

Safety Data Sheet according to (EC) No 1907/2006 as amended

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Kilsaran Silicone Render

SDS No. : 837977

V002.2

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

1.1. Product identifier

Kilsaran Silicone Render

UFI: 0SS7-FXRR-V205-R7NN

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

Intended use:

Plaster

1.3. Details of the supplier of the safety data sheet

Kilsaran KPRO

Kilcullen Co. Kildare

R56 VE86 Brownstown

Phone: (0)45 480620

E-Mail: info@kilsaran.ie

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (CLP):

Skin sensitizer

Category 1

H317 May cause an allergic skin reaction.

Specific target organ toxicity - repeated exposure

Category 2

H373 May cause damage to organs through prolonged or repeated exposure.

Chronic hazards to the aquatic environment

Category 3

H412 Harmful to aquatic life with long lasting effects.

2.2. Label elements

Label elements (CLP):

Hazard pictogram:



Contains

Quartz (SiO₂) respirable particulates (RCS) $\geq 10\%$

2-Octyl-2H-isothiazol-3-one

Signal word:

Warning

Hazard statement:

H317 May cause an allergic skin reaction.

H373 May cause damage to organs through prolonged or repeated exposure.

H412 Harmful to aquatic life with long lasting effects.

Supplemental information	Contains: Isothiazolinone mixture (C(M)IT/MIT (3:1)); 1,2-Benzisothiazol-3(2H)-one May produce an allergic reaction.
Precautionary statement: Prevention	P260 Do not breathe mist/vapours. P280 Wear protective gloves. P273 Avoid release to the environment.
Precautionary statement: Response	P391 Collect spillage.

2.3. Other hazards

None if used properly.

Following substances are present in a concentration $\geq$ the concentration limit for depiction in Section 3 and fulfill the criteria for PBT/vPvB, or were identified as endocrine disruptor (ED):

This mixture does not contain any substances in a concentration $\geq$ the concentration limit for depiction in Section 3 that are assessed to be a PBT, vPvB or ED.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Declaration of the ingredients according to CLP (EC) No 1272/2008:

Hazardous components CAS No. EC No. REACH-Reg. No.	Concentration	Classification	Specific Conc. Limits, M- factors and ATEs	Add. Information
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Quartz (SiO ₂) respirable particulates (RCS) >=10% 14808-60-7 238-878-4	5- < 10 %	STOT RE 1, H372		
Quartz (SiO ₂), <1% respirable 14808-60-7 238-878-4	5- < 10 %			
Chromium (III) oxide 1308-38-9 215-160-9 01-2119433951-39	1- < 5 %			EU OEL
Chrome antimony titanium buff rutile 68186-90-3 269-052-1 01-2119491294-33	1- < 5 %			EU OEL
Alcohols, C16-18 and C18-unsatd., ethoxylated 68920-66-1 500-236-9	0,1- < 1 %	Aquatic Acute 1, H400 Skin Irrit. 2, H315 Aquatic Chronic 3, H412	M acute = 1	
1,2-Benzisothiazol-3(2H)-one 2634-33-5 220-120-9 01-2120761540-60	0,0036- < 0,036 % (36 ppm- < 360 ppm)	Aquatic Acute 1, H400 Aquatic Chronic 1, H410 Acute Tox. 4, Oral, H302 Skin Irrit. 2, H315 Skin Sens. 1A, H317 Eye Dam. 1, H318 Acute Tox. 2, Inhalation, H330	Skin Sens. 1A; H317; C >= 0,036 % ===== M acute = 1 M chronic = 1 ===== oral:ATE = 450 mg/kg inhalation:ATE = 0,21 mg/l;dust/mist	
terbutryn 886-50-0 212-950-5	0,0025- < 0,025 % (25 ppm- < 250 ppm)	Aquatic Acute 1, H400 Aquatic Chronic 1, H410 Acute Tox. 4, Oral, H302 Skin Sens. 1B, H317	Skin Sens. 1B; H317; C >= 3 % ===== M acute = 100 M chronic = 100 ===== oral:ATE = 1.000 mg/kg	
pyrithione zinc 13463-41-7 236-671-3 01-2119511196-46	0,0025- < 0,025 % (25 ppm- < 250 ppm)	Aquatic Acute 1, H400 Acute Tox. 2, Inhalation, H330 Repr. 1B, H360D Eye Dam. 1, H318 STOT RE 1, H372 Aquatic Chronic 1, H410 Acute Tox. 3, Oral, H301	M acute = 1.000 M chronic = 10 ===== oral:ATE = 221 mg/kg inhalation:ATE = 0,14 mg/l;dust/mist	
2-Octyl-2H-isothiazol-3-one 26530-20-1 247-761-7 01-2120768921-45	0,0015- < 0,015 % (15 ppm- < 150 ppm)	Acute Tox. 2, Inhalation, H330 Acute Tox. 3, Dermal, H311 Skin Corr. 1, H314 Skin Sens. 1A, H317 Aquatic Acute 1, H400 Acute Tox. 3, Oral, H301 Aquatic Chronic 1, H410 Eye Dam. 1, H318	Skin Sens. 1A; H317; C >= 0,0015 % ===== M acute = 100 M chronic = 100 ===== dermal:ATE = 311 mg/kg oral:ATE = 125 mg/kg inhalation:ATE = 0,27 mg/l;dust/mist	
Pyridine-2-thiol 1-oxide, sodium salt 3811-73-2 223-296-5 01-2119493385-28	0,001- < 0,01 % (10 ppm- < 100 ppm)	Acute Tox. 4, Oral, H302 Acute Tox. 3, Dermal, H311 Skin Irrit. 2, H315 Skin Sens. 1, H317 Eye Irrit. 2, H319 Acute Tox. 3, Inhalation, H331 STOT RE 1, H372 Aquatic Acute 1, H400 Aquatic Chronic 2, H411	M acute = 100 ===== dermal:ATE = 790 mg/kg oral:ATE = 500 mg/kg inhalation:ATE = 0,5 mg/l;dust/mist	

Isothiazolinone mixture (C(M)IT/MIT (3:1)) 55965-84-9 01-2120764691-48	0,0001- < 0,0015 % (1 ppm- < 15 ppm)	Aquatic Chronic 1, H410 Skin Corr. 1C, H314 Acute Tox. 2, Dermal, H310 Acute Tox. 3, Oral, H301 Eye Dam. 1, H318 Acute Tox. 2, Inhalation, H330 Aquatic Acute 1, H400 Skin Sens. 1A, H317	Skin Irrit. 2; H315; C 0,06 - < 0,6 % Skin Corr. 1C; H314; C >= 0,6 % Eye Irrit. 2; H319; C 0,06 - < 0,6 % Eye Dam. 1; H318; C >= 0,6 % Skin Sens. 1A; H317; C >= 0,0015 % =====	M acute = 100 M chronic = 100
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If no ATE values are displayed, please refer to LD/LC50 values in Section 11.
For full text of the H - statements and other abbreviations see section 16 "Other information".

SECTION 4: First aid measures

4.1. Description of first aid measures

General information:

In case of adverse health effects seek medical advice.

Inhalation:

Move to fresh air, consult doctor if complaint persists.

Skin contact:

Rinse with running water and soap. Apply replenishing cream. Change all contaminated clothing. If necessary, see a dermatologist.

Eye contact:

Immediately flush eyes with soft jet of water or eye rinse solution for at least 5 minutes. If pains remain (intensive smarting, sensitivity to light, visual disturbance) continue flushing and contact/seek doctor or hospital.

Ingestion:

Rinse mouth and throat. Drink 1-2 glasses of water. Seek medical advice.

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

May cause an allergic skin reaction.

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

See section: Description of first aid measures

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media:

carbon dioxide, foam, powder, water spray jet, fine water spray

Extinguishing media which must not be used for safety reasons:

High pressure waterjet

5.2. Special hazards arising from the substance or mixture

In the event of a fire, carbon monoxide (CO) and carbon dioxide (CO2) can be released.

5.3. Advice for firefighters

Wear protective equipment.

Wear self-contained breathing apparatus.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Wear protective equipment.
Avoid contact with skin and eyes.
Ensure adequate ventilation.
Danger of slipping on spilled product.

6.2. Environmental precautions

Do not empty into drains / surface water / ground water.

6.3. Methods and material for containment and cleaning up

Dispose of contaminated material as waste according to Section 13.
Remove mechanically.

6.4. Reference to other sections

See advice in section 8

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Avoid skin and eye contact.
Ensure that workrooms are adequately ventilated.

Hygiene measures:

Do not eat, drink or smoke while working.
Wash hands before work breaks and after finishing work.

7.2. Conditions for safe storage, including any incompatibilities

Store in sealed original container protected against moisture.
Store in a cool, dry place.
Avoid strictly temperatures below 0 °C and above + 50 °C.
Do not store together with food or other consumables (coffee, tea, tobacco, etc.).

7.3. Specific end use(s)

Plaster

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational Exposure Limits

Valid for
Germany

Ingredient [Regulated substance]	ppm	mg/m ³	Value type	Short term exposure limit category / Remarks	Regulatory list
Limestone 1317-65-3		10	Exposure limit(s):	2 If the AGW and BGW values are complied with, there should be no risk of reproductive damage (see Number 2.7).	TRGS 900
Limestone 1317-65-3		1,25	Exposure limit(s):	If the AGW and BGW values are complied with, there should be no risk of reproductive damage (see Number 2.7).	TRGS 900
Limestone 1317-65-3			Short Term Exposure Classification:	Category II: substances with a resorptive effect.	TRGS 900
Dolomite 16389-88-1		1,25	Exposure limit(s):	If the AGW and BGW values are complied with, there should be no risk of reproductive damage (see Number 2.7).	TRGS 900
Dolomite 16389-88-1		10	Exposure limit(s):	2 If the AGW and BGW values are complied with, there should be no risk of reproductive damage (see Number 2.7).	TRGS 900
Dolomite 16389-88-1			Short Term Exposure Classification:	Category II: substances with a resorptive effect.	TRGS 900
Bismuth vanadium tetraoxide 14059-33-7		0,001	Exposure limit(s):	8	TRGS 900
Bismuth vanadium tetraoxide 14059-33-7			Short Term Exposure Classification:	Category II: substances with a resorptive effect.	TRGS 900
Chromium (III) oxide 1308-38-9 [CHROMIUM METAL, INORGANIC CHROMIUM(II) COMPOUNDS AND INORGANIC CHROMIUM(III) COMPOUNDS (INSOLUBLE)]		2	Time Weighted Average (TWA):	Indicative	ECTLV
Chromium (III) oxide 1308-38-9		2	Exposure limit(s):	1	TRGS 900
Chromium (III) oxide 1308-38-9			Short Term Exposure Classification:	Category I: substances for which the localized effect has an assigned OEL or for substances with a sensitizing effect in respiratory passages.	TRGS 900
Diiron trioxide 1309-37-1		10	Exposure limit(s):	2 If the AGW and BGW values are complied with, there should be no risk of reproductive damage (see Number 2.7).	TRGS 900
Diiron trioxide 1309-37-1		1,25	Exposure limit(s):	If the AGW and BGW values are complied with, there should be no risk of reproductive damage (see Number 2.7).	TRGS 900
Diiron trioxide 1309-37-1			Short Term Exposure Classification:	Category II: substances with a resorptive effect.	TRGS 900

Chrome antimony titanium buff rutile 68186-90-3 [CHROMIUM METAL, INORGANIC CHROMIUM(II) COMPOUNDS AND INORGANIC CHROMIUM(III) COMPOUNDS (INSOLUBLE)]		2	Time Weighted Average (TWA):	Indicative	ECTLV
Chrome antimony titanium buff rutile 68186-90-3		2	Exposure limit(s):	1	TRGS 900
Chrome antimony titanium buff rutile 68186-90-3			Short Term Exposure Classification:	Category I: substances for which the localized effect has an assigned OEL or for substances with a sensitizing effect in respiratory passages.	TRGS 900
Titanium dioxide 13463-67-7		1,25	Exposure limit(s):	If the AGW and BGW values are complied with, there should be no risk of reproductive damage (see Number 2.7).	TRGS 900
Titanium dioxide 13463-67-7		10	Exposure limit(s):	2 If the AGW and BGW values are complied with, there should be no risk of reproductive damage (see Number 2.7).	TRGS 900
Titanium dioxide 13463-67-7			Short Term Exposure Classification:	Category II: substances with a resorptive effect.	TRGS 900
Cobalt aluminate blue spinel 1345-16-0 [Cobalt and Cobalt Compounds, classified as Carc. 1A, Carc. 1B (Respirable fraction) (as Co)]			Excursion factor:	8 Factor by which the average shift value (SMW) can be exceeded four times per shift during a maximum. period of 15 minutes each.	TRGS 910
Cobalt aluminate blue spinel 1345-16-0 [Cobalt and Cobalt Compounds, classified as Carc. 1A, Carc. 1B (Respirable fraction) (as Co)]			Tolerance Concentration (4 x 10 ⁻³):		TRGS 910
Cobalt aluminate blue spinel 1345-16-0 [Cobalt and Cobalt Compounds, classified as Carc. 1A, Carc. 1B (Respirable fraction) (as Co)]			Acceptance concentration (4 x 10 ⁻⁴):		TRGS 910
Titanium dioxide 13463-67-7		1,25	Exposure limit(s):	If the AGW and BGW values are complied with, there should be no risk of reproductive damage (see Number 2.7).	TRGS 900
Titanium dioxide 13463-67-7		10	Exposure limit(s):	2 If the AGW and BGW values are complied with, there should be no risk of reproductive damage (see Number 2.7).	TRGS 900
Titanium dioxide 13463-67-7			Short Term Exposure Classification:	Category II: substances with a resorptive effect.	TRGS 900
Carbon black 1333-86-4		10	Exposure limit(s):	2 If the AGW and BGW values are complied with, there should be no risk of reproductive damage (see Number 2.7).	TRGS 900
Carbon black 1333-86-4		1,25	Exposure limit(s):	If the AGW and BGW values are complied with, there should be no risk of reproductive damage (see Number 2.7).	TRGS 900
Carbon black 1333-86-4			Short Term Exposure Classification:	Category II: substances with a resorptive effect.	TRGS 900
2-Octyl-2H-isothiazol-3-one 26530-20-1			Skin designation:	Can be absorbed through the skin.	TRGS 900

2-Octyl-2H-isothiazol-3-one 26530-20-1		0,05	Exposure limit(s):	2 If the AGW and BGW values are complied with, there should be no risk of reproductive damage (see Number 2.7).	TRGS 900
2-Octyl-2H-isothiazol-3-one 26530-20-1			Short Term Exposure Classification:	Category I: substances for which the localized effect has an assigned OEL or for substances with a sensitizing effect in respiratory passages.	TRGS 900
Pyridine-2-thiol 1-oxide, sodium salt 3811-73-2			Short Term Exposure Classification:	Category II: substances with a resorptive effect.	TRGS 900
Pyridine-2-thiol 1-oxide, sodium salt 3811-73-2			Skin designation:	Can be absorbed through the skin.	TRGS 900
Pyridine-2-thiol 1-oxide, sodium salt 3811-73-2		0,2	Exposure limit(s):	2 If the AGW and BGW values are complied with, there should be no risk of reproductive damage (see Number 2.7).	TRGS 900

Predicted No-Effect Concentration (PNEC):

Name on list	Environmental Compartment	Exposure period	Value				Remarks
			mg/l	ppm	mg/kg	others	
Chromium (III) oxide 1308-38-9	Soil				3,2 mg/kg		
Chromium (III) oxide 1308-38-9	sewage treatment plant (STP)		10 mg/l				
Chromium (III) oxide 1308-38-9	sediment (marine water)				1,31 mg/kg		
Chromium (III) oxide 1308-38-9	aqua (marine water)		0,0047 mg/l				
Chromium (III) oxide 1308-38-9	aqua (intermittent releases)		0,0047 mg/l				
Chromium (III) oxide 1308-38-9	sediment (freshwater)				18,2 mg/kg		
Chromium (III) oxide 1308-38-9	aqua (freshwater)		0,0047 mg/l				
Chrome antimony titanium buff rutile 68186-90-3	aqua (freshwater)		0,1 mg/l				
Chrome antimony titanium buff rutile 68186-90-3	aqua (marine water)		0,01 mg/l				
Chrome antimony titanium buff rutile 68186-90-3	sewage treatment plant (STP)		1000 mg/l				
Chrome antimony titanium buff rutile 68186-90-3	aqua (intermittent releases)		1 mg/l				
1,2-Benzisothiazol-3(2H)-one 2634-33-5	aqua (freshwater)		0,00403 mg/l				
1,2-Benzisothiazol-3(2H)-one 2634-33-5	aqua (marine water)		0,000403 mg/l				
1,2-Benzisothiazol-3(2H)-one 2634-33-5	Freshwater - intermittent		0,0011 mg/l				
1,2-Benzisothiazol-3(2H)-one 2634-33-5	sewage treatment plant (STP)		1,03 mg/l				
1,2-Benzisothiazol-3(2H)-one 2634-33-5	sediment (freshwater)				0,0499 mg/kg		
1,2-Benzisothiazol-3(2H)-one 2634-33-5	sediment (marine water)				0,00499 mg/kg		
1,2-Benzisothiazol-3(2H)-one 2634-33-5	Soil				3 mg/kg		
1,2-Benzisothiazol-3(2H)-one 2634-33-5	Marine water - intermittent		0,000110 mg/l				
Pyrrithione zinc 13463-41-7	sewage treatment plant (STP)		0,01 mg/l				
Pyrrithione zinc 13463-41-7	sediment (freshwater)				0,009 mg/kg		
Pyrrithione zinc 13463-41-7	sediment (marine water)				0,009 mg/kg		
Pyrrithione zinc 13463-41-7	Soil				1,02 mg/kg		
2-Octyl-2H-isothiazol-3-one 26530-20-1	sediment (freshwater)				0,0475 mg/kg		
2-Octyl-2H-isothiazol-3-one 26530-20-1	sediment (marine water)				0,00475 mg/kg		
2-Octyl-2H-isothiazol-3-one 26530-20-1	aqua (freshwater)		0,0022 mg/l				
2-Octyl-2H-isothiazol-3-one 26530-20-1	aqua (intermittent releases)		0,0012 mg/l				
2-Octyl-2H-isothiazol-3-one 26530-20-1	aqua (marine water)		0,00022 mg/l				
2-Octyl-2H-isothiazol-3-one 26530-20-1	Soil				0,0082 mg/kg		

2-Octyl-2H-isothiazol-3-one 26530-20-1	sewage treatment plant (STP)		3,04 mg/l				
2-Octyl-2H-isothiazol-3-one 26530-20-1	Predator						no potential for bioaccumulation
3(2H)-Isothiazolone, 5-chloro-2-methyl-, mixt. with 2-methyl-3(2H)-isothiazolone (3:1) 55965-84-9	aqua (freshwater)		0,00339 mg/l				
3(2H)-Isothiazolone, 5-chloro-2-methyl-, mixt. with 2-methyl-3(2H)-isothiazolone (3:1) 55965-84-9	aqua (marine water)		0,00339 mg/l				
3(2H)-Isothiazolone, 5-chloro-2-methyl-, mixt. with 2-methyl-3(2H)-isothiazolone (3:1) 55965-84-9	sewage treatment plant (STP)		0,23 mg/l				
3(2H)-Isothiazolone, 5-chloro-2-methyl-, mixt. with 2-methyl-3(2H)-isothiazolone (3:1) 55965-84-9	sediment (freshwater)				0,027 mg/kg		
3(2H)-Isothiazolone, 5-chloro-2-methyl-, mixt. with 2-methyl-3(2H)-isothiazolone (3:1) 55965-84-9	sediment (marine water)				0,027 mg/kg		
3(2H)-Isothiazolone, 5-chloro-2-methyl-, mixt. with 2-methyl-3(2H)-isothiazolone (3:1) 55965-84-9	Soil				0,01 mg/kg		
3(2H)-Isothiazolone, 5-chloro-2-methyl-, mixt. with 2-methyl-3(2H)-isothiazolone (3:1) 55965-84-9	Freshwater - intermittent		0,00339 mg/l				
3(2H)-Isothiazolone, 5-chloro-2-methyl-, mixt. with 2-methyl-3(2H)-isothiazolone (3:1) 55965-84-9	Marine water - intermittent		0,00339 mg/l				

Derived No-Effect Level (DNEL):

Name on list	Application Area	Route of Exposure	Health Effect	Exposure Time	Value	Remarks
Chromium (III) oxide 1308-38-9	Workers	Inhalation	Acute/short term exposure - local effects		2 mg/m3	
Chromium (III) oxide 1308-38-9	Workers	Inhalation	Long term exposure - local effects		0,5 mg/m3	
Chromium (III) oxide 1308-38-9	General population	Inhalation	Long term exposure - local effects		0,5 mg/m3	
Chrome antimony titanium buff rutile 68186-90-3	Workers	inhalation	Long term exposure - local effects		4 mg/m3	
Chrome antimony titanium buff rutile 68186-90-3	General population	inhalation	Long term exposure - local effects		3 mg/m3	
1,2-Benzisothiazol-3(2H)-one 2634-33-5	Workers	inhalation	Long term exposure - systemic effects		6,81 mg/m3	
1,2-Benzisothiazol-3(2H)-one 2634-33-5	Workers	dermal	Long term exposure - systemic effects		0,966 mg/kg	
1,2-Benzisothiazol-3(2H)-one 2634-33-5	General population	inhalation	Long term exposure - systemic effects		1,2 mg/m3	
1,2-Benzisothiazol-3(2H)-one 2634-33-5	General population	dermal	Long term exposure - systemic effects		0,345 mg/kg	
Pyrrithione zinc 13463-41-7	Workers	dermal	Long term exposure - systemic effects		0,01 mg/kg	
3(2H)-Isothiazolone, 5-chloro-2-methyl-, mixt. with 2-methyl-3(2H)-isothiazolone (3:1) 55965-84-9	Workers	inhalation	Long term exposure - local effects		0,02 mg/m3	
3(2H)-Isothiazolone, 5-chloro-2-methyl-, mixt. with 2-methyl-3(2H)-isothiazolone (3:1) 55965-84-9	Workers	inhalation	Acute/short term exposure - local effects		0,04 mg/m3	
3(2H)-Isothiazolone, 5-chloro-2-methyl-, mixt. with 2-methyl-3(2H)-isothiazolone (3:1) 55965-84-9	General population	inhalation	Long term exposure - local effects		0,02 mg/m3	
3(2H)-Isothiazolone, 5-chloro-2-methyl-, mixt. with 2-methyl-3(2H)-isothiazolone (3:1) 55965-84-9	General population	inhalation	Acute/short term exposure - local effects		0,04 mg/m3	
3(2H)-Isothiazolone, 5-chloro-2-methyl-, mixt. with 2-methyl-3(2H)-isothiazolone (3:1) 55965-84-9	General population	oral	Long term exposure - systemic effects		0,09 mg/kg	
3(2H)-Isothiazolone, 5-chloro-2-methyl-, mixt. with 2-methyl-3(2H)-isothiazolone (3:1) 55965-84-9	General population	oral	Acute/short term exposure - systemic effects		0,11 mg/kg	

Biological Exposure Indices:

None

8.2. Exposure controls:

Respiratory protection:
Suitable breathing mask when there is inadequate ventilation.
Combination filter: ABEKP (EN 14387)
This recommendation should be matched to local conditions.

Hand protection:

In the case of longer contact protective gloves made from nitrile rubber are recommended according to EN 374.

material thickness > 0.1 mm

Perforation time > 30 minutes

In the case of longer and repeated contact please note that in practice the penetration times may be considerably shorter than those determined according to EN 374. The protective gloves must always be checked for their suitability for use at the specific workplace (e.g. mechanical and thermal stress, product compatibility, antistatic effects, etc.). The gloves must be replaced immediately at the first signs of wear and tear. The information provided by the manufacturers and given in the relevant trade association regulations for industrial safety must always be observed. We recommend that a hand care plan is drawn up in cooperation with a glove manufacturer and the trade association in accordance with the local operating conditions.

Eye protection:

Goggles which can be tightly sealed.

Protective eye equipment should conform to EN166.

Skin protection:

Suitable protective clothing

Protective clothing should conform to EN 14605 for liquid splashes or to EN 13982 for dusts.

Advices to personal protection equipment:

The information provided on personal protective equipment is for guidance purposes only. A full risk assessment should be conducted prior to using this product to determine the appropriate personal protective equipment to suit local conditions.

Personal protective equipment should conform to the relevant EN standard.

SECTION 9: Physical and chemical properties**9.1. Information on basic physical and chemical properties**

Delivery form	liquid
Colour	White
Odor	Specific
Physical state	liquid
Melting point	Not applicable, Product is a liquid
Solidification temperature	0 °C (32 °F) Aqueous solution
Initial boiling point	>= 100 °C (>= 212 °F)
Flammability	The product is not flammable.
Explosive limits	Not applicable, Aqueous solution
Flash point	Not applicable, The product is not flammable.
Auto-ignition temperature	Not applicable, Aqueous solution
Decomposition temperature	Not applicable, Substance/mixture is not self-reactive, no organic peroxide and does not decompose under foreseen conditions of use
pH	7,5 - 8,5 no method / method unknown
(20 °C (68 °F); Conc.: 100 % product; Solvent: Water)	
Viscosity (kinematic)	2.324,3 mm ² /s
(23 °C (73 °F);)	
Solubility (qualitative)	Miscible
(23 °C (73.4 °F); Solvent: Water)	
Partition coefficient: n-octanol/water	Not applicable
	Mixture
Vapour pressure	2,34 kPa Values referring to water
(20 °C (68 °F))	
Density	1,59 - 1,95 g/cm ³ no method / method unknown
(20 °C (68 °F))	
Relative vapour density:	> 1
(20 °C)	
Particle characteristics	Not applicable
	Product is a liquid

9.2. Other information

Other information not applicable for this product

SECTION 10: Stability and reactivity**10.1. Reactivity**

None if used for intended purpose.

10.2. Chemical stability

Stable under recommended storage conditions.

10.3. Possibility of hazardous reactions

See section reactivity

10.4. Conditions to avoid

None if used for intended purpose.

10.5. Incompatible materials

None if used properly.

10.6. Hazardous decomposition products

None known.

SECTION 11: Toxicological information**11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008****Acute oral toxicity:**

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

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

Hazardous substances CAS-No.	Value type	Value	Species	Method
Quartz (SiO ₂) respirable particulates (RCS) >=10% 14808-60-7	LD50	6.450 mg/kg	rat	not specified
Quartz (SiO ₂), <1% respirable 14808-60-7	LD50	> 5.050 mg/kg	rat	not specified
Chromium (III) oxide 1308-38-9	LD50	> 5.000 mg/kg	rat	OECD Guideline 401 (Acute Oral Toxicity)
Chrome antimony titanium buff rutile 68186-90-3	LD50	> 10.000 mg/kg	rat	OECD Guideline 401 (Acute Oral Toxicity)
1,2-Benzisothiazol-3(2H)- one 2634-33-5	Acute toxicity estimate (ATE)	450 mg/kg		Expert judgement
terbutryn 886-50-0	LD50	1.000 - 1.470 mg/kg	rat	not specified
terbutryn 886-50-0	Acute toxicity estimate (ATE)	1.000 mg/kg		Expert judgement
pyrithione zinc 13463-41-7	Acute toxicity estimate (ATE)	221 mg/kg		Expert judgement
2-Octyl-2H-isothiazol-3- one 26530-20-1	Acute toxicity estimate (ATE)	125 mg/kg		Expert judgement
Pyridine-2-thiol 1-oxide, sodium salt 3811-73-2	Acute toxicity estimate (ATE)	500 mg/kg		Expert judgement
Isothiazolinone mixture (C(M)IT/MIT (3:1)) 55965-84-9	LD50	66 mg/kg	rat	OECD Guideline 401 (Acute Oral Toxicity)

Acute dermal toxicity:

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

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

Hazardous substances CAS-No.	Value type	Value	Species	Method
Quartz (SiO ₂) respirable particulates (RCS) >=10% 14808-60-7	LD50	> 5.000 mg/kg	rat	not specified
Quartz (SiO ₂), <1% respirable 14808-60-7	LD50	> 2.000 mg/kg	not specified	not specified
1,2-Benzisothiazol-3(2H)- one 2634-33-5	LD50	> 2.000 mg/kg	rat	OECD Guideline 402 (Acute Dermal Toxicity)
terbutryn 886-50-0	LD50	> 10.200 mg/kg	rabbit	not specified
pyrithione zinc 13463-41-7	LD50	> 2.000 mg/kg	rat	EPA OPP 81-2 (Acute Dermal Toxicity)
2-Octyl-2H-isothiazol-3- one 26530-20-1	Acute toxicity estimate (ATE)	311 mg/kg		Expert judgement
Pyridine-2-thiol 1-oxide, sodium salt 3811-73-2	Acute toxicity estimate (ATE)	790 mg/kg		Expert judgement
Isothiazolinone mixture (C(M)IT/MIT (3:1)) 55965-84-9	LD50	87,12 mg/kg	rabbit	OECD Guideline 402 (Acute Dermal Toxicity)

Acute inhalative toxicity:

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

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

Hazardous substances CAS-No.	Value type	Value	Test atmosphere	Exposure time	Species	Method
Chromium (III) oxide 1308-38-9	LC50	> 5,41 mg/l	dust/mist	4 h	rat	OECD Guideline 403 (Acute Inhalation Toxicity)
1,2-Benzisothiazol-3(2H)-one 2634-33-5	Acute toxicity estimate (ATE)	0,21 mg/l	dust/mist			Expert judgement
terbutryn 886-50-0	LC50	> 8 mg/l	dust/mist	4 h	rat	not specified
pyrithione zinc 13463-41-7	Acute toxicity estimate (ATE)	0,14 mg/l	dust/mist	4 h		Expert judgement
2-Octyl-2H-isothiazol-3-one 26530-20-1	Acute toxicity estimate (ATE)	0,27 mg/l	dust/mist	4 h		Expert judgement
Pyridine-2-thiol 1-oxide, sodium salt 3811-73-2	Acute toxicity estimate (ATE)	0,5 mg/l	dust/mist	4 h		Expert judgement
Isothiazolinone mixture (C(M)IT/MIT (3:1)) 55965-84-9	LC50	0,171 mg/l	dust/mist	4 h	rat	OECD Guideline 403 (Acute Inhalation Toxicity)

Skin corrosion/irritation:

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

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

Hazardous substances CAS-No.	Result	Exposure time	Species	Method
Chromium (III) oxide 1308-38-9	not irritating		rabbit	OECD Guideline 404 (Acute Dermal Irritation / Corrosion)
1,2-Benzisothiazol-3(2H)-one 2634-33-5	moderately irritating	4 h	rabbit	EPA OPP 81-5 (Acute Dermal Irritation)
pyrithione zinc 13463-41-7	not irritating	4 h	rabbit	OECD Guideline 404 (Acute Dermal Irritation / Corrosion)
Pyridine-2-thiol 1-oxide, sodium salt 3811-73-2	irritating	4 h	rabbit	OECD Guideline 404 (Acute Dermal Irritation / Corrosion)
Isothiazolinone mixture (C(M)IT/MIT (3:1)) 55965-84-9	corrosive	4 h	rabbit	OECD Guideline 404 (Acute Dermal Irritation / Corrosion)

Serious eye damage/irritation:

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

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

Hazardous substances CAS-No.	Result	Exposure time	Species	Method
Chromium (III) oxide 1308-38-9	not irritating		rabbit	OECD Guideline 405 (Acute Eye Irritation / Corrosion)
1,2-Benzisothiazol-3(2H)- one 2634-33-5	corrosive	3 h	rabbit	EPA OPP 81-4 (Acute Eye Irritation)
pyrithione zinc 13463-41-7	Category 1 (irreversible effects on the eye)		rabbit	OECD Guideline 405 (Acute Eye Irritation / Corrosion)
Pyridine-2-thiol 1-oxide, sodium salt 3811-73-2	irritating		rabbit	OECD Guideline 405 (Acute Eye Irritation / Corrosion)
Isothiazolinone mixture (C(M)IT/MIT (3:1)) 55965-84-9	Category 1 (irreversible effects on the eye)		rabbit	not specified

Respiratory or skin sensitization:

The mixture is classified based on threshold limits referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Result	Test type	Species	Method
Chromium (III) oxide 1308-38-9	not sensitising	Buehler test	guinea pig	OECD Guideline 406 (Skin Sensitisation)
1,2-Benzisothiazol-3(2H)- one 2634-33-5	sensitising	Guinea pig maximisation test	guinea pig	OECD Guideline 406 (Skin Sensitisation)
1,2-Benzisothiazol-3(2H)- one 2634-33-5	sensitising	Mouse local lymphnode assay (LLNA)	mouse	OECD Guideline 429 (Skin Sensitisation: Local Lymph Node Assay)
terbutryn 886-50-0	sensitising		mouse	OECD Guideline 429 (Skin Sensitisation: Local Lymph Node Assay)
pyrithione zinc 13463-41-7	not sensitising	Guinea pig maximisation test	guinea pig	OECD Guideline 406 (Skin Sensitisation)
2-Octyl-2H-isothiazol-3- one 26530-20-1	sensitising	Mouse local lymphnode assay (LLNA)	mouse	OECD Guideline 429 (Skin Sensitisation: Local Lymph Node Assay)
Pyridine-2-thiol 1-oxide, sodium salt 3811-73-2	sensitising	Mouse local lymphnode assay (LLNA)	mouse	OECD Guideline 429 (Skin Sensitisation: Local Lymph Node Assay)
Pyridine-2-thiol 1-oxide, sodium salt 3811-73-2	sensitising	Guinea pig maximisation test	guinea pig	EU Method B.6 (Skin Sensitisation)
Isothiazolinone mixture (C(M)IT/MIT (3:1)) 55965-84-9	sensitising	Guinea pig maximisation test	guinea pig	OECD Guideline 406 (Skin Sensitisation)
Isothiazolinone mixture (C(M)IT/MIT (3:1)) 55965-84-9	sensitising	Mouse local lymphnode assay (LLNA)	mouse	not specified

Germ cell mutagenicity:

The mixture is classified based on threshold limits referring to the classified substances present in the mixture.

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

Hazardous substances CAS-No.	Result	Type of study / Route of administration	Metabolic activation / Exposure time	Species	Method
Chromium (III) oxide 1308-38-9	negative	bacterial reverse mutation assay (e.g Ames test)	with and without		OECD Guideline 471 (Bacterial Reverse Mutation Assay)
1,2-Benzisothiazol-3(2H)-one 2634-33-5	negative	bacterial reverse mutation assay (e.g Ames test)	with and without		OECD Guideline 471 (Bacterial Reverse Mutation Assay)
1,2-Benzisothiazol-3(2H)-one 2634-33-5	negative	mammalian cell gene mutation assay	with and without		OECD Guideline 476 (In vitro Mammalian Cell Gene Mutation Test)
1,2-Benzisothiazol-3(2H)-one 2634-33-5	positive without metabolic activation	in vitro mammalian chromosome aberration test	with and without		OECD Guideline 473 (In vitro Mammalian Chromosome Aberration Test)
pyrithione zinc 13463-41-7	negative	bacterial reverse mutation assay (e.g Ames test)	with and without		OECD Guideline 471 (Bacterial Reverse Mutation Assay)
pyrithione zinc 13463-41-7	positive	in vitro mammalian chromosome aberration test	with and without		OECD Guideline 473 (In vitro Mammalian Chromosome Aberration Test)
pyrithione zinc 13463-41-7	negative	mammalian cell gene mutation assay	with and without		OECD Guideline 476 (In vitro Mammalian Cell Gene Mutation Test)
Pyridine-2-thiol 1-oxide, sodium salt 3811-73-2	negative	bacterial reverse mutation assay (e.g Ames test)	with and without		OECD Guideline 471 (Bacterial Reverse Mutation Assay)
Pyridine-2-thiol 1-oxide, sodium salt 3811-73-2	positive	in vitro mammalian chromosome aberration test	with and without		OECD Guideline 473 (In vitro Mammalian Chromosome Aberration Test)
Pyridine-2-thiol 1-oxide, sodium salt 3811-73-2	negative	mammalian cell gene mutation assay	with and without		OECD Guideline 476 (In vitro Mammalian Cell Gene Mutation Test)
Isothiazolinone mixture (C(M)IT/MIT (3:1)) 55965-84-9	ambiguous	bacterial reverse mutation assay (e.g Ames test)	with and without		equivalent or similar to OECD Guideline 471 (Bacterial Reverse Mutation Assay)
Isothiazolinone mixture (C(M)IT/MIT (3:1)) 55965-84-9	positive	in vitro mammalian chromosome aberration test	with and without		EPA OPP 84-2 (Mutagenicity Testing)
Isothiazolinone mixture (C(M)IT/MIT (3:1)) 55965-84-9	positive	mammalian cell gene mutation assay	with and without		OECD Guideline 476 (In vitro Mammalian Cell Gene Mutation Test)
Isothiazolinone mixture (C(M)IT/MIT (3:1)) 55965-84-9	negative	DNA damage and repair assay, unscheduled DNA synthesis in mammalian cells in vitro	not applicable		OECD Guideline 482 (Genetic Toxicology: DNA Damage and Repair, Unscheduled DNA Synthesis in Mammalian Cells In Vitro)
Chromium (III) oxide 1308-38-9	negative	intraperitoneal		mouse	OECD Guideline 474 (Mammalian Erythrocyte Micronucleus Test)
1,2-Benzisothiazol-3(2H)-one 2634-33-5	negative	oral: gavage		mouse	OECD Guideline 474 (Mammalian Erythrocyte Micronucleus Test)
1,2-Benzisothiazol-3(2H)-one 2634-33-5	negative	oral: unspecified		rat	OECD Guideline 486 (Unscheduled DNA Synthesis (UDS) Test with Mammalian Liver Cells in vivo)
pyrithione zinc 13463-41-7	negative	oral: gavage		mouse	OECD Guideline 474 (Mammalian Erythrocyte Micronucleus Test)

Pyridine-2-thiol 1-oxide, sodium salt 3811-73-2	negative	oral: gavage		mouse	OECD Guideline 474 (Mammalian Erythrocyte Micronucleus Test)
Pyridine-2-thiol 1-oxide, sodium salt 3811-73-2	negative	oral: gavage		rat	OECD Guideline 474 (Mammalian Erythrocyte Micronucleus Test)
Isothiazolinone mixture (C(M)IT/MIT (3:1)) 55965-84-9	negative	oral: gavage		mouse	OECD Guideline 474 (Mammalian Erythrocyte Micronucleus Test)
Isothiazolinone mixture (C(M)IT/MIT (3:1)) 55965-84-9	negative	oral: gavage		mouse	OECD Guideline 475 (Mammalian Bone Marrow Chromosome Aberration Test)
Isothiazolinone mixture (C(M)IT/MIT (3:1)) 55965-84-9	negative	oral: feed		Drosophila melanogaster	OECD Guideline 477 (Genetic Toxicology: Sex-linked Recessive Lethal Test in Drosophila melanogaster)
Isothiazolinone mixture (C(M)IT/MIT (3:1)) 55965-84-9	negative	oral: gavage		rat	OECD Guideline 486 (Unscheduled DNA Synthesis (UDS) Test with Mammalian Liver Cells in vivo)
Isothiazolinone mixture (C(M)IT/MIT (3:1)) 55965-84-9	negative	oral: gavage		rat	EPA OPP 84-2 (Mutagenicity Testing)

Carcinogenicity

The mixture is classified based on threshold limits referring to the classified substances present in the mixture.

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

Hazardous components CAS-No.	Result	Route of application	Exposure time / Frequency of treatment	Species	Sex	Method
Pyridine-2-thiol 1-oxide, sodium salt 3811-73-2	not carcinogenic	oral: gavage	104 w daily	rat	male/female	EPA OPP 83-2 (Carcinogenicity)
Isothiazolinone mixture (C(M)IT/MIT (3:1)) 55965-84-9	not carcinogenic	oral: drinking water	2 y daily	rat	male/female	OECD Guideline 453 (Combined Chronic Toxicity / Carcinogenicity Studies)

Reproductive toxicity:

The mixture is classified based on threshold limits referring to the classified substances present in the mixture.

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

Hazardous substances CAS-No.	Result / Value	Test type	Route of application	Species	Method
1,2-Benzisothiazol-3(2H)-one 2634-33-5	NOAEL P 112 mg/kg NOAEL F1 56,6 mg/kg NOAEL F2 56,6 mg/kg	Two generation study	oral: feed	rat	EPA OPPTS 870.3800 (Reproduction and Fertility Effects)
Pyridine-2-thiol 1-oxide, sodium salt 3811-73-2	NOAEL P 0,7 mg/kg NOAEL F1 0,7 mg/kg	Two generation study	oral: gavage	rat	EPA OPPTS 870.3800 (Reproduction and Fertility Effects)
Isothiazolinone mixture (C(M)IT/MIT (3:1)) 55965-84-9	NOAEL P 30 ppm NOAEL F1 300 ppm NOAEL F2 300 ppm	Two generation study	oral: drinking water	rat	OECD Guideline 416 (Two-Generation Reproduction Toxicity Study)

STOT-single exposure:

No data available.

STOT-repeated exposure:

The mixture is classified based on threshold limits referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Result / Value	Route of application	Exposure time / Frequency of treatment	Species	Method
Chromium (III) oxide 1308-38-9	NOAEL > 2.000 mg/kg	oral: feed	90 d 5 d/w	rat	not specified
1,2-Benzisothiazol-3(2H)- one 2634-33-5	NOAEL 150 mg/kg	oral: gavage	28 days daily	rat	OECD Guideline 407 (Repeated Dose 28-Day Oral Toxicity in Rodents)
1,2-Benzisothiazol-3(2H)- one 2634-33-5	NOAEL 69 mg/kg	oral: feed	90 days daily	rat	EPA OPP 82-1 (90-Day Oral Toxicity)
pyrithione zinc 13463-41-7	NOAEL 0,5 mg/kg	oral: gavage	104 w daily	rat	OECD Guideline 453 (Combined Chronic Toxicity / Carcinogenicity Studies)
Pyridine-2-thiol 1-oxide, sodium salt 3811-73-2	NOAEL 0,5 mg/kg	oral: gavage	90 d	rat	EPA OTS 798.2650 (90- Day Oral Toxicity in Rodents)
Pyridine-2-thiol 1-oxide, sodium salt 3811-73-2	NOAEL 5 mg/kg	dermal	90 d daily	rat	EPA OPP 82-3 (Subchronic Dermal Toxicity 90 Days)
Pyridine-2-thiol 1-oxide, sodium salt 3811-73-2	NOAEL 0,0011 mg/l	inhalation: aerosol	90 d 6 h/d 5 d/w	rat	EPA OPP 82-4 (90-Day Inhalation Toxicity)
Isothiazolinone mixture (C(M)IT/MIT (3:1)) 55965-84-9	NOAEL 16,3 mg/kg	oral: drinking water	90 d daily	rat	OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity in Rodents)
Isothiazolinone mixture (C(M)IT/MIT (3:1)) 55965-84-9	NOAEL 0.34 mg/m3	inhalation: aerosol	90 d 6 h/d, 5 d/w	rat	OECD Guideline 413 (Subchronic Inhalation Toxicity: 90-Day)
Isothiazolinone mixture (C(M)IT/MIT (3:1)) 55965-84-9	NOAEL 2,625 mg/kg	dermal	90 d 6 h/d	rat	EPA OPP 82-3 (Subchronic Dermal Toxicity 90 Days)

Aspiration hazard:

No data available.

11.2 Information on other hazards

not applicable

SECTION 12: Ecological information**General ecological information:**

Do not empty into drains, soil or bodies of water.

Self classification: product testing according to Classification, Labelling and Packaging Regulation EC/1272/2008, Annex 1, Part 4.

12.1. Toxicity**Toxicity (Fish):**

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

The table below presents the data of the classified substances present in the mixture.

Hazardous substances CAS-No.	Value type	Value	Exposure time	Species	Method
Quartz (SiO ₂), <1% respirable 14808-60-7	LC50	> 1.000 mg/l	96 h	not specified	OECD Guideline 203 (Fish, Acute Toxicity Test)
Chromium (III) oxide 1308-38-9	LC50	Toxicity > Water solubility	96 h	Brachydanio rerio (new name: Danio rerio)	ISO 7346-1 (Determination of the Acute Lethal Toxicity of Substances to a Freshwater Fish [Brachydanio rerio Hamilton-Buchanan (Teleostei, Cyprinidae)])
Chromium (III) oxide 1308-38-9	NOEC	Toxicity > Water solubility	30 d	Brachydanio rerio (new name: Danio rerio)	OECD Guideline 210 (fish early life stage toxicity test)
Chrome antimony titanium buff rutile 68186-90-3	LC50	> 10.000 mg/l	96 h	Leuciscus idus	DIN 38412-15
1,2-Benzisothiazol-3(2H)-one 2634-33-5	LC50	2,15 mg/l	96 h	Oncorhynchus mykiss	OECD Guideline 203 (Fish, Acute Toxicity Test)
1,2-Benzisothiazol-3(2H)-one 2634-33-5	NOEC	0,21 mg/l	30 d	Oncorhynchus mykiss	OECD Guideline 215 (Fish, Juvenile Growth Test)
terbutryn 886-50-0	LC50	1,9 mg/l	96 h	Oncorhynchus mykiss	OECD Guideline 203 (Fish, Acute Toxicity Test)
terbutryn 886-50-0	NOEC	0,073 mg/l	28 d	Pimephales promelas	OECD Guideline 210 (fish early life stage toxicity test)
pyrithione zinc 13463-41-7	LC50	0,0026 mg/l	96 h	Pimephales promelas	EPA OPP 72-1 (Fish Acute Toxicity Test)
pyrithione zinc 13463-41-7	NOEC	0,00112 mg/l	32 d	Pimephales promelas	OECD Guideline 210 (fish early life stage toxicity test)
2-Octyl-2H-isothiazol-3-one 26530-20-1	LC50	0,036 mg/l	96 h	Oncorhynchus mykiss	OECD Guideline 203 (Fish, Acute Toxicity Test)
2-Octyl-2H-isothiazol-3-one 26530-20-1	NOEC	0,022 mg/l	21 d	Oncorhynchus mykiss	OECD Guideline 210 (fish early life stage toxicity test)
Pyridine-2-thiol 1-oxide, sodium salt 3811-73-2	LC50	0,007 mg/l	96 h	Oncorhynchus mykiss	EPA OPP 72-1 (Fish Acute Toxicity Test)
Isothiazolinone mixture (C(M)IT/MIT (3:1)) 55965-84-9	LC50	0,22 mg/l	96 h	Oncorhynchus mykiss	OECD Guideline 203 (Fish, Acute Toxicity Test)
Isothiazolinone mixture (C(M)IT/MIT (3:1)) 55965-84-9	NOEC	0,098 mg/l	28 d	Oncorhynchus mykiss	OECD Guideline 210 (fish early life stage toxicity test)

Toxicity (aquatic invertebrates):

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

The table below presents the data of the classified substances present in the mixture.

Hazardous substances CAS-No.	Value type	Value	Exposure time	Species	Method
Quartz (SiO ₂), <1% respirable 14808-60-7	EC50	> 1.000 mg/l	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)

Chromium (III) oxide 1308-38-9	LC50	Toxicity > Water solubility	48 h	Ceriodaphnia dubia	other guideline:
Chrome antimony titanium buff rutile 68186-90-3	EC50	> 100 mg/l	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
1,2-Benzisothiazol-3(2H)-one 2634-33-5	EC50	2,9 mg/l	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
terbutryn 886-50-0	EC50	6,4 mg/l	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
pyrithione zinc 13463-41-7	EC50	0,0063 mg/l	96 h	Americamysis bahia	EPA OPP 72-3 (Estuarine/Marine Fish, Mollusk, or Shrimp Acute Toxicity Test)
2-Octyl-2H-isothiazol-3-one 26530-20-1	EC50	0,42 mg/l	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
Pyridine-2-thiol 1-oxide, sodium salt 3811-73-2	EC50	0,022 mg/l	48 h	Daphnia magna	EPA OPP 72-2 (Aquatic Invertebrate Acute Toxicity Test)
Isothiazolinone mixture (C(M)IT/MIT (3:1)) 55965-84-9	EC50	0,12 mg/l	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)

Chronic toxicity (aquatic invertebrates):

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

The table below presents the data of the classified substances present in the mixture.

Hazardous substances CAS-No.	Value type	Value	Exposure time	Species	Method
Chromium (III) oxide 1308-38-9	NOEC	Toxicity > Water solubility	21 d	Daphnia magna	other guideline:
1,2-Benzisothiazol-3(2H)-one 2634-33-5	NOEC	1,2 mg/l	21 d	Daphnia magna	OECD 211 (Daphnia magna, Reproduction Test)
terbutryn 886-50-0	NOEC	0,05 mg/l	21 day	Daphnia	OECD 211 (Daphnia magna, Reproduction Test)
pyrithione zinc 13463-41-7	NOEC	0,0022 mg/l	21 d	Daphnia magna	EPA OPP 72-4 (Fish Early Life-Stage/Aquatic Invert.Life-Cycle Studies)
2-Octyl-2H-isothiazol-3-one 26530-20-1	NOEC	0,0016 mg/l	21 d	Daphnia magna	OECD 211 (Daphnia magna, Reproduction Test)
Isothiazolinone mixture (C(M)IT/MIT (3:1)) 55965-84-9	NOEC	0,0036 mg/l	21 d	Daphnia magna	OECD 211 (Daphnia magna, Reproduction Test)

Toxicity (Algae):

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

The table below presents the data of the classified substances present in the mixture.

Hazardous substances CAS-No.	Value type	Value	Exposure time	Species	Method
Quartz (SiO ₂), <1% respirable 14808-60-7	EC50	> 1.000 mg/l	72 h	not specified	OECD Guideline 201 (Alga, Growth Inhibition Test)
Chromium (III) oxide 1308-38-9	EC50	Toxicity > Water solubility	72 h	Scenedesmus subspicatus (new name: Desmodesmus subspicatus)	OECD Guideline 201 (Alga, Growth Inhibition Test)
Chromium (III) oxide 1308-38-9	EC10	Toxicity > Water solubility	72 h	Scenedesmus subspicatus (new name: Desmodesmus subspicatus)	OECD Guideline 201 (Alga, Growth Inhibition Test)
Chrome antimony titanium buff rutile 68186-90-3	EC50	> 100 mg/l	72 h	Scenedesmus subspicatus (new name: Desmodesmus subspicatus)	OECD Guideline 201 (Alga, Growth Inhibition Test)
Chrome antimony titanium buff rutile 68186-90-3	NOEC	> 100 mg/l	72 h	Scenedesmus subspicatus (new name: Desmodesmus subspicatus)	OECD Guideline 201 (Alga, Growth Inhibition Test)
1,2-Benzisothiazol-3(2H)-one 2634-33-5	EC50	0,1087 mg/l	24 h	Pseudokirchneriella subcapitata	OECD Guideline 201 (Alga, Growth Inhibition Test)
1,2-Benzisothiazol-3(2H)-one 2634-33-5	EC10	0,0264 mg/l	24 h	Pseudokirchneriella subcapitata	OECD Guideline 201 (Alga, Growth Inhibition Test)
terbutryn 886-50-0	EC50	0,0067 mg/l	72 h	Scenedesmus subspicatus (new name: Desmodesmus subspicatus)	OECD Guideline 201 (Alga, Growth Inhibition Test)
terbutryn 886-50-0	NOEC	0,0005 mg/l	72 h	Scenedesmus subspicatus (new name: Desmodesmus subspicatus)	OECD Guideline 201 (Alga, Growth Inhibition Test)
pyrithione zinc 13463-41-7	EC50	0,0006 mg/l	48 h	Skeletonema costatum	EPA OPP 123-3 (Algal Toxicity, Tiers I and II)
pyrithione zinc 13463-41-7	NOEC	0,00004 mg/l	48 h	Skeletonema costatum	EPA OPP 123-3 (Algal Toxicity, Tiers I and II)
2-Octyl-2H-isothiazol-3-one 26530-20-1	EC50	0,00129 mg/l	48 h	Navicula pelliculosa	OECD Guideline 201 (Alga, Growth Inhibition Test)
2-Octyl-2H-isothiazol-3-one 26530-20-1	EC10	0,000224 mg/l	48 h	Navicula pelliculosa	OECD Guideline 201 (Alga, Growth Inhibition Test)
Pyridine-2-thiol 1-oxide, sodium salt 3811-73-2	EC50	0,46 mg/l	72 h	Selenastrum capricornutum (new name: Pseudokirchneriella subcapitata)	OECD Guideline 201 (Alga, Growth Inhibition Test)
Pyridine-2-thiol 1-oxide, sodium salt 3811-73-2	NOEC	0,08 mg/l	72 h	Selenastrum capricornutum (new name: Pseudokirchneriella subcapitata)	OECD Guideline 201 (Alga, Growth Inhibition Test)
Isothiazolinone mixture (C(M)IT/MIT (3:1)) 55965-84-9	EC50	0,0052 mg/l	72 h	Skeletonema costatum	OECD Guideline 201 (Alga, Growth Inhibition Test)
Isothiazolinone mixture (C(M)IT/MIT (3:1)) 55965-84-9	NOEC	0,00064 mg/l	48 h	Skeletonema costatum	OECD Guideline 201 (Alga, Growth Inhibition Test)

Toxicity (microorganisms):

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

The table below presents the data of the classified substances present in the mixture.

Hazardous substances CAS-No.	Value type	Value	Exposure time	Species	Method
Quartz (SiO ₂), <1% respirable 14808-60-7	EC0	> 1.000 mg/l	3 h	not specified	OECD Guideline 209 (Activated Sludge, Respiration Inhibition Test)
Chrome antimony titanium buff rutile 68186-90-3	EC10	> 10.000 mg/l	30 min		not specified
1,2-Benzisothiazol-3(2H)-one 2634-33-5	EC50	23 mg/l	3 h	activated sludge of a predominantly domestic sewage	OECD Guideline 209 (Activated Sludge, Respiration Inhibition Test)
pyrithione zinc 13463-41-7	NOEC	0,1 mg/l	3 h	activated sludge	OECD Guideline 209 (Activated Sludge, Respiration Inhibition Test)

2-Octyl-2H-isothiazol-3-one 26530-20-1	NOEC	30,4 mg/l	3 h	activated sludge	OECD Guideline 209 (Activated Sludge, Respiration Inhibition Test)
Pyridine-2-thiol 1-oxide, sodium salt 3811-73-2	EC0	3,2 mg/l	30 min	<i>Pseudomonas putida</i>	DIN 38412, part 27 (Bacterial oxygen consumption test)
Isothiazolinone mixture (C(M)IT/MIT (3:1)) 55965-84-9	EC20	0,97 mg/l	3 h	activated sludge	OECD Guideline 209 (Activated Sludge, Respiration Inhibition Test)

12.2. Persistence and degradability

The table below presents the data of the classified substances present in the mixture.

Hazardous substances CAS-No.	Result	Test type	Degradability	Exposure time	Method
1,2-Benzisothiazol-3(2H)-one 2634-33-5	not readily biodegradable.	aerobic	42,1 %	28 d	OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test)
terbutryn 886-50-0	not readily biodegradable.		0 %		OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test)
pyrithione zinc 13463-41-7	not readily biodegradable.	aerobic	39 %	28 d	OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test)
2-Octyl-2H-isothiazol-3-one 26530-20-1	not readily biodegradable.	aerobic	35 %	21 d	OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test)
Pyridine-2-thiol 1-oxide, sodium salt 3811-73-2	readily biodegradable	aerobic	> 60 %	28 d	OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test)
Pyridine-2-thiol 1-oxide, sodium salt 3811-73-2	inherently biodegradable	aerobic	89 - 92 %	28 d	EU Method C.9 (Biodegradation: Zahn-Wellens Test)
Isothiazolinone mixture (C(M)IT/MIT (3:1)) 55965-84-9	inherently biodegradable	aerobic	100 %	28 d	OECD Guideline 302 B (Inherent biodegradability: Zahn- Wellens/EMPA Test)
Isothiazolinone mixture (C(M)IT/MIT (3:1)) 55965-84-9	readily biodegradable	aerobic	> 60 %	28 d	OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test)

12.3. Bioaccumulative potential

The table below presents the data of the classified substances present in the mixture.

Hazardous substances CAS-No.	Bioconcentratio n factor (BCF)	Exposure time	Temperature	Species	Method
1,2-Benzisothiazol-3(2H)-one 2634-33-5	6,62	56 d		not specified	other guideline:
pyrithione zinc 13463-41-7	8,28	30 d		<i>Crassostrea virginica</i>	OECD Guideline 305 E (Bioaccumulation: Flow-through Fish Test)
Pyridine-2-thiol 1-oxide, sodium salt 3811-73-2	< 100			not specified	OECD Guideline 305 (Bioconcentration: Flow-through Fish Test)
Isothiazolinone mixture (C(M)IT/MIT (3:1)) 55965-84-9	54	28 d		<i>Lepomis macrochirus</i>	OECD Guideline 305 E (Bioaccumulation: Flow-through Fish Test)

12.4. Mobility in soil

The table below presents the data of the classified substances present in the mixture.

Hazardous substances CAS-No.	LogPow	Temperature	Method
Chromium (III) oxide 1308-38-9	2,97		not specified
1,2-Benzisothiazol-3(2H)-one 2634-33-5	0,7	20 °C	EU Method A.8 (Partition Coefficient)
terbutryn 886-50-0	3,19		OECD Guideline 117 (Partition Coefficient (n-octanol / water), HPLC Method)
pyrithione zinc 13463-41-7	0,9	25 °C	OECD Guideline 107 (Partition Coefficient (n-octanol / water), Shake Flask Method)
2-Octyl-2H-isothiazol-3-one 26530-20-1	2,9		OECD Guideline 107 (Partition Coefficient (n-octanol / water), Shake Flask Method)
Isothiazolinone mixture (C(M)IT/MIT (3:1)) 55965-84-9	> -0,71 - 0,75	20 °C	OECD Guideline 117 (Partition Coefficient (n-octanol / water), HPLC Method)

12.5. Results of PBT and vPvB assessment

The table below presents the data of the classified substances present in the mixture.

Hazardous substances CAS-No.	PBT / vPvB
Quartz (SiO ₂) respirable particulates (RCS) ≥10% 14808-60-7	According to Annex XIII to Regulation (EC) No 1907/2006, a PBT and vPvB assessment shall not be conducted for inorganic substances.
Quartz (SiO ₂), <1% respirable 14808-60-7	According to Annex XIII to Regulation (EC) No 1907/2006, a PBT and vPvB assessment shall not be conducted for inorganic substances.
Chromium (III) oxide 1308-38-9	According to Annex XIII to Regulation (EC) No 1907/2006, a PBT and vPvB assessment shall not be conducted for inorganic substances.

12.6. Endocrine disrupting properties

not applicable

12.7. Other adverse effects

No data available.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Product disposal:

Dispose of waste and residues in accordance with local authority requirements.

Disposal of uncleaned packages:

Use packages for recycling only when totally empty.

Waste code

080119

SECTION 14: Transport information

- 14.1. UN number or ID number**
Not hazardous according to RID, ADR, ADN, IMDG, IATA-DGR.
- 14.2. UN proper shipping name**
Not hazardous according to RID, ADR, ADN, IMDG, IATA-DGR.
- 14.3. Transport hazard class(es)**
Not hazardous according to RID, ADR, ADN, IMDG, IATA-DGR.
- 14.4. Packing group**
Not hazardous according to RID, ADR, ADN, IMDG, IATA-DGR.
- 14.5. Environmental hazards**
Not hazardous according to RID, ADR, ADN, IMDG, IATA-DGR.
- 14.6. Special precautions for user**
Not hazardous according to RID, ADR, ADN, IMDG, IATA-DGR.
- 14.7. Maritime transport in bulk according to IMO instruments**
not applicable

SECTION 15: Regulatory information

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

Ozone Depleting Substance (ODS) (Regulation (EC) No 2024/590):	Not applicable
Prior Informed Consent (PIC) (Regulation (EU) No 649/2012):	Not applicable
Persistent organic pollutants (Regulation (EU) 2019/1021):	Not applicable

National regulations/information (Germany):

WGK: WGK 2: significantly water endangering (Ordinance on facilities for handling substances that are hazardous to water (AwSV))
Classification according to AwSV, Annex 1 (5.2)

Storage class according to TRGS 510: 10

15.2. Chemical safety assessment

A chemical safety assessment has not been carried out.

SECTION 16: Other information

The labelling of the product is indicated in Section 2. The full text of all abbreviations indicated by codes in this safety data sheet are as follows:

- 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.
- H331 Toxic if inhaled.
- H360D May damage the unborn child.
- H372 Causes damage to organs through prolonged or repeated exposure.
- 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.

Abbreviations and acronyms:

ADG(-Code): Australian Dangerous Goods (Code)
ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR : European Agreement concerning the International Carriage of Dangerous Goods by Road
ASTM: American Society for Testing and Materials
ATE: acute toxicity estimate
AS: Australian Standard
AwSV: Ordinance on Installations for the Handling of Substances Hazardous to Water
CAS: Chemical Abstract Service
CLP: Regulation (EC) No 1272/2008
CMR: cancerogenic, mutagenic or reprotoxic
DIN: German Institute for Standardization
ECx: Effective concentration (x% effective level)
ECHA: European Chemicals Agency
EC-Nummer: Substance number in the EU-inventories EINECS/ELINCS
ECTLV: European community threshold limit value
ED: Substance identified as having endocrine disrupting properties
EINECS: European Inventory of Existing Commercial Chemical Substances
ELINCS: European List of Notified Chemical Substances
EN : European Standard
ENCS: Japanese chemical inventory
EPA: US Environmental Protection Agency
EU: European Union
EU EXPLD1: Substance listed in Annex I, Reg (EC) No. 2019/1148
EU EXPLD2: Substance listed in Annex II, Reg (EC) No. 2019/1148
EWC: European Waste Catalogue
GHS: Globally Harmonised System for Classification and Labelling of Chemicals
GLP: Good Laboratory Practice
HSNO: Hazardous Substances and New Organisms
IARC: International Agency for Research of Cancer
IATA: International Air Transport Association
IBC-Code: International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk
IC50: half maximal inhibitory concentration
ICAO: International Civil Aviation Organization
IMDG-Code: International Maritime Code for Dangerous Goods
IMO: International Maritime Organization
ISO: International Standardization Organisation
LC50: Median lethal concentration
LD50: Median lethal dose
MARPOL: International Convention for the Prevention of Marine Pollution from Ships
n.o.s.: not otherwise specified
NO(A)EC: No (adverse) effect concentration
NO(A)EL: No (adverse) effect level
NZS: New Zealand Standard
OECD: Organisation for Economic Co-operation and Development
OEL: Occupational Exposure Limit
OPPT: US EPA Office of Pollution Prevention and Toxics
OPPTS: US EPA Office of Prevention, Pesticides and Toxic Substances
PBT: Persistent, bioaccumulative, toxic
(Q)SAR: (Quantitative) structure-activity relationship
REACH: Regulation (EC) No. 1907/2006
RID: Regulations concerning the International Transport of Dangerous Goods by Rail
SADT: Self Accelerating Decomposition Temperature
SDS: Safety Data Sheet
STOT: Specific Target Organ Toxicity
STOT SE: Specific Target Organ Toxicity - single exposure
STOT RE: Specific Target Organ Toxicity - repeated exposure
SUSMP: Standard for the Uniform Scheduling of Medicines and Poisons
SVHC: Substance of very high concern (REACH Candidate List)
TRGS: German Technical Rules for hazardous substances
UN: United Nations
VOC: Volatile Organic Compound
814.018 VOC Reg CH: Swiss Ordinance 814.018 on the Incentive Tax on Volatile Organic Compounds
vPvB: Very persistent, very bioaccumulative
VwVwS: Administrative Regulation on Substances Hazardous to Waters
WGK: Water hazard class

Further information:

Product is intended for professional use.

This information is based on our current level of knowledge and relates to the product in the state in which it is delivered. It is intended to describe our products from the point of view of safety requirements and is not intended to guarantee any particular properties.

Relevant changes in this safety data sheet are indicated by vertical lines at the left margin in the body of this document. Corresponding text is displayed in a different color on shadowed fields.