

# SAFETY DATA SHEET

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



## STABUTHERM GH 461

Version	Revision Date:	Date of last issue: 23.07.2020	Print Date:
5.0	17.11.2021	Date of first issue: 29.10.2015	17.11.2021

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

#### 1.1 Product identifier

Product name : STABUTHERM GH 461

Article-No. : 020500

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

Use of the Sub-  
stance/Mixture : Grease

Recommended restrictions on use : Restricted to professional users.

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

Company : Klüber Lubrication München  
Geisenhausenerstr. 7  
81379 München  
Deutschland  
Tel: +49 (0) 89 7876 0  
Fax: +49 (0) 89 7876 333  
info@klueber.com

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

National contact : Klüber Lubrication Deutschland  
Geisenhausenerstraße 7  
81379 München  
Deutschland  
Tel.: +49 89 7876 0  
Fax: +49 89 7876 565  
customer.service.de@klueber.com  
www.klueber.com

#### 1.4 Emergency telephone number

Emergency telephone number : +49 89 7876 700 (24 hrs)

### SECTION 2: Hazards identification

#### 2.1 Classification of the substance or mixture

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

Eye irritation, Category 2 H319: Causes serious eye irritation.

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**Skin sensitisation, Category 1**

**H317: May cause an allergic skin reaction.**

### 2.2 Label elements

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

Hazard pictograms :



Signal word : Warning

Hazard statements : H317 May cause an allergic skin reaction.  
H319 Causes serious eye irritation.

Precautionary statements : **Prevention:**

P264

Wash skin thoroughly after handling.

P272

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

P280

Wear protective gloves/ eye protection/ face protection.

#### **Response:**

P333 + P313

If skin irritation or rash occurs: Get medical advice/ attention.

P337 + P313

If eye irritation persists: Get medical advice/ attention.

P362 + P364

Take off contaminated clothing and wash it before reuse.

#### Hazardous components which must be listed on the label:

4-ethyl-2-(8-heptadecenyl)-2-oxazoline-4-methanol

Condensation products of fatty acids, tall oil with 2-amino-2-ethylpropanediol

### 2.3 Other hazards

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).

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.

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### SECTION 3: Composition/information on ingredients

#### 3.2 Mixtures

Chemical nature : Mineral oil.  
polyurea

#### Components

Chemical name	CAS-No. EC-No.  Index-No. Registration number	Classification	specific concentration limit M-Factor Notes Acute toxicity estimate	Concentration (% w/w)
reaction product of diphenylmethanediisocyanate, octylamine and oleylamine (molar ratio 1:1.86:0.14)	430-930-6  01-0000017717-62-0001  01-0000017717-62-0000 01-0000017717-62-0002	Aquatic Chronic4; H413		>= 2,5 - < 10
zinc bis[O,O-bis(2-ethylhexyl)] bis(dithiophosphate)	4259-15-8 224-235-5  01-2119493635-27-XXXX	Eye Dam.1; H318 Aquatic Chronic2; H411	> 50 % Eye Dam.1, H318	>= 1 - < 2,5
4-ethyl-2-(8-heptadecenyl)-2-oxazoline-4-methanol	68140-98-7 268-820-3  01-2120795751-43-XXXX	Skin Sens.1A; H317 Aquatic Chronic3; H412		>= 0,25 - < 1
Condensation products of fatty acids, tall oil with 2-amino-2-ethylpropanediol	946-010-7  01-2120770934-44-XXXX	Skin Sens.1; H317		>= 0,1 - < 1
Substances with a workplace exposure limit :				

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residual oils (petroleum), hydrotreated	64742-57-0 265-160-8  649-470-00-4 01-2119489287-22-XXXX	Not classified	Note L	>= 90 - <= 100
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For explanation of abbreviations see section 16.

## SECTION 4: First aid measures

### 4.1 Description of first aid measures

- |                         |  |
|-------------------------|--|
| If inhaled              | : Remove person to fresh air. If signs/symptoms continue, get medical attention.<br>Keep patient warm and at rest.<br>If unconscious, place in recovery position and seek medical advice.<br>Keep respiratory tract clear.<br>If breathing is irregular or stopped, administer artificial respiration. |
| In case of skin contact | : Take off all contaminated clothing immediately.<br>Wash off immediately with soap and plenty of water.<br>Get medical attention immediately if irritation develops and persists.<br>Wash clothing before reuse.<br>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.<br>Seek medical advice.   |
| If swallowed            | : Move the victim to fresh air.<br>If unconscious, place in recovery position and seek medical advice.<br>Keep respiratory tract clear.<br>Do not induce vomiting without medical advice.<br>Never give anything by mouth to an unconscious person.  |

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

- |          |  |
|----------|--|
| Symptoms | : Allergic appearance                  |
| Risks    | : May cause an allergic skin reaction. |

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

- |           |  |
|-----------|--|
| Treatment | : The first aid procedure should be established in consultation with the doctor responsible for industrial medicine. |
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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

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

Hazardous combustion products : Carbon oxides  
Nitrogen oxides (NO<sub>x</sub>)

#### 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.

#### 6.4 Reference to other sections

For personal protection see section 8.

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### 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.  
Persons with a history of skin sensitisation problems or asthma, allergies, chronic or recurrent respiratory disease should not be employed in any process in which this mixture is being used.  
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
residual oils (petroleum), hydrotreated	64742-57-0	AGW (Vapour and aerosols)	5 mg/m <sup>3</sup>	DE TRGS 900 (2018-06-07)
Peak-limit: excursion factor (category): 4;(II)				

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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
residual oils (petroleum), hydrotreated	Workers	Inhalation	Long-term systemic effects	2,7 mg/m <sup>3</sup>
	Workers	Inhalation	Acute systemic effects	5,6 mg/m <sup>3</sup>
	Workers	Skin contact	Long-term systemic effects	1 mg/kg
zinc bis[O,O-bis(2-ethylhexyl)] bis(dithiophosphate)	Workers	Inhalation	Long-term systemic effects	6,6 mg/m <sup>3</sup>
	Workers	Skin contact	Long-term systemic effects	9,6 mg/m <sup>3</sup>
Condensation products of fatty acids, tall oil with 2-amino-2-ethylpropanediol	Workers	Dermal	Long-term systemic effects	8,33 mg/kg bw/day

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

Substance name	Environmental Compartment	Value
zinc bis[O,O-bis(2-ethylhexyl)] bis(dithiophosphate)	Fresh water	0,004 mg/l
	Marine water	0,0046 mg/l
	Sewage treatment plant	3,8 mg/l
	Fresh water sediment	0,322 mg/l
	Marine sediment	0,032 mg/l
	Soil	0,062 mg/l

## 8.2 Exposure controls

### Engineering measures

none

### 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.

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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.  
Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

Physical state : paste

Colour : beige

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

Decomposition temperature : No data available

pH : Not applicable  
substance/mixture is non-soluble (in water)

Viscosity



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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	:	0,9 (20 °C) Reference substance: Water The value is calculated
Density	:	0,90 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.
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### 10.4 Conditions to avoid

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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 toxicological effects

#### Acute toxicity

##### Product:

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

Acute dermal toxicity : Symptoms: Redness, Local irritation

##### Components:

#### reaction product of diphenylmethanediisocyanate, octylamine and oleylamine (molar ratio 1:1.86:0.14):

Acute oral toxicity : LD50 (Rat): > 2.000 mg/kg  
Method: Directive 67/548/EEC, Annex V, B.1.  
GLP: yes

Acute dermal toxicity : LD50 (Rat): > 2.000 mg/kg  
Method: OECD Test Guideline 402  
GLP: yes

#### zinc bis[O,O-bis(2-ethylhexyl)] bis(dithiophosphate):

Acute oral toxicity : LD50 (Rat, male): 3.100 mg/kg  
Method: OECD Test Guideline 401  
GLP: no

Acute dermal toxicity : LD50 (Rabbit, male): > 5.000 mg/kg  
Method: OECD Test Guideline 402  
GLP: no

#### 4-ethyl-2-(8-heptadecenyl)-2-oxazoline-4-methanol:

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

#### Condensation products of fatty acids, tall oil with 2-amino-2-ethylpropanediol:

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Acute oral toxicity : LD50 (Rat): > 2.000 mg/kg  
Method: OECD Test Guideline 425  
Assessment: The substance or mixture has no acute oral toxicity

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

### residual oils (petroleum), hydrotreated:

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

Acute dermal toxicity : LD50 (Rat): > 5.000 mg/kg  
Method: OECD Test Guideline 402

### Skin corrosion/irritation

#### Product:

Remarks : This information is not available.

#### Components:

#### reaction product of diphenylmethanediisocyanate, octylamine and oleylamine (molar ratio 1:1.86:0.14):

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

#### zinc bis[O,O-bis(2-ethylhexyl)] bis(dithiophosphate):

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

#### 4-ethyl-2-(8-heptadecenyl)-2-oxazoline-4-methanol:

Species : human skin  
Assessment : No skin irritation  
Result : No skin irritation

#### Condensation products of fatty acids, tall oil with 2-amino-2-ethylpropanediol:

Species : reconstructed human epidermis (RhE)  
Assessment : No skin irritation  
Result : No skin irritation

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### residual oils (petroleum), hydrotreated:

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:

### reaction product of diphenylmethanediisocyanate, octylamine and oleylamine (molar ratio 1:1.86:0.14):

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

### zinc bis[O,O-bis(2-ethylhexyl)] bis(dithiophosphate):

Species	:	Rabbit
Assessment	:	Risk of serious damage to eyes.
Method	:	OECD Test Guideline 405
Result	:	Risk of serious damage to eyes.
GLP	:	yes

### 4-ethyl-2-(8-heptadecenyl)-2-oxazoline-4-methanol:

Assessment	:	No eye irritation
Result	:	No eye irritation

### Condensation products of fatty acids, tall oil with 2-amino-2-ethylpropanediol:

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

### residual oils (petroleum), hydrotreated:

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.

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### Components:

**reaction product of diphenylmethanediisocyanate, octylamine and oleylamine (molar ratio 1:1.86:0.14):**

Test Type	: Maximisation Test
Species	: Guinea pig
Method	: OECD Test Guideline 406
Result	: Does not cause skin sensitisation.
GLP	: yes

**zinc bis[O,O-bis(2-ethylhexyl)] bis(dithiophosphate):**

Test Type	: Maximisation Test
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

**4-ethyl-2-(8-heptadecenyl)-2-oxazoline-4-methanol:**

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

**Condensation products of fatty acids, tall oil with 2-amino-2-ethylpropanediol:**

Assessment	: May cause sensitisation by skin contact.
Result	: May cause sensitisation by skin contact.

**residual oils (petroleum), hydrotreated:**

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

Assessment	: Does not cause respiratory sensitisation.
Result	: Does not cause respiratory sensitisation.

### **Germ cell mutagenicity**

#### Product:

Genotoxicity in vitro	: Remarks: No data available
Genotoxicity in vivo	: Remarks: No data available

### Components:

**reaction product of diphenylmethanediisocyanate, octylamine and oleylamine (molar ratio 1:1.86:0.14):**

Genotoxicity in vitro	: Test Type: Chromosome aberration test in vitro
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Result: negative

### Condensation products of fatty acids, tall oil with 2-amino-2-ethylpropanediol:

Genotoxicity in vitro : Remarks: In vitro tests did not show mutagenic effects

### Carcinogenicity

#### Product:

Remarks : No data available

#### Components:

#### residual oils (petroleum), hydrotreated:

Carcinogenicity - Assessment : Not classifiable as a human carcinogen.

### Reproductive toxicity

#### Product:

Effects on fertility : Remarks: No data available

Effects on foetal development : Remarks: No data available

#### Components:

#### Condensation products of fatty acids, tall oil with 2-amino-2-ethylpropanediol:

Reproductive toxicity - Assessment : - Fertility -  
Animal testing did not show any effects on fertility.

### Repeated dose toxicity

#### Product:

Remarks : This information is not available.

### Aspiration toxicity

#### Product:

This information is not available.

#### Components:

#### zinc bis[O,O-bis(2-ethylhexyl)] bis(dithiophosphate):

No aspiration toxicity classification

#### residual oils (petroleum), hydrotreated:

No aspiration toxicity classification

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### 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:

**reaction product of diphenylmethanediisocyanate, octylamine and oleylamine (molar ratio 1:1.86:0.14):**

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

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): > 100 mg/l  
Exposure time: 48 h  
Test Type: Immobilization  
Method: OECD Test Guideline 202  
GLP: yes

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

Toxicity to microorganisms : EC50 (Bacteria): > 1.000 mg/l  
Exposure time: 3 h  
Test Type: Respiration inhibition  
Method: OECD Test Guideline 209

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GLP: yes

### **zinc bis[O,O-bis(2-ethylhexyl)] bis(dithiophosphate):**

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): 4,4 mg/l  
Exposure time: 96 h  
Test Type: semi-static test  
Method: OECD Test Guideline 203  
GLP: yes

Toxicity to daphnia and other : EC50 (Daphnia magna (Water flea)): 75 mg/l  
aquatic invertebrates  
Exposure time: 48 h  
Test Type: Immobilization  
Method: OECD Test Guideline 202  
GLP: yes

Toxicity to algae/aquatic : ErC50 (Desmodesmus subspicatus (green algae)): 240 mg/l  
plants  
Exposure time: 72 h  
Test Type: Growth inhibition  
Method: OECD Test Guideline 201  
GLP: yes

Toxicity to microorganisms : EC50 (Pseudomonas putida): 380 mg/l  
Exposure time: 16 h  
Test Type: static test  
GLP: yes

Toxicity to daphnia and other : NOEC: > 0,8 mg/l  
aquatic invertebrates (Chronic toxicity)  
Exposure time: 21 d  
Species: Daphnia magna (Water flea)  
Method: OECD Test Guideline 211  
GLP: yes  
Remarks: Information given is based on data obtained from similar substances.

### **4-ethyl-2-(8-heptadecenyl)-2-oxazoline-4-methanol:**

Toxicity to daphnia and other : EC50 (Daphnia magna (Water flea)): 69,17 mg/l  
aquatic invertebrates  
Exposure time: 48 h  
Test Type: static test  
Method: OECD Test Guideline 202

Toxicity to algae/aquatic : EC50 (Desmodesmus subspicatus (green algae)): 65,6 mg/l  
plants  
Exposure time: 72 h  
Test Type: static test  
Method: OECD Test Guideline 201  
GLP: yes

### **residual oils (petroleum), hydrotreated:**

Toxicity to fish : LC50 (Pimephales promelas (fathead minnow)): > 100 mg/l  
Exposure time: 96 h  
Test Type: static test



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Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): > 10.000 mg/l  
Exposure time: 48 h  
Test Type: Immobilization

### 12.2 Persistence and degradability

#### Product:

Biodegradability : Remarks: No data available

Physico-chemical removability : Remarks: No data available

#### Components:

**reaction product of diphenylmethanediisocyanate, octylamine and oleylamine (molar ratio 1:1.86:0.14):**

Biodegradability : Test Type: Primary biodegradation  
Inoculum: activated sludge  
Result: Not rapidly biodegradable  
Biodegradation: 10 %  
Exposure time: 28 d  
Method: OECD Test Guideline 301F  
GLP: yes

**zinc bis[O,O-bis(2-ethylhexyl)] bis(dithiophosphate):**

Biodegradability : Result: Not rapidly biodegradable  
Biodegradation: < 5 %  
Exposure time: 27 d  
Method: OECD Test Guideline 301D  
GLP: no

**4-ethyl-2-(8-heptadecenyl)-2-oxazoline-4-methanol:**

Biodegradability : Result: Not rapidly biodegradable  
Biodegradation: 34,73 %  
Method: OECD Test Guideline 301B

**Condensation products of fatty acids, tall oil with 2-amino-2-ethylpropanediol:**

Biodegradability : Result: Not rapidly biodegradable

**residual oils (petroleum), hydrotreated:**

Biodegradability : Result: Not rapidly biodegradable

### 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

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persistent and very bioaccumulating (vPvB).

### Components:

**reaction product of diphenylmethanediisocyanate, octylamine and oleylamine (molar ratio 1:1.86:0.14):**

Partition coefficient: n-octanol/water : log Pow: > 6

**zinc bis[O,O-bis(2-ethylhexyl)] bis(dithiophosphate):**

Partition coefficient: n-octanol/water : log Pow: 3,59 (22 °C)  
pH: 5  
Method: OECD Test Guideline 107  
GLP: yes

**4-ethyl-2-(8-heptadecenyl)-2-oxazoline-4-methanol:**

Partition coefficient: n-octanol/water : log Pow: 3,42 (20 °C)

**Condensation products of fatty acids, tall oil with 2-amino-2-ethylpropanediol:**

Bioaccumulation : Bioconcentration factor (BCF): < 100

Partition coefficient: n-octanol/water : log Pow: 9,01

## 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 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)..

: 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:

**zinc bis[O,O-bis(2-ethylhexyl)] bis(dithiophosphate):**

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

### 4-ethyl-2-(8-heptadecenyl)-2-oxazoline-4-methanol:

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

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### SECTION 14: Transport information

#### 14.1 UN number or ID number

Not regulated as a dangerous good

#### 14.2 UN proper shipping name

Not regulated as a dangerous good

#### 14.3 Transport hazard class(es)

Not regulated as a dangerous good

#### 14.4 Packing group

Not regulated as a dangerous good

#### 14.5 Environmental hazards

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.

### 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, preparations and articles (Annex XVII) : Not applicable

REACH - Candidate List of Substances of Very High Concern for Authorisation (Article 59). : 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) : Not applicable

Regulation (EC) No 1005/2009 on substances that deplete the ozone layer : Not applicable

Regulation (EU) 2019/1021 on persistent organic pollutants (recast) : Not applicable

Regulation (EC) No 649/2012 of the European Parliament and the Council concerning the export and import of dangerous chemicals : Not applicable

Seveso III: Directive 2012/18/EU of the European : Not applicable

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Parliament and of the Council on the control of major-accident hazards involving dangerous substances.

Water contaminating class : WGK 1 slightly hazardous to water  
(Germany) Classification according to AwSV, Annex 1 (5.2)

TA Luft List (Germany) : Total dust:  
others: 8,1 %

Inorganic substances in powdered form:  
Not applicable  
Inorganic substances in vapour or gaseous form:  
Not applicable  
Organic Substances:  
portion Class 1: < 0,01 %  
others: 91,9 %

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)  
Volatile organic compounds (VOC) content: 0,5 %

### Other regulations:

Take note of Directive 94/33/EC on the protection of young people at work or stricter national regulations, where applicable.

## 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.
H318	: Causes serious eye damage.
H411	: Toxic to aquatic life with long lasting effects.
H412	: Harmful to aquatic life with long lasting effects.
H413	: May cause long lasting harmful effects to aquatic life.

### Full text of other abbreviations

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Note L : The classification as a carcinogen need not apply if it can be shown that the substance contains less than 3 % DMSO 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. This note applies only to certain complex oil-derived substances in Part 3.

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 - European 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; 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; TRGS - Technical Rule for Hazardous Substances; TSCA - Toxic Substances Control Act (United States); UN - United Nations; vPvB - Very Persistent and Very Bioaccumulative

### Further information

#### Classification of the mixture:

Eye Irrit. 2 H319

**Skin Sens. 1 H317**

#### Classification procedure:

Calculation method

**Calculation method**

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