OKS 473

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2.0	07.02.2025	Date of first issue: 02.05.2016	07.02.2025

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

1.1 Product identifier

Product name : OKS 473

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-Gernlinden
Deutschland
Tel.: +49 8142 3051 500
Fax: +49 8142 3051 599
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

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008)

Long-term (chronic) aquatic hazard, Category 2	H411: Toxic to aquatic life with long lasting effects.

2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008)

Hazard pictograms :

Hazard statements : H411 Toxic to aquatic life with long lasting effects.

Precautionary statements : **Prevention:**

P273 Avoid release to the environment.

Response:

P391 Collect spillage.

2.3 Other hazards

This substance/mixture contains components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB).

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
aluminium complex soap

Components

Chemical name	CAS-No. EC-No. Index-No. Registration number	Classification	specific concentration limit M-Factor Notes Acute toxicity estimate	Concentration (% w/w)
N-methyl-N-[C18-(unsaturated)alkanoyl] glycine	701-177-3 01-2119488991-20-XXXX	Acute Tox.4; H332 Skin Irrit.2; H315 Eye Dam.1; H318 Aquatic Acute1; H400 Aquatic Chronic3;	M-Factor: 1/	>= 0,25 - < 1

		H412	ATE ATE (Inhalation): 1,37 mg/l;	
O,O,O-triphenyl phosphorothioate	597-82-0 209-909-9 01-2119979545-21-XXXX	Aquatic Chronic1; H410	M-Factor: /10	>= 0,25 - < 1
Amines, C12-14-alkyl, isooctyl phosphates	68187-67-7 269-119-5 01-2120286234-55-XXXX	Acute Tox.4; H302 Acute Tox.4; H312 Skin Corr.1C; H314 Eye Dam.1; H318 Aquatic Acute1; H400 Aquatic Chronic2; H411; EUH071		>= 0,25 - < 1
2,6-di-tert-butyl-p-cresol	128-37-0 204-881-4 01-2119555270-46-XXXX	Aquatic Acute1; H400 Aquatic Chronic1; H410	M-Factor: 1/1	>= 0,1 - < 0,25
Substances with a workplace exposure limit :				
Dec-1-ene, homopolymer, hydrogenated	68037-01-4 500-183-1 01-2119486452-34-XXXX	Not classified		>= 70 - < 90
White mineral oil (petroleum)	8042-47-5 232-455-8 01-2119487078-27-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 : 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 : Remove contaminated clothing. If irritation develops, get medical attention.
Wash off with soap and water.
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.
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.

Risks : None known.

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

5.2 Special hazards arising from the substance or mixture

Hazardous combustion products : Carbon oxides
Nitrogen oxides (NOx)
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. Collect contaminated fire extinguishing water separately. This must not be discharged into drains.

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	:	Do not allow contact with soil, surface or ground water. If the product contaminates rivers and lakes or drains inform respective authorities.

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 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
Dec-1-ene, homopolymer, hydrogenated	68037-01-4	AGW (Alveolate fraction)	5 mg/m3	DE TRGS 900 (2012-01-12)
	Peak-limit: excursion factor (category): 4;(II)			
	Further information: When there is compliance with the OEL and biological tolerance values, there is no risk of harming the unborn child			
		MAK (measured as the alveolate fraction)	5 mg/m3	DE DFG MAK (2023-07-01)
	Further information: Damage to the embryo or foetus is unlikely when the MAK value or the BAT value is observed			
White mineral oil (petroleum)	8042-47-5	MAK (measured as the alveolate fraction)	5 mg/m3	DE DFG MAK (2023-07-01)
	Further information: Damage to the embryo or foetus is unlikely when the MAK value or the BAT value is observed			
		AGW (Alveolate fraction)	5 mg/m3	DE TRGS 900 (2015-11-06)
	Peak-limit: excursion factor (category): 4;(II)			
	Further information: When there is compliance with the OEL and biological tolerance values, there is no risk of harming the unborn child			
N-methyl-N-[C18-(unsaturated)alkanoyl]glycine	Not Assigned	MAK (inhalable fraction)	0,05 mg/m3	DE DFG MAK (2023-07-01)

	Further information: Either there are no data for an assessment of damage to the embryo or foetus, including developmental neurotoxicity, or the currently available data are not sufficient for classification in one of the groups A - C			
		AGW (Inhalable fraction)	0,05 mg/m3	DE TRGS 900 (2019-03-29)
	Peak-limit: excursion factor (category): 2;(II)			
O,O,O-triphenyl phosphorothioate	597-82-0	MAK (inhalable fraction)	20 mg/m3	DE DFG MAK (2023-07-01)
	Further information: Either there are no data for an assessment of damage to the embryo or foetus, including developmental neurotoxicity, or the currently available data are not sufficient for classification in one of the groups A - C			
		AGW (Inhalable fraction)	20 mg/m3	DE TRGS 900 (2021-07-02)
	Peak-limit: excursion factor (category): 2;(II)			
2,6-di-tert-butyl-p-cresol	128-37-0	MAK (inhalable fraction)	10 mg/m3	DE DFG MAK (2023-07-01)
	Further information: Substances that cause cancer in humans or animals or that are considered to be carcinogenic for humans and for which a MAK value can be derived., Damage to the embryo or foetus is unlikely when the MAK value or the BAT value is observed			
		AGW (Vapour and aerosols, inhalable fraction)	10 mg/m3	DE TRGS 900 (2012-09-13)
	Peak-limit: excursion factor (category): 4;(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
White mineral oil (petroleum)	Workers	Inhalation	Long-term systemic effects	164,56 mg/m3
	Workers	Skin contact	Long-term systemic effects	217,05 mg/kg
N-methyl-N-[C18-(unsaturated)alkanoyl] glycine	Workers	Inhalation	Long-term systemic effects	0,8 mg/m3
	Workers	Skin contact	Long-term systemic effects	4,2 mg/kg bw/day
O,O,O-triphenyl phosphorothioate	Workers	Inhalation	Long-term systemic effects	1,39 mg/m3
	Workers	Skin contact	Long-term systemic effects	0,4 mg/kg
2,6-di-tert-butyl-p-cresol	Workers	Inhalation	Long-term systemic effects	1,76 mg/m3
	Workers	Skin contact	Long-term systemic effects	0,5 mg/kg

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

Substance name	Environmental Compartment	Value
Aluminum, benzoate C16-18-fatty acids complexes	Fresh water	0,1 mg/l
	Marine water	0,01 mg/l
N-methyl-N-[C18-(unsaturated)alkanoyl]glycine	Fresh water	0,00043 mg/l
	Marine water	0,000043 mg/l
	Microbiological Activity in Sewage Treatment Systems	1 mg/l
	Fresh water sediment	0,057 mg/kg
	Marine sediment	0,006 mg/kg
	Soil	1,71 mg/kg
O,O,O-triphenyl phosphorothioate	Fresh water	0,00017 mg/l
	Marine water	0,000017 mg/l
	Fresh water sediment	3,47 mg/kg
	Marine sediment	0,347 mg/kg
	Soil	2,46 mg/kg
2,6-di-tert-butyl-p-cresol	Fresh water	0,199 µg/l
	Marine water	0,02 µg/l
	Intermittent use/release	1,99 µg/l
	Microbiological Activity in Sewage Treatment Systems	0,017 mg/l
	Fresh water sediment	0,458 mg/kg
	Marine sediment	0,046 mg/kg
	Soil	0,054 mg/kg

8.2 Exposure controls

Engineering measures

none

Personal protective equipment

Eye/face protection : Safety glasses

Hand protection
- Material : Nitrile rubber
- Break through time : > 10 min
- Protective index : Class 1

Remarks : For prolonged or repeated contact use 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.

Environmental exposure controls

Air	:	Should not be released into the environment.
Soil	:	Do not allow contact with soil, surface or ground water. The product should not be allowed to enter drains, water courses or the soil.
Water	:	Do not allow contact with soil, surface or ground 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	:	paste
Colour	:	yellow
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 substance/mixture is non-soluble (in water)
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	:	0,85 (20 °C) Reference substance: Water The value is calculated
Density	:	0,85 g/cm3 (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

Product:

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

Components:

N-methyl-N-[C18-(unsaturated)alkanoyl]glycine:

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

Acute inhalation toxicity : LC50 (Rat, male and female): 1,37 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist
Method: OECD Test Guideline 403

Acute toxicity estimate: 1,37 mg/l
Test atmosphere: dust/mist
Method: ATE value derived from LD50/LC50 value

O,O,O-triphenyl phosphorothioate:

Acute oral toxicity : LD50 (Rat): > 10.000 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
Remarks: No mortality observed at this dose.

Amines, C12-14-alkyl, isooctyl phosphates:

Acute oral toxicity : LD50 (Rat): 1.000 mg/kg
Method: OECD Test Guideline 423
GLP: yes

Acute inhalation toxicity : Assessment: Corrosive to the respiratory tract.

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

2,6-di-tert-butyl-p-cresol:

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

Dec-1-ene, homopolymer, hydrogenated:

Acute oral toxicity : LD50 (Rat): > 5.000 mg/kg

Acute inhalation toxicity : LC50 (Rat, male and female): 5,2 mg/l
Exposure time: 4 h

Test atmosphere: vapour
Assessment: The substance or mixture has no acute inhalation toxicity

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

White mineral oil (petroleum):

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

Acute inhalation toxicity : LC50 (Rat): > 5 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist
Method: OECD Test Guideline 403
GLP: yes
Assessment: The substance or mixture has no acute inhalation toxicity

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

Skin corrosion/irritation

Product:

Remarks : This information is not available.

Components:

N-methyl-N-[C18-(unsaturated)alkanoyl]glycine:

Species : Rabbit
Assessment : Irritating to skin.
Result : Irritating to skin.

O,O,O-triphenyl phosphorothioate:

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

Amines, C12-14-alkyl, isooctyl phosphates:

Species	:	Rabbit
Method	:	OECD Test Guideline 404
Result	:	Corrosive, category 1C - where responses occur after exposures between 1 hour and 4 hours and observations up to 14 days.
GLP	:	yes

2,6-di-tert-butyl-p-cresol:

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

Dec-1-ene, homopolymer, hydrogenated:

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

White mineral oil (petroleum):

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

Serious eye damage/eye irritation

Product:

Remarks	:	This information is not available.

Components:

N-methyl-N-[C18-(unsaturated)alkanoyl]glycine:

Species	:	Rabbit
Assessment	:	Risk of serious damage to eyes.
Result	:	Risk of serious damage to eyes.

O,O,O-triphenyl phosphorothioate:

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

Amines, C12-14-alkyl, isooctyl phosphates:

Assessment	:	Risk of serious damage to eyes.
Result	:	Risk of serious damage to eyes.

2,6-di-tert-butyl-p-cresol:

Species	:	Rabbit
Assessment	:	No eye irritation
Method	:	Draize Test
Result	:	No eye irritation

Dec-1-ene, homopolymer, hydrogenated:

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

White mineral oil (petroleum):

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

Respiratory or skin sensitisation

Product:

Remarks	:	This information is not available.

Components:

N-methyl-N-[C18-(unsaturated)alkanoyl]glycine:

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

O,O,O-triphenyl phosphorothioate:

Assessment	:	Does not cause skin sensitisation.

Amines, C12-14-alkyl, isooctyl phosphates:

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

2,6-di-tert-butyl-p-cresol:

Species	:	Humans
Assessment	:	Does not cause skin sensitisation.
Result	:	Does not cause skin sensitisation.

Dec-1-ene, homopolymer, hydrogenated:

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

White mineral oil (petroleum):

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

Germ cell mutagenicity

Product:

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

Components:

O,O,O-triphenyl phosphorothioate:

Germ cell mutagenicity-Assessment	:	Animal testing did not show any mutagenic effects.

Amines, C12-14-alkyl, isooctyl phosphates:

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

2,6-di-tert-butyl-p-cresol:

Genotoxicity in vitro	:	Test Type: Ames test Result: negative Remarks: In vitro tests did not show mutagenic effects
Genotoxicity in vivo	:	Test Type: In vivo micronucleus test

Result: negative

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

Dec-1-ene, homopolymer, hydrogenated:

Germ cell mutagenicity-Assessment : Animal testing did not show any mutagenic effects.

White mineral oil (petroleum):

Genotoxicity in vitro : Test Type: Ames test
Method: Mutagenicity (Salmonella typhimurium - reverse mutation assay)
Result: negative
GLP: yes

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

Carcinogenicity

Product:

Remarks : No data available

Components:

Dec-1-ene, homopolymer, hydrogenated:

Carcinogenicity - Assessment : Not classifiable as a human carcinogen.

White mineral oil (petroleum):

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

Reproductive toxicity

Product:

Effects on fertility : Remarks: No data available

Effects on foetal development : Remarks: No data available

Components:

O,O,O-triphenyl phosphorothioate:

Reproductive toxicity - : - Fertility -

Assessment Animal testing did not show any effects on fertility.

2,6-di-tert-butyl-p-cresol:

Reproductive toxicity - Assessment : - Fertility -

No toxicity to reproduction

Dec-1-ene, homopolymer, hydrogenated:

Effects on fertility : Species: Rat
Application Route: Oral
Dose: 1000 milligram per kilogram
Fertility: NOAEL Parent: 1.000 mg/kg body weight
Method: OECD Test Guideline 415

Reproductive toxicity - Assessment : - Fertility -

No toxicity to reproduction

White mineral oil (petroleum):

Reproductive toxicity - Assessment : - Fertility -

No toxicity to reproduction
- Teratogenicity -

No effects on or via lactation

STOT - single exposure

Product:

Remarks : No data available

Components:

White mineral oil (petroleum):

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

STOT - repeated exposure

Product:

Remarks : No data available

Components:

White mineral oil (petroleum):

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:

White mineral oil (petroleum):

NOAEL : 1.800 mg/kg
Exposure time : 90 d

Aspiration toxicity

Product:

This information is not available.

Components:

2,6-di-tert-butyl-p-cresol:

No aspiration toxicity classification

Dec-1-ene, homopolymer, hydrogenated:

No aspiration toxicity classification

White mineral oil (petroleum):

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 : 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: Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
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:

N-methyl-N-[C18-(unsaturated)alkanoyl]glycine:

Toxicity to fish	:	LC50 (Danio rerio (zebra fish)): > 0,43 mg/l Exposure time: 96 h Test Type: flow-through test Method: OECD Test Guideline 203 GLP: yes
Toxicity to daphnia and other aquatic invertebrates	:	EC50 (Daphnia magna (Water flea)): 0,43 mg/l Exposure time: 48 h Test Type: static test Method: OECD Test Guideline 202 GLP: yes
Toxicity to algae/aquatic plants	:	EC50 (Desmodesmus subspicatus (green algae)): 6,3 mg/l Exposure time: 72 h Test Type: static test Method: OECD Test Guideline 201 NOEC (Desmodesmus subspicatus (green algae)): 0,91 mg/l Exposure time: 72 h Test Type: static test Method: OECD Test Guideline 201
M-Factor (Acute aquatic toxicity)	:	1
Toxicity to microorganisms	:	NOEC (activated sludge): 10 mg/l Exposure time: 3 h Test Type: static test Method: OECD Test Guideline 209

Ecotoxicology Assessment

Acute aquatic toxicity : Very toxic to aquatic life.

Chronic aquatic toxicity : Harmful to aquatic life with long lasting effects.

O,O,O-triphenyl phosphorothioate:

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

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

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

Toxicity to microorganisms : EC50 (activated sludge): > 100 mg/l
Exposure time: 3 h
Method: OECD Test Guideline 209

Toxicity to fish (Chronic toxicity) : NOEC: 0,0017 mg/l
Exposure time: 97 d
Species: Oncorhynchus mykiss (rainbow trout)
Test Type: flow-through test
Method: OECD Test Guideline 210

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC: 0,00724 mg/l
Exposure time: 21 d
Species: Daphnia magna (Water flea)
Test Type: semi-static test
Method: OECD Test Guideline 211

M-Factor (Chronic aquatic toxicity) : 10

Amines, C12-14-alkyl, isooctyl phosphates:

Toxicity to fish : LC0 (Danio rerio (zebra fish)): 1 mg/l
Exposure time: 96 h
Test Type: static test
Method: Regulation (EC) No. 440/2008, Annex, C.1
GLP: yes

Toxicity to daphnia and other aquatic invertebrates : EL50 (Daphnia magna (Water flea)): 17 mg/l
Exposure time: 48 h
Test Type: static test

Method: OECD Test Guideline 202
GLP: yes

Toxicity to algae/aquatic plants : EL50 (Pseudokirchneriella subcapitata (green algae)): 0,8 mg/l
Exposure time: 72 h
Test Type: static test
Method: OECD Test Guideline 201
GLP: yes

Ecotoxicology Assessment

Acute aquatic toxicity : Very toxic to aquatic life.

Chronic aquatic toxicity : Toxic to aquatic life with long lasting effects.

2,6-di-tert-butyl-p-cresol:

Toxicity to fish : LC50 (Danio rerio (zebra fish)): 0,57 mg/l
Exposure time: 96 h
Method: OECD Test Guideline 203

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 0,61 mg/l
Exposure time: 48 h
Method: OECD Test Guideline 202

Toxicity to algae/aquatic plants : EC50 (Desmodesmus subspicatus (green algae)): > 0,4 mg/l
Exposure time: 72 h
Method: Regulation (EC) No. 440/2008, Annex, C.3

M-Factor (Acute aquatic toxicity) : 1

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC: 0,316 mg/l
Exposure time: 21 d
Species: Daphnia magna (Water flea)

M-Factor (Chronic aquatic toxicity) : 1

Dec-1-ene, homopolymer, hydrogenated:

Toxicity to fish : LL50 (Oncorhynchus mykiss (rainbow trout)): > 1.000 mg/l
Exposure time: 96 h
Test Type: semi-static test

Toxicity to daphnia and other aquatic invertebrates : EL50 (Daphnia magna (Water flea)): > 1.000 mg/l
Exposure time: 48 h
Test Type: static test
Method: OECD Test Guideline 202
GLP: yes

Toxicity to algae/aquatic plants	:	EL50 (Selenastrum capricornutum (green algae)): > 1.000 mg/l Exposure time: 72 h Test Type: static test Method: OECD Test Guideline 201 GLP: yes
Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)	:	NOELR: 125 mg/l Exposure time: 21 d Species: Daphnia magna (Water flea) Test Type: semi-static test Method: OECD Test Guideline 211 GLP: yes

White mineral oil (petroleum):

Toxicity to fish	:	LC50 (Oncorhynchus mykiss (rainbow trout)): > 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 (water flea)): > 100 mg/l Exposure time: 48 h Test Type: Immobilization Method: OECD Test Guideline 202
Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)	:	NOEC: >= 1.000 mg/l Exposure time: 21 d Species: Daphnia magna (Water flea)

12.2 Persistence and degradability

Product:

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

Components:

N-methyl-N-[C18-(unsaturated)alkanoyl]glycine:

Biodegradability	:	Test Type: aerobic Inoculum: activated sludge Result: rapidly biodegradable Biodegradation: 85,2 % Exposure time: 28 d

O,O,O-triphenyl phosphorothioate:

Biodegradability	:	Result: Not rapidly biodegradable

Amines, C12-14-alkyl, isooctyl phosphates:

Biodegradability : Result: Not rapidly biodegradable
Biodegradation: 35 %
Exposure time: 28 d
Method: Directive 67/548/EEC Annex V, C.4.D.
GLP: yes

2,6-di-tert-butyl-p-cresol:

Biodegradability : Test Type: aerobic
Inoculum: activated sludge
Result: Not rapidly biodegradable
Biodegradation: 4,5 %
Exposure time: 28 d
Method: OECD Test Guideline 301C

Dec-1-ene, homopolymer, hydrogenated:

Biodegradability : Result: Not readily biodegradable.

White mineral oil (petroleum):

Biodegradability : Test Type: Primary biodegradation
Inoculum: activated sludge
Result: Not rapidly biodegradable
Biodegradation: 31 %
Exposure time: 28 d
Method: OECD Test Guideline 301B

12.3 Bioaccumulative potential

Product:

Bioaccumulation : Remarks: No data available

Components:

N-methyl-N-[C18-(unsaturated)alkanoyl]glycine:

Partition coefficient: n-octanol/water : log Pow: 6,83

O,O,O-triphenyl phosphorothioate:

Bioaccumulation : Species: Cyprinus carpio (Carp)
Exposure time: 56 d
Bioconcentration factor (BCF): 2.551

Partition coefficient: n-octanol/water : log Pow: 5,1 (20 °C)

Amines, C12-14-alkyl, isooctyl phosphates:

Partition coefficient: n-octanol/water	:	log Pow: 1,87 Method: OECD Test Guideline 117 GLP: yes

2,6-di-tert-butyl-p-cresol:

Bioaccumulation	:	Bioconcentration factor (BCF): 598,4
Partition coefficient: n-octanol/water	:	log Pow: 5,1

Dec-1-ene, homopolymer, hydrogenated:

Partition coefficient: n-octanol/water	:	log Pow: 4,82 - 6,5

White mineral oil (petroleum):

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

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 components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB).

Components:

O,O,O-triphenyl phosphorothioate:

Assessment	:	PBT substance. Substance is persistent, bioaccumulative, and toxic (PBT).. Substance is not very persistent and very bioaccumulative (vPvB).

2,6-di-tert-butyl-p-cresol:

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

Dec-1-ene, homopolymer, hydrogenated:

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

White mineral oil (petroleum):

Assessment : Non-classified PBT substance. Non-classified vPvB 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 : Toxic to aquatic life with long lasting effects.

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	:	UN 3077
ADR	:	UN 3077
RID	:	UN 3077
IMDG	:	UN 3077
IATA	:	UN 3077

14.2 UN proper shipping name

ADN	:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (O,O,O-triphenyl phosphorothioate)
ADR	:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (O,O,O-triphenyl phosphorothioate)
RID	:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (O,O,O-triphenyl phosphorothioate)
IMDG	:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (O,O,O-triphenyl phosphorothioate)
IATA	:	Environmentally hazardous substance, solid, n.o.s. (O,O,O-triphenyl phosphorothioate)

14.3 Transport hazard class(es)

ADN	:	9
ADR	:	9
RID	:	9
IMDG	:	9
IATA	:	9

14.4 Packing group

ADN

Packing group	:	III
Classification Code	:	M7
Hazard Identification Number	:	90
Labels	:	9

ADR

Packing group	:	III

Classification Code	:	M7
Hazard Identification Number	:	90
Labels	:	9
Tunnel restriction code	:	(-)

RID

Packing group	:	III
Classification Code	:	M7
Hazard Identification Number	:	90
Labels	:	9

IMDG

Packing group	:	III
Labels	:	9
EmS Code	:	F-A, S-F

IATA (Cargo)

Packing instruction (cargo aircraft)	:	956
Packing instruction (LQ)	:	Y956
Packing group	:	III
Labels	:	Miscellaneous Dangerous Goods

IATA (Passenger)

Packing instruction (passenger aircraft)	:	956
Packing instruction (LQ)	:	Y956
Packing group	:	III
Labels	:	Miscellaneous Dangerous Goods

14.5 Environmental hazards

ADN

Environmentally hazardous	:	yes

ADR

Environmentally hazardous	:	yes

RID

Environmentally hazardous	:	yes

IMDG

Marine pollutant	:	yes

IATA (Passenger)

Environmentally hazardous	:	yes

IATA (Cargo)

Environmentally hazardous	:	yes

14.6 Special precautions for user

The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

14.7 Maritime transport in bulk according to IMO instruments

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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)	:	Conditions of restriction for the following entries should be considered: Number on list 75 If you intend to use this product as tattoo ink, please contact your vendor.
REACH - Candidate List of Substances of Very High Concern for Authorisation (Article 59). (EU SVHC)	:	O,O,O-triphenyl phosphorothioate
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 (EU) No 649/2012 of the European Parliament and the Council concerning the export and import of dangerous chemicals (EU PIC)	:	Not applicable
REACH - List of substances subject to authorisation (Annex XIV) (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	E2	ENVIRONMENTAL HAZARDS

major-accident hazards involving dangerous substances.

Water hazard class (Germany)	:	WGK 2 obviously hazardous to water Classification according to AwSV, Annex 1 (5.2)
TA Luft List (Germany)	:	5.2.1: Total dust: others: 0,21 % 5.2.2: Inorganic substances in powdered form: Not applicable 5.2.4: Inorganic substances in gaseous form: Not applicable 5.2.5: Organic Substances: Class 1: 85,98 % 5.2.7.1.1: Carcinogenic substance: Not applicable 5.2.7.1.1: Quartz fine dust PM4: Not applicable 5.2.7.1.1: Formaldehyde: Not applicable 5.2.7.1.1: fibres: Not applicable 5.2.7.1.2: Germ cell mutagens: Not applicable 5.2.7.1.3: Substances toxic to reproduction: Not applicable 5.2.7.2: Poorly degradable, easily enrichable and highly toxic organic substances: 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: < 0,01 %

15.2 Chemical safety assessment

This information is not available.

SECTION 16: Other information

Full text of H-Statements

H302	:	Harmful if swallowed.
H312	:	Harmful in contact with skin.
H314	:	Causes severe skin burns and eye damage.
H315	:	Causes skin irritation.
H318	:	Causes serious eye damage.
H332	:	Harmful if inhaled.

H400	:	Very toxic to aquatic life.
H410	:	Very toxic to aquatic life with long lasting effects.
H411	:	Toxic to aquatic life with long lasting effects.
H412	:	Harmful to aquatic life with long lasting effects.
EUH071	:	Corrosive to the respiratory tract.

Full text of other abbreviations

DE DFG MAK	:	Germany. MAK BAT Annex IIa
DE TRGS 900	:	Germany. TRGS 900 - Occupational exposure limit values.
DE DFG MAK / MAK	:	MAK value
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; 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

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Further information

Classification of the mixture:		**Classification procedure:**
Aquatic Chronic 2	H411	Calculation method

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

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