

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH)



Trade name : Concrete Protection LF 861
Betonschutz LF 861

Revision date : 02.05.2024

Print date : 02.05.2024

Version (Revision) : 15.0.0 (14.0.0)

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

1.1 Product identifier

Concrete Protection LF 861
Betonschutz LF 861

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

Relevant identified uses

Products Category [PC]

PC 9 - Coatings and paints, fillers, putties, thinners.

Uses advised against

There are no information about relevant identified uses of the product according to the Regulation (EC) No. 1907/2006 (REACH-Regulation), which are advised against. For using the product observe the information in the Technical data sheet of the product.

1.3 Details of the supplier of the safety data sheet

Supplier

Brillux GmbH & Co KG
www.brillux.de

Street : Weseler Straße 401

Postal code/City : D - 48163 Münster

Telephone : +49 (0)251-7188-0

Telefax : +49 (0)251-7188-280

Information contact :

Electronic mail address of the well-informed person for safety data sheets:sdb@brillux.de

1.4 Emergency telephone number

Outside the business hours (9 a.m. to 5 p.m.):
(Giftinformationszentrum-Nord, Göttingen, consultation in german or english language)
Telephone: +49 (0)551-19240.

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 [CLP]

Skin Sens. 1 ; H317 - Skin sensitisation : Category 1 ; May cause an allergic skin reaction.

Aquatic Chronic 3 ; H412 - Hazardous to the aquatic environment : Chronic 3 ; Harmful to aquatic life with long lasting effects.

2.2 Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms



Exclamation mark (GHS07)

Signal word

Warning

Hazard components for labelling

1,2-BENZISOTHIAZOL-3(2H)-ONE ; CAS No. : 2634-33-5

TERBUTRYN ; CAS No. : 886-50-0

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2-OCTYL-2H-ISOTHIAZOL-3-ONE ; CAS No. : 26530-20-1

Hazard statements

H317 May cause an allergic skin reaction.
H412 Harmful to aquatic life with long lasting effects.

Precautionary statements

P102 Keep out of reach of children.
P261 Avoid breathing spray.
P273 Avoid release to the environment.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P333+P313 If skin irritation or rash occurs: Get medical advice/attention.
P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
P501 Dispose of contents/container to approved disposal company or local collection.

2.3 Other hazards

Adverse environmental effects

The product does not contain any substances, which fulfil the criteria for PBT or vPvB in accordance with the Annex XIII of the Regulation (EC) No 1907/2006 (REACH-Regulation).

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Description

Dispersion paint;
Composition:
Acrylic-copolymer-dispersion, titanium dioxide (depending on the shade), inorganic/organic pigments (depending on the shade), organic extenders, water, additives, preservatives for film protection and preservatives (benzisothiazolinone and sodium pyrithione).

Hazardous ingredients

1,2-BENZISOTHIAZOL-3(2H)-ONE ; REACH No. : 01-2120761540-60 ; EC No. : 220-120-9; CAS No. : 2634-33-5
Weight fraction : $\geq 0,005 - < 0,05$ %
Classification 1272/2008 [CLP] : Acute Tox. 2 ; H330 Eye Dam. 1 ; H318 Acute Tox. 4 ; H302 Skin Irrit. 2 ; H315 Skin Sens. 1 ; H317 Aquatic Acute 1 ; H400 Aquatic Chronic 2 ; H411
Specific Conc. Limits : Skin Sens. 1 ; H317: C $\geq 0,05$ % • (M Acute=1)
SODIUM PYRITHIONE ; REACH No. : 01-2119493385-28 ; EC No. : 223-296-5; CAS No. : 3811-73-2
Weight fraction : $\geq 0,0025 - < 0,025$ %
Classification 1272/2008 [CLP] : Acute Tox. 3 ; H311 Acute Tox. 3 ; H331 STOT RE 1 ; H372 Acute Tox. 4 ; H302 Skin Irrit. 2 ; H315 Skin Sens. 1 ; H317 Eye Irrit. 2 ; H319 Aquatic Acute 1 ; H400 Aquatic Chronic 2 ; H411 EUH070
(M Acute=100) • (ATE - dermal : 790 mg/kg) • (ATE - inhalative (dust, mist) : 0,5 mg/L) • (ATE - oral : 500 mg/kg)
ZINC PYRITHIONE ; REACH No. : 01-2119511196-46 ; EC No. : 236-671-3; CAS No. : 13463-41-7
Weight fraction : $\geq 0,0025 - < 0,025$ %
Classification 1272/2008 [CLP] : Acute Tox. 2 ; H330 Acute Tox. 3 ; H301 Repr. 1B ; H360D STOT RE 1 ; H372 Eye Dam. 1 ; H318 Aquatic Acute 1 ; H400 Aquatic Chronic 1 ; H410
(M Chronic=10) • (M Acute=1000) • (ATE - inhalative (dust, mist) : 0,14 mg/L) • (ATE - oral : 221 mg/kg)
TERBUTRYN ; EC No. : 212-950-5; CAS No. : 886-50-0
Weight fraction : $\geq 0,0025 - < 0,025$ %
Classification 1272/2008 [CLP] : Acute Tox. 4 ; H302 Skin Sens. 1B ; H317 Aquatic Acute 1 ; H400 Aquatic Chronic 1 ; H410
(M=100)
2-OCTYL-2H-ISOTHIAZOL-3-ONE ; EC No. : 247-761-7; CAS No. : 26530-20-1

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Weight fraction : $\geq 0,0015 - < 0,0025 \%$
Classification 1272/2008 [CLP] : Acute Tox. 2 ; H330 Acute Tox. 3 ; H301 Acute Tox. 3 ; H311 Skin Corr. 1 ; H314 Eye Dam. 1 ; H318 Skin Sens. 1A ; H317 Aquatic Acute 1 ; H400 Aquatic Chronic 1 ; H410
Specific Conc. Limits : Skin Sens. 1A ; H317: C $\geq 0,0015 \%$ • (M=100) • (ATE - dermal : 311 mg/kg) • (ATE - inhalative (dust, mist) : 0,27 mg/L) • (ATE - oral : 125 mg/kg)

Additional information

For full text of Hazard- and EU Hazard-statements: see SECTION 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

General information

In all cases of doubt, or when symptoms persist, seek medical attention. Immediately remove all contaminated clothing. If unconscious no administration by mouth, storage in recovery position and seek medical advice. If medical advice is needed, have product container or label at hand.

Following inhalation

When symptoms persists, take the casualty into the fresh air and keep warm. Irregular breathing/no breathing: artificial respiration.

In case of skin contact

Take off immediately all contaminated clothes. Wash away with soap and water and rinse. Do NOT use solvents or thinners. If skin irritation continues, consult a doctor.

After eye contact

Remove contact lenses, keep eyelids open. Rinse open eye immediately with plenty of running water. Seek medical advice if complaint continues.

Following ingestion

Drink water in small draught. Keep at rest. Do not induce vomiting. When swallowed immediately consult and show packing or label to physician.

4.2 Most important symptoms and effects, both acute and delayed

Allergic symptoms.

4.3 Indication of any immediate medical attention and special treatment needed

No further relevant information available.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media

This product is not flammable. In case of a fire extinguish surroundings as indicated.

Unsuitable extinguishing media

None known.

5.2 Special hazards arising from the substance or mixture

Hazardous combustion products

Fire will produce dense black smoke. Exposure to decomposition products may cause a health hazard.

5.3 Advice for firefighters

Special protective equipment for firefighters

When extinguishing fires, use breathing apparatus with an independent source of air.

5.4 Additional information

Cool endangered containers with water in case of fire. Do not allow run-off from fire-fighting to enter drains or water courses.

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SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Refer to protective measures listed in sections 7 and 8. The product produced in combination with water slippery surfaces.

6.2 Environmental precautions

Do not empty into drains. If the product contaminates lakes, rivers or sewages, inform appropriate authorities in accordance with local regulations. Holding polluted washing water back and disposing of duly.

6.3 Methods and material for containment and cleaning up

For cleaning up

Contain and collect spillage with non-combustible absorbent materials, e.g. sand, earth, vermiculite, diatomaceous earth and place in container for disposal according to local regulations (see section 13). Remove residue by rinsing thoroughly with water. Thoroughly clean contaminated objects and floors and observe environmental regulations.

6.4 Reference to other sections

See Section 7 for information on safe handling.
You find information about the safety equipment of persons in the section 8,
information about the refuse disposal in section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Protective measures

No special measures necessary in the case of regulation storage and handling. Ensure a good ventilation in room and working area. For personal protection see Section 8. Keep out of reach of children. Read label before use.

Measures to prevent fire

This product is not flammable. Cool endangered containers with water.

Advices on general occupational hygiene

While working do not eat, drink or smoke. Wash hands and face before breaks and after work and take a shower if necessary. Immediately remove all contaminated clothing.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Keep container tightly in a dry, cool and good ventilated place. Do not store the product in lounge room. Keep only in the original container. Protect against frost. Keep out of the reach of children.

Hints on joint storage

Store away from foodstuffs.

Storage class (TRGS 510) : 12

Further information on storage conditions

Keep container tightly sealed. Store at 5°-35°C. Containers should be kept dry and sealed.

7.3 Specific end use(s)

For using the product observe the information in the Technical data sheet of the product.

Industrial sector specific solutions

GISCODE : Product code in accordance with GISBAU (hazardous materials information system of the German professional associations of the building and construction industry) for colours and varnishes (GISCODE): BSW50

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limit values

SODIUM PYRITHIONE ; CAS No. : 3811-73-2

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Limit value type (country of origin) : TRGS 900 (D)
Limit value : 1 mg/m³
Peak limitation : 4
Remark : H,Y
Version : 01.03.2002

DNEL-/PNEC-values

DNEL/DMEL

1,2-BENZISOTHIAZOL-3(2H)-ONE ; CAS No. : 2634-33-5
Limit value type : DNEL Consumer (systemic)
Exposure route : Inhalation
Exposure frequency : Long-term
Limit value : 1,2 mg/m³
Limit value type : DNEL Consumer (systemic)
Exposure route : Dermal
Exposure frequency : Long-term
Limit value : 345 µg/kg bw/day
Limit value type : DMEL worker (systemic)
Exposure route : Inhalation
Exposure frequency : Long-term
Limit value : 6,81 mg/m³
Limit value type : DMEL worker (systemic)
Exposure route : Dermal
Exposure frequency : Long-term
Limit value : 966 µg/kg bw/day

PNEC

1,2-BENZISOTHIAZOL-3(2H)-ONE ; CAS No. : 2634-33-5
Limit value type : PNEC (Aquatic, freshwater)
Exposure route : Water (Including sewage plant)
Exposure time : Short-term
Limit value : 4,03 µg/l
Limit value type : PNEC (Aquatic, intermittent release)
Exposure route : Water (Including sewage plant)
Exposure time : Short-term
Limit value : 1,1 µg/l
Limit value type : PNEC (Aquatic, marine water)
Exposure route : Water (Including sewage plant)
Exposure time : Short-term
Limit value : 403 ng/L
Limit value type : PNEC (Aquatic, marine water)
Exposure route : Water (Including sewage plant)
Exposure time : Long-term
Limit value : 110 ng/L
Limit value type : PNEC Soil, Freshwater
Exposure route : Soil
Exposure time : Short-term
Limit value : 49,9 µg/kg dry weight
Limit value type : PNEC (Soil)
Exposure route : Soil
Exposure time : Short-term
Limit value : 3 mg/kg dry weight
Limit value type : PNEC Soil, Marine water
Exposure route : Soil
Exposure time : Short-term
Limit value : 4,99 µg/kg dry weight

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Limit value type : PNEC (Sewage treatment plant)
Exposure route : Water (Including sewage plant)
Exposure time : Short-term
Limit value : 1,03 mg/l

ZINC PYRITHIONE ; CAS No. : 13463-41-7

Limit value type : PNEC (Aquatic, freshwater)
Exposure route : Water (Including sewage plant)
Exposure time : Short-term
Limit value : 90 ng/L

Limit value type : PNEC (Aquatic, marine water)
Exposure route : Water (Including sewage plant)
Exposure time : Short-term
Limit value : 90 ng/L

Limit value type : PNEC (Sediment, freshwater)
Exposure route : Water (Including sewage plant)
Exposure time : Short-term
Limit value : 9,5 µg/kg dry weight

Limit value type : PNEC (Sediment, marine water)
Exposure route : Water (Including sewage plant)
Exposure time : Short-term
Limit value : 9,5 µg/kg dry weight

Limit value type : PNEC (Soil)
Exposure route : Soil
Exposure time : Short-term
Limit value : 1,02 mg/kg dry weight

Limit value type : PNEC (Sewage treatment plant)
Exposure route : Water (Including sewage plant)
Exposure time : Short-term
Limit value : 10 µg/l

8.2 Exposure controls

Appropriate engineering controls

Provide adequate ventilation. Where reasonably practicable this should be achieved by the use of local exhaust ventilation and good general extraction.
Observe data available of section 7.

Personal protection equipment

Eye/face protection

Use protection glasses in case of spattering.

Skin protection

Hand protection

At use as agreed a protective gloves from nitrile rubber, tested according to EN 374, with a material thickness 0,38 mm has to be used. Notes of the manufacturer have to be taken into account. Penetration time of the glove material: > = 8 h.

By longer or repeated contact the penetration times can be considerably shorter. The protective gloves should be replaced after the first wear out or a damage of the gloves. Gloves of cotton should be used under the gloves of polychloropren or nitrile rubber. After washing hands replace lost skin fat by fat containing skin creams.

Body protection

Using protective clothing. If the product must be sprayed, use a disposable protective suit.

Respiratory protection

Breathing protection equipment is not necessary by brush or roll application of the Product in good ventilated rooms.
By spraying: Use the combination filter mask A2/P2. Do not breathe gas or spray.

General information

Avoid contact with eyes and skin. Immediately remove all contaminated clothing. Do not eat or drink during work - no smoking. Wash hands before breaks and after work. Ensure a good ventilation in room and working area. Do not

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breathe gas or spray.

Environmental exposure controls

The product should not reach waters and the ground. If the product contaminates lakes, rivers or sewages, inform appropriate authorities in accordance with local regulations.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance

Physical state : Liquid.

Colour : conformable to product designation.

Odour

Characteristic.

Safety characteristics

Melting point/freezing point :	(1013 hPa)		No data available
Initial boiling point and boiling range :	(1013 hPa)	>	100 °C
Decomposition temperature :	(1013 hPa)		No data available
Flash point :			not applicable
Auto-ignition temperature :			not applicable
Lower explosion limit :			not applicable
Upper explosion limit :			not applicable
Vapour pressure :	(50 °C)		No data available
Density :	(20 °C)	approx.	1,03 - 1,07 g/cm ³
Solvent separation test :	(20 °C)		not applicable
Water solubility :	(20 °C)		mixable
pH :			8 - 9
log P O/W :			No data available
Flow time :	(20 °C)		No data available
Viscosity :	(20 °C)		thixotropic
Kinematic viscosity :	(40 °C)		No data available
Relative vapour density :	(20 °C)		No data available
VOC-value :		max.	10 g/l
Flammable liquids :	The product is not ignitable.		
Particle Characteristics :	not applicable		

9.2 Other information

Other physical and chemical data have not been determined.

SECTION 10: Stability and reactivity

10.1 Reactivity

No dangers connected by a possible reactivity of the product are known to proper handling and storage.

10.2 Chemical stability

Stable under recommended storage and handling conditions (see section 7).

10.3 Possibility of hazardous reactions

No dangerous reactions are known if stored and handled the product correctly.

10.4 Conditions to avoid

Keep away from frost, heat and direct sunlight.

10.5 Incompatible materials

No dangerous reaction known. Keep away from oxidizing agents, strongly alkaline and strongly acid materials in order to avoid exothermic reactions.

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10.6 Hazardous decomposition products

No dangerous decomposition products are known if stored and handled correctly. When exposed to high temperatures or in case of fire hazardous decomposition products such as carbon monoxide and dioxide, smoke, oxides of nitrogen, may be produced.

SECTION 11: Toxicological information

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

Acute toxicity

Acute toxicity:

- Acute oral toxicity: No data available;
- Acute dermal toxicity: No data available;
- Acute inhalation toxicity: No data available.

Acute oral toxicity

Parameter :	ATEmix calculated
Exposure route :	Oral
Effective dose :	not relevant
Parameter :	LD50 (1,2-BENZISOTHIAZOL-3(2H)-ONE ; CAS No. : 2634-33-5)
Exposure route :	Oral
Species :	Rat
Effective dose :	597 mg/kg
Parameter :	LD50 (ZINC PYRITHIONE ; CAS No. : 13463-41-7)
Exposure route :	Oral
Species :	Rat
Effective dose :	200 mg/kg
Parameter :	LD50 (TERBUTRYN ; CAS No. : 886-50-0)
Exposure route :	Oral
Species :	Rat
Effective dose :	500 mg/kg
Parameter :	LD50 (2-OCTYL-2H-ISOTHIAZOL-3-ONE ; CAS No. : 26530-20-1)
Exposure route :	Oral
Species :	Rat
Effective dose :	> 500 mg/kg

Acute dermal toxicity

Parameter :	ATEmix calculated
Exposure route :	Dermal
Effective dose :	not relevant
Parameter :	LD50 (1,2-BENZISOTHIAZOL-3(2H)-ONE ; CAS No. : 2634-33-5)
Exposure route :	Dermal
Species :	Rat
Effective dose :	> 2000 mg/kg
Parameter :	LD50 (ZINC PYRITHIONE ; CAS No. : 13463-41-7)
Exposure route :	Dermal
Species :	Rat
Effective dose :	> 2000 mg/kg
Parameter :	LD50 (TERBUTRYN ; CAS No. : 886-50-0)
Exposure route :	Dermal
Species :	Rat
Effective dose :	> 2000 mg/kg
Parameter :	LD50 (2-OCTYL-2H-ISOTHIAZOL-3-ONE ; CAS No. : 26530-20-1)
Exposure route :	Dermal
Species :	Rat
Effective dose :	> 900 mg/kg

Acute inhalation toxicity

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Parameter : ATEmix calculated
Exposure route : Inhalation (vapour)
Effective dose : not relevant
Parameter : LC50 (ZINC PYRITHIONE ; CAS No. : 13463-41-7)
Exposure route : Inhalation
Effective dose : 0,5 mg/l
Exposure time : 4 h
Parameter : LC50 (TERBUTRYN ; CAS No. : 886-50-0)
Exposure route : Inhalation
Species : Rat
Effective dose : 5,21 mg/l
Exposure time : 4 h
Parameter : LC50 (2-OCTYL-2H-ISOTHIAZOL-3-ONE ; CAS No. : 26530-20-1)
Exposure route : Inhalation
Species : Rat
Effective dose : 0,27 mg/l
Exposure time : 4 h

Corrosion

- To the skin: Not expecting any damage or irritancy.
- At the eye: Not expecting any damage or irritancy.

Respiratory or skin sensitisation

The product is labeled as skin sensitizing.

Skin sensitisation

Parameter : Skin sensitisation (1,2-BENZISOTHIAZOL-3(2H)-ONE ; CAS No. : 2634-33-5)
Species : Mouse
Result : Sensitising.
Method : OECD 429
Parameter : Skin sensitisation (ZINC PYRITHIONE ; CAS No. : 13463-41-7)
Species : Mouse
Result : Not sensitising.
Method : OECD 429

CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)

The product is not classified as human germ cell mutagenic, carcinogenic or human reproductive toxic (CMR effects).

STOT-single exposure

No risk expected.

STOT-repeated exposure

No risk expected.

Aspiration hazard

No risk expected.

11.2 Information on other hazards

Other adverse effects

This product is unlikely to harm health, given normal and proper handling and hygienic precautions.

Additional information

The product is classified in toxicological terms on the basis of the results of the calculation procedure outlined within the Regulation (EC) No 1272/2008 (CLP-Regulation), listed in sections 2 and 3.

At proper dealing and use as agreed the product does not cause any effects bad for health after our experiences and the information submitted to us.

SECTION 12: Ecological information

12.1 Toxicity

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Harmful to aquatic life, may cause long-term adverse effects in the aquatic environment.

Aquatic toxicity

Acute (short-term) fish toxicity

Parameter : LC50 (SODIUM PYRITHIONE ; CAS No. : 3811-73-2)
Species : Oncorhynchus mykiss (Rainbow trout)
Effective dose : 0,0066 mg/l
Exposure time : 96 h
Parameter : LC50 (TERBUTRYN ; CAS No. : 886-50-0)
Species : Danio rerio (zebrafish)
Effective dose : 1,8 mg/l
Exposure time : 96 h
Parameter : LC50 (2-OCTYL-2H-ISOTHIAZOL-3-ONE ; CAS No. : 26530-20-1)
Species : Oncorhynchus mykiss (Rainbow trout)
Effective dose : 0,036 mg/l
Exposure time : 96 h

Chronic (long-term) fish toxicity

Parameter : NOEC (1,2-BENZISOTHIAZOL-3(2H)-ONE ; CAS No. : 2634-33-5)
Species : Oncorhynchus mykiss (Rainbow trout)
Evaluation parameter : Chronic (long-term) fish toxicity
Effective dose : 0,21 mg/l
Exposure time : 28 D
Method : OECD 215
Parameter : NOEC (ZINC PYRITHIONE ; CAS No. : 13463-41-7)
Species : Danio rerio (zebrafish)
Effective dose : 0,00125 mg/l
Exposure time : 28 D
Method : OECD 215
Parameter : NOEC (2-OCTYL-2H-ISOTHIAZOL-3-ONE ; CAS No. : 26530-20-1)
Species : Oncorhynchus mykiss (Rainbow trout)
Effective dose : 0,022 mg/l
Exposure time : 28 D

Acute (short-term) toxicity to crustacea

Parameter : EC50 (SODIUM PYRITHIONE ; CAS No. : 3811-73-2)
Species : Daphnia magna (Big water flea)
Effective dose : 0,022 mg/l
Exposure time : 48 h
Parameter : EC50 (TERBUTRYN ; CAS No. : 886-50-0)
Species : Daphnia magna (Big water flea)
Effective dose : 7,1 mg/l
Exposure time : 48 h
Parameter : EC50 (2-OCTYL-2H-ISOTHIAZOL-3-ONE ; CAS No. : 26530-20-1)
Species : Daphnia magna (Big water flea)
Effective dose : 0,42 mg/l
Exposure time : 48 h

Chronic (long-term) toxicity to aquatic invertebrate

Parameter : NOEC (1,2-BENZISOTHIAZOL-3(2H)-ONE ; CAS No. : 2634-33-5)
Species : Daphnia magna (Big water flea)
Evaluation parameter : Chronic (long-term) daphnia toxicity
Effective dose : 1,2 mg/l
Exposure time : 21 D
Method : OECD 211
Parameter : NOEC (ZINC PYRITHIONE ; CAS No. : 13463-41-7)
Species : Daphnia magna (Big water flea)
Effective dose : 0,0022 mg/l

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Exposure time : 21 D
Method : OECD 211
Parameter : NOEC (2-OCTYL-2H-ISOTHIAZOL-3-ONE ; CAS No. : 26530-20-1)
Species : Daphnia magna (Big water flea)
Effective dose : 0,002 mg/l
Exposure time : 21 D

Acute (short-term) toxicity to algae and cyanobacteria

Parameter : EC50 (SODIUM PYRITHIONE ; CAS No. : 3811-73-2)
Species : Selenastrum capricornutum
Effective dose : 0,46 mg/l
Exposure time : 72 h
Parameter : EC50 (TERBUTRYN ; CAS No. : 886-50-0)
Species : Pseudokirchneriella subcapitata
Effective dose : 0,104 mg/l
Exposure time : 72 h
Parameter : IC50 (TERBUTRYN ; CAS No. : 886-50-0)
Species : Scenedesmus capricornutum
Effective dose : 0,0055 mg/l
Exposure time : 72 h
Parameter : EC50 (2-OCTYL-2H-ISOTHIAZOL-3-ONE ; CAS No. : 26530-20-1)
Species : Scenedesmus subspicatus
Effective dose : 0,084 mg/l
Exposure time : 72 h

Chronic (long-term) toxicity to aquatic algae and cyanobacteria

Parameter : NOEC (ZINC PYRITHIONE ; CAS No. : 13463-41-7)
Species : Pseudokirchneriella subcapitata
Effective dose : 0,0149 mg/l
Exposure time : 72 h
Method : OECD 201
Parameter : NOEC (ZINC PYRITHIONE ; CAS No. : 13463-41-7)
Species : Skeletonema costatum
Effective dose : 0,00046 mg/l
Exposure time : 96 h
Method : OECD 201
Parameter : NOEC (2-OCTYL-2H-ISOTHIAZOL-3-ONE ; CAS No. : 26530-20-1)
Species : Chronic (long-term) algae toxicity
Effective dose : 0,004 mg/l
Exposure time : 72 h

Toxicity to other aquatic plants/organisms

Parameter : NOEC (1,2-BENZISOTHIAZOL-3(2H)-ONE ; CAS No. : 2634-33-5)
Species : Selenastrum capricornutum
Evaluation parameter : Acute (short-term) algae toxicity
Effective dose : 0,04 mg/l
Exposure time : 72 h

Sewage treatment plant

Parameter : EC20 (1,2-BENZISOTHIAZOL-3(2H)-ONE ; CAS No. : 2634-33-5)
Inoculum : Activated sludge
Evaluation parameter : Effects in sewage plants
Effective dose : 3,3 mg/l
Exposure time : 3 h
Parameter : EC50 (1,2-BENZISOTHIAZOL-3(2H)-ONE ; CAS No. : 2634-33-5)
Inoculum : Activated sludge
Evaluation parameter : Effects in sewage plants
Effective dose : 13 mg/l

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Exposure time : 3 h

Parameter : EC20 (ZINC PYRITHIONE ; CAS No. : 13463-41-7)

Inoculum : Activated sludge

Effective dose : 1,34 mg/l

Exposure time : 3 h

Method : OECD 209

Parameter : EC50 (ZINC PYRITHIONE ; CAS No. : 13463-41-7)

Inoculum : Activated sludge

Effective dose : 2,8 mg/l

Exposure time : 3 h

Method : OECD 209

12.2 Persistence and degradability

These are not data available about the potential of the product concerning his persistency and degradability.

Biodegradation

Parameter : Biodegradation (1,2-BENZISOTHIAZOL-3(2H)-ONE ; CAS No. : 2634-33-5)

Inoculum : Degree of elimination

Degradation rate : approx. 90 %

Evaluation : Biodegradable.

Method : OECD 302B

Parameter : Biodegradation (1,2-BENZISOTHIAZOL-3(2H)-ONE ; CAS No. : 2634-33-5)

Inoculum : Degree of elimination

Degradation rate : > 70 %

Evaluation : Biodegradable.

Method : OECD 303A

Parameter : CO₂ formation (% of the theoretical value) (SODIUM PYRITHIONE ; CAS No. : 3811-73-2)

Inoculum : Biodegradation

Degradation rate : > 70 %

12.3 Bioaccumulative potential

Parameter : Bioconcentration factor (BCF) (1,2-BENZISOTHIAZOL-3(2H)-ONE ; CAS No. : 2634-33-5)

Value : 6,95

Method : OECD 305

Parameter : Log KOW (ZINC PYRITHIONE ; CAS No. : 13463-41-7)

Value : 1,21

Method : OECD 107

These are not data available about the bio accumulation potential of the product.

12.4 Mobility in soil

These are not datas available about the potential of the product concerning his mobility in the ground.
A penetrating into soil, waters and sewage system should be prevented.

Adsorption

Parameter : Log KOW (1,2-BENZISOTHIAZOL-3(2H)-ONE ; CAS No. : 2634-33-5)

Effective dose : 0,7

Evaluation : HPLC method

Method : OECD 117

12.5 Results of PBT and vPvB assessment

This product does not contain any relevant substances which were classified as a PBT or vPvB-substance.
The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

12.6 Endocrine disrupting properties

No information available.

12.7 Other adverse effects

No information available.

12.8 Additional ecotoxicological information

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Avoid exposing into ground, waterways and drainage.
The classification of the product is based on summation of classified components according to the Regulation (EC) No 1272/2008 (CLP-Regulation). See details in sections 2 and 3.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Directive 2008/98/EC (Waste Framework Directive)

Before intended use

Waste codes/waste designations according to EWC/AVV

For the product:

Code of the European waste catalogue (EWC-Code):

08 01 11* Paint and varnish waste which contains organic solvents or other dangerous substances.

After intended use

Waste codes/waste designations according to EWC/AVV

For the uncleaned packaging:

Code of the European waste catalogue (EWC-Code):

15 01 10* - packaging containing residues of or contaminated by hazardous substances.

SECTION 14: Transport information

14.1 UN number

No dangerous good in sense of these transport regulations.

14.2 UN proper shipping name

No dangerous good in sense of these transport regulations.

14.3 Transport hazard class(es)

No dangerous good in sense of these transport regulations.

14.4 Packing group

No dangerous good in sense of these transport regulations.

14.5 Environmental hazards

No dangerous good in sense of these transport regulations.

14.6 Special precautions for user

None

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

Not relevant because the product in type of delivery does not transport in bulks according to the International Maritime Organization (IMO) instruments.

SECTION 15: Regulatory information

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

EU legislation

Authorisations and/or restrictions on use

Restrictions on use

Regulation (EC) No. 1907/2006 (REACH), Annex XVII (restrictions):

Use restriction according to REACH annex XVII, no. : 3

Other regulations (EU)

Directive 2004/42/EC on the limitation of emissions of volatile organic compounds

Product sub-category and VOC limiting values in accordance with appendix II, letter A of the guideline:

Category c, type Wb;

VOC limiting value of the category for 2010: 40 g/l.

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This product contains max. 10 g/l VOC.

National regulations

Water hazard class

Classification according to AwSV - Class : 2 (Obviously hazardous to water)

Additional information

The product is classified as a solid substance according to the criteria of the Penetrometer test (ADR, part 2, section 2.3.4) and also fulfils the criteria for solid substances according to the TRwS 779 number 2.1.1.

Maternity regulations and Young Persons Employment Act are to take into account.

15.2 Chemical Safety Assessment

A chemical safety assessments was not carried out.

SECTION 16: Other information

16.1 Indication of changes

15. Water hazard class

16.2 Abbreviations and acronyms

ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways (Accord européen relatif au transport international des marchandises dangereuses par voies de navigation intérieures)

ADR: European agreement concerning the international carriage of dangerous goods by road (Accord européen relatif transport des marchandises dangereuses par route)

AGW: Occupational threshold limit value (Arbeitsplatzgrenzwert – Germany) AOX: Adsorbable Organic halogen compounds

ATEmix: Calculated acute toxicity estimate of mixture

BCF: Bio-Concentration Factor

CAS: Chemical Abstract Service

CLP: Classification, Labelling and Packaging

CMR: Substances classified as Carcinogenic, Mutagenic or toxic for Reproduction

CSR: Chemical Safety Report

DNEL: Derived No Effect Level

EC: European Commission

EC50: Effective Concentration 50%

ECHA: European Chemical Agency

EEC: European Economic Community

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

EWC: European Waste Catalogue

GHS: Globally Harmonised System of Classification, Labelling and Packaging of Chemicals

IATA: International Air Transport Association

ICAO: International Civil Aviation Organization

IC50: Inhibition Concentration 50%

IMDG Code: International Maritime Dangerous Goods Code

IMO: International Maritime Organization

LC50: Lethal concentration 50%

LD50: Lethal Dose 50%

LOAEL: Lowest Observed Adverse Effect Level

LOEL: Lowest observable effect level

MAK: Treshold limit values Germany (Maximale Arbeitsplatzkonzentration - DFG)

MARPOL: Convention for the Prevention of Marine Pollution from Ships

MVZ: molar ratio

n.a.: Not applicable

n.d.: Not determined

n.r.: Not relevant

NLP: No Longer Polymers

NOAEC: No Observed Adverse Effect Concentration

NOAEL: No Observed Adverse Effect Level

NOEC: No Observed Effect Concentration

NOEL: No Observed Effect Level

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OEL: Occupational Exposure Limit
PBT: Persistent, bioaccumulative, toxic
PNEC: Predicted No Effect Concentration
RCP: Reciprocal calculation procedure
REACH: Registration, Evaluation and Authorization of Chemical)
RID: Regulations concerning the international carriage of dangerous goods by rail (Règlement International concernant le transport de marchandises dangereuses par chemin de fer)
STEL: Short-term Exposure Limit
SVHC: Substance of Very High Concern
TLV - TWA: Threshold Limit Value - Time Weighted Average
VOC: Volatile Organic Compounds
vPvB: Very persistent, very bioaccumulative.

16.3 Key literature references and sources for data

Regulation (EC) No. 1907/2006 (REACH), amended by the Regulation (EC) 2020/878
Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixture
ADN: (Accord européen relatif au transport international des marchandises dangereuses par voies de navigation intérieures)
ADR: (Accord européen relatif transport des marchandises dangereuses par route)
Database of the registered Substances of the European Chemicals Agency (ECHA)
GESTIS - Database on hazardous substances - (IFA, Institute for Occupational Safety and Health of the German Social Accident Insurance)
Information of our suppliers
GISBAU (Hazardous materials information system of the German professional associations of the building and construction industry)

16.4 Classification for mixtures and used evaluation method according to regulation (EC) No 1272/2008 [CLP]

The evaluation of hazard information of the product was carried out in accordance to Annex I of the REGULATION (EC) No 1272/2008 (CLP Regulation).

16.5 Relevant H- and EUH-phrases (Number and full text)

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.
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.
EUH070	Toxic by eye contact.

16.6 Training advice

None

16.7 Additional information

None

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.

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