Safety Data Sheet

acc. to The REACH etc. (Amendment etc.) (EU Exit) Regulations 2019, SI 2019/758 (as amended)

Grundierung

Version number: 1.0 First version: 2024-06-21

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

1.1 Product identifier

Trade name **Grundierung**

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

Relevant identified uses Construction chemicals

1.3 Details of the supplier of the safety data sheet

redstone GmbH & Co. KG
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Please do not use this e-mail address to ask for the latest safety data sheet. For this purpose contact redstone GmbH & Co. KG.

1.4 Emergency telephone number

Poison centre

Country	Name	Telephone
United Kingdom	NHS	111

As above or nearest toxicological information centre.

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification (acc. to GB CLP)

This mixture does not meet the criteria for classification.

2.2 Label elements

Labelling (acc. to GB CLP)

Signal word Not required.

Pictograms Not required.

Supplemental hazard information

EUH208 Contains 1,2-benzisothiazolin-3-one, 2-methylisothiazol-3(2H)-one, reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1). May produce an allergic reaction.

EUH210 Safety data sheet available on request.

2.3 Other hazards

There is no additional information.

Results of PBT and vPvB assessment

Does not contain a PBT-/vPvB-substance at a concentration of ≥ 0,1%.

Endocrine disrupting properties

Does not contain an endocrine disruptor (ED) at a concentration of ≥ 0,1%.

SECTION 3: Composition/information on ingredients

3.1 Substances

Not relevant (mixture).

3.2 Mixtures

Description of the mixture

Hazardous ingredients

Name of substance	Identifier	Wt%	Classification acc. to GHS	Pictograms	Notes
silicic acid, potassium salt (MR >2,6)	CAS No 1312-76-1 EC No 215-199-1	< 2.5	Skin Irrit. 2 / H315 Eye Irrit. 2 / H319		-
1,2-benzisothiazolin-3-one	CAS No 2634-33-5 EC No 220-120-9 Index No 613-088-00-6	0.005 – < 0.025	Acute Tox. 4 / H302 Skin Irrit. 2 / H315 Eye Dam. 1 / H318 Skin Sens. 1 / H317 Aquatic Acute 1 / H400		-
2-methylisothiazol-3(2H)-one	CAS No 2682-20-4 EC No 220-239-6 Index No 613-326-00-9	< 0.0015	Acute Tox. 3 / H301 Acute Tox. 3 / H311 Acute Tox. 2 / H330 Skin Corr. 1B / H314 Eye Dam. 1 / H318 Skin Sens. 1A / H317 Aquatic Acute 1 / H400 Aquatic Chronic 1 / H410 EUH071		-

Hazardous ingredients

Name of substance	Identifier	Wt%	Classification acc. to GHS	Pictograms	Notes
reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1)	CAS No 55965-84-9 Index No 613-167-00-5	< 0.0015	Acute Tox. 3 / H301 Acute Tox. 2 / H310 Acute Tox. 2 / H330 Skin Corr. 1C / H314 Eye Dam. 1 / H318 Skin Sens. 1A / H317 Aquatic Acute 1 / H400 Aquatic Chronic 1 / H410 EUH071		B

Notes

B: Some substances (acids, bases, etc.) are placed on the market in aqueous solutions at various concentrations and, therefore, these solutions require different classification and labelling since the hazards vary at different concentrations. In Part 3 entries with Note B have a general designation of the following type: 'nitric acid ... %'. In this case the supplier must state the percentage concentration of the solution on the label. Unless otherwise stated, it is assumed that the percentage concentration is calculated on a weight/weight basis.

Name of substance	Specific Conc. Limits	M-Factors	ATE	Exposure route
1,2-benzisothiazolin-3-one	Skin Sens. 1; H317: C ≥ 0.05 %	M-factor (acute) = 1	490 $^{mg}/_{kg}$	oral
2-methylisothiazol-3(2H)-one	Skin Sens. 1A; H317: C ≥ 0.0015 %	M-factor (acute) = 10 M-factor (chronic) = 1	148 $^{mg}/_{kg}$ 242 $^{mg}/_{kg}$ 0.11 $^{mg}/_{l}$/4h	oral dermal inhalation: dust/ mist
reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1)	Skin Corr. 1C; H314: C ≥ 0.6 % Skin Irrit. 2; H315: 0.06 % ≤ C < 0.6 % Eye Dam. 1; H318: C ≥ 0.6 % Eye Irrit. 2; H319: 0.06 % ≤ C < 0.6 % Skin Sens. 1A; H317: C ≥ 0.0015 %	M-factor (acute) = 100 M-factor (chronic) = 100	66 $^{mg}/_{kg}$ 87.12 $^{mg}/_{kg}$ 0.171 $^{mg}/_{l}$/4h	oral dermal inhalation: dust/ mist

Remarks

For full text of H-phrases: see SECTION 16

SECTION 4: First aid measures

4.1 Description of first aid measures

General notes

Self-protection of the first aider.
Remove affected person from the danger area and lay down.
Do not leave affected person unattended.
In all cases of doubt, or when symptoms persist, seek medical advice.

Following inhalation

Provide fresh air.

Following skin contact

Wash with plenty of soap and water.
If skin irritation occurs: Get medical advice/attention.

Following eye contact

In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
Remove contact lenses, if present and easy to do. Continue rinsing.

Following ingestion

Rinse mouth. Do not induce vomiting.
Get medical advice/attention if you feel unwell.

Notes for the doctor

None.

4.2 Most important symptoms and effects, both acute and delayed

This information is not available.

4.3 Indication of any immediate medical attention and special treatment needed

None.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media

water spray, alcohol resistant foam, fire extinguishing powder, carbon dioxide (CO2)

Unsuitable extinguishing media

water jet

5.2 Special hazards arising from the substance or mixture

Hazardous decomposition products: Section 10.

5.3 Advice for firefighters

Non-combustible.
Keep containers cool with water spray.
In case of fire and/or explosion do not breathe fumes.
Co-ordinate firefighting measures to the fire surroundings.
Collect contaminated firefighting water separately.
Fight fire with normal precautions from a reasonable distance.

Special protective equipment for firefighters

Wear self-contained breathing apparatus

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Ventilate affected area.
Wearing of suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing.

For emergency responders

Wear breathing apparatus if exposed to vapours/dust/spray/gases.

6.2 Environmental precautions

Keep away from drains, surface and ground water.
Retain contaminated washing water and dispose of it.

6.3 Methods and material for containment and cleaning up

Advice on how to clean up a spill

Collect spillage.
Absorbent material (e.g. sand, diatomaceous earth, acid binder, universal binder, sawdust, etc.).

Appropriate containment techniques

Use of adsorbent materials.

Other information relating to spills and releases

Place in appropriate containers for disposal.
Ventilate affected area.

6.4 Reference to other sections

Personal protective equipment: see section 8.
Incompatible materials: see section 10.
Disposal considerations: see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Avoid contact with skin and eyes.
Do not breathe vapour/spray.

Measures to prevent fire as well as aerosol and dust generation

Use local and general ventilation.

Specific notes/details

None.

Handling of incompatible substances or mixtures

Do not mix with acids.

Measures to protect the environment

Avoid release to the environment.

Advice on general occupational hygiene

Do not eat, drink and smoke in work areas.
Wash hands after use.
Preventive skin protection (barrier creams/ointments) is recommended.
Remove contaminated clothing and protective equipment before entering eating areas.

7.2 Conditions for safe storage, including any incompatibilities

Flammability hazards

None.

Incompatible substances or mixtures

Incompatible materials: see section 10.

Protect against external exposure, such as

frost

Consideration of other advice

Keep away from food, drink and animal feeding stuffs.

Ventilation requirements

Provision of sufficient ventilation.

Specific designs for storage rooms or vessels

Keep container tightly closed and in a well-ventilated place.

Storage temperature recommended storage temperature: <60 °C

Packaging compatibilities

Keep only in original container.

7.3 Specific end use(s)

No information available.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limit values (Workplace Exposure Limits)
This information is not available

Human health values

Relevant DNELs of components

Name of substance	CAS No	End-point	Threshold level	Protection goal, route of exposure	Used in	Exposure time
silicic acid, potassium salt (MR >2,6)	1312-76-1	DNEL	5.61 mg/m³	human, inhalatory	worker (industry)	chronic - systemic effects
silicic acid, potassium salt (MR >2,6)	1312-76-1	DNEL	1.49 mg/kg bw/day	human, dermal	worker (industry)	chronic - systemic effects
1,2-benziso-thiazolin-3-one	2634-33-5	DNEL	6.81 mg/m³	human, inhalatory	worker (industry)	chronic - systemic effects
1,2-benziso-thiazolin-3-one	2634-33-5	DNEL	0.966 mg/kg bw/day	human, dermal	worker (industry)	chronic - systemic effects
2-methylisothiazol-3(2H)-one	2682-20-4	DNEL	0.021 mg/m³	human, inhalatory	worker (industry)	chronic - local effects
reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1)	55965-84-9	DNEL	0.02 mg/m³	human, inhalatory	worker (industry)	chronic - local effects

Environmental values

Relevant PNECs of components

Name of substance	CAS No	Endpoint	Threshold level	Environmental compartment
silicic acid, potassium salt (MR >2,6)	1312-76-1	PNEC	7.5 $^{mg}/_{l}$	freshwater
silicic acid, potassium salt (MR >2,6)	1312-76-1	PNEC	1 $^{mg}/_{l}$	marine water
silicic acid, potassium salt (MR >2,6)	1312-76-1	PNEC	348 $^{mg}/_{l}$	sewage treatment plant (STP)
1,2-benzisothiazolin-3-one	2634-33-5	PNEC	4.03 $^{µg}/_{l}$	freshwater
1,2-benzisothiazolin-3-one	2634-33-5	PNEC	0.403 $^{µg}/_{l}$	marine water
1,2-benzisothiazolin-3-one	2634-33-5	PNEC	1.03 $^{mg}/_{l}$	sewage treatment plant (STP)
1,2-benzisothiazolin-3-one	2634-33-5	PNEC	49.9 $^{µg}/_{kg}$	freshwater sediment
1,2-benzisothiazolin-3-one	2634-33-5	PNEC	4.99 $^{µg}/_{kg}$	marine sediment
1,2-benzisothiazolin-3-one	2634-33-5	PNEC	3 $^{mg}/_{kg}$	soil
2-methylisothiazol-3(2H)-one	2682-20-4	PNEC	3.39 $^{µg}/_{l}$	freshwater

Relevant PNECs of components

Name of substance	CAS No	Endpoint	Threshold level	Environmental compartment
2-methylisothiazol-3(2H)-one	2682-20-4	PNEC	3.39 µg/l	marine water
2-methylisothiazol-3(2H)-one	2682-20-4	PNEC	0.23 mg/l	sewage treatment plant (STP)
2-methylisothiazol-3(2H)-one	2682-20-4	PNEC	0.047 mg/kg	soil
reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1)	55965-84-9	PNEC	3.39 µg/l	freshwater
reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1)	55965-84-9	PNEC	3.39 µg/l	marine water
reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1)	55965-84-9	PNEC	0.23 mg/l	sewage treatment plant (STP)
reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1)	55965-84-9	PNEC	0.027 mg/kg	freshwater sediment
reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1)	55965-84-9	PNEC	0.027 mg/kg	marine sediment
reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1)	55965-84-9	PNEC	0.01 mg/kg	soil

8.2 Exposure controls

Appropriate engineering controls

Use local and general ventilation.

Individual protection measures (personal protective equipment)

Eye/face protection

Wear eye/face protection. (EN 166)

Hand protection

Protective gloves		
Material	**Material thickness**	**Breakthrough times of the glove material**
IIR: isobutene-isoprene (butyl) rubber	≥ 0,45 mm	>480 minutes (permeation: level 6)

Wear suitable gloves.
Chemical protection gloves are suitable, which are tested according to EN 374.
Check leak-tightness/impermeability prior to use.
For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

Body protection

Protective clothing against liquid chemicals.
(EN 13832, EN 340, EN 14605).

Respiratory protection

In case of inadequate ventilation wear respiratory protection.
Particle filter device (DIN EN 143).

Environmental exposure controls

Use appropriate container to avoid environmental contamination.
Keep away from drains, surface and ground water.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state	liquid
Colour	whitish
Odour	characteristic
Melting point/freezing point	not determined
Boiling point or initial boiling point and boiling range	not determined
Flammability	non-combustible
Lower and upper explosion limit	not determined
Flash point	not determined
Auto-ignition temperature	not determined
Decomposition temperature	not relevant
pH (value)	10.7 (20 °C)
Kinematic viscosity	not determined

Dynamic viscosity	not determined
Solubility(ies)	
Water solubility	miscible in any proportion
Partition coefficient n-octanol/water (log value)	not relevant (inorganic)
Vapour pressure	not determined
Density and/or relative density	
Density	1 $^{g}/_{cm^3}$ at 20 °C
Relative vapour density	information on this property is not available
Particle characteristics	not relevant (liquid)

9.2 Other information

Information with regard to physical hazard classes	hazard classes acc. to GHS (physical hazards): not relevant
Other safety characteristics	there is no additional information

SECTION 10: Stability and reactivity

10.1 Reactivity

May be corrosive to metals.

10.2 Chemical stability

The material is stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.
See below "Conditions to avoid".

10.3 Possibility of hazardous reactions

Do not mix with acids.

10.4 Conditions to avoid

There are no specific conditions known which have to be avoided.

10.5 Incompatible materials

acids, light metals (e.g. aluminium and magnesium)

Release of flammable materials with:

light metals (due to the release of hydrogen in an acid/alkaline medium)

10.6 Hazardous decomposition products

Reasonably anticipated hazardous decomposition products produced as a result of use, storage, spill and heating are not known.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Classification procedure

If not otherwise specified the classification is based on:
Ingredients of the mixture (additivity formula).

Classification acc. to GHS

This mixture does not meet the criteria for classification.

Acute toxicity

Test data are not available for the complete mixture.

Acute toxicity of components

Name of substance	CAS No	Exposure route	End-point	Value	Species	Method	Source
silicic acid, potassium salt (MR >2,6)	1312-76-1	oral	LD0	>5,000 mg/kg	rat, female	EPA OPPTS 870.1100	ECHA
silicic acid, potassium salt (MR >2,6)	1312-76-1	dermal	LD0	>5,000 mg/kg	rat	EPA OPPTS 870.1200	ECHA
1,2-benzisothiazolin-3-one	2634-33-5	oral	LD50	490 mg/kg	rat	OECD Guideline 401	ECHA
1,2-benzisothiazolin-3-one	2634-33-5	dermal	LD50	>2,000 mg/kg	rat	OECD Guideline 402	ECHA
2-methylisothiazol-3(2H)-one	2682-20-4	oral	LD50	148 mg/kg	rat	-	ECHA
2-methylisothiazol-3(2H)-one	2682-20-4	inhalation: dust/mist	LC50	0.11 mg/l/4h	rat	OECD Guideline 403	ECHA
2-methylisothiazol-3(2H)-one	2682-20-4	dermal	LD50	242 mg/kg	rat	OECD Guideline 402	ECHA

Acute toxicity of components

Name of substance	CAS No	Exposure route	End-point	Value	Species	Method	Source
reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1)	55965-84-9	oral	LD50	66 $^{mg}/_{kg}$	rat	EPA OPP 81-1	ECHA
reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1)	55965-84-9	dermal	LD50	87.12 $^{mg}/_{kg}$	rabbit, male	-	ECHA
reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1)	55965-84-9	inhalation: dust/ mist	LC50	0.171 $^{mg}/_{l}$/4h	rat	OECD Guideline 403	ECHA

Skin corrosion/irritation

Shall not be classified as corrosive/irritant to skin.

Serious eye damage/eye irritation

Shall not be classified as seriously damaging to the eye or eye irritant.

Respiratory or skin sensitisation

Contains 1,2-benzisothiazolin-3-one, 2-methylisothiazol-3(2H)-one, reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1). May produce an allergic reaction.

Germ cell mutagenicity

Classification could not be established because:
Data are lacking, inconclusive, or conclusive but not sufficient for classification.

Carcinogenicity

Classification could not be established because:
Data are lacking, inconclusive, or conclusive but not sufficient for classification.

Reproductive toxicity

Classification could not be established because:
Data are lacking, inconclusive, or conclusive but not sufficient for classification.

Specific target organ toxicity - single exposure

Classification could not be established because:
Data are lacking, inconclusive, or conclusive but not sufficient for classification.

Specific target organ toxicity - repeated exposure

Classification could not be established because:
Data are lacking, inconclusive, or conclusive but not sufficient for classification.

Aspiration hazard

Shall not be classified as presenting an aspiration hazard.

11.2 Information on other hazards

Endocrine disrupting properties

Does not contain an endocrine disruptor (ED) at a concentration of ≥ 0,1%.

SECTION 12: Ecological information

12.1 Toxicity

Aquatic toxicity (acute)

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

Aquatic toxicity (acute) of components

Name of substance	CAS No	Endpoint	Exposure time	Value	Species	Method	Source
silicic acid, potassium salt (MR >2,6)	1312-76-1	LC50	48 h	>146 mg/l	orfe (Leuciscus idus)	DIN 38412 T.15	ECHA
silicic acid, potassium salt (MR >2,6)	1312-76-1	EC50	72 h	207 mg/l	algae (Desmodesmus subspicatus)	DIN 38412 T.9	ECHA
silicic acid, potassium salt (MR >2,6)	1312-76-1	EC50	24 h	>146 mg/l	daphnia magna	OECD Guideline 202	ECHA
1,2-benziso-thiazolin-3-one	2634-33-5	EC50	48 h	2.9 mg/l	daphnia magna	OECD Guideline 202	ECHA
1,2-benziso-thiazolin-3-one	2634-33-5	LC50	96 h	2.15 mg/l	rainbow trout (Oncorhynchus mykiss)	OECD Guideline 203	ECHA
1,2-benziso-thiazolin-3-one	2634-33-5	ErC50	72 h	110 µg/l	algae (pseudokirchneriella subcapitata)	OECD Guideline 202	ECHA
2-methyliso-thiazol-3(2H)-one	2682-20-4	LC50	48 h	0.934 mg/l	daphnia magna	OECD Guideline 202	ECHA

Name of substance	CAS No	Endpoint	Exposure time	Value	Species	Method	Source
2-methylisothiazol-3(2H)-one	2682-20-4	LC50	96 h	4.77 mg/l	rainbow trout (Oncorhynchus mykiss)	OECD Guideline 203	ECHA
2-methylisothiazol-3(2H)-one	2682-20-4	EC50	96 h	0.069 mg/l	algae (Scelenonema costatum)	OECD Guideline 201	ECHA
2-methylisothiazol-3(2H)-one	2682-20-4	EC50	48 h	1.6 mg/l	daphnia magna	EPA OPP 72-2	ECHA
2-methylisothiazol-3(2H)-one	2682-20-4	ErC50	96 h	>0.072 mg/l	algae (Scelenonema costatum)	OECD Guideline 201	ECHA
2-methylisothiazol-3(2H)-one	2682-20-4	EbC50	96 h	0.063 mg/l	algae (pseudokirchneriella subcapitata)	OECD Guideline 201	ECHA
reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1)	55965-84-9	LC50	96 h	0.19 mg/l	rainbow trout (Oncorhynchus mykiss)	EPA OPP 72-1	ECHA
reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1)	55965-84-9	EC50	48 h	0.007 mg/l	crustacea: Acartia tonsa	-	ECHA
reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1)	55965-84-9	ErC50	72 h	6.3 µg/l	algae (Skelenonema costatum)	OECD Guideline 201	ECHA

Aquatic toxicity (chronic)

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

Aquatic toxicity (chronic) of components

Name of substance	CAS No	Endpoint	Exposure time	Value	Species	Method	Source
1,2-benziso-thiazolin-3-one	2634-33-5	EC50	3 h	12.8 mg/l	activated sludge of a predominantly domestic sewage	OECD Guideline 209	ECHA
2-methyliso-thiazol-3(2H)-one	2682-20-4	EC50	21 d	1.4 mg/l	daphnia magna	OECD Guideline 211	ECHA
2-methyliso-thiazol-3(2H)-one	2682-20-4	EC50	16 h	2.3 mg/l	activated sludge (Pseudomonas putida)	-	ECHA
2-methyliso-thiazol-3(2H)-one	2682-20-4	LOEC	21 d	0.089 mg/l	daphnia magna	OECD Guideline 211	ECHA
2-methyliso-thiazol-3(2H)-one	2682-20-4	LOEC	33 d	4.2 mg/l	fathead minnow (Pimephales promelas)	OECD Guideline 210	ECHA
2-methyliso-thiazol-3(2H)-one	2682-20-4	NOEC	24 h	0.02 mg/l	algae (pseudokirchneriella subcapitata)	OECD Guideline 201	ECHA
2-methyliso-thiazol-3(2H)-one	2682-20-4	NOEC	21 d	0.044 mg/l	daphnia magna	OECD Guideline 211	ECHA
2-methyliso-thiazol-3(2H)-one	2682-20-4	NOEC	33 d	2.1 mg/l	fathead minnow (Pimephales promelas)	OECD Guideline 210	ECHA
2-methyliso-thiazol-3(2H)-one	2682-20-4	growth (EbCx) 10%	16 h	1 mg/l	activated sludge (Pseudomonas putida)	-	ECHA
reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1)	55965-84-9	LC50	14 d	0.07 mg/l	rainbow trout (Oncorhynchus mykiss)	OECD Guideline 204	ECHA

Name of substance	CAS No	Endpoint	Exposure time	Value	Species	Method	Source
reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1)	55965-84-9	EC50	21 d	>0.18 mg/l	daphnia magna	EPA OPP 72-4	ECHA
reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1)	55965-84-9	ErC50	120 h	45.6 µg/l	algae (pseudokirchneriella subcapitata)	OECD Guideline 201	ECHA
reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1)	55965-84-9	NOEC	72 h	1.4 µg/l	algae (pseudokirchneriella subcapitata)	OECD Guideline 201	ECHA
reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1)	55965-84-9	NOEC	35 d	≥46.4 µg/l	zebra fish (Danio rerio)	OECD Guideline 210	ECHA
reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1)	55965-84-9	NOEC	21 d	11.1 µg/l	daphnia magna	OECD Guideline 211	ECHA
reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1)	55965-84-9	NOEC	3 h	0.91 mg/l	activated sludge of a predominantly domestic sewage	OECD Guideline 209	ECHA

Name of substance	CAS No	Endpoint	Exposure time	Value	Species	Method	Source
reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1)	55965-84-9	LOEL	36 d	0.06 mg/l	fathead minnow (Pimephales promelas)	EPA OPP 72-4	ECHA
reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1)	55965-84-9	LOEC	28 d	0.144 mg/l	rainbow trout (Oncorhynchus mykiss)	OECD Guideline 215	ECHA

12.2 Persistence and degradability

Biodegradation

Test data are not available for the complete mixture.

Degradability of components

Name of substance	CAS No	Process	Degradation rate	Time	Method	Source
1,2-benzisothiazolin-3-one	2634-33-5	carbon dioxide generation	62 %	4 d	OECD Guideline 301 C	ECHA
2-methylisothiazol-3(2H)-one	2682-20-4	carbon dioxide generation	47.6 %	29 d	OECD Guideline 301 B	ECHA
2-methylisothiazol-3(2H)-one	2682-20-4	oxygen depletion	0 %	28 d	OECD Guideline 301 D	ECHA
reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1)	55965-84-9	carbon dioxide generation	38.8 %	29 d	OECD Guideline 301 B	ECHA

Persistence

No data available.

12.3 Bioaccumulative potential

n-octanol/water (log KOW) not relevant
(inorganic)

Bioaccumulative potential of components

Name of substance	CAS No	BCF	Log KOW
1,2-benzisothiazolin-3-one	2634-33-5	6.62	0.63 (pH value: 7, 10 °C)
2-methylisothiazol-3(2H)-one	2682-20-4	5.75	-0.486 (pH value: 7, 25 °C)
reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1)	55965-84-9	54	≥-0.34 – ≤0.63 (pH value: 7, 10 °C)

12.4 Mobility in soil

No data available.

12.5 Results of PBT and vPvB assessment

Does not contain a PBT-/vPvB-substance at a concentration of ≥ 0,1%.

12.6 Endocrine disrupting properties

Does not contain an endocrine disruptor (ED) at a concentration of ≥ 0,1%.

12.7 Other adverse effects

Data are not available.

Remarks

Wassergefährdungsklasse, WGK (water hazard class): Nwg.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Dispose of contents/container in accordance with local/regional/national/international regulations.

Sewage disposal-relevant information

Do not empty into drains.

Waste treatment of containers/packagings

Completely emptied packages can be recycled.
Handle contaminated packages in the same way as the substance itself.

Remarks

Please consider the relevant national or regional provisions.

SECTION 14: Transport information

14.1	**UN number**	not assigned
14.2	**UN proper shipping name**	-
14.3	**Transport hazard class(es)**	-
14.4	**Packing group**	-
14.5	**Environmental hazards**	-
14.6	**Special precautions for user**	-
14.7	**Maritime transport in bulk according to IMO instruments**	-

SECTION 15: Regulatory information

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

Relevant provisions of the European Union (EU)

Seveso Directive

Not assigned.

Directive on the restriction of the use of certain hazardous substances in electrical and electronic equipment (RoHS)

None of the ingredients are listed.

Regulation on the marketing and use of explosives precursors

None of the ingredients are listed.

Regulation on drug precursors

None of the ingredients are listed.

Regulation on substances that deplete the ozone layer (ODS)

None of the ingredients are listed.

Regulation concerning the export and import of hazardous chemicals (PIC)

None of the ingredients are listed.

Regulation on persistent organic pollutants (POP)

None of the ingredients are listed.

National regulations (GB)

List of substances subject to authorisation (GB REACH, Annex 14) / SVHC - candidate list

None of the ingredients are listed

Restrictions according to GB REACH, Annex 17

Dangerous substances with restrictions (GB REACH, Annex 17)

Name of substance	Name acc. to inventory	CAS No	Conditions of restriction
silicic acid, potassium salt (MR >2,6)	this product meets the criteria for classification in accordance with Regulation No 1272/2008/EC	-	R3

Legend

R3 1. Shall not be used in:
— ornamental articles intended to produce light or colour effects by means of different phases, for example in ornamental lamps and ashtrays,
— tricks and jokes,
— games for one or more participants, or any article intended to be used as such, even with ornamental aspects,
2. Articles not complying with paragraph 1 shall not be placed on the market.
3. Shall not be placed on the market if they contain a colouring agent, unless required for fiscal reasons, or perfume, or both, if they:
— can be used as fuel in decorative oil lamps for supply to the general public, and,
— present an aspiration hazard and are labelled with R65 or H304,
4. Decorative oil lamps for supply to the general public shall not be placed on the market unless they conform to the British Standard Specification on Decorative oil lamps (BS EN 14059) adopted by the British Standards Institute.
5. Without prejudice to the implementation of other legislation relating to the classification, packaging and labelling of dangerous substances and mixtures, suppliers shall ensure, before the placing on the market, that the following requirements are met:
(a) lamp oils, labelled with R65 or H304, intended for supply to the general public are visibly, legibly and indelibly marked as follows: 'Keep lamps filled with this liquid out of the reach of children'; and, by 1 December 2010 'Just a sip of lamp oil
— or even sucking the wick of lamps
— may lead to life-threatening lung damage';
(b) grill lighter fluids, labelled with R65 or H304, intended for supply to the general public are legibly and indelibly marked by 1 December 2010 as
follows: 'Just a sip of grill lighter may lead to life-threatening lung damage';
(c) lamp oils and grill lighters, labelled with R65 or H304, intended for supply to the general public are packaged in black opaque containers not exceeding 1 litre by 1 December 2010.
7. Natural or legal persons placing on the market for the first time lamp oils and grill lighter fluids, labelled with R65 or H304, shall by 1 December 2011, and annually thereafter, provide data on alternatives to lamp oils and grill lighter fluids labelled R65 or H304 to the Agency.

15.2 Chemical Safety Assessment

No Chemical Safety Assessment has been carried out for this mixture by the supplier.

SECTION 16: Other information

Abbreviations and acronyms

Abbr.	Descriptions of used abbreviations
Acute Tox.	Acute toxicity
ADR	Accord relatif au transport international des marchandises dangereuses par route (Agreement concerning the International Carriage of Dangerous Goods by Road)
Aquatic Acute	Hazardous to the aquatic environment - acute hazard
Aquatic Chronic	Hazardous to the aquatic environment - chronic hazard
ATE	Acute Toxicity Estimate
BCF	Bioconcentration factor
CAS	Chemical Abstracts Service (service that maintains the most comprehensive list of chemical substances)
DGR	Dangerous Goods Regulations (see IATA/DGR)
DNEL	Derived No-Effect Level
EbC50	≡ EC50: in this method, that concentration of test substance which results in a 50 % reduction in either growth (EbC50) or growth rate (ErC50) relative to the control
EC50	Effective Concentration 50 %. The EC50 corresponds to the concentration of a tested substance causing 50 % changes in response (e.g. on growth) during a specified time interval
EC No	The EC Inventory (EINECS, ELINCS and the NLP-list) is the source for the seven-digit EC number, an identifier of substances commercially available within the EU (European Union)
ED	Endocrine disruptor
EINECS	European Inventory of Existing Commercial Chemical Substances
ELINCS	European List of Notified Chemical Substances
ErC50	≡ EC50: in this method, that concentration of test substance which results in a 50 % reduction in either growth (EbC50) or growth rate (ErC50) relative to the control
Eye Dam.	Seriously damaging to the eye
Eye Irrit.	Irritant to the eye
GB CLP	The Chemicals (Health and Safety) and Genetically Modified Organisms (Contained Use) (Amendment etc.) (EU Exit) Regulations 2019, SI 2019/720 (as amended)
GB REACH	The REACH etc. (Amendment etc.) (EU Exit) Regulations 2019, SI 2019/758 (as amended)
GHS	"Globally Harmonized System of Classification and Labelling of Chemicals" developed by the United Nations
IATA	International Air Transport Association
IATA/DGR	Dangerous Goods Regulations (DGR) for the air transport (IATA)

Abbr.	Descriptions of used abbreviations
IMDG	International Maritime Dangerous Goods Code
index No	The Index number is the identification code given to the substance in Part 3 of Annex VI to Regulation (EC) No 1272/2008
LC50	Lethal Concentration 50%: the LC50 corresponds to the concentration of a tested substance causing 50 % lethality during a specified time interval
LD50	Lethal Dose 50 %: the LD50 corresponds to the dose of a tested substance causing 50 % lethality during a specified time interval
LOEC	Lowest Observed Effect Concentration
LOEL	Lowest Observed Effect Level
log KOW	n-Octanol/water
M-factor	Means a multiplying factor. It is applied to the concentration of a substance classified as hazardous to the aquatic environment acute category 1 or chronic category 1, and is used to derive by the summation method the classification of a mixture in which the substance is present
NLP	No-Longer Polymer
NOEC	No Observed Effect Concentration
PBT	Persistent, Bioaccumulative and Toxic
PNEC	Predicted No-Effect Concentration
RID	Règlement concernant le transport International ferroviaire des marchandises Dangereuses (Regulations concerning the International carriage of Dangerous goods by Rail)
Skin Corr.	Corrosive to skin
Skin Irrit.	Irritant to skin
Skin Sens.	Skin sensitisation
vPvB	Very Persistent and very Bioaccumulative

Key literature references and sources for data

The REACH etc. (Amendment etc.) (EU Exit) Regulations 2019, SI 2019/758 (as amended).
The Chemicals (Health and Safety) and Genetically Modified Organisms (Contained Use) (Amendment etc.) (EU Exit) Regulations 2019, SI 2019/720 (as amended).
GB mandatory classification and labelling.

Agreement concerning the International Carriage of Dangerous Goods by Road (ADR).
Regulations concerning the International Carriage of Dangerous Goods by Rail (RID).
International Maritime Dangerous Goods Code (IMDG).
Dangerous Goods Regulations (DGR) for the air transport (IATA).

Classification procedure

Physical and chemical properties.
Health hazards.
Environmental hazards.
The method for classification of the mixture is based on ingredients of the mixture (additivity formula).

List of relevant phrases (code and full text as stated in section 2 and 3)

Code	Text
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H310	Fatal in contact with skin.
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.
H319	Causes serious eye irritation.
H330	Fatal if inhaled.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.

Responsible for the safety data sheet

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Disclaimer

This information is based upon the present state of our knowledge.
This SDS has been compiled and is solely intended for this product.