workplace exposure limit : |   |                |  |             |
|--|---|----------------|--|-------------|
| Graphite                                     | 7782-42-5<br>231-955-3<br><br>01-2119486977-12-XXXX | 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.  
Get medical attention immediately if irritation develops and persists.  
Wash clothing before reuse.  
Thoroughly clean shoes before reuse.  
Wash off immediately with plenty of water.
- 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.  
Obtain medical attention.  
Never give anything by mouth to an unconscious person.

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

Risks : Causes skin irritation.

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

Treatment : Treat symptomatically.

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### 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  
Nitrogen oxides (NOx)  
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.  
Use the indicated respiratory protection if the occupational exposure limit is exceeded and/or in case of product release (dust).  
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 : Clean up promptly by sweeping or vacuum.  
Keep in suitable, closed containers for disposal.

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### 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.

Storage class (TRGS 510) : 11, Combustible Solids

### 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                    |
|---|-----------|-------------------------------|----------------------|--------------------------|
| Graphite  | 7782-42-5 | AGW (Inhalable fraction)      | 10 mg/m <sup>3</sup> | DE TRGS 900 (2014-04-02) |
| Peak-limit: excursion factor (category): 2;(II)                           |           |                               |                      |                          |
| Further information: When there is compliance with the OEL and biological |           |                               |                      |                          |

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|  | tolerance values, there is no risk of harming the unborn child   |
|  | AGW (Alveolate fraction) 1,25 mg/m <sup>3</sup> DE TRGS 900 (2014-04-02)   |
|  | Peak-limit: excursion factor (category): 2;(II)  |
|  | Further information: When there is compliance with the OEL and biological tolerance values, there is no risk of harming the unborn child |

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

| Substance name  | End Use | Exposure routes | Potential health effects   | Value                   |
|---|---------|-----------------|----------------------------|-------------------------|
| Carbon black  | Workers | Inhalation      | Long-term local effects    | 0,5 mg/m <sup>3</sup>   |
| Graphite  | Workers | Inhalation      | Long-term systemic effects | 1,2 mg/m <sup>3</sup>   |
| Amines, C11-14-branched alkyl, monohexyl and dihexyl phosphates                                     | Workers | Inhalation      | Long-term systemic effects | 0,2 mg/m <sup>3</sup>   |
|   | Workers | Skin contact    | Long-term systemic effects | 0,03 mg/kg              |
|   | Workers | Skin contact    | Acute systemic effects     | 0,03 mg/kg              |
| 1,3,4-Thiadiazolidine-2,5-dithione, reaction products with hydrogen peroxide and tert-dodecanethiol | Workers | Inhalation      |                            | 4,408 mg/m <sup>3</sup> |
|   | Workers | Dermal          |                            | 6,25 mg/kg bw/day       |
| Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene                               | Workers | Inhalation      | Long-term systemic effects | 0,31 mg/m <sup>3</sup>  |
|   | Workers | Skin contact    | Long-term systemic effects | 0,44 mg/kg bw/day       |

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

| Substance name  | Environmental Compartment | Value        |
|---|---------------------------|--------------|
| Carbon black  | Fresh water               | 5 mg/l       |
|   | Marine water              | 5 mg/l       |
| Amines, C11-14-branched alkyl, monohexyl and dihexyl phosphates | Fresh water               | 0,055 mg/l   |
|   | Intermittent use/release  | 0,01 mg/l    |
|   | Marine water              | 0,005 mg/l   |
|   | Sewage treatment plant    | 1 mg/l       |
|   | Fresh water sediment      | 239,64 mg/kg |
|   | Marine sediment           | 23,96 mg/kg  |
|   | Soil                      | 47,76 mg/kg  |
| 1,3,4-Thiadiazolidine-2,5-dithione, reaction products with      | Fresh water               | 0,041 mg/l   |

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|---|--|--------------|
| hydrogen peroxide and tert-dodecanethiol                              |  |              |
|   | Marine water   | 0,0041 mg/l  |
|   | Fresh water sediment                                 | 380,62 mg/kg |
|   | Marine sediment                                      | 38,06 mg/kg  |
|   | Sewage treatment plant                               | 8000 mg/l    |
|   | Soil   | 308,98 mg/kg |
| Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene | Fresh water  | 0,034 mg/l   |
|   | Marine water   | 0,003 mg/l   |
|   | Microbiological Activity in Sewage Treatment Systems | 10 mg/l      |
|   | Fresh water sediment                                 | 0,446 mg/kg  |
|   | Marine sediment                                      | 0,045 mg/kg  |
|   | Soil   | 1,76 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 protection : Safety glasses with side-shields

### 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.  
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.

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### SECTION 9: Physical and chemical properties

#### 9.1 Information on basic physical and chemical properties

|  |   |  |
|--|---|--|
| Physical state                                   | : | paste                                      |
| Colour   | : | black                                      |
| Odour  | : | characteristic                             |
| Odour Threshold                                  | : | No data available                          |
| Melting point/range                              | : | No data available                          |
| Boiling point/boiling range                      | : | No data available                          |
| 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                                  | : | ca. < 0,013 hPa (20 °C)                    |
| Relative density                                 | : | 0,89 (20 °C)<br>Reference substance: Water |



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The value is calculated

Density : 0,89 g/cm<sup>3</sup>  
(20 °C)

Bulk density : No data available

Relative vapour density : No data available

### 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.

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### SECTION 11: Toxicological information

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

##### Acute toxicity

###### 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:

###### **Amines, C11-14-branched alkyl, monohexyl and dihexyl phosphates:**

Acute oral toxicity : LD50 (Rat): > 5.000 mg/kg  
Method: OECD Test Guideline 401  
Acute dermal toxicity : LD50 (Rat): > 2.000 mg/kg  
Method: OECD Test Guideline 402  
Assessment: The substance or mixture has no acute dermal toxicity

###### **1,3,4-Thiadiazolidine-2,5-dithione, reaction products with hydrogen peroxide and tert-dodecanethiol:**

Acute oral toxicity : LD50 (Rat): > 5.000 mg/kg  
Acute dermal toxicity : LD50 (Rat): > 2.000 mg/kg  
Method: OECD Test Guideline 402  
Assessment: The substance or mixture has no acute dermal toxicity

###### **Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene:**

Acute oral toxicity : LD50 (Rat): > 5.000 mg/kg  
Method: OECD Test Guideline 401  
Acute dermal toxicity : LD50 (Rat): > 2.000 mg/kg  
Method: OECD Test Guideline 402  
Assessment: The substance or mixture has no acute dermal toxicity

###### **Graphite:**

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

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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

#### Product:

Remarks : Irritating to skin.

#### Components:

##### **Amines, C11-14-branched alkyl, monohexyl and dihexyl phosphates:**

Species : Rabbit  
Assessment : Irritating to skin.  
Method : OECD Test Guideline 404  
Result : Irritating to skin.

##### **1,3,4-Thiadiazolidine-2,5-dithione, reaction products with hydrogen peroxide and tert-dodecanethiol:**

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

##### **Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene:**

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

#### **Graphite:**

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

### Serious eye damage/eye irritation

#### Product:

Remarks : Irritating to eyes.

#### Components:

##### **Amines, C11-14-branched alkyl, monohexyl and dihexyl phosphates:**

Species : Rabbit  
Assessment : Irritating to eyes.  
Method : OECD Test Guideline 405

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Result : Irritating to eyes.

### **1,3,4-Thiadiazolidine-2,5-dithione, reaction products with hydrogen peroxide and tert-dodecanethiol:**

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

### **Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene:**

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

### **Graphite:**

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

### **Respiratory or skin sensitisation**

#### **Product:**

Remarks : This information is not available.

#### **Components:**

### **Amines, C11-14-branched alkyl, monohexyl and dihexyl phosphates:**

Species : Guinea pig  
Assessment : Did not cause sensitisation on laboratory animals.  
Result : Did not cause sensitisation on laboratory animals.

### **1,3,4-Thiadiazolidine-2,5-dithione, reaction products with hydrogen peroxide and tert-dodecanethiol:**

Species : Guinea pig  
Assessment : Does not cause skin sensitisation.  
Result : Does not cause skin sensitisation.

### **Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene:**

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

### **Graphite:**

Species : Mouse  
Method : OECD Test Guideline 429

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Result : negative

### Germ cell mutagenicity

#### Product:

Genotoxicity in vitro : Remarks: No data available

Genotoxicity in vivo : Remarks: No data available

#### Components:

##### **Amines, C11-14-branched alkyl, monohexyl and dihexyl phosphates:**

Genotoxicity in vitro : Test Type: Chromosome aberration test in vitro  
Test system: Rodent cell line  
Metabolic activation: with and without metabolic activation  
Method: OECD Test Guideline 473  
Result: negative

##### **Graphite:**

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

#### Product:

Remarks : No data available

### Reproductive toxicity

#### Product:

Effects on fertility : Remarks: No data available

Effects on foetal development : Remarks: No data available

#### Components:

##### **Amines, C11-14-branched alkyl, monohexyl and dihexyl phosphates:**

Effects on foetal development : Species: Rat  
Application Route: Oral

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Method: OECD Test Guideline 422  
Result: No effects on fertility and early embryonic development were detected.

Reproductive toxicity - Assessment : - Fertility -  
No toxicity to reproduction

### **Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene:**

Reproductive toxicity - Assessment : - Fertility -  
Some evidence of adverse effects on sexual function and fertility, based on animal experiments.

### **Graphite:**

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**

#### **Components:**

### **Amines, C11-14-branched alkyl, monohexyl and dihexyl phosphates:**

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

### **STOT - repeated exposure**

#### **Components:**

### **Amines, C11-14-branched alkyl, monohexyl and dihexyl phosphates:**

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:**

### **Amines, C11-14-branched alkyl, monohexyl and dihexyl phosphates:**

Species : Rat  
LOAEL : 10 mg/kg  
Application Route : Oral  
Method : OECD Test Guideline 422

### **Graphite:**

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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

#### Product:

This information is not available.

#### Components:

##### **Amines, C11-14-branched alkyl, monoethyl and diethyl phosphates:**

No aspiration toxicity classification

## 11.2 Information on other hazards

### 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.

### Further information

#### Product:

Remarks : Ingestion causes irritation of upper respiratory system and gastrointestinal disturbance.

#### Components:

##### **Amines, C11-14-branched alkyl, monoethyl and diethyl phosphates:**

Remarks : Ingestion causes irritation of upper respiratory system and gastrointestinal disturbance.

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## 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:

##### **Amines, C11-14-branched alkyl, monoethyl and diethyl phosphates:**

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): 5,5 mg/l  
Exposure time: 96 h  
Method: OECD Test Guideline 203

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 1,2 mg/l  
Exposure time: 48 h  
Method: OECD Test Guideline 202

Toxicity to algae/aquatic plants : EC50 (Selenastrum capricornutum (green algae)): > 10 mg/l  
Exposure time: 72 h  
Method: OECD Test Guideline 201

Toxicity to microorganisms : EC50 (activated sludge): > 100 mg/l  
Exposure time: 3 h

##### **1,3,4-Thiadiazolidine-2,5-dithione, reaction products with hydrogen peroxide and tert-dodecanethiol:**

Toxicity to fish : LC50 (Pimephales promelas (fathead minnow)): > 1.000 mg/l  
Exposure time: 96 h

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 41 mg/l  
Exposure time: 48 h

Toxicity to algae/aquatic plants : EC50 (Pseudokirchneriella subcapitata (microalgae)): > 100 mg/l  
Exposure time: 72 h

Toxicity to microorganisms : EC50 (Pseudomonas putida): > 8.000 mg/l  
Exposure time: 16 h

##### **Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene:**



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Toxicity to fish : LC50 (Danio rerio (zebra fish)): > 100 mg/l  
Exposure time: 96 h  
Test Type: static test  
Method: OECD Test Guideline 203

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 51 mg/l  
Exposure time: 48 h  
Test Type: static test  
Method: OECD Test Guideline 202

Toxicity to algae/aquatic plants : EC50 (Desmodesmus subspicatus (green algae)): > 100 mg/l  
Exposure time: 72 h  
Test Type: static test  
Method: OECD Test Guideline 201

### Graphite:

Toxicity to fish : LC50 (Danio rerio (zebra fish)): > 100 mg/l  
Exposure time: 96 h  
Method: OECD Test Guideline 203

Toxicity to daphnia and other aquatic invertebrates : (Daphnia magna (Water flea)): > 100 mg/l  
Exposure time: 48 h  
Method: OECD Test Guideline 202

Toxicity to algae/aquatic plants : EC50 (Pseudokirchneriella subcapitata (green algae)): > 100 mg/l  
Exposure time: 72 h  
Method: OECD Test Guideline 201

## 12.2 Persistence and degradability

### Product:

Biodegradability : Remarks: No data available

Physico-chemical removability : Remarks: No data available

### Components:

#### Amines, C11-14-branched alkyl, monohexyl and dihexyl phosphates:

Biodegradability : Result: Not rapidly biodegradable  
Biodegradation: 12 %  
Method: OECD Test Guideline 301B

#### 1,3,4-Thiadiazolidine-2,5-dithione, reaction products with hydrogen peroxide and tert-dodecanethiol:

Biodegradability : Result: Not rapidly biodegradable  
Biodegradation: 0 %  
Exposure time: 28 d

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### **Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene:**

Biodegradability : Test Type: aerobic  
Inoculum: activated sludge  
Result: Not rapidly biodegradable  
Biodegradation: 1 %  
Exposure time: 28 d  
Method: OECD Test Guideline 301B  
GLP: yes

### **Graphite:**

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

## 12.3 Bioaccumulative potential

### **Product:**

Bioaccumulation : Remarks: This mixture contains no substance considered to be persistent, bioaccumulating and toxic (PBT).  
This mixture contains no substance considered to be very persistent and very bioaccumulating (vPvB).

### **Components:**

#### **Amines, C11-14-branched alkyl, monohexyl and dihexyl phosphates:**

Partition coefficient: n- : log Pow: < 2,3 (23 °C)  
octanol/water pH: 7

#### **1,3,4-Thiadiazolidine-2,5-dithione, reaction products with hydrogen peroxide and tert-dodecanethiol:**

Bioaccumulation : Bioconcentration factor (BCF): 3,16

Partition coefficient: n- : log Pow: 8  
octanol/water

#### **Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene:**

Partition coefficient: n- : log Pow: > 5  
octanol/water

## 12.4 Mobility in soil

### **Product:**

Mobility : Remarks: No data available

Distribution among environmental compartments : Remarks: No data available

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### 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.

### 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.

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## 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

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### 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

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### 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.

## 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). (EU SVHC) : This product does not contain substances of very high concern (Regulation (EC) No 1907/2006 (REACH), Article 57).
- REACH - List of substances subject to authorisation (Annex XIV) (EU. REACH-Annex XIV) : Not applicable
- Regulation (EC) No 1005/2009 on substances that deplete the ozone layer (EC 1005/2009) : Not applicable
- Regulation (EU) 2019/1021 on persistent organic pollutants (recast) (EU POP) : Not applicable
- Regulation (EC) No 649/2012 of the European Parliament and the Council concerning the export and import of dangerous chemicals (EU PIC) : 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
- Water hazard class (Germany) : WGK 1 slightly hazardous to water  
Classification according to AwSV, Annex 1 (5.2)
- TA Luft List (Germany) : Total dust:  
others: 14,4 %
- Inorganic substances in powdered form:  
Not applicable  
Inorganic substances in vapour or gaseous form:  
Not applicable

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Organic Substances:  
portion Class 1: 0,5 %  
others: 85,1 %

Carcinogenic substances:  
Not applicable  
Mutagenic:  
Not applicable  
Toxic to reproduction:  
Not applicable

Volatile organic compounds : Directive 2010/75/EU of 24 November 2010 on industrial emissions (integrated pollution prevention and control)  
Not applicable

### 15.2 Chemical safety assessment

This information is not available.

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## SECTION 16: Other information

### Full text of H-Statements

H315 : Causes skin irritation.  
H319 : Causes serious eye irritation.  
H361f : Suspected of damaging fertility.  
H411 : Toxic to aquatic life with long lasting effects.  
H412 : Harmful to aquatic life with long lasting effects.

### Full text of other abbreviations

DE TRGS 900 : Germany. TRGS 900 - Occupational exposure limit values.  
DE TRGS 900 / AGW : Time Weighted Average

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 Harmonized 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;

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IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; 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 - Organization 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

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