

SECTION 1: Identification of the substance/mixture and of the company/undertaking**Product identifier****Trade name:****NANOTECH PAINT 006**

Nano-particle silicone facade paint

Relevant identified uses of the substance or mixture and uses advised against**Life cycle stages**

C/PW Consumer use / Widespread use by professional workers

Sector of Use

SU19 Building and construction work

Product category

PC9a Coatings and paints, thinners, paint removers

Process category

PROC10 Roller application or brushing

PROC11 Non industrial spraying

PROC19 Manual activities involving hand contact

Environmental release category

ERC10a / ERC11a Widespread use of articles with low release

Article category

AC0 Other

Application of the substance / the preparation

Dispersion paint/ Latex paint - Product for an industrial, technical and private use for coating building surfaces. For all other uses is advised against/ not recommended.

Details of the supplier of the safety data sheet**Manufacturer/Supplier:**KREISEL - Technika Budowlana Sp. z o.o.
ul. Szarych Szeregów 23
60-462 Poznań
Poland

Tel. +48 61 846 79 00

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Further information obtainable from:

Bartosz Polaczyk - Tel.: +48 510 022 908, +48 61 84 67 966, bartosz.polaczyk@kreisel.pl

On working days 8 a.m. - 4 p.m.

Emergency telephone number

National poisons information centre: +44/(0)171 - 635 9191

National Health Service: 111

European emergency call: 112

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SECTION 2: Hazards identification

Classification of the substance or mixture

Aquatic Chronic 3 H412 Harmful to aquatic life with long lasting effects.

Additional information:

The product contains encapsulated biocides. These only release a small part of the biocidal active ingredients. Based on the results of similar tested mixtures and applying the transfer principles according to EC 1272/2008 Article 9 (4), the product does not have to be classified as a skin sensitizer, see Section 16 Literature.

Label elements

GHS label elements

The product is classified and labelled according to the Globally Harmonised System (GHS).

Hazard pictograms

Void

Signal word

Void

Hazard statements

H412 Harmful to aquatic life with long lasting effects.

Precautionary statements

P273 Avoid release to the environment.

P501 Dispose of contents/container in keeping with local and national regulations.

Additional information:

EUH208 Contains 2-Octyl-2H-isothiazol-3-one, 2-Methyl-2H-isothiazol-3-one, 1,2-benzisothiazol-3(2H)-one. May produce an allergic reaction.

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

Other hazards

No further relevant information available.

Results of PBT and vPvB assessment

PBT: Not applicable.

vPvB: Not applicable.

SECTION 3: Composition/information on ingredients

Chemical characterization: Substances

This product is a mixture.

Mixtures

Description:

Mixture of silicone- and other polymer dispersion and nonhazardous fillers and additions.

Dangerous components:

CAS: 13463-67-7 EINECS: 236-675-5 Index number:... 022-006-00-2 REACH: 01-2119489379-17	Titanium dioxide (<1% particles ≤ 10µm, Note 10)	5 - 10%
CAS: 57-55-6 EINECS: 200-338-0 REACH: 01-2119456809-23	Propane-1,2-diol	1 - 2.5%

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Safety data sheet
according to UK REACH

KREISEL®

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CAS: 2634-33-5 EINECS: 220-120-9 Index number:... 613-088-00-6 REACH: 01-2120761540-60	1,2-benzisothiazol-3(2H)-one ⚠ Eye Dam. 1, H318; ⚠ Aquatic Acute 1, H400; ⚠ Acute Tox. 4, H302; Skin Irrit. 2, H315; Skin Sens. 1, H317 ATE: LD ₅₀ oral: 450 mg/kg Specific concentration limit: Skin Sens.1A; H317: C ≥ 0.05 %	< 0.01%
CAS: 886-50-0 EINECS: 212-950-5 REACH: ²	2-tert-Butylamino-4-ethylamino-6-methylthio-s-triazine (Terbutryn) ⚠ Aquatic Acute 1, H400 (M=100); Aquatic Chronic 1, H410 (M=100); ⚠ Acute Tox. 4, H302; Skin Sens. 1B, H317 Specific concentration limit: Skin Sens.1B; H317: C ≥ 3 %	≥ 0.0025 - < 0.005%
CAS: 26530-20-1 EINECS: 247-761-7 Index number:... 613-112-00-5 REACH: 01-2120768921-45	2-Octyl-2H-isothiazol-3-one ⚠ Acute Tox. 3, H301; Acute Tox. 3, H311; Acute Tox. 2, H330; ⚠ Skin Corr. 1, H314; Eye Dam. 1, H318; ⚠ Aquatic Acute 1, H400 (M=100); Aquatic Chronic 1, H410 (M=100); ⚠ Skin Sens. 1A, H317, EUH071 ATE: LD ₅₀ oral: 125 mg/kg LD ₅₀ dermal: 311 mg/kg Specific concentration limit: Skin Sens.1A; H317: C ≥ 0.0015 %	≥ 0.00025 - < 0.0015%
CAS: 2682-20-4 EINECS: 220-239-6 REACH: 01-2120764690-50	2-Methyl-2H-isothiazol-3-one ⚠ Acute Tox. 3, H301; Acute Tox. 3, H311; Acute Tox. 2, H330; ⚠ Skin Corr. 1B, H314; ⚠ Aquatic Acute 1, H400; ⚠ Skin Sens. 1A, H317 Specific concentration limit: Skin Sens. 1;H317: C ≥ 0.0015 %	< 0.0015%

Other components (>20%):

CAS: 1317-65-3 EINECS: 215-279-6 REACH: ¹	Limestone (Calcium carbonate) Consisting of: 471-34-1 Calcium carbonate (> 90%); 16389-88-1 Calcium/Magesium carbonate (0 - 10%); 14808-60-7 Quartz (SiO ₂) (0 - 10%); 37244-96-5 Feldspar (0 - 5%); 12001-26-2 Mica - Potassium aluminum silicate (Muscovite) (0 - 5%)	25 - 50%
CAS: 7732-18-5 EINECS: 231-791-2 REACH: ¹	Water	25 - 50%

Additional information:

For the wording of the listed hazard phrases refer to section 16.

Note 10 (EU 2020/217): The classification as a carcinogen by inhalation applies only to mixtures in powder form containing 1 % or more of titanium dioxide which is in the form of or incorporated in particles with aerodynamic diameter ≤ 10 µm.

¹ Not subject to registration in accordance with EC 1907/2006 Annex V (point 7) or Article 2.

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SECTION 4: First aid measures**Description of first aid measures**

First aid

General information:

For first responder no special personal protective equipment is required. First responder should avoid contact with the product.

After inhalation:

Take affected persons into fresh air and keep quiet. Seek medical treatment in case of complaints. In case of irregular breathing or respiratory arrest provide artificial respiration. In case of unconsciousness place patient stably in side position for transportation.

After skin contact:

Immediately wash with water and soap and rinse thoroughly. Immediately remove all soiled and contaminated clothing. Wash contaminated clothes before reuse. Clean contaminated shoes before reuse. If skin irritation continues, consult a doctor.

After eye contact:

Do not rub eyes because additional damage to eyes can be caused by mechanical stress. If necessary, remove contact lenses and flush the eye immediately while holding eyelids open to water for at least 20 minutes. If possible, isotonic eyewash solution (e. g. 0,9% NaCl). Always consult an occupational physician or ophthalmologist.

After swallowing:

Do not induce vomiting. If conscious rinse mouth with water and drink plenty of water. Consult a physician or poison control center.

Most important symptoms and effects, both acute and delayed

Symptoms and effects are described in section 2 and 11.

Hazards:

No further relevant information available.

Indication of any immediate medical attention and special treatment needed

If a physician is to be consulted, as per possibility he should be presented this safety data sheet.

SECTION 5: Firefighting measures**Extinguishing media**

The mixture is flammable neither in the delivery condition not in mixed conditions. Extinguisher and fire fighting are therefore adjusted to the surrounding fire.

Suitable extinguishing agents:

The mixture is flammable neither in the delivery condition not in mixed conditions. Extinguisher and fire fighting are therefore adjusted to the surrounding fire.

Special hazards arising from the substance or mixture

This product is neither explosive nor flammable, and non-oxidizing with other materials. Particular danger of slipping on leaked/spilled product.

Advice for firefighters

No special measures required. Collect contaminated fire fighting water separately. It must not enter the sewage system. Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.

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SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures

If appropriate, reference must be made to exposure controls and personal protection (see section 8).

Environmental precautions

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

Methods and material for containment and cleaning up

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust). Dispose of the material collected according to regulations.

Reference to other sections

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

SECTION 7: Handling and storage

Precautions for safe handling:

Ensure good ventilation/exhaustion at the workplace. Avoid contact with the eyes and skin. Wear protective clothing. Washing facilities / Water for cleaning yes and skin should be available. Persons, who tend to skin diseases or other hypersensitivity reactions of the skin, should not handle the product. Do not eat, drink, smoke or sniff while working.

Information about fire - and explosion protection:

No special measures required.

Conditions for safe storage, including any incompatibilities

Storage:

Requirements to be met by storerooms and receptacles:

Keep out of reach of children. Store in cool, dry place in tightly closed receptacles.

Information about storage in one common storage facility:

Keep away from foodstuffs, beverages and feed.

Further information about storage conditions:

Protect from frost. Protect from heat and direct sunlight.

Minimum storage life:

Minimum storage life (+5°C up to 25°C): See indication on package.

Storage class: 12

Specific end use(s)

No further relevant information available.

SECTION 8: Exposure controls/personal protection

Control parameters

Ingredients with limit values that require monitoring at the workplace:

13463-67-7 Titanium dioxide (<1% particles ≤ 10µm, Note 10)

WEL (Great Britain)	Long-term value: 10* 4** mg/m ³ *total inhalable **respirable
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57-55-6 Propane-1,2-diol

WEL (Great Britain)	Long-term value: 474* 10** mg/m ³ , 150* ppm *total vapour and particulates **particulates
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DNELs**13463-67-7 Titanium dioxide (<1% particles ≤ 10µm, Note 10)**

Oral	Long term exposure	700 mg/kg bw/d (Consumer)
Inhalative	Systemic - Long term exposure	10 mg/m ³ (Employee)

57-55-6 Propane-1,2-diol

Inhalative	Systemic - Long term exposure	10 mg/m ³ (Consumer) 10 mg/m ³ (Employee)
	Systemic - Short term exposure	50 mg/m ³ (Consumer) 168 mg/m ³ (Employee)

2634-33-5 1,2-benzisothiazol-3(2H)-one

Dermal	Systemic - Long term exposure	0.345 mg/kg bw/d (Consumer) 0.966 mg/kg bw/d (Employee)
	Inhalative	Systemic - Long term exposure

2682-20-4 2-Methyl-2H-isothiazol-3-one

Oral	Long term exposure	0.027 mg/kg bw/d (Consumer)
	Short term exposure	0.053 mg/kg bw/d (Consumer)
Inhalative	Local - Long term exposure	0.021 mg/m ³ (Consumer) 0.021 mg/m ³ (Employee)
	Local - Short term exposure	0.34 mg/m ³ (Consumer) 0.34 mg/m ³ (Employee)

PNECs**13463-67-7 Titanium dioxide (<1% particles ≤ 10µm, Note 10)**

Freshwater	0.127 mg/l
Marine water	1 mg/l
Soil	> 100 mg/kg
Sediments (Freshwater)	> 1,000 mg/kg
Sediments (Marine water)	100 mg/kg
Sewage plant	100 mg/l

57-55-6 Propane-1,2-diol

Freshwater	260 mg/l (not specified)
Marine water	26 mg/l (not specified)
Soil	50 mg/kg (not specified)
Sediments (Freshwater)	572 mg/kg (not specified)
Sediments (Marine water)	57.2 mg/kg (not specified)
Sewage plant	20,000 mg/l (not specified)

2634-33-5 1,2-benzisothiazol-3(2H)-one

Freshwater	0.00403 mg/l (not specified)
Marine water	0.000403 mg/l (not specified)
Soil	3 mg/kg (not specified)
Sediments (Freshwater)	0.0499 mg/kg (not specified)
Sediments (Marine water)	0.000499 mg/kg (not specified)
Sewage plant	1.03 mg/l (not specified)

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26530-20-1 2-Octyl-2H-isothiazol-3-one

Freshwater	0.0022 mg/l (not specified)
Marine water	0.00022 mg/l (not specified)
Soil	0.0082 mg/kg (not specified)
Sewage plant	0.0475 mg/l (not specified)

2682-20-4 2-Methyl-2H-isothiazol-3-one

Freshwater	0.00339 mg/l (not specified)
Soil	0.047 mg/kg (not specified)
Sediments (Marine water)	0.00339 mg/kg (not specified)
Sewage plant	0.23 mg/l (not specified)

Ingredients with biological limit values:

Void

Additional Occupational Exposure Limit Values for possible hazards during processing:

14808-60-7 Silicon dioxide (fine dust)

BOELV (EU)	Long-term value: 0.1* mg/m ³ *respirable fraction
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Additional information:

The lists valid during the making were used as basis.

Information about design of technical facilities

No further data; see item 7.

Individual protection measures, such as personal protective equipment

General protective and hygienic measures:

Keep away from foodstuffs, beverages and feed. Remove contaminated clothing immediately and thoroughly clean it before using it again. Wash hands before breaks and at the end of work. Avoid contact with the eyes and skin. Do not eat, drink, smoke or sniff while working. Use skin protection cream for skin protection. Ensure that washing facilities are available at the work place.

Respiratory protection:



Use suitable respiratory protective device only when aerosol or mist is formed (FFP2 according to EN 149)

Hand protection:



Hand protection: Chemical resistant protective gloves according EN ISO 374

The glove material has to be impermeable and resistant to the product. Due to missing tests no recommendation to the glove material can be given for the product. Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation. Check protective gloves prior to each use for their proper condition. Preventive skin protection by use of skin-protecting agents is recommended. To avoid skin problems reduce the wearing of gloves to the required minimum.

Material of gloves:

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

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Penetration time of glove material:

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

For the permanent contact gloves made of the following materials are suitable:

Polychloroprene (material thickness ≥ 0.5 mm ; breakthrough time ≥ 480 min.)

Nitrile rubber (material thickness ≥ 0.35 mm ; breakthrough time ≥ 480 min.)

Butyl rubber (material thickness ≥ 0.5 mm ; breakthrough time ≥ 480 min.)

Fluororubber (material thickness ≥ 0.4 mm ; breakthrough time ≥ 480 min.)

Neoprene (material thickness ≥ 0.5 mm ; breakthrough time ≥ 480 min.)

Not suitable are gloves made of the following materials:

Non-liquid-tight gloves made of fabric, leather or similar materials.

Eye/face protection:



In case of splash risk use tightly fitting safety goggles according to EN 166.

Body protection:



Protective work clothing

Risk management measures:

An operator training/guidance in the correct use of personal protective equipment is necessary to ensure the required level of effectiveness.

Environmental exposure controls

Avoid release in the environment. Use the surplus or dispose it of properly.

SECTION 9: Physical and chemical properties

Information on basic physical and chemical properties

General Information

Physical state

Fluid

Appearance:

Form:

Fluid

Colour:

Different according to colouring

Odour:

Mild

Odour threshold:

Not safety relevant

pH at 20 °C (68 °F)

8 - 10

Change in condition

Melting point/freezing point:

~ 0 °C (~ 32 °F) (ISO 3016)

Boiling point or initial boiling point and boiling range

100 °C (212 °F)

Flammability

Product is not flammable.

Flash point:

Not applicable

Auto-ignition temperature:

> 400 °C (> 752 °F) (DIN 51794)

Decomposition temperature:

> 825 °C to CaO and CO₂

Oxidising properties:

None

Explosive properties:

Product does not present an explosion hazard.

Lower and upper explosion limit

Lower:

Not determined

Upper:

Not determined

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Ignition temperature:	Product is not selfigniting.
Vapour pressure at 20 °C (68 °F):	23 hPa (17.3 mm Hg)
Density and/or relative density	
Density at 20 °C (68 °F):	1.4 - 1.6 g/cm ³ (11.68 - 13.35 lbs/gal)
Particle size	
Viscosity:	
Dynamic at 20 °C (68 °F):	> 1,000 mPas (DIN 53019)
Solubility	
Water:	Fully miscible
Partition coefficient n-octanol/water (log value)	Not determined
Solids content:	59 - 63 %
Solvent content:	
Organic solvents:	1.6 %
VOC without water (EC):	47.26 - 64.17 g/l
VOC with water (EC):	22.41 - 25.62 g/l
VOC with water (EC):	1.601 %

Other information**Information with regard to physical hazard classes**

Explosives	Void
Flammable gases	Void
Aerosols	Void
Oxidising gases	Void
Gases under pressure	Void
Flammable liquids	Void
Flammable solids	Void
Self-reactive substances and mixtures	Void
Pyrophoric liquids	Void
Pyrophoric solids	Void
Self-heating substances and mixtures	Void
Substances and mixtures, which emit flammable gases in contact with water	Void
Oxidising liquids	Void
Oxidising solids	Void
Organic peroxides	Void
Corrosive to metals	Void
Desensitised explosives	Void

SECTION 10: Stability and reactivity**Reactivity**

No dangerous reactions known.

Chemical stability:

The product is stable as long as it is stored properly and dry.

Thermal decomposition / conditions to be avoided:

No decomposition if used according to specifications.

Possibility of hazardous reactions

No dangerous reactions known.

Conditions to avoid

No further relevant information available.

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Incompatible materials

No further relevant information available.

Hazardous decomposition products

No dangerous decomposition products known.

Minimum storage life:

Minimum storage life (+5°C up to 25°C): See indication on package.

Additional information:

No further relevant information available.

SECTION 11: Toxicological information

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

The product was not investigated. The statement is derived from the properties of the single components.

Acute toxicity:

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

LD/LC50 values relevant for classification:**1317-65-3 Limestone (Calcium carbonate)**

Oral	LD ₅₀	6,450 mg/kg (Rat) (RTECS Data)
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13463-67-7 Titanium dioxide (<1% particles ≤ 10µm, Note 10)

Oral	LD ₅₀	> 5,000 mg/kg (Rat) (OECD 425)
	Carcinogenicity	(Mouse) (ECHA Registration dossier) no effects observed
Dermal	LD ₅₀	> 5,000 mg/kg (Rabbit)

57-55-6 Propane-1,2-diol

Oral	LD ₅₀	> 2,000 mg/kg (Rat) (OECD 401 Acute Oral Toxicity)
Dermal	LD ₅₀	20,800 mg/kg (Rabbit) (OECD 402 Acute Dermal Toxicity)

2634-33-5 1,2-benzisothiazol-3(2H)-one

Oral	LD ₅₀	450 mg/kg (ATE) 1,150 mg/kg (Mouse) 597 mg/kg (Rat)
Dermal	LD ₅₀	> 2,000 mg/kg (Rat)

886-50-0 2-tert-Butylamino-4-ethylamino-6-methylthio-s-triazine (Terbutryn)

Oral	LD ₅₀	500 mg/kg (Rat) (OECD 423) S 1219
Dermal	LD ₅₀	> 2,000 mg/kg (Rat) (OECD 402) S 1220
Inhalative	LC ₅₀ (4h)	5.21 mg/l (Rat) (OECD 403) S 1221, dust

26530-20-1 2-Octyl-2H-isothiazol-3-one

Oral	LD ₅₀	125 mg/kg (ATE) 125 mg/kg (Rat) (OECD 401)
Dermal	LD ₅₀	311 mg/kg (ATE) 311 mg/kg (Rat) (OECD 402)
Inhalative	LC ₅₀ (4h)	0.5 mg/l (ATE)

2682-20-4 2-Methyl-2H-isothiazol-3-one

Oral	LD ₅₀	232 - 249 mg/kg (Rat) (OECD 401)
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Dermal	LD ₅₀	242 mg/kg (Rat) (OECD 402)
Inhalative	LC ₅₀ (4h)	0.05 mg/l (ATE)
	LC ₅₀ (4h)	0.11 mg/l (Rat) (OECD 403)

Other information (about experimental toxicology):

13463-67-7 Titanium dioxide (<1% particles ≤ 10µm, Note 10)

Oral	OECD 414 (Prenatal Developmental Toxicity)	(Rat) no effects observed
Irritation of skin	OECD 404 (skin)	(Rabbit) not corrosive
Irritation of eyes	OECD 405 (eye)	(Rabbit) not irritant
Sensitisation	OECD 429 (LLNA)	(Mouse) not sensitizing
	OECD 421 (Reproduction screening test)	(Rat) no effects observed

886-50-0 2-tert-Butylamino-4-ethylamino-6-methylthio-s-triazine (Terbutryn)

Oral	OECD 414 (Prenatal Developmental Toxicity)	(Rabbit) (OECD 414) S 1358
	OECD 471 (In vitro - Mutation, Ames-Test)	(Salmonella typhimurium) (OECD 471) S 1231
	OECD 473 (In vitro - Mutation)	(Chinese hamster, oocyte) (OECD 473) S 1232
	OECD 476 (In vitro - Mutation)	(Chinese hamster, oocyte) (OECD 476) S 1233
Irritation of skin	OECD 404 (skin)	(Rabbit) (OECD 404) not irritant - S 1222
Irritation of eyes	OECD 405 (eye)	(Rabbit) (OECD 405) not irritant - S 1419
Sensitisation	OECD 429 (LLNA)	(Mouse) (OECD 429) sensitizing - S 1224

26530-20-1 2-Octyl-2H-isothiazol-3-one

Oral	OECD 471 (In vitro - Mutation, Ames-Test)	(Salmonella typhimurium) Negative
Irritation of skin	OECD 404 (skin)	(Rabbit) Corrosive Category 1B
Irritation of eyes	OECD 405 (eye)	(Rabbit) Irreversible effects Category 1
Sensitisation	OECD 406 (sensitization)	(Guinea pig) Sensitizing Category 1

2682-20-4 2-Methyl-2H-isothiazol-3-one

Oral	OECD 408 (Repeated dose oral toxicity 90d)	19 mg/kg bw/day (Rat)
Irritation of skin	OECD 404 (skin)	(Rabbit) corrosive
Sensitisation	OECD 406 (sensitization)	(Guinea pig) sensitizing

On the skin:

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

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On the eye:

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

Sensitization:

The product contains encapsulated biocides. These only release a small part of the biocidal active ingredients. Based on the results of similar tested mixtures and applying the transfer principles according to EC 1272/2008 Article 9 (4), the product does not have to be classified as a skin sensitizer, see Section 16 Literature.

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

Germ cell mutagenicity:

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

Carcinogenicity:

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

Reproductive toxicity:

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

Specific target organ toxicity - single exposure (STOT SE):

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

Specific target organ toxicity - repeated exposure (STOT RE):

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

Aspiration hazard:

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

Practical experience

No further relevant information available.

General comments

No further relevant information available.

Information on other hazards**Endocrine disrupting properties**

None of the ingredients is listed.

SECTION 12: Ecological information

Toxicity

The product was not investigated. The statement is derived from the properties of the single components.

Aquatic toxicity:**1317-65-3 Limestone (Calcium carbonate)**

LC ₅₀ (96h)	> 100 mg/l (Rainbow trout - oncorhynchus mykiss) (OECD 203)
LC ₅₀ (48h)	> 100 mg/l (Water flea - daphnia magna) (OECD 202)
EC ₅₀	> 14 mg/l (Algae - desmodesmus subspicatus) (OECD 201)
	> 1,000 mg/l (Activated sewage sludge) (OECD 209)

13463-67-7 Titanium dioxide (<1% particles ≤ 10µm, Note 10)

LC ₅₀ (48h)	5.5 mg/l (Water flea - daphnia magna)
LC ₅₀ (96h Marine water)	> 10,000 mg/l (Fish)
LC ₅₀ (96h Freshwater) (static)	> 100 mg/l (Goldfish) (OECD 203)
EC ₅₀ (48h)	> 1,000 mg/l (Water flea - daphnia magna) (ASTM Standard E729)
EC ₅₀ (72h)	5.83 mg/l (Algae - pseudokirchneriella subcapitata)
EC ₅₀ (3h)	> 1,000 mg/l (Activated sludge organisms) (OECD 209)
EC ₅₀ (7d)	> 100 mg/l (Lemna minor) (OECD 221)

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NOEC (48h)	1 mg/l (Water flea - daphnia magna)
NOEC (21d)	> 10 mg/kg (Water flea - daphnia magna) (OECD 202)
NOEC (28d) (static)	> 100 mg/l (Chironomus riparius) (OECD 219)
	Soil
NOEC (32d)	> 1 mg/l (Algae - scenedesmus quadricauda)
NOEC (8d)	> 1,000 mg/l (Zebrafish - danio rerio) (OECD 212)
57-55-6 Propane-1,2-diol	
LC ₅₀ (96h)	18,800 mg/l (Americamysis bahia) 40,613 mg/l (Rainbow trout - oncorhynchus mykis)
LC ₅₀ (48h)	18,340 mg/l (Water flea - ceriodaphnia dubia)
LC ₅₀	6,983 mg/l (Corophium volutator) 317 mg/l (Rabbit) (OECD 403 Acute Inhalation Toxicity)
EC ₅₀ (96h)	19,000 mg/l (Algae - pseudokirchneriella subcapitata) (OECD 201 Freshwater Grow Inhibition Test) 19,100 mg/l (Skeletonema costatum) (OECD 201 Freshwater Grow Inhibition Test)
NOEC (18h)	> 20,000 mg/l (Algae - pseudokirchneriella subcapitata)
NOEC (7d)	13,020 mg/l (Water flea - ceriodaphnia dubia)
2634-33-5 1,2-benzisothiazol-3(2H)-one	
LC ₅₀ (96h)	1.6 mg/l (Rainbow trout - oncorhynchus mykis) (OECD 203)
EC ₅₀ (48h)	3.27 mg/l (Water flea - daphnia magna) 1.5 mg/l (Water flea - daphnia)
EC ₅₀ (72h)	0.11 mg/l (Algae - selenastrum capricornutum) (OECD 201) 2 mg/l (Algae scenedesmus subcapitatus)
EC ₅₀ (16h)	0.4 mg/l (Pseudomonas putida)
EC ₁₀ (72h)	0.04 mg/l (Algae - selenastrum capricornutum) (OECD 201)
NOEC (21d)	1.2 mg/l (Water flea - daphnia magna) (OECD 202)
NOEC (28d)	0.21 mg/l (Rainbow trout - oncorhynchus mykis) (OECD 215)
886-50-0 2-tert-Butylamino-4-ethylamino-6-methylthio-s-triazine (Terbutryn)	
LC ₅₀ (96h)	1.9 mg/l (Rainbow trout - oncorhynchus mykis) (OECD 203) S 1242
EC ₅₀ (48h)	6.4 mg/l (Water flea - daphnia)
EC ₅₀ (72h)	0.0067 mg/l (Algae - desmodesmus subspicatus) (OECD 201) S 1244
IC ₅₀ (72h)	0.0055 mg/l (Algae - selenastrum capricornutum) (OECD 201)
NOEC (72h)	0.0005 mg/l (Algae - desmodesmus subspicatus) (OECD 201) S 1244
NOEC (21d)	0.05 mg/l (Water flea - daphnia) (OECD 211) S 1240
NOEC (28d)	0.073 mg/l (Fat head minnow - pimephales promelas) (OECD 210) S 1241
26530-20-1 2-Octyl-2H-isothiazol-3-one	
LC ₅₀ (96h)	0.03 mg/l (Rainbow trout - oncorhynchus mykis)
LC ₅₀ (96h Freshwater)	0.122 mg/l (Fish - pisces)
EC ₁₀	0.068 mg/l (Algae) 0.022 mg/l (Fish - pisces) 0.035 mg/l (Invertebrate)
EC ₅₀	30.4 mg/l (Activated sewage sludge)

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EC ₅₀ (48h)	0.32 mg/l (Water flea - daphnia magna) 0.42 mg/l (Water flea - daphnia) (OECD 202)
EC ₅₀ (72h)	0.084 mg/l (Algae scenedesmus subcapitatus) (OECD 201) S 63
EC ₅₀ (96h)	0.047 mg/l (Rainbow trout - oncorhynchus mykiss) (OECD 203)
EC ₅₀ /LC ₅₀	0.15 mg/l (Algae) 0.181 mg/l (Invertebrate)
IC ₅₀ (72h)	0.084 mg/l (Algae scenedesmus subcapitatus) (OECD 201)
2682-20-4 2-Methyl-2H-isothiazol-3-one	
LC ₅₀ (96h Marine water)	2.98 mg/l (Water flea - daphnia magna)
LC ₅₀ (96h Freshwater)	0.934 mg/l (Water flea - daphnia magna)
LC ₅₀	4.77 mg/l (Fish) (OECD 203)
EC ₁₀	0.044 mg/l (Water flea - daphnia magna) (OECD 211) 4.93 mg/l (Fish)
EC ₅₀	41 mg/l (Activated sewage sludge) (OECD 209) 0.103 mg/l (Algae - pseudokirchneriella subcapitata) (OECD 201)
EC ₅₀ (16h)	2.3 mg/l (Pseudomonas putida)

Persistence and degradability

A part of the components is biodegradable.

26530-20-1 2-Octyl-2H-isothiazol-3-one

Oral	OECD 309 Simulation Biodegradation - Surface Water	0.6 - 1.4 d (not specified) S 635
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Degree of elimination:**57-55-6 Propane-1,2-diol**

Biodegradation	98 % (Soil) 105 d 81.7 % (Water) 28 d
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2634-33-5 1,2-benzisothiazol-3(2H)-one

Biodegradation	> 70 % (Activated sewage sludge) (OECD 303 A) > 90 % (not specified) (OECD 302 B)
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886-50-0 2-tert-Butylamino-4-ethylamino-6-methylthio-s-triazine (Terbutryn)

Biodegradation	< 70 % (Activated sewage sludge) (OECD 303 A) S 1237 0 % (Activated sludge organisms) (OECD 301 F) S 1238
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Bioaccumulative potential**2634-33-5 1,2-benzisothiazol-3(2H)-one**

Log Kow	0.7 (not specified) (OECD 117)
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886-50-0 2-tert-Butylamino-4-ethylamino-6-methylthio-s-triazine (Terbutryn)

Log Kow	3.19 (not specified) (OECD 117) S 1211
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26530-20-1 2-Octyl-2H-isothiazol-3-one

OECD 107 LogKow (Shake Flask Method)	2.92 (n-Octanol/Water)
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Bioconcentration factor (BCF)**2634-33-5 1,2-benzisothiazol-3(2H)-one**

Bioconcentration factor (BCF)	6.95 (not specified) (OECD 305)
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886-50-0 2-tert-Butylamino-4-ethylamino-6-methylthio-s-triazine (Terbutryn)

Bioconcentration factor (BCF)	103 (calculated)
	EPWIN

Mobility in soil

No further relevant information available.

Results of PBT and vPvB assessment

PBT: Not applicable.

vPvB: Not applicable.

Endocrine disrupting properties

The product does not contain substances with endocrine disrupting properties.

Other adverse effects

No further relevant information available.

Literature

No further relevant information available.

Ecotoxicological effects:

No further relevant information available.

Behaviour in sewage processing plants:

2634-33-5 1,2-benzisothiazol-3(2H)-one

EC ₂₀ (0,5h)	3.3 mg/l (Activated sludge organisms) (OECD 209)
EC ₂₀ (3h)	3.3 mg/l (Activated sludge organisms) (OECD 209)
EC ₅₀ (3h)	13 mg/l (Activated sludge organisms) (OECD 209)
OECD 302 B Zahn Wellens Test	90 % (Activated sludge organisms) (OECD 302)
OECD 303 A Activated Sludge Units	% (Rat) > 70 % (Activated sludge organisms) (OECD 303 A)

886-50-0 2-tert-Butylamino-4-ethylamino-6-methylthio-s-triazine (Terbutryn)

EC ₂₀ (3h)	> 100 mg/l (Activated sludge organisms) (OECD 209)
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26530-20-1 2-Octyl-2H-isothiazol-3-one

EC ₂₀ (0,5h)	10.4 mg/l (Activated sewage sludge) (TTC-Test 8901 Macherey Nagel)
EC ₂₀ (3h)	7.3 mg/l (Activated sewage sludge) (OECD 209)
OECD 303 A Activated Sludge Units	> 83 % (Activated sewage sludge) S 313

2682-20-4 2-Methyl-2H-isothiazol-3-one

EC ₂₀ (3h)	2.8 mg/l (Activated sludge organisms) (DIN 38412-3 TTC-Test)
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Additional ecological information:

General notes:

Water hazard class 2 (German Regulation) (Self-assessment): hazardous for water

Do not allow product to reach ground water, water course or sewage system.

Danger to drinking water if even small quantities leak into the ground.

GB

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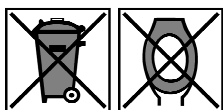
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SECTION 13: Disposal considerations

Waste treatment methods

Recommendation:



Must not be disposed together with household garbage. Do not allow product to reach sewage system.

Risk of environmental pollution. Follow the applicable regulations on waste disposal. Keep unused products and contaminated packaging sealed. Provide containers for waste collection. Hand over for disposal to a specialist company authorised to carry out such activities. Prevent the product from being released into the environment. Do not allow the product to enter the sewage system. Must not be disposed of with municipal waste. Empty containers can be utilised for energy recovery in a waste incineration plant or, if classified accordingly, collected at a landfill site. Perfectly cleaned packaging can be recycled.

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

European waste catalogue	
08 01 12	Waste paint and varnish other than those mentioned in 08 01 11
15 01 02	Plastic packaging
HP14	Ecotoxic

08 01 12 for residues of the unprocessed product
15 01 02 for the completely emptied packaging

Uncleaned packaging

Recommendation:

Disposal must be made according to official regulations.
Recycle only completely emptied packaging.

Recommended cleansing agents:

Water, if necessary together with cleansing agents.

SECTION 14: Transport information

UN number or ID number ADR, ADN, IMDG, IATA	Void
UN proper shipping name ADR, ADN, IMDG, IATA	Void
Transport hazard class(es) ADR, ADN, IMDG, IATA Class	Void
Packing group ADR, IMDG, IATA	Void
Environmental hazards Marine pollutant:	No
Special precautions for user	Not applicable

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Maritime transport in bulk according to IMO instruments	Not applicable
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UN "Model Regulation":	Void
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SECTION 15: Regulatory information

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

Poisons Act**Regulated explosives precursors**

None of the ingredients is listed.

Regulated poisons

None of the ingredients is listed.

Reportable explosives precursors

7631-99-4	Sodium nitrate	Listed
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Reportable poisons

1310-73-2	Sodium hydroxide	12% of total caustic alkalinity
1310-73-2	Sodium hydroxide	12% of total caustic alkalinity

GHS label elements

The product is classified and labelled according to the Globally Harmonised System (GHS).

Hazard pictograms Void**Signal word** Void**Hazard statements**

H412 Harmful to aquatic life with long lasting effects.

Precautionary statements

P273 Avoid release to the environment.

P501 Dispose of contents/container in keeping with local and national regulations.

Directive (EU) 2012/18**Named dangerous substances - ANNEX I :**

None of the ingredients is listed.

Biozide ingredients (528/2012/EG):

Data based on recipe and information on the raw materials from the supply chain.

Tetramethylolacetylene diurea	< 0.03%
1,2-benzisothiazol-3(2H)-one	< 0.01%
Pyrithione zinc	< 0.01%
2-tert-Butylamino-4-ethylamino-6-methylthio-s-triazine (Terbutryn)	≥ 0.0025 - < 0.005%
2-Octyl-2H-isothiazol-3-one	≥ 0.00025 - < 0.0015%
2-Methyl-2H-isothiazol-3-one	< 0.0015%

Classification according 2004/42/EG:

IIA(a) 30 - This product contains < 30 g/l VOC (see chapter 9)

IIA(c) 40 - this product contains < 40 g/l VOC (see chapter 9)

Other regulations, limitations and prohibitive regulations:

·Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (UK REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as

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well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC

·Commission Regulation (EU) 2020/878 of 18 June 2020 amending Annex II to Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (UK REACH)

·Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006

·Regulation (EC) 1013/2006 on shipments of waste

Chemical safety assessment

A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

Reasons for changes:

* Data compared to the previous version altered.

Relevant phrases:

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

Advice for instructions:

Additional trainings, which go beyond the prescribed training in activities involving hazardous substances are not required.

Literature and the data sources:

Test reports S4565, S5145, S5147 according to OECD 429 (rLLNA, mouse)

Department issuing MSDS:

Product safety department (+43/(0)5522-41646-0 / klaus.ritter@fixit-gruppe.com)

Contact:

Dr. Klaus Ritter

Date of previous version: 28.02.2023

Version number of previous version: 9

Abbreviations and acronyms:

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

ICAO: International Civil Aviation Organisation

MAK: Maximale Arbeitsplatz-Konzentration (maximum concentration of a chemical substance in the workplace, Austria/Germany)

PBT: persistent, bioaccumulative and toxic properties

vPvB: very persistent, bioaccumulative properties

ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

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CAS: Chemical Abstracts Service (division of the American Chemical Society)
VOC: Volatile Organic Compounds (USA, EU)
DNEL: Derived No-Effect Level (UK REACH)
PNEC: Predicted No-Effect Concentration (UK REACH)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
ATE: Acute toxicity estimate values
Acute Tox. 3: Acute toxicity – Category 3
Acute Tox. 4: Acute toxicity – Category 4
Acute Tox. 2: Acute toxicity – Category 2
Skin Corr. 1: Skin corrosion/irritation – Category 1
Skin Corr. 1B: Skin corrosion/irritation – Category 1B
Skin Irrit. 2: Skin corrosion/irritation – Category 2
Eye Dam. 1: Serious eye damage/eye irritation – Category 1
Skin Sens. 1: Skin sensitisation – Category 1
Skin Sens. 1A: Skin sensitisation – Category 1A
Skin Sens. 1B: Skin sensitisation – Category 1B
Aquatic Acute 1: Hazardous to the aquatic environment - acute aquatic hazard – Category 1
Aquatic Chronic 1: Hazardous to the aquatic environment - long-term aquatic hazard – Category 1
Aquatic Chronic 3: Hazardous to the aquatic environment - long-term aquatic hazard – Category 3

Further information:

The information in this safety data sheet describe the safety requirements of our product and is based on our current state of our knowledge. They provide no assurance of product quality. Existing laws, ordinances and regulations, including those that are not mentioned in this data sheet must be observed by the recipient of our products in their own responsibility.