

Safety Data Sheet

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



Trade name : E-WELD Shield
Revision date : 17.10.2025
Print date : 17.10.2025

Version (Revision) : 4.1.0 (4.0.1)

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

1.1 Product identifier

E-WELD Shield

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

Relevant identified uses

Sectors of use [SU]

Professional uses: Public domain (administration, education, entertainment, services, craftsmen)

Industrial uses

Products Category [PC]

PC-PNT-3 - Paints/coatings – Protective and functional

Technical Functions (TF)

Antiadhesive

1.3 Details of the supplier of the safety data sheet

Supplier

Bio-Circle Surface Technology GmbH

Street : Berensweg 200

Postal code/City : 33334 Gütersloh

Telephone : +49 5241 9443 0

Telefax : +49 5241 9443 44

Information contact : labor@bio-circle.de

1.4 Emergency telephone number

+49 5241 9443 51 during normal office hours

(Monday to Thursday from 8 am to 4 pm and Friday from 8 am to 3 pm)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

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

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 statements

H412 Harmful to aquatic life with long lasting effects.

Precautionary statements

P273 Avoid release to the environment.

Special rules for supplemental label elements for certain mixtures

EUH208 Contains 1,2-BENZISOTHIAZOL-3(2H)-ONE ; REACTION MASS OF: 5-CHLORO-2-METHYL-4-ISOTHIAZOLIN-3-ONE AND 2-METHYL-2H -ISOTHIAZOL-3-ONE (3:1). May produce an allergic reaction.

2.3 Other hazards

None

SECTION 3: Composition/information on ingredients

3.2 Mixtures

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Hazardous ingredients

TRIZINC BIS(ORTHOPHOSPHATE) ; REACH No. : 01-2119485044-40-XXXX ; EC No. : 231-944-3; CAS No. : 7779-90-0

Weight fraction : $\geq 1 - < 2,5 \%$

Classification 1272/2008 [CLP] : Aquatic Acute 1 ; H400 Aquatic Chronic 1 ; H410

ZINC OXIDE ; REACH No. : 01-2119463881-32-XXXX ; EC No. : 215-222-5; CAS No. : 1314-13-2

Weight fraction : $< 0,25 \%$

Classification 1272/2008 [CLP] : Aquatic Acute 1 ; H400 Aquatic Chronic 1 ; H410

1,2-BENZISOTHIAZOL-3(2H)-ONE ; REACH No. : 01-2120761540-60-XXXX ; EC No. : 220-120-9; CAS No. : 2634-33-5

Weight fraction : $\geq 0,005 - < 0,05 \%$

Classification 1272/2008 [CLP] : Eye Dam. 1 ; H318 Acute Tox. 4 ; H302 Skin Irrit. 2 ; H315 Skin Sens. 1 ; H317 Aquatic Acute 1 ; H400

Specific Conc. Limits : Skin Sens. 1 ; H317: $C \geq 0,05 \%$

REACTION MASS OF: 5-CHLORO-2-METHYL-4-ISOTHIAZOLIN-3-ONE AND 2-METHYL-2H-ISOTHIAZOL-3-ONE (3:1) ; CAS No. : 55965-84-9

Weight fraction : $\geq 0,00015 - < 0,0015 \%$

Classification 1272/2008 [CLP] : Acute Tox. 2 ; H310 Acute Tox. 3 ; H301 Skin Corr. 1C ; H314 Eye Dam. 1 ; H318 Skin Sens. 1A ; H317 Aquatic Acute 1 ; H400 Aquatic Chronic 1 ; H410 EUH071

Specific Conc. Limits : Eye Dam. 1 ; H318: $C \geq 0,6 \%$ • Skin Corr. 1C ; H314: $C \geq 0,6 \%$ • Eye Irrit. 2 ; H319: $C \geq 0,06 \%$ • Skin Irrit. 2 ; H315: $C \geq 0,06 \%$ • Skin Sens. 1A ; H317: $C \geq 0,0015 \%$ • (M=100)

Further ingredients

ALUMINIUM HYDROXIDE ; REACH No. : 01-2119529246-39-XXXX ; EC No. : 244-492-7; CAS No. : 21645-51-2

Weight fraction : $\geq 20 - < 25 \%$

BARIUM SULPHATE ; REACH No. : 01-2119491274-35-XXXX ; EC No. : 231-784-4; CAS No. : 7727-43-7

Weight fraction : $\geq 5 - < 10 \%$

TRIS(2-ETHYLHEXYL) PHOSPHATE ; REACH No. : 01-2119517575-36-XXXX ; EC No. : 201-116-6; CAS No. : 78-42-2

Weight fraction : $\geq 1 - < 5 \%$

TITANIUM DIOXIDE ; REACH No. : 01-2119489379-17-XXXX ; EC No. : 236-675-5; CAS No. : 13463-67-7

Weight fraction : $\geq 1 - < 5 \%$

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

When in doubt or if symptoms are observed, get medical advice. Never give anything by mouth to an unconscious person or a person with cramps.

Following inhalation

Remove casualty to fresh air and keep warm and at rest.

In case of skin contact

After contact with skin, wash immediately with plenty of water and soap. Rub greasy ointment into the skin.

After eye contact

Protect uninjured eye. In case of contact with eyes flush immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart and consult an ophthalmologist.

Following ingestion

Rinse mouth thoroughly with water. Let 1 glass of water be drunken in little sips (dilution effect). Do NOT induce vomiting. Call a physician immediately.

4.2 Most important symptoms and effects, both acute and delayed

Causes serious eye irritation.

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4.3 Indication of any immediate medical attention and special treatment needed
None

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media

Water Foam Extinguishing powder Carbon dioxide (CO₂) Sand Nitrogen Extinguishing blanket

Unsuitable extinguishing media

Full water jet

5.2 Special hazards arising from the substance or mixture

Hazardous combustion products

In case of fire may be liberated: Carbon monoxide , Carbon dioxide (CO₂) , Sulphur dioxide (SO₂) , Nitrogen oxides (NO_x)

5.3 Advice for firefighters

In case of fire: Wear self-contained breathing apparatus.

5.4 Additional information

The product itself does not burn. Co-ordinate fire-fighting measures to the fire surroundings.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Special danger of slipping by leaking/spilling product. Use personal protection equipment.

6.2 Environmental precautions

Do not allow to enter into surface water or drains. Do not allow to enter into soil/subsoil.

6.3 Methods and material for containment and cleaning up

Clear spills immediately. Wipe up with absorbent material (eg. cloth, fleece). Wash with plenty of water. Treat the recovered material as prescribed in the section on waste disposal.

6.4 Reference to other sections

Safe handling: see section 7

Personal protection equipment: see section 8

Disposal: see section 13

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Keep container tightly closed.

7.2 Conditions for safe storage, including any incompatibilities

Keep/Store only in original container. Protect against : Frost .

Hints on joint storage

Storage class (TRGS 510) : 12

7.3 Specific end use(s)

Observe technical data sheet. Observe instructions for use.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limit values

ALUMINIUM HYDROXIDE ; CAS No. : 21645-51-2

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Limit value type (country of origin) : TWA (D)
Parameter : E: inhalable fraction
Limit value : 4 mg/m³
Version :

Limit value type (country of origin) : TWA (D)
Parameter : A: respirable fraction
Limit value : 1,5 mg/m³
Version :

BARIUM SULPHATE ; CAS No. : 7727-43-7

Limit value type (country of origin) : STEL (D)
Parameter : A: respirable fraction
Limit value : 2,4 mg/m³
Remark : mat. density; 15 min average
Version :

Limit value type (country of origin) : TWA (D)
Parameter : A: respirable fraction
Limit value : 0,3 mg/m³
Remark : mat. density
Version :

Limit value type (country of origin) : TWA (D)
Parameter : E: inhalable fraction
Limit value : 4 mg/m³
Version :

TITANIUM DIOXIDE ; CAS No. : 13463-67-7

Limit value type (country of origin) : STEL (D)
Parameter : A: respirable fraction
Limit value : 2,4 mg/m³
Remark : mat. density; 15 min average
Version : 25.02.2021

Limit value type (country of origin) : TWA (D)
Parameter : A: respirable fraction
Limit value : 0,3 mg/m³
Remark : mat. density
Version : 25.02.2021

REACTION MASS OF: 5-CHLORO-2-METHYL-4-ISOTHIAZOLIN-3-ONE AND 2-METHYL-2H-ISOTHIAZOL-3-ONE (3:1) ; CAS No. : 55965-84-9

Limit value type (country of origin) : STEL (D)
Parameter : E: inhalable fraction
Limit value : 0,4 mg/m³
Remark : 15 min average
Version :

Limit value type (country of origin) : TWA (D)
Parameter : E: inhalable fraction
Limit value : 0,2 mg/m³
Version :

DNEL-/PNEC-values

DNEL/DMEL

ALUMINIUM HYDROXIDE ; CAS No. : 21645-51-2

Limit value type : DNEL Consumer (local)
Exposure route : Oral
Exposure frequency : Long-term
Limit value : 4,74 mg/m³
Limit value type : DNEL worker (local and systemic)
Exposure route : Inhalation

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Exposure frequency : Long-term
Limit value : 10,76 mg/m³
BARIUM SULPHATE ; CAS No. : 7727-43-7
Limit value type : DNEL Consumer (local)
Exposure route : Inhalation
Exposure frequency : Long-term
Limit value : 10 mg/m³
Limit value type : DNEL Consumer (local)
Exposure route : Oral
Exposure frequency : Long-term
Limit value : 13000 mg/kg bw/day
Limit value type : DNEL worker (local and systemic)
Exposure route : Inhalation
Exposure frequency : Long-term
Limit value : 10 mg/m³
TITANIUM DIOXIDE ; CAS No. : 13463-67-7
Limit value type : DNEL Consumer (local)
Exposure route : Inhalation
Exposure frequency : Long-term
Limit value : 0,028 mg/m³
Limit value type : DNEL worker (local)
Exposure route : Inhalation
Exposure frequency : Long-term
Limit value : 0,17 mg/m³
ZINC OXIDE ; CAS No. : 1314-13-2
Limit value type : DNEL Consumer (local)
Exposure route : Inhalation
Exposure frequency : Long-term
Limit value : 0,83 mg/kg bw/day
Limit value type : DNEL Consumer (systemic)
Exposure route : Inhalation
Exposure frequency : Long-term
Limit value : 2,5 mg/m³
Limit value type : DNEL Consumer (systemic)
Exposure route : Dermal
Exposure frequency : Long-term
Limit value : 83 mg/kg bw/day
Limit value type : DNEL worker (local)
Exposure route : Inhalation
Exposure frequency : Long-term
Limit value : 0,5 mg/m³
Limit value type : DNEL worker (systemic)
Exposure route : Inhalation
Exposure frequency : Long-term
Limit value : 5 mg/m³
Limit value type : DNEL worker (systemic)
Exposure route : Dermal
Exposure frequency : Long-term
Limit value : 83 mg/kg bw/day
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

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Exposure frequency : Long-term
Limit value : 0,345 mg/kg bw/day
Limit value type : DNEL worker (systemic)
Exposure route : Inhalation
Exposure frequency : Long-term
Limit value : 6,81 mg/m³
Limit value type : DNEL worker (systemic)
Exposure route : Dermal
Exposure frequency : Long-term
Limit value : 0,966 mg/kg bw/day

REACTION MASS OF: 5-CHLORO-2-METHYL-4-ISOTHIAZOLIN-3-ONE AND 2-METHYL-2H-ISOTHIAZOL-3-ONE (3:1) ;
CAS No. : 55965-84-9

Limit value type : DNEL Consumer (local)
Exposure route : Inhalation
Exposure frequency : Long-term
Limit value : 20 µg/m³
Limit value type : DNEL Consumer (local)
Exposure route : Inhalation
Exposure frequency : Short-term
Limit value : 40 µg/m³
Limit value type : DNEL Consumer (systemic)
Exposure route : Oral
Exposure frequency : Long-term
Limit value : 0,09 mg/kg bw/day
Limit value type : DNEL Consumer (systemic)
Exposure route : Oral
Exposure frequency : Short-term
Limit value : 0,11 mg/kg bw/day
Limit value type : DNEL worker (local)
Exposure route : Inhalation
Exposure frequency : Long-term
Limit value : 20 µg/m³
Limit value type : DNEL worker (local)
Exposure route : Inhalation
Exposure frequency : Short-term
Limit value : 40 µg/m³

PNEC

BARIUM SULPHATE ; CAS No. : 7727-43-7

Limit value type : PNEC (Aquatic, freshwater)
Limit value : 0,115 mg/l
Limit value type : PNEC (Sediment, freshwater)
Limit value : 600,4 mg/l
Limit value type : PNEC (Soil)
Limit value : 207,7 mg/kg dw
Limit value type : PNEC (Sewage treatment plant)
Limit value : 62,2 mg/l

TRIS(2-ETHYLHEXYL) PHOSPHATE ; CAS No. : 78-42-2

Limit value type : PNEC (Sediment, freshwater)
Limit value : 0,831 mg/kg dw
Limit value type : PNEC (Sediment, marine water)
Limit value : 0,0831 mg/kg dw
Limit value type : PNEC (Soil)
Limit value : 3,7 mg/kg dw

TRIZINC BIS(ORTHOPHOSPHATE) ; CAS No. : 7779-90-0

Limit value type : PNEC (Aquatic, freshwater)
Limit value : 19,7 - 38,8 µg/l

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Limit value type :	PNEC (Aquatic, marine water)
Limit value :	7,7 - 15,2 µg/l
Limit value type :	PNEC (Sediment, freshwater)
Limit value :	146,9 - 289,1 mg/kg dw
Limit value type :	PNEC (Sediment, marine water)
Limit value :	162,2 - 319,2 mg/kg dw
Limit value type :	PNEC (Soil)
Limit value :	83,1 - 163,6 mg/kg dw
Limit value type :	PNEC (Sewage treatment plant)
Limit value :	100 - 196,8 µg/l
ZINC OXIDE ; CAS No. : 1314-13-2	
Limit value type :	PNEC (Aquatic, freshwater)
Limit value :	14,4 - 17,9 µg/l
Limit value type :	PNEC (Aquatic, marine water)
Limit value :	7,2 - 9 µg/l
Limit value type :	PNEC (Sediment, freshwater)
Limit value :	146,9 - 182,8 mg/kg dw
Limit value type :	PNEC (Sediment, marine water)
Limit value :	162,2 - 201,9 mg/kg dw
Limit value type :	PNEC (Soil)
Limit value :	83,1 - 103,4 mg/kg dw
Limit value type :	PNEC (Sewage treatment plant)
Limit value :	100 - 124,5 µg/l
1,2-BENZISOTHAZOL-3(2H)-ONE ; CAS No. : 2634-33-5	
Limit value type :	PNEC (Aquatic, freshwater)
Limit value :	4,03 µg/l
Limit value type :	PNEC (Aquatic, intermittent release)
Limit value :	1,1 µg/l
Limit value type :	PNEC (Aquatic, marine water)
Limit value :	1,1 µg/l
Limit value type :	PNEC (Sediment, freshwater)
Limit value :	0,0499 mg/kg dw
Limit value type :	PNEC (Sediment, marine water)
Limit value :	0,00499 mg/kg dw
Limit value type :	PNEC (Soil)
Limit value :	3 mg/kg dw
Limit value type :	PNEC (Sewage treatment plant)
Limit value :	1,03 mg/l

8.2 Exposure controls

Personal protection equipment

Eye/face protection



Wear suitable safety goggles in case of splash.

Suitable eye protection
EN 166.

Skin protection

Hand protection



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Suitable gloves type : EN 374.

Suitable material : NBR (Nitrile rubber)

Breakthrough time : 480 min.

Thickness of the glove material : 0.4 mm

Remark : The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

Respiratory protection



Respiratory protection necessary at: exceeding exposure limit values

Suitable respiratory protection apparatus

Combination filtering device

Type : P

Remark

Observe the wear time limits according GefStoffV in combination with the rules for using respiratory protection apparatus (BGR 190).

General information

Do not put any product-impregnated cleaning rags into your trouser pockets. When using do not eat, drink, smoke, sniff. Avoid contact with skin, eyes and clothes. P362+P364 - Take off contaminated clothing and wash it before reuse. P264 - Wash hands thoroughly after handling.

8.3 Additional information

No tests have been performed. Selection made for preparations according to the best available knowledge and information on ingredients. In the case of preparations the resistance of glove materials cannot be calculated in advance so it has to be tested before use.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance

Physical state : Liquid

Colour : light grey

Odour

characteristic

Safety characteristics

Melting point/freezing point : (1013 hPa)

not determined

Initial boiling point and boiling range : (1013 hPa)

> 100 °C

Flash point :

not determined

DIN EN ISO 13736

Auto-ignition temperature :

none

Flammability :

non-flammable

Lower explosion limit :

not determined

Upper explosion limit :

not determined

Vapour pressure : (50 °C)

not determined

Density : (20 °C)

1,4 g/cm³

Solvent separation test : (20 °C)

not determined

Water solubility : (20 °C)

practically insoluble

pH : (20 °C)

7 - 8

Cinematic viscosity : (20 °C)

approx.

214 mm²/s

Relative vapour density : (20 °C)

not determined

Maximum VOC content (EC) :

3 Weight-%

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Maximum VOC content (Switzerland)

:

3 Weight-%

Taxable VOC content (Switzerland) :

<

3 Weight-%

9.2 Other information

No further relevant information available.

SECTION 10: Stability and reactivity

10.1 Reactivity

This material is considered to be non-reactive under normal use conditions.

10.2 Chemical stability

The product is chemically stable under recommended conditions of storage, use and temperature.

10.3 Possibility of hazardous reactions

None known.

10.4 Conditions to avoid

None known.

10.5 Incompatible materials

None known.

10.6 Hazardous decomposition products

No known hazardous decomposition products.
Decomposition products in case of fire: see section 5.

SECTION 11: Toxicological information

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

Acute toxicity

Acute oral toxicity

Parameter :	LD50 (TRIS(2-ETHYLHEXYL) PHOSPHATE ; CAS No. : 78-42-2)
Exposure route :	Oral
Species :	Rat
Effective dose :	> 2000 mg/kg
Method :	OECD 401
Parameter :	LD50 (TRIZINC BIS(ORTHOPHOSPHATE) ; CAS No. : 7779-90-0)
Exposure route :	Oral
Species :	Rat
Effective dose :	> 5000 mg/kg
Method :	OECD 401

Acute dermal toxicity

Parameter :	LD50 (TRIS(2-ETHYLHEXYL) PHOSPHATE ; CAS No. : 78-42-2)
Exposure route :	Dermal
Species :	Rabbit
Effective dose :	18400 mg/kg

Acute inhalation toxicity

Parameter :	LC50 (TRIS(2-ETHYLHEXYL) PHOSPHATE ; CAS No. : 78-42-2)
Exposure route :	Inhalation
Species :	Rat
Effective dose :	> 447 mg/m ³
Exposure time :	4 h
Parameter :	LC50 (TRIZINC BIS(ORTHOPHOSPHATE) ; CAS No. : 7779-90-0)
Exposure route :	Inhalation
Species :	Rat
Effective dose :	> 5,7 mg/l
Exposure time :	4 h

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Method : OECD 403

Corrosion

Skin corrosion/irritation

Parameter : Skin corrosion/irritation (1,2-BENZISOTHIAZOL-3(2H)-ONE ; CAS No. : 2634-33-5)
Result : Irritant

Assessment/classification

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

Serious eye damage/eye irritation

Parameter : Serious eye damage/eye irritation (1,2-BENZISOTHIAZOL-3(2H)-ONE ; CAS No. : 2634-33-5)
Result : Causes serious eye damage

Assessment/classification

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

Respiratory or skin sensitisation

Skin sensitisation

Parameter : Skin sensitisation (1,2-BENZISOTHIAZOL-3(2H)-ONE ; CAS No. : 2634-33-5)
Result : Sensitising.
Parameter : Skin sensitisation (REACTION MASS OF: 5-CHLORO-2-METHYL-4-ISOTHIAZOLIN-3-ONE AND 2-METHYL-2H-ISOTHIAZOL-3-ONE (3:1) ; CAS No. : 55965-84-9)
Result : Strong sensitiser (Subcategory 1A).

Assessment/classification

May produce an allergic reaction.

Sensitisation to the respiratory tract

No further relevant information available.

CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)

Carcinogenicity

No further relevant information available.

Germ cell mutagenicity

No further relevant information available.

Reproductive toxicity

No further relevant information available.

STOT-single exposure

No further relevant information available.

STOT-repeated exposure

No further relevant information available.

Aspiration hazard

No further relevant information available.

11.2 Information on other hazards

Endocrine disrupting properties

This product does not contain a substance that has endocrine disrupting properties with respect to humans as no components meets the criteria.

Toxicokinetics, metabolism and distribution

There are no data available on the preparation/mixture itself.

Other adverse effects

Frequently or prolonged contact with skin may cause dermal irritation.

Additional information

Preparation not tested. The statement is derived from the properties of the single components.

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SECTION 12: Ecological information

12.1 Toxicity

Aquatic toxicity

Acute (short-term) fish toxicity

Parameter : LC50 (TRIS(2-ETHYLHEXYL) PHOSPHATE ; CAS No. : 78-42-2)
Species : Fish
Evaluation parameter : Acute (short-term) fish toxicity
Effective dose : > 500 mg/l
Exposure time : 48 h
Parameter : LC50 (TRIZINC BIS(ORTHOPHOSPHATE) ; CAS No. : 7779-90-0)
Species : Oncorhynchus mykiss (Rainbow trout)
Evaluation parameter : Acute (short-term) fish toxicity
Effective dose : 0,169 - 2,17 mg/l
Exposure time : 96 h

Chronic (long-term) fish toxicity

Parameter : NOEC (TRIZINC BIS(ORTHOPHOSPHATE) ; CAS No. : 7779-90-0)
Species : Oncorhynchus mykiss (Rainbow trout)
Evaluation parameter : Chronic (long-term) fish toxicity
Effective dose : 0,199 mg/l
Exposure time : 30 D
Method : OECD 215

Acute (short-term) toxicity to crustacea

Parameter : EC50 (TRIS(2-ETHYLHEXYL) PHOSPHATE ; CAS No. : 78-42-2)
Species : Daphnia magna (Big water flea)
Evaluation parameter : Acute (short-term) daphnia toxicity
Effective dose : > 0,08 - 1 mg/l
Exposure time : 48 h
Method : Regulation (EC) No. 440/2008, Annex C.2
Parameter : EC50 (TRIZINC BIS(ORTHOPHOSPHATE) ; CAS No. : 7779-90-0)
Species : Daphnia magna (Big water flea)
Evaluation parameter : Chronic (long-term) daphnia toxicity
Effective dose : 0,86 mg/l
Exposure time : 48 h

Chronic (long-term) toxicity to aquatic invertebrate

Parameter : NOEC (TRIZINC BIS(ORTHOPHOSPHATE) ; CAS No. : 7779-90-0)
Species : Daphnia magna (Big water flea)
Evaluation parameter : Chronic (long-term) daphnia toxicity
Effective dose : 0,031 - 0,208 mg/l
Exposure time : 50 D

Acute (short-term) toxicity to algae and cyanobacteria

Parameter : EC50 (TRIS(2-ETHYLHEXYL) PHOSPHATE ; CAS No. : 78-42-2)
Species : Desmodesmus subspicatus
Evaluation parameter : Acute (short-term) algae toxicity
Effective dose : > 0,876 mg/l
Exposure time : 72 h
Method : OECD 201

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

Parameter : NOEC (TRIZINC BIS(ORTHOPHOSPHATE) ; CAS No. : 7779-90-0)
Species : Pseudokirchneriella subcapitata
Evaluation parameter : Chronic (long-term) algae toxicity
Effective dose : 0,05 mg/l
Exposure time : 3 D
Method : OECD 201

Toxicity to microorganisms

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Version (Revision) : 4.1.0 (4.0.1)

Parameter : EC50 (TRIS(2-ETHYLHEXYL) PHOSPHATE ; CAS No. : 78-42-2)
Species : Bacteria toxicity
Effective dose : 10 mg/l
Exposure time : 24 h
Parameter : EC50 (TRIZINC BIS(ORTHOPHOSPHATE) ; CAS No. : 7779-90-0)
Species : Bacteria toxicity
Effective dose : 5,2 mg/l
Exposure time : 3 h
Method : OECD 209

12.2 Persistence and degradability

Biodegradation

Parameter : Biodegradation (TRIS(2-ETHYLHEXYL) PHOSPHATE ; CAS No. : 78-42-2)
Inoculum : Biodegradation
Degradation rate : 0 %
Test duration : 28 D
Evaluation : Poorly biodegradable.
Method : OECD 301C

12.3 Bioaccumulative potential

No indication of bioaccumulation potential.

12.4 Mobility in soil

No information available.

12.5 Results of PBT and vPvB assessment

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

12.6 Endocrine disrupting properties

This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

12.7 Other adverse effects

No information available.

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

08 02 03 (Aqueous suspensions containing ceramic materials)

Other disposal recommendations

Dispose of waste according to applicable legislation. Dispose of contents/container to an appropriate recycling or disposal facility. Contaminated packages must be completely emptied and can be re-used following proper cleaning (Water (with cleaning agent)). Handle contaminated packages in the same way as the substance itself.

13.2 Additional information

The allocation of waste identity numbers/waste descriptions must be carried out according to the EEC, specific to the industry and process.

SECTION 14: Transport information

14.1 UN number or ID 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)

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- 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 Maritime transport in bulk according to IMO instruments**
No transport as bulk according to IBC Code.

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**
Use restriction according to REACH annex XVII, no. : 3, 75
- Restrictions of occupation**
Observe restrictions to employment for juveniles according to the 'juvenile work protection guideline' (94/33/EC).
Observe employment restrictions under the Maternity Protection Directive (92/85/EEC) for expectant or nursing mothers.
- National regulations**
- Technische Anleitung zur Reinhaltung der Luft (TA-Luft)**
Weight fraction (Number 5.2.5. I) : < 5 %
- Water hazard class**
Classification according to AwSV - Class : 2 (Obviously hazardous to water)
- 15.2 Chemical Safety Assessment**
For this substance a chemical safety assessment has not been carried out.

SECTION 16: Other information

- 16.1 Indication of changes**
01. Relevant identified uses · 03. Hazardous ingredients · 03. Further ingredients · 08. Occupational exposure limit values · 08. DNEL/DMEL · 08. PNEC
- 16.2 Abbreviations and acronyms**
- ADR: Accord européen sur le transport des marchandises dangereuses par Route (Europäisches Übereinkommen über die Beförderung gefährlicher Güter auf der Straße)
AOX: adsorbierbare organisch gebundene Halogene
AwSV: Verordnung über Anlagen zum Umgang mit wassergefährdenden Stoffen
CAS: Chemical Abstracts Service (Unterabteilung der American Chemical Society)
CLP: Verordnung (EG) Nr. 1272/2008 über die Einstufung, Kennzeichnung und Verpackung von Stoffen und Gemischen (Classification Labelling and Packaging)
EAK / AVV: europäischer Abfallartenkatalog / Abfallverzeichnis-Verordnung
ECHA: Europäische Chemikalienagentur (European Chemicals Agency)
EINECS: : Altstoffverzeichnis (European Inventory of Existing Commercial Chemical Substances)
GHS: Global harmonisiertes System zur Einstufung und Kennzeichnung von Chemikalien (Globally Harmonized System of Classification and Labelling of Chemicals)
IATA: Internationale Luftverkehrs-Vereinigung (International Air Transport Association)
ICAO: Internationale Zivilluftfahrtorganisation (International Civil Aviation Organization)
IMDG: Gefahrgutkennzeichnung für gefährliche Güter im Seeschiffverkehr (International Maritime Code for Dangerous Goods)
RID: Regelung zur internationalen Beförderung gefährlicher Güter im Schienenverkehr (Règlement concernant le transport international ferroviaire de marchandises dangereuses)

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TRGS: Technische Regel für den Umgang mit Gefahrstoffen
VbF: Verordnung über brennbare Flüssigkeiten
VOC: flüchtige organische Verbindung (volatile organic compound)
VVEA: Verordnung über die Vermeidung und die Entsorgung von Abfällen
VwVwS: Verwaltungsvorschrift wassergefährdender Stoffe
WGK: Wassergefährdungsklasse

16.3 Key literature references and sources for data

DGUV: GESTIS-Stoffdatenbank
ECHA: Classification And Labelling Inventory
ECHA: Pre-registered Substances
ECHA: Registered Substances
EC: Safety Data Sheet of Suppliers
ESIS: European Chemical Substances Information System
GDL: Gefahrstoffdatenbank der Länder
UBA Rigoletto: Wassergefährdende Stoffe
Regulation (EC) No. 1907/2006 of the European Parliament and of the Council
|-> COMMISSION REGULATION (EU) 2020/878 of 18 June 2020
Regulation (EC) No. 1272/2008 of the European Parliament and of the Council

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

The mixture is classified as hazardous according to regulation (EC) No 1272/2008 [CLP].
Evaluation :
Aquatic Chronic 3 : Calculation method.
May produce an allergic reaction. Calculation method.

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

H301	Toxic if swallowed.
H302	Harmful if swallowed.
H310	Fatal 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.

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.