OKS 2200

Version	Revision Date:	Date of last issue: 15.07.2024	Print Date:
3.0	07.05.2026	Date of first issue: 11.09.2013	07.05.2026

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

1.1 Product identifier

Product name : OKS 2200

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

Use of the Substance/Mixture : Anticorrosion additive

Recommended restrictions on use : Restricted to professional users.

1.3 Details of the supplier of the safety data sheet

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

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

National contact : Klüber Lubrication Great Britain Limited
Unit 10 Pennine Business Park
Longbow Close
Huddersfield
West Yorkshire HD2 1GQ
Great Britain
Tel: +44-1422-205115
Fax: +44-1422-206073
sales@uk.klueber.com

1.4 Emergency telephone number

Emergency telephone number : +49 8142 3051 517 (24/7 service)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008) as amended by GB-CLP Regulation, UK SI 2019/720, and UK SI 2020/1567)

Skin sensitisation, Category 1 H317: May cause an allergic skin reaction.

2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008) as amended by GB-CLP Regulation, UK SI 2019/720, and UK SI 2020/1567)

Hazard pictograms :

Signal word : Warning

Hazard statements : H317 May cause an allergic skin reaction.

Precautionary statements :

Prevention:

P272 Contaminated work clothing should not be allowed out of the workplace.

P280 Wear protective gloves.

Response:

P302 + P352 IF ON SKIN: Wash with plenty of soap and water.

P333 + P313 If skin irritation or rash occurs: Get medical advice/ attention.

P362 + P364 Take off contaminated clothing and wash it before reuse.

Hazardous components which must be listed on the label:

Sulfonic acids, petroleum, calcium salts

1,2-benzisothiazol-3(2H)-one

2-methylisothiazol-3(2H)-one

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.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Chemical nature : Aqueous emulsion

Components

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Chemical name	CAS-No. EC-No. Index-No. Registration number	Classification	specific concentration limit M-Factor Notes Acute toxicity estimate	Concentration (% w/w)
Sulfonic acids, petroleum, calcium salts	61789-86-4 263-093-9	Skin Sens. 1B; H317	>= 10 % Skin Sens.1B,	>= 1 - < 10
2-methylisothiazol-3(2H)-one	2682-20-4 220-239-6 613-326-00-9	Acute Tox. 3; H301 Acute Tox. 2; H330 Acute Tox. 3; H311 Skin Corr. 1B; H314 Eye Dam. 1; H318 Skin Sens. 1A; H317 Aquatic Acute 1; H400 Aquatic Chronic 1; H410	>= 0.0015 % Skin Sens.1A, H317 M-Factor: 10/1	>= 0.0025 - < 0.025
1,2-benzisothiazol-3(2H)-one	2634-33-5 220-120-9 613-088-00-6	Acute Tox. 4; H302 Acute Tox. 2; H330 Skin Irrit. 2; H315 Eye Dam. 1; H318 Skin Sens. 1A; H317 Aquatic Acute 1; H400 Aquatic Chronic 1; H410	>= 0.036 % Skin Sens.1A, H317 M-Factor: 1/1 ATE (Oral): 450 mg/kg ATE (Inhalation): 0.21 mg/l	>= 0.0025 - < 0.025
N-(3-aminopropyl)-N-dodecylpropane-1,3-diamine	2372-82-9 219-145-8	Acute Tox. 3; H301 Skin Corr. 1A;	M-Factor: 10/1	>= 0.0025 - < 0.025

		H314 Eye Dam. 1; H318 STOT RE 2; H373 Aquatic Acute 1; H400 Aquatic Chronic 1; H410		
Substances with a workplace exposure limit :				
Paraffin waxes and Hydrocarbon waxes	8002-74-2 232-315-6	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 : Take off all contaminated clothing immediately.
Wash off immediately with soap and plenty of water.
Get medical attention immediately if irritation develops and persists.
Wash clothing before reuse.
Thoroughly clean shoes before reuse.

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

If swallowed : Move the victim to fresh air.
If unconscious, place in recovery position and seek medical advice.
Keep respiratory tract clear.
Do NOT induce vomiting.
Rinse mouth with water.
Never give anything by mouth to an unconscious person.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms	:	No symptoms known or expected.
Risks	:	May cause an allergic skin reaction.

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) Sulphur oxides 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. Use personal protective equipment. Ensure adequate ventilation. Do not breathe vapours or spray mist. 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. Prevent further leakage or spillage if safe to do so.

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 : Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13).

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 : Do not breathe vapours or spray mist.
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.
Do not re-use empty containers.
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.

Protect from frost.

7.3 Specific end use(s)

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

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SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational Exposure Limits

Components	CAS-No.	Value type (Form of exposure)	Control parameters	Basis
Paraffin waxes and Hydrocarbon waxes	8002-74-2	TWA (Fumes)	2 mg/m3	GB EH40 (2011-12-01)
		STEL (Fumes)	6 mg/m3	GB EH40 (2011-12-01)

Derived No Effect Level (DNEL)

Substance name	End Use	Exposure routes	Potential health effects	Value
2,2',2''-nitrilotriethanol	Workers	Dermal	Long-term systemic effects	7.5 mg/kg
	Workers	Inhalation	Long-term local effects	1 mg/m3
Sulfonic acids, petroleum, calcium salts	Workers	Inhalation	Long-term systemic effects	11.75 mg/m3
	Workers	Skin contact	Long-term systemic effects	3.33 mg/m3
	Workers	Skin contact	Long-term local effects	1.03 mg/cm2

Predicted No Effect Concentration (PNEC)

Substance name	Environmental Compartment	Value
2,2',2''-nitrilotriethanol	Soil	0.151 mg/kg
	Microbiological Activity in Sewage Treatment Systems	10 mg/l
	Fresh water	0.32 mg/l
	Marine water	0.032 mg/l
	Fresh water sediment	1.7 mg/kg
	Marine sediment	0.17 mg/kg
Sulfonic acids, petroleum, calcium salts	Fresh water	1 mg/l
	Marine water	1 mg/l
	Intermittent use/release	10 mg/l
	Microbiological Activity in Sewage Treatment Systems	1000 mg/l
	Fresh water sediment	226000000
	Marine sediment	226000000
	Soil	271000000
	Oral	16.667

8.2 Exposure controls

Engineering measures

Maintain air concentrations below occupational exposure standards.

Personal protective equipment

Eye/face protection	:	Safety glasses with side-shields
Hand protection		
Material	:	butyl-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.
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 A-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. Exhaust air must be cleaned using approved equipment before returning it to the work place.
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.

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SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance

Physical state	:	liquid
Form	:	Emulsion
Colour	:	beige
Odour	:	characteristic
Odour Threshold	:	No data available
pH	:	8.8 (20 °C) Concentration: 100 %
Melting point/ range	:	No data available
Boiling point/boiling range	:	100 °C (1,013 hPa)
Flash point	:	does not flash
Evaporation rate	:	No data available
Flammability	:	Flammability (liquids): Will not burn
Upper explosion limit / Upper flammability limit	:	No data available
Lower explosion limit / Lower flammability limit	:	No data available
Vapour pressure	:	9.4 hPa (20 °C)
Relative vapour density	:	No data available
Relative density	:	0.98 (20 °C) Reference substance: Water The value is calculated
Density	:	0.98 g/cm3 (20 °C)
Bulk density	:	No data available

Solubility(ies)
Water solubility : soluble

Solubility in other solvents : No data available

Partition coefficient: n-octanol/water : No data available

Auto-ignition temperature : No data available

Decomposition temperature : No data available

Viscosity
Viscosity, dynamic : No data available

Viscosity, kinematic : 30 mm2/s (40 °C)

Explosive properties : Not explosive

Oxidizing properties : No data available

9.2 Other information

Sublimation point : No data available

Metal corrosion rate : Not corrosive to metals

Self-ignition : not auto-flammable

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 toxicological effects

Acute toxicity

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

Product:

Acute oral toxicity	:	Remarks: This information is not available.
Acute inhalation toxicity	:	Remarks: This information is not available.
Acute dermal toxicity	:	Symptoms: Redness, Local irritation

Components:

Sulfonic acids, petroleum, calcium salts:

Acute oral toxicity	:	LD50 (Rat): > 5,000 mg/kg Method: OECD Test Guideline 401 GLP: yes
Acute inhalation toxicity	:	LC50 (Rat): > 1.9 mg/l Exposure time: 4 h Test atmosphere: dust/mist Assessment: The substance or mixture has no acute inhalation toxicity
Acute dermal toxicity	:	LD50 (Rabbit): > 5,000 mg/kg Method: OECD Test Guideline 402 GLP: yes

2-methylisothiazol-3(2H)-one:

Acute oral toxicity	:	LD50 (Rat): 120 mg/kg Method: OPPTS 870.1100 GLP: yes
Acute inhalation toxicity	:	LC50 (Rat): 0.11 mg/l Exposure time: 4 h Test atmosphere: dust/mist Method: OECD Test Guideline 403 GLP: yes
Acute dermal toxicity	:	LD50 (Rat): 242 mg/kg Method: OECD Test Guideline 402

1,2-benzisothiazol-3(2H)-one:

Acute oral toxicity	:	LD50 (Rat): 490 mg/kg Assessment: The component/mixture is moderately toxic after single ingestion. Acute toxicity estimate: 450 mg/kg Method: Acute toxicity estimate according to Regulation (EC) No. 1272/2008
Acute inhalation toxicity	:	Acute toxicity estimate: 0.21 mg/l Test atmosphere: dust/mist Method: Acute toxicity estimate according to Regulation (EC) No. 1272/2008 Assessment: The component/mixture is highly toxic after short term inhalation.
Acute dermal toxicity	:	LD50 (Rat): 4,115 mg/kg

N-(3-aminopropyl)-N-dodecylpropane-1,3-diamine:

Acute oral toxicity	:	LD50 Oral (Rat): 261 mg/kg Method: OECD Test Guideline 401

Paraffin waxes and Hydrocarbon waxes:

Acute oral toxicity	:	LD50 (Rat): > 5,000 mg/kg Method: OECD Test Guideline 420 GLP: yes Assessment: The substance or mixture has no acute oral 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

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

Product:

Remarks	:	This information is not available.

Components:

Sulfonic acids, petroleum, calcium salts:

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

2-methylisothiazol-3(2H)-one:

Species	:	Rabbit
Assessment	:	Causes burns.
Method	:	OECD Test Guideline 404
Result	:	Causes burns.
GLP	:	yes

1,2-benzisothiazol-3(2H)-one:

Assessment	:	Irritating to skin.
Result	:	Irritating to skin.

N-(3-aminopropyl)-N-dodecylpropane-1,3-diamine:

Result	:	Causes severe burns.

Paraffin waxes and Hydrocarbon waxes:

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

Serious eye damage/eye irritation

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

Product:

Remarks	:	This information is not available.

Components:

Sulfonic acids, petroleum, calcium salts:

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

2-methylisothiazol-3(2H)-one:

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

1,2-benzisothiazol-3(2H)-one:

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

Paraffin waxes and Hydrocarbon waxes:

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

Respiratory or skin sensitisation

Skin sensitisation

May cause an allergic skin reaction.

Respiratory sensitisation

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

Product:

Remarks	:	This information is not available.

Components:

Sulfonic acids, petroleum, calcium salts:

Test Type	:	Buehler Test
Species	:	Guinea pig
Assessment	:	The product is a skin sensitiser, sub-category 1B.
Result	:	The product is a skin sensitiser, sub-category 1B.

2-methylisothiazol-3(2H)-one:

Test Type	:	Buehler Test
Species	:	Guinea pig
Assessment	:	The product is a skin sensitiser, sub-category 1A.
Method	:	OECD Test Guideline 406
Result	:	The product is a skin sensitiser, sub-category 1A.
GLP	:	yes

1,2-benzisothiazol-3(2H)-one:

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

Paraffin waxes and Hydrocarbon waxes:

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

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

Product:

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

Components:

Sulfonic acids, petroleum, calcium salts:

Genotoxicity in vitro	:	Test Type: In vitro mammalian cell gene mutation test Method: OECD Test Guideline 476 Result: negative
Genotoxicity in vivo	:	Test Type: Micronucleus test Species: Mouse Application Route: Oral Method: OECD Test Guideline 474 Result: negative
Germ cell mutagenicity-Assessment	:	Tests on bacterial or mammalian cell cultures did not show mutagenic effects.

2-methylisothiazol-3(2H)-one:

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

Paraffin waxes and Hydrocarbon waxes:

Germ cell mutagenicity-Assessment	:	In vitro tests did not show mutagenic effects

Carcinogenicity

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

Product:

Remarks	:	No data available

Components:

Sulfonic acids, petroleum, calcium salts:

Carcinogenicity - Assessment	:	Not classifiable as a human carcinogen.

2-methylisothiazol-3(2H)-one:

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

Paraffin waxes and Hydrocarbon waxes:

Carcinogenicity - Assessment	:	Weight of evidence does not support classification as a carcinogen

Reproductive toxicity

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

Product:

Effects on fertility	:	Remarks: No data available
Effects on foetal development	:	Remarks: No data available

Components:

Sulfonic acids, petroleum, calcium salts:

Effects on fertility	:	Test Type: reproductive and developmental toxicity study Species: Rat Application Route: Oral General Toxicity - Parent: NOAEL: > 500 General Toxicity F1: NOAEL: > 500 Method: OECD Test Guideline 415
Reproductive toxicity - Assessment	:	- Fertility - No toxicity to reproduction - Teratogenicity - No toxicity to reproduction

2-methylisothiazol-3(2H)-one:

Reproductive toxicity - Assessment	:	- Fertility - No toxicity to reproduction - Teratogenicity - No effects on or via lactation

Paraffin waxes and Hydrocarbon waxes:

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

STOT - single exposure

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

Product:

Remarks	:	No data available

Components:

Sulfonic acids, petroleum, calcium salts:

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

2-methylisothiazol-3(2H)-one:

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

Paraffin waxes and Hydrocarbon waxes:

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

STOT - repeated exposure

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

Product:

Remarks : No data available

Components:

Sulfonic acids, petroleum, calcium salts:

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

2-methylisothiazol-3(2H)-one:

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

N-(3-aminopropyl)-N-dodecylpropane-1,3-diamine:

Assessment : May cause damage to organs through prolonged or repeated exposure.

Paraffin waxes and Hydrocarbon waxes:

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:

Sulfonic acids, petroleum, calcium salts:

Species	:	Rat
NOAEL	:	500 mg/kg
Application Route	:	Oral
Method	:	OECD Test Guideline 407

Aspiration toxicity

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

Product:

This information is not available.

Components:

2-methylisothiazol-3(2H)-one:

No aspiration toxicity classification

Paraffin waxes and Hydrocarbon waxes:

No aspiration toxicity classification

Further information

Product:

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

Components:

2-methylisothiazol-3(2H)-one:

Remarks	:	Ingestion causes burns of the upper digestive and respiratory tracts.

SECTION 12: Ecological information

12.1 Toxicity

Product:

Toxicity to fish	:	Remarks: Harmful 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	:	Remarks: No data available

plants

Toxicity to microorganisms : Remarks: No data available

Components:

Sulfonic acids, petroleum, calcium salts:

Toxicity to fish : LC50 (Cyprinodon variegatus (sheepshead minnow)): > 10,000 mg/l
Exposure time: 96 h
Test Type: static test
Method: OECD Test Guideline 203
GLP: yes
Remarks: No toxicity at the limit of solubility

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): > 1,000 mg/l
Exposure time: 48 h
Test Type: static test
Method: OECD Test Guideline 202
Remarks: No toxicity at the limit of solubility

Toxicity to algae/aquatic plants : EC50 (Pseudokirchneriella subcapitata (green algae)): > 1,500 mg/l
Exposure time: 72 h
Test Type: Growth inhibition
Remarks: No toxicity at the limit of solubility

Toxicity to microorganisms : EC50 (activated sludge): > 10,000 mg/l
Exposure time: 3 h
Test Type: static test
Method: OECD Test Guideline 209
GLP: yes

Ecotoxicology Assessment

Chronic aquatic toxicity : This product has no known ecotoxicological effects., No toxicity at the limit of solubility

2-methylisothiazol-3(2H)-one:

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 0.93 mg/l
Exposure time: 48 h
Test Type: flow-through test
Method: OECD Test Guideline 202
GLP: yes

M-Factor (Acute aquatic toxicity) : 10

: 10

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)	:	NOEC: 0.044 mg/l Exposure time: 21 d Species: Daphnia magna (Water flea) Test Type: flow-through test Method: OECD Test Guideline 211
M-Factor (Chronic aquatic toxicity)	:	1
		1

1,2-benzisothiazol-3(2H)-one:

Toxicity to fish	:	LC50 (Oncorhynchus mykiss (rainbow trout)): 2.2 mg/l Exposure time: 96 h
Toxicity to daphnia and other aquatic invertebrates	:	EC50 (Daphnia magna (Water flea)): 3 mg/l Exposure time: 48 h Test Type: Immobilization
Toxicity to algae/aquatic plants	:	ErC50 (Pseudokirchneriella subcapitata (green algae)): 0.11 mg/l Exposure time: 72 h NOEC (Selenastrum capricornutum (green algae)): 0.04 mg/l Exposure time: 72 h
M-Factor (Acute aquatic toxicity)	:	1
M-Factor (Chronic aquatic toxicity)	:	1

N-(3-aminopropyl)-N-dodecylpropane-1,3-diamine:

Toxicity to fish	:	LC50 (Oncorhynchus mykiss (rainbow trout)): 0.45 mg/l Exposure time: 96 h
Toxicity to daphnia and other aquatic invertebrates	:	EC50 (Daphnia magna (Water flea)): 0.073 mg/l Exposure time: 48 h
Toxicity to algae/aquatic plants	:	EbC50 (Desmodesmus subspicatus (green algae)): 0.012 mg/l Exposure time: 72 h Method: OECD Test Guideline 201
M-Factor (Acute aquatic toxicity)	:	10
M-Factor (Chronic aquatic toxicity)	:	1

Ecotoxicology Assessment

Acute aquatic toxicity : Very toxic to aquatic life.

Paraffin waxes and Hydrocarbon waxes:

Toxicity to fish : LC50 (Pimephales promelas (fathead minnow)): > 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)): > 10,000 mg/l
Exposure time: 48 h
Test Type: static test
Method: OECD Test Guideline 202

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

12.2 Persistence and degradability

Product:

Biodegradability : Remarks: No data available

Physico-chemical removability : Remarks: No data available

Components:

Sulfonic acids, petroleum, calcium salts:

Biodegradability : Test Type: aerobic
Inoculum: activated sludge
Result: Not rapidly biodegradable
Biodegradation: 8 %
Exposure time: 28 d
Method: OECD Test Guideline 301F
GLP: yes

2-methylisothiazol-3(2H)-one:

Biodegradability : Result: Not readily biodegradable.

1,2-benzisothiazol-3(2H)-one:

Biodegradability : Result: Not rapidly biodegradable

Paraffin waxes and Hydrocarbon waxes:

Biodegradability	:	Test Type: aerobic Inoculum: activated sludge Result: Not readily biodegradable. Biodegradation: 31 % Exposure time: 28 d Method: OECD Test Guideline 301F GLP: yes

12.3 Bioaccumulative potential

Product:

Bioaccumulation	:	Remarks: No data available

Components:

Sulfonic acids, petroleum, calcium salts:

Bioaccumulation	:	Remarks: Due to the distribution coefficient n-octanol/water, accumulation in organisms is possible.
Partition coefficient: n-octanol/water	:	log Pow: 10.88 (20 °C) Method: OECD Test Guideline 117 GLP: yes

2-methylisothiazol-3(2H)-one:

Partition coefficient: n-octanol/water	:	log Pow: -0.486 (25 °C) pH: 7

1,2-benzisothiazol-3(2H)-one:

Partition coefficient: n-octanol/water	:	log Pow: 0.7

12.4 Mobility in soil

Product:

Mobility	:	Remarks: No data available
Distribution among environmental compartments	:	Remarks: No data available

12.5 Results of PBT and vPvB assessment

Product:

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

Components:

1,2-benzisothiazol-3(2H)-one:

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

Paraffin waxes and Hydrocarbon waxes:

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

12.6 Other adverse effects

Product:

Endocrine disrupting potential : This substance/mixture does not contain components considered to have endocrine disrupting properties for environment according to UK REACH Article 57(f) at levels of 0.1% or higher.

Additional ecological information : Harmful 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 : unused product
16 10 01, aqueous liquid wastes containing hazardous substances

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

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

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)

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

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

ADR	:	Not regulated as a dangerous good
RID	:	Not regulated as a dangerous good
IMDG	:	Not regulated as a dangerous good

14.6 Special precautions for user

Not applicable

14.7 Transport in bulk according to Annex II of Marpol and the IBC Code

Remarks : Not applicable for product as supplied.

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SECTION 15: Regulatory information

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

Relevant EU provisions transposed through retained EU law

UK REACH List of restrictions (Annex 17)	:	Conditions of restriction for the following entries should be considered: Number on list 3
UK REACH Candidate list of substances of very high concern (SVHC) for Authorisation (UK SVHC)	:	This product does not contain substances of very high concern (UK: The REACH etc. (Amendment) Regulations, Article 57).
The Persistent Organic Pollutants Regulations (retained Regulation (EU) 2019/1021 as amended for Great Britain) (GB POPs)	:	Not applicable
Regulation (EU) No 2024/590 on substances that deplete the ozone layer (EC 2024/590)	:	Not applicable
UK REACH List of substances subject to authorisation (Annex XIV) (UK. REACH Annex XIV)	:	Not applicable
GB Export and import of hazardous chemicals - Prior Informed Consent (PIC) Regulation (GB PIC)	:	Not applicable
The Control of Explosives Precursors and Poisons Regulations (Poisons Act, as amended) (GB Poisons Act)		Not applicable
Control of Major Accident Hazards Regulations 2015 (COMAH)		Not applicable
Volatile organic compounds	:	Directive 2010/75/EU of 24 November 2010 on industrial and livestock rearing emissions (integrated pollution prevention and control)

Not applicable

Other regulations:

Take note of The Management of Health and Safety at Work Regulations 1999 (requirements relating to protection of young people at work contained in Regulation 19) and of Directive 94/33/EC on the protection of young people at work.

15.2 Chemical safety assessment

This information is not available.

SECTION 16: Other information

Full text of H-Statements

H301	:	Toxic if swallowed.
H302	:	Harmful if swallowed.
H311	:	Toxic in contact with skin.
H314	:	Causes severe skin burns and eye damage.
H315	:	Causes skin irritation.
H317	:	May cause an allergic skin reaction.
H318	:	Causes serious eye damage.
H330	:	Fatal if inhaled.
H373	:	May cause damage to organs through prolonged or repeated exposure.
H400	:	Very toxic to aquatic life.
H410	:	Very toxic to aquatic life with long lasting effects.
EUH071	:	Corrosive to the respiratory tract.

Full text of other abbreviations

Acute Tox.	:	Acute toxicity
Aquatic Acute	:	Short-term (acute) aquatic hazard
Aquatic Chronic	:	Long-term (chronic) aquatic hazard
ATE	:	Acute toxicity estimate
Eye Dam.	:	Serious eye damage
LD50 Oral	:	LD50 Oral
Skin Corr.	:	Skin corrosion
Skin Irrit.	:	Skin irritation
Skin Sens.	:	Skin sensitisation
STOT RE	:	Specific target organ toxicity - repeated exposure
GB EH40	:	UK. EH40 WEL - Workplace Exposure Limits
GB EH40 / TWA	:	Long-term exposure limit (8-hour TWA reference period)
GB EH40 / STEL	:	Short-term exposure limit (15-minute reference period)

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - Agreement concerning the International Carriage of Dangerous Goods by Road; AIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CLP - Classification Labelling Packaging Regulation;

Regulation (EC) No 1272/2008; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECHA - European Chemicals Agency; EC-Number - European Community number; ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; GHS - Globally Harmonised System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organisation; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardisation; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NZIoC - New Zealand Inventory of Chemicals; OECD - Organisation for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RID - Regulations concerning the International Carriage of Dangerous Goods by Rail; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; SVHC - Substance of very high concern; TCSI - Taiwan Chemical Substance Inventory; TECI - Thailand Existing Chemicals Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative

Further information

Classification of the mixture:		**Classification procedure:**
Skin Sens. 1	H317	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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