

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006, as amended by  
Commission Regulation (EU) 2020/878



DE / EN

## PermaSilan

Version	Revision Date:	SDS Number:	Date of last issue: 27.09.2024
6.0	02.12.2024	6001579	Date of first issue: 13.09.2019

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

#### 1.1 Product identifier

Trade name : PermaSilan

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

Use of the Sub-  
stance/Mixture : Water-borne coatings

Recommended restrictions : within adequate application - none  
on use

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

Company : Caparol Farben Lacke GmbH  
Roßdörfer Straße 50  
64372 Ober-Ramstadt

Telephone : +496154710  
Telefax : +4961547170222

Website :  
E-mail address Responsible/issuing person : msds@dr-rmi.com

#### 1.4 Emergency telephone

Emergency telephone 1 : +49613284463 GBK GmbH

### SECTION 2: Hazards identification

#### 2.1 Classification of the substance or mixture

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

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

Long-term (chronic) aquatic hazard, Category 3 H412: Harmful to aquatic life with long lasting effects.

#### 2.2 Label elements

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

Hazard pictograms :



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Signal Word	:	<b>Warning</b>
Hazard Statements	:	<b>H317</b> May cause an allergic skin reaction. <b>H412</b> Harmful to aquatic life with long lasting effects.
Precautionary Statements	:	<b>Prevention:</b> <b>P261</b> Avoid breathing mist or vapors. <b>P273</b> Avoid release to the environment. <b>P280</b> Wear protective gloves. <b>Response:</b> <b>P333 + P313</b> If skin irritation or rash occurs: Get medical advice/ attention. <b>P362 + P364</b> Take off contaminated clothing and wash it before reuse. <b>Disposal:</b> <b>P501</b> Dispose of contents/ container to an approved waste disposal plant.

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

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

### Additional Labeling

EUH211      Warning! Hazardous respirable droplets may be formed when sprayed. Do not breathe spray or mist.

## 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.

Ecological information: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Toxicological information: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

## SECTION 3: Composition/information on ingredients

### 3.2 Mixtures

Chemical nature      :    1-C-single-layer coating

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### Components

Chemical name	CAS-No. EC-No. Index-No. Registration number	Classification	Concentration (% w/w)
titanium dioxide; [in powder form containing 1 % or more of particles with aerodynamic diameter $\leq$ 10 $\mu\text{m}$ ]	13463-67-7 236-675-5 022-006-00-2 01-2119489379-17	Carc. 2; H351	$\geq$ 10 - < 20
1,2-benzisothiazol-3(2H)-one	2634-33-5 220-120-9 613-088-00-6 01-2120761540-60	Acute Tox. 4; H302 Skin Irrit. 2; H315 Eye Dam. 1; H318 Skin Sens. 1; H317 Aquatic Acute 1; H400 Aquatic Chronic 2; H411 Acute Tox. 2; H330  M-Factor (Acute aquatic toxicity): 1 M-Factor (Chronic aquatic toxicity): 1  specific concentration limit Skin Sens. 1; H317 $\geq$ 0,05 %	$\geq$ 0,0025 - < 0,025
octhlinone (ISO)	26530-20-1 247-761-7 613-112-00-5 01-2120768921-45	Acute Tox. 3; H301 Acute Tox. 2; H330 Acute Tox. 3; H311 Skin Corr. 1; H314 Eye Dam. 1; H318 Skin Sens. 1A; H317 Aquatic Acute 1; H400 Aquatic Chronic 1; H410 EUH071  M-Factor (Acute aquatic toxicity): 100 M-Factor (Chronic aquatic toxicity): 100  specific concentration limit	$\geq$ 0,0025 - < 0,025

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		Skin Sens. 1A; H317 >= 0,0015 %	
		Acute toxicity estimate  Acute oral toxicity: 125 mg/kg Acute inhalation toxicity (dust/mist): 0,27 mg/l Acute dermal toxicity: 311 mg/kg	
terbutryn	886-50-0 212-950-5	Acute Tox. 4; H302 Aquatic Acute 1; H400 Aquatic Chronic 1; H410 Skin Sens. 1; H317  M-Factor (Acute aquatic toxicity): 100 M-Factor (Chronic aquatic toxicity): 100  specific concentration limit Skin Sens. 1; H317 >= 3 %	>= 0,0025 - < 0,025
2-methylisothiazol-3(2H)-one	2682-20-4 220-239-6 613-326-00-9 01-2120764690-50	Acute Tox. 2; H330 Acute Tox. 3; H311 Acute Tox. 3; H301 Skin Corr. 1B; H314 Eye Dam. 1; H318 Skin Sens. 1A; H317 Aquatic Acute 1; H400 Aquatic Chronic 1; H410 EUH071  M-Factor (Acute aquatic toxicity): 10 M-Factor (Chronic aquatic toxicity): 1  specific concentration	>= 0,0025 - < 0,025

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		limit Skin Sens. 1A; H317 >= 0,0015 %	
bronopol (INN)	52-51-7 200-143-0 603-085-00-8 01-2119980938-15	Acute Tox. 3; H301 Acute Tox. 4; H312 Skin Irrit. 2; H315 Eye Dam. 1; H318 STOT SE 3; H335 (Respiratory system) Aquatic Acute 1; H400 Aquatic Chronic 1; H410 Acute Tox. 3; H331  M-Factor (Acute aquatic toxicity): 100 M-Factor (Chronic aquatic toxicity): 10	>= 0,0025 - < 0,025
reaction mass of 5-chloro-2- methyl-2H-isothiazol-3-one and 2- methyl-2H-isothiazol-3-one (3:1)	55965-84-9 613-167-00-5 01-2120764691-48	Acute Tox. 3; H301 Acute Tox. 2; H330 Acute Tox. 2; H310 Skin Corr. 1C; H314 Eye Dam. 1; H318 Skin Sens. 1A; H317 Aquatic Acute 1; H400 Aquatic Chronic 1; H410 EUH071  M-Factor (Acute aquatic toxicity): 100 M-Factor (Chronic aquatic toxicity): 100  specific concentration limit Skin Corr. 1C; H314 >= 0,6 % Skin Irrit. 2; H315 0,06 - < 0,6 % Eye Irrit. 2; H319 0,06 - < 0,6 % Skin Sens. 1A; H317 >= 0,0015 % Eye Dam. 1; H318 >= 0,6 %	>= 0,0002 - < 0,0015

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Substances with a workplace exposure limit :			
Talc (Mg <sub>3</sub> H <sub>2</sub> (SiO <sub>3</sub> ) <sub>4</sub> )	14807-96-6 238-877-9 01-2120140278-58		>= 1 - < 10
silicon dioxide	7631-86-9 231-545-4 01-2119379499-16, 01-2120105300-82		>= 1 - < 10

For explanation of abbreviations see section 16.

## SECTION 4: First aid measures

### 4.1 Description of first-aid measures

- General advice : Never give anything by mouth to an unconscious person.  
If you feel unwell, seek medical advice (show the label where possible).  
Move out of dangerous area.  
First aider needs to protect himself.
- If inhaled : Move to fresh air.
- In case of skin contact : Take off all contaminated clothing immediately.  
Do NOT use solvents or thinners.  
In case of contact, immediately flush skin with soap and plenty of water.
- In case of eye contact : If eye irritation persists: Get medical advice/ attention.  
IF IN EYES: Rinse cautiously with water for several minutes.  
Remove contact lenses, if present and easy to do. Continue rinsing.
- If swallowed : Seek medical advice.  
Clean mouth with water and drink afterwards plenty of water.  
If swallowed, DO NOT induce vomiting.

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

- Risks : May cause an allergic skin reaction.

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

- Treatment : No information available.

## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

- Suitable extinguishing media : Use water spray, alcohol-resistant foam, dry chemical or car-

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bon dioxide.  
Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.  
Do not use a solid water stream as it may scatter and spread fire.

Unsuitable extinguishing media : None known.

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

Specific hazards during fire fighting : In case of fire hazardous decomposition products may be produced such as:  
Carbon monoxide, carbon dioxide and unburned hydrocarbons (smoke).

### 5.3 Advice for firefighters

Special protective equipment for fire-fighters : Wear self-contained breathing apparatus for firefighting if necessary.

Further information : Use water spray to cool unopened containers.  
Standard procedure for chemical fires.  
The product itself does not burn.

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## SECTION 6: Accidental release measures

### 6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions : Use protective shoes or boots with rough rubber sole.  
Material can create slippery conditions.  
Do not get in eyes, on skin, or on clothing.

### 6.2 Environmental precautions

Environmental precautions : Prevent further leakage or spillage if safe to do so.  
If the product contaminates rivers and lakes or drains inform respective authorities.  
Do not flush into surface water or sanitary sewer system.

### 6.3 Methods and material for containment and cleaning up

Methods for cleaning up : Keep in suitable, closed containers for disposal.  
Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).

### 6.4 Reference to other sections

For further information see Section 7 of the safety data sheet.

, For personal protection see section 8., For disposal considerations see section 13.

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## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

Advice on safe handling : Use only with adequate ventilation.  
For personal protection see section 8.  
No special technical protective measures required.

No interior use.

In addition, the current technical information for this product  
and its application on [www.caparol.com](http://www.caparol.com) must be observed.

Hygiene measures : Wash hands before eating, drinking, or smoking. Do not eat,  
drink or smoke when using this product. Remove contaminat-  
ed clothing and protective equipment before entering eating  
areas.

### 7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers : Perishable if frozen. To maintain product quality, do not store  
in heat or direct sunlight. Store at room temperature in the  
original container. Containers which are opened must be care-  
fully resealed and kept upright to prevent leakage.

Advice on common storage : Keep away from oxidizing agents and strongly acid or alkaline  
materials.

Storage class (TRGS 510) : 12

### 7.3 Specific end use(s)

Specific use(s) : This information is not available.

## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

#### Occupational Exposure Limits

Components	CAS-No.	Value type (Form of exposure)	Control parameters	Basis
titanium dioxide; [in powder form containing 1 % or more of particles with aerodynamic diameter $\leq 10 \mu\text{m}$ ]	13463-67-7	MAK (measured as the alveolate fraction)	0,3 mg/m <sup>3</sup>	DE DFG MAK
Peak-limit category: 8; II				
Further information: Substances that cause cancer in humans or animals or that are considered to be carcinogenic for humans and for which a MAK value can be derived., Damage to the embryo or foetus is unlikely when the MAK				



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		value or the BAT value is observed		
		AGW (Inhalable fraction)	10 mg/m <sup>3</sup> (Titanium dioxide)	DE TRGS 900
	Peak-limit category: 2;(II)			
	Further information: When there is compliance with the OEL and biological tolerance values, there is no risk of harming the unborn child			
		AGW (Alveolate fraction)	1,25 mg/m <sup>3</sup> (Titanium dioxide)	DE TRGS 900
	Peak-limit category: 2;(II)			
	Further information: When there is compliance with the OEL and biological tolerance values, there is no risk of harming the unborn child			
		BM (Alveolar dust fraction)	0,5 mg/m <sup>3</sup>	DE TRGS 527
Talc (Mg <sub>3</sub> H <sub>2</sub> (SiO <sub>3</sub> ) <sub>4</sub> )	14807-96-6	AGW (Inhalable fraction)	10 mg/m <sup>3</sup>	DE TRGS 900
	Peak-limit category: 2;(II)			
	Further information: When there is compliance with the OEL and biological tolerance values, there is no risk of harming the unborn child			
		AGW (Alveolate fraction)	1,25 mg/m <sup>3</sup>	DE TRGS 900
	Peak-limit category: 2;(II)			
	Further information: When there is compliance with the OEL and biological tolerance values, there is no risk of harming the unborn child			
silicon dioxide	7631-86-9	AGW (Inhalable fraction)	4 mg/m <sup>3</sup> (Silica)	DE TRGS 900
	Further information: When there is compliance with the OEL and biological tolerance values, there is no risk of harming the unborn child			
octhilinone (ISO)	26530-20-1	AGW (Inhalable fraction)	0,05 mg/m <sup>3</sup>	DE TRGS 900
	Peak-limit category: 2;(I)			
	Further information: Skin absorption, When there is compliance with the OEL and biological tolerance values, there is no risk of harming the unborn child			

### Derived No Effect Level (DNEL) according to Regulation (EC) No. 1907/2006:

Substance name	End Use	Routes of exposure	Potential health effects	Value
titanium dioxide; [in powder form containing 1 % or more of particles with aerodynamic diameter ≤ 10 µm]	Consumers	Ingestion	Long-term systemic effects	700,00 mg/kg bw/day
	Workers	Inhalation	Long-term local effects	10,00 mg/m <sup>3</sup>
Kaolin, calcined	Workers	Inhalation	Acute systemic effects	3,00 mg/m <sup>3</sup>
	Workers	Inhalation	Acute local effects	3,00 mg/m <sup>3</sup>
	Workers	Inhalation	Long-term systemic effects	3,00 mg/m <sup>3</sup>
	Workers	Inhalation	Long-term local effects	3,00 mg/m <sup>3</sup>

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bronopol (INN)	Consumers	Skin contact	Acute systemic effects	4,20 mg/kg bw/day
	Consumers	Skin contact	Long-term systemic effects	1,40 mg/kg bw/day
	Consumers	Inhalation	Acute systemic effects	3,70 mg/m <sup>3</sup>
	Consumers	Skin contact	Long-term local effects	8,00 µg/cm <sup>2</sup>
	Consumers	Ingestion	Acute systemic effects	1,10 mg/kg bw/day
	Consumers	Skin contact	Acute local effects	8,00 µg/cm <sup>2</sup>
	Consumers	Inhalation	Long-term systemic effects	1,20 mg/m <sup>3</sup>
	Consumers	Inhalation	Acute local effects	1,30 mg/m <sup>3</sup>
	Consumers	Inhalation	Long-term local effects	1,30 mg/m <sup>3</sup>
	Consumers	Ingestion	Long-term systemic effects	0,35 mg/kg bw/day
	Workers	Inhalation	Acute systemic effects	12,30 mg/m <sup>3</sup>
	Workers	Inhalation	Acute local effects	4,20 mg/m <sup>3</sup>
	Workers	Inhalation	Long-term systemic effects	4,10 mg/m <sup>3</sup>
	Workers	Inhalation	Long-term local effects	4,20 mg/m <sup>3</sup>
	Workers	Skin contact	Acute systemic effects	7,00 mg/kg bw/day
	Workers	Skin contact	Acute local effects	13,00 µg/cm <sup>2</sup>
	Workers	Skin contact	Long-term systemic effects	2,30 mg/kg bw/day
	Workers	Skin contact	Long-term local effects	13,00 µg/cm <sup>2</sup>

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

Substance name	Environmental Compartment	Value
titanium dioxide; [in powder form containing 1 % or more of particles with aerodynamic diameter ≤ 10 µm]	Sewage treatment plant	100 mg/l
	Fresh water	0,184 mg/l
	Soil	100 mg/kg dry weight (d.w.)
	Sea water	0,0184 mg/l
	Fresh water sediment	1000 mg/kg dry weight (d.w.)
	Sea sediment	100 mg/kg dry weight (d.w.)
	Intermittent use/release	0,193 mg/l
Kaolin, calcined	Intermittent use/release	25 mg/l
	Fresh water	4,1 mg/l
	Sea water	0,41 mg/l

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	Sewage treatment plant	1400 mg/l
bronopol (INN)	Sea sediment	0,00328 mg/kg dry weight (d.w.)
	Fresh water sediment	0,041 mg/kg dry weight (d.w.)
	Sewage treatment plant	0,43 mg/l
	Soil	0,5 mg/kg dry weight (d.w.)
	Intermittent use/release	0,0025 mg/l
	Sea water	0,0008 mg/l
	Fresh water	0,01 mg/l

### 8.2 Exposure controls

#### Personal protective equipment

Eye/face protection : DGVU Regulation 112-192 - Use of eye and face protection

Goggles

Hand protection

Material : Nitrile rubber  
Glove thickness : 0,2 mm  
Protective index : Class 3

Remarks : Before removing gloves clean them with soap and water.  
Wear suitable gloves tested to EN374.  
DGVU Regulation 112-195 - Use of protective gloves

Skin and body protection : Safety shoes  
Long sleeved clothing

Choose body protection according to the amount and concentration of the dangerous substance at the work place.

Skin should be washed after contact.

Remove and wash contaminated clothing before re-use.  
During spray application: impervious clothing

Respiratory protection : No personal respiratory protective equipment normally required.

During spray application: Do not breathe spray dust. Use A2/P2 combination filter for paint spraying.

DGVU Regulation 112-190 - Use of breathing equipment

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

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Physical state	:	liquid
Color	:	white
Odor	:	characteristic
Melting point/freezing point	:	ca. 0 °C
Boiling point/boiling range	:	ca. 100 °C
Upper explosion limit / Upper flammability limit	:	not determined
Lower explosion limit / Lower flammability limit	:	not determined
Flash point	:	Not applicable
Autoignition temperature	:	not determined
Decomposition temperature	:	Not applicable
pH	:	9,0 (20 °C) Concentration: 100 % Method: DIN EN ISO 19396-1:2020-05
Viscosity	:	
Viscosity, dynamic	:	not determined
Viscosity, kinematic	:	not determined
Flow time	:	not determined
Solubility(ies)	:	
Water solubility	:	completely miscible
Partition coefficient: n-	:	not determined

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octanol/water

Vapor pressure : ca. 23,4 hPa (20 °C)

Density : 1,37 g/cm<sup>3</sup> (20 °C)

Bulk density : Not applicable

Relative vapor density : not determined

### 9.2 Other information

Explosives : Not applicable

Oxidizing properties : Not applicable

Flammability (liquids) : The product is not flammable.

Evaporation rate : Not applicable

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## SECTION 10: Stability and reactivity

### 10.1 Reactivity

No decomposition if stored and applied as directed.

### 10.2 Chemical stability

No decomposition if stored and applied as directed.

### 10.3 Possibility of hazardous reactions

Hazardous reactions : No decomposition if stored and applied as directed.

### 10.4 Conditions to avoid

Conditions to avoid : Protect from frost, heat and sunlight.

### 10.5 Incompatible materials

Materials to avoid : Incompatible with acids and bases.  
Incompatible with oxidizing agents.

### 10.6 Hazardous decomposition products

No decomposition if stored and applied as directed.

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### SECTION 11: Toxicological information

#### 11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

##### Acute toxicity

Not classified based on available information.

##### Components:

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

Acute oral toxicity : LD50 (Rat): 532 mg/kg

Acute inhalation toxicity : LC50 (Rat): 0,4 mg/l  
Exposure time: 4 h  
Test atmosphere: dust/mist

Acute dermal toxicity : LD50 (Rat): > 2.000 mg/kg

##### **octhilinone (ISO):**

Acute oral toxicity : Acute toxicity estimate: 125 mg/kg  
Method: Acute toxicity estimate according to Regulation (EC)  
No. 1272/2008

Acute inhalation toxicity : Acute toxicity estimate: 0,27 mg/l  
Test atmosphere: dust/mist  
Method: Acute toxicity estimate according to Regulation (EC)  
No. 1272/2008

Acute dermal toxicity : Acute toxicity estimate: 311 mg/kg  
Method: Acute toxicity estimate according to Regulation (EC)  
No. 1272/2008

##### **terbutryn:**

Acute oral toxicity : LD50 Oral (Rat): > 300 mg/kg

Acute dermal toxicity : LD50 Dermal (Rat): > 2.000 mg/kg

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

Acute oral toxicity : LD50 (Rat): 120 mg/kg

Acute inhalation toxicity : LC50 (Rat): 0,145 mg/l  
Exposure time: 4 h  
Test atmosphere: dust/mist

##### **bronopol (INN):**

Acute oral toxicity : LD50 (Rat, female): 193 mg/kg  
Method: OECD Test Guideline 401  
GLP: yes

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Acute inhalation toxicity : LC50 (Rat, male and female): > 0,588 mg/l  
Exposure time: 4 h  
Test atmosphere: dust/mist

Acute dermal toxicity : LD50 (Rat, male): 1.600 mg/kg

### **reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1):**

Acute oral toxicity : LD50 (Rat): 66 mg/kg  
Method: OECD Test Guideline 401

Acute inhalation toxicity : LC50 (Rat): 0,17 mg/l  
Exposure time: 4 h  
Test atmosphere: dust/mist  
Method: OECD Test Guideline 403

Acute dermal toxicity : LD50 (Rat): > 141 mg/kg  
Method: OECD Test Guideline 402

### **silicon dioxide:**

Acute oral toxicity : LD50 Oral (Rat): 10.000 mg/kg

### **Skin corrosion/irritation**

Not classified based on available information.

### **Serious eye damage/eye irritation**

Not classified based on available information.

### **Respiratory or skin sensitization**

#### **Skin sensitization**

May cause an allergic skin reaction.

#### **Respiratory sensitization**

Not classified based on available information.

#### **Germ cell mutagenicity**

Not classified based on available information.

#### **Carcinogenicity**

Not classified based on available information.

#### **Reproductive toxicity**

Not classified based on available information.

#### **STOT-single exposure**

Not classified based on available information.

#### **STOT-repeated exposure**

Not classified based on available information.

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according to Regulation (EC) No. 1907/2006, as amended by  
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**CAPAROL**

DE / EN

## PermaSilan

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### Aspiration toxicity

Not classified based on available information.

### 11.2 Information on other hazards

#### Endocrine disrupting properties

Not classified based on available information.

#### Product:

Assessment : The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

## SECTION 12: Ecological information

### 12.1 Toxicity

#### Product:

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna Straus (Water flea)): > 10 mg/l  
End point: Immobilization  
Exposure time: 48 h  
Test Type: static test  
Method: OECD Test Guideline 202  
GLP: no

Toxicity to algae/aquatic plants : ErC50 (Pseudokirchneriella subcapitata (green algae)): > 10 mg/l  
End point: Growth inhibition  
Exposure time: 72 h  
Test Type: Cell multiplication inhibition test  
Method: OECD Test Guideline 201  
GLP: no

#### Ecotoxicology Assessment

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

#### Components:

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

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): 2,2 mg/l  
Exposure time: 96 h  
Method: OECD Test Guideline 203

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia): 3,27 mg/l  
Exposure time: 48 h  
Method: OECD Test Guideline 202

Toxicity to algae/aquatic : EC50 (Selenastrum capricornutum (green algae)): 0,11 mg/l



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plants  
Exposure time: 72 h  
Method: OECD Test Guideline 201

M-Factor (Acute aquatic toxicity) : 1

M-Factor (Chronic aquatic toxicity) : 1

### **octhilinone (ISO):**

M-Factor (Acute aquatic toxicity) : 100

M-Factor (Chronic aquatic toxicity) : 100

### **terbutryn:**

M-Factor (Acute aquatic toxicity) : 100

M-Factor (Chronic aquatic toxicity) : 100

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

M-Factor (Acute aquatic toxicity) : 10

M-Factor (Chronic aquatic toxicity) : 1

### **bronopol (INN):**

M-Factor (Acute aquatic toxicity) : 100

M-Factor (Chronic aquatic toxicity) : 10

### **reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1):**

M-Factor (Acute aquatic toxicity) : 100

M-Factor (Chronic aquatic toxicity) : 100

## 12.2 Persistence and degradability

No data available

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### 12.3 Bioaccumulative potential

#### Components:

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

Partition coefficient: n-octanol/water : log Pow: 0,63 - 0,76  
pH: 7

##### **octhilinone (ISO):**

Partition coefficient: n-octanol/water : log Pow: 2,61 (25 °C)  
pH: 7

##### **terbutryn:**

Partition coefficient: n-octanol/water : log Pow: 3,66

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

Partition coefficient: n-octanol/water : log Pow: -0,486 (25 °C)  
pH: 7

##### **bronopol (INN):**

Partition coefficient: n-octanol/water : log Pow: 0,15 (23 °C)  
pH: 4,9

##### **reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1):**

Partition coefficient: n-octanol/water : log Pow: <= 0,75  
Method: OECD Test Guideline 117

### 12.4 Mobility in soil

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.

### 12.6 Endocrine disrupting properties

#### Product:

Assessment : The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

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### 12.7 Other adverse effects

**Product:**

Additional ecological information : Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

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## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods

Product : Dispose of liquid material residues at the collection point for old paints/varnishes, dispose of dried material residues as construction and demolition waste or as municipal waste or household waste.

Waste should not be disposed of via wastewater.

Contaminated packaging : Only completely emptied containers should be given for recycling.

Waste Code : used product  
080112, waste paint and varnish other than those mentioned in 08 01 11\*

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## SECTION 14: Transport information

### 14.1 UN number or ID number

ADN : Not regulated as a dangerous good  
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

ADN : Not regulated as a dangerous good  
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)

ADN : Not regulated as a dangerous good

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**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

**ADN** : Not regulated as a dangerous good  
**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

Not regulated as a dangerous good

### 14.6 Special precautions for user

Remarks : Not classified as dangerous in the meaning of transport regulations.

### 14.7 Maritime transport in bulk according to IMO instruments

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

REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles (Annex XVII) : Conditions of restriction for the following entries should be considered: Number on list 75, 3

If you intend to use this product as tattoo ink, please contact your vendor.

REACH - Candidate List of Substances of Very High Concern for Authorization (Article 59). : None

Regulation (EC) on substances that deplete the ozone layer : Not applicable

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

REACH - List of substances subject to authorisation : None

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(Annex XIV)

Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances. Not applicable

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

. : BSW50 Coating materials, water-based, containing solvents, film-protected

Labeling according to Regulation (EU) 528/2012 : According to European Regulation 528/2012 this product is defined as a "treated article" (not a biocidal product) and contains the following biocidal substances: terbutryn (CAS-No. 886-50-0), octhilinone (ISO) (CAS-No. 26530-20-1).

Volatile organic compounds : Directive 2010/75/EU of 24 November 2010 on industrial emissions (integrated pollution prevention and control)  
Volatile organic compounds (VOC) content: 0,44 %

Volatile organic compounds : Directive 2004/42/EC  
< 1 %  
< 10 g/l

### Other regulations:

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

## 15.2 Chemical Safety Assessment

A Chemical Safety Assessment is not required for this mixture.

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## SECTION 16: Other information

### Full text of H-Statements

H301 : Toxic if swallowed.  
H302 : Harmful if swallowed.  
H310 : Fatal in contact with skin.  
H311 : Toxic in contact with skin.  
H312 : Harmful 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.

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H331 : Toxic if inhaled.  
H335 : May cause respiratory irritation.  
H351 : Suspected of causing cancer if inhaled.  
H400 : Very toxic to aquatic life.  
H410 : Very toxic to aquatic life with long lasting effects.  
H411 : Toxic to aquatic life with long lasting effects.  
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  
Carc. : Carcinogenicity  
Eye Dam. : Serious eye damage  
Skin Corr. : Skin corrosion  
Skin Irrit. : Skin irritation  
Skin Sens. : Skin sensitization  
STOT SE : Specific target organ toxicity - single exposure  
DE DFG MAK : Germany. MAK BAT Annex IIa  
DE TRGS 527 : Germany. TRGS 527 - Activities with nanomaterials  
DE TRGS 900 : Germany. TRGS 900 - Occupational exposure limit values.  
DE DFG MAK / MAK : MAK value  
DE TRGS 527 / BM : Assessment scale  
DE TRGS 900 / AGW : Time Weighted Average

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

### Further information

Other information : No exposure scenario communication is required for this product according to REACH Regulation No. 1907/2006 EC. Communication of Uses is not required in accordance with REACH Article 31(1)(a) - registered substances / mixtures do not meet the criteria for classification as hazardous in accordance with Regulations 1272/2008 EC or 1999/45/EC.

Sources of key data used to compile the Material Safety Data Sheet : ECHA WebSite  
ACGIH (American Conference of Government Industrial Hygienists). 2014 TLVs and BEIs. Threshold Limit Values (TLVs) for chemical substances and physical agents and Biological Exposure Indices (BEIs) with Seventh Edition documentation. 2014 ACGIH, Cincinnati OH

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NIOSH - Registry of toxic effects of chemical substances  
ECDIN - Environmental Chemicals Data and Information Network - Joint Research Centre, Commission of the European Communities  
SAX'S - Dangerous properties of industrial materials  
GESTIS - Database on hazardous substances - Institut für Arbeitsschutz der Deutschen Gesetzlichen Unfallversicherung (IFA, Institute for Occupational Safety and Health of the German Social Accident Insurance)  
Toxnet - Toxicology Data Network

### Classification of the mixture:

Skin Sens. 1	H317
Aquatic Chronic 3	H412

### Classification procedure:

Calculation method  
Based on product data or assessment

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

### REACH Information

According to our legal obligation we implement the Regulation (EC) No 1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH). We will adjust and update our safety data sheets on a regular base in accordance with the information of our upstream-suppliers. As usual we will inform you about the adjustments. Regarding to the REACH regulation we would like to point out that DAW as a downstream user will not register on behalf of our company. We will rely on information from our suppliers. As soon as new information is available our safety data sheets will be amended accordingly.

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