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

1.1 Product identifier

Trade name/designation

517-186-001K HSDD 186 (dif. colors)
CHING-HYDRO-PUR-PRIMER
COMPONENT I 80-100 µm

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

Relevant identified uses

Corrosion Protection and Industrial Coatings.

1.3 Details of the supplier of the safety data sheet

Supplier

CHEMISCHE INDUSTRIE ERLANGEN GMBH
Rathenaustr. 18
91052 Erlangen
Germany
Telephone: +49 9131 3006-0
E-mail: info@ching-coatings.com
Website: https://www.ching-coatings.com

Department responsible for information

E-mail (competent person) msds@ching-coatings.com

1.4 Emergency telephone number

Emergency telephone number: +49 9131 3006 91
Only available during office hours.

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

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

The mixture is classified as hazardous according to regulation (EC) No 1272/2008 [CLP].

Aquatic Chronic 2	H411 Toxic to aquatic life with long lasting effects.

2.2 Label elements

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

Hazard pictograms

GHS09

Signal word

not applicable

Hazard statements

H411	Toxic to aquatic life with long lasting effects.

Precautionary statements

P273	Avoid release to the environment.
P391	Collect spillage.

Hazard components for labelling

not applicable

Supplemental hazard information

EUH208	Contains 1,2-benzisothiazol-3(2H)-one, reaction mass of 5-chloro-2- methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3- one (3:1). May produce an allergic reaction.

2.3 Other hazards

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.
This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

SECTION 3: Composition/information on ingredients.

3.2 Mixtures

Description

Coating based on waterborne synthetic resins

Hazardous ingredients

CAS No. EC No. Index No.	Substance name REACH No. Classification according to Regulation (EC) No 1272/2008 [CLP]	% [mass]
7779-90-0 231-944-3 030-011-00-6	**trizinc bis(orthophosphate)** 01-2119485044-40 Aquatic Acute 1 H400 / Aquatic Chronic 1 H410 ATE (oral): > 5,000 mg/kg ATE (inhalative): > 5.7 mg/L (4 h)	10,0 < 12,5
5131-66-8 225-878-4 603-052-00-8	**3-butoxypropan-2-ol** 01-2119475527-28 Skin Irrit. 2 H315 / Eye Irrit. 2 H319 ATE (dermal): > 2,000 mg/kg ATE (oral): = 3,300 mg/kg	5,00 < 7,00
112-34-5 203-961-6 603-096-00-8	**2-(2-butoxyethoxy)ethanol** 01-2119475104-44 Eye Irrit. 2 H319 ATE (oral): > 2,000 mg/kg	1,00 < 2,00
1314-13-2 215-222-5 030-013-00-7	**zinc oxide** 01-2119463881-32 Aquatic Acute 1 H400 (M = 1,00) / Aquatic Chronic 1 H410 (M = 1,00) ATE (oral): = 7,950 mg/kg ATE (oral): > 15,000 mg/kg ATE (inhalative): > 5.7 mg/L (4 h)	0,200 < 0,250
2634-33-5 220-120-9 613-088-00-6	**1,2-benzisothiazol-3(2H)-one** 01-2120761540-60 Acute Tox. 4 H302 / Skin Irrit. 2 H315 / Skin Sens. 1A H317 / Eye Dam. 1 H318 / Acute Tox. 2 H330 / Aquatic Acute 1 H400 (M = 1,00) / Aquatic Chronic 1 H410 (M = 1,00) Specific concentration limit (SCL) Skin Sens. 1A H317: >= 0,036 ATE (oral): = 450 mg/kg bw	< 0,025
* 55965-84-9 220-239-6 613-167-00-5	**reaction mass of 5-chloro-2- methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3- one (3:1)** 01-2120764691-48 Acute Tox. 3 H301 / Acute Tox. 2 H310 / Skin Corr. 1C H314 / Skin Sens. 1 H317 / Eye Dam. 1 H318 / Acute Tox. 2 H330 / Aquatic Acute 1 H400 / Aquatic Chronic 1 H410 / EUH071 Specific concentration limit (SCL) Skin Sens. 1A H317: >= 0,0015 ATE (inhalative): = 0.17 mg/L (4 h) ATE (oral): 64 mg/kg ATE (dermal): 92.4 mg/kg	< 0,025

Remark

Full text of H- and EUH-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 advice. If unconscious but breathing normally, place in recovery position and seek medical advice.

Following inhalation

Remove casualty to fresh air and keep warm and at rest. In case of irregular breathing or respiratory arrest provide artificial respiration.

Following skin contact

Remove contaminated, saturated clothing immediately. After contact with skin, wash immediately with plenty of water and soap. Do not use solvents or thinners. Wash contaminated clothing before reuse.

After eye contact

Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Seek medical advice immediately.

Following ingestion

If swallowed, rinse mouth with water (only if the person is conscious). Seek medical advice immediately. Keep victim calm. Do NOT induce vomiting.

Self-protection of the first aider

First aider: Pay attention to self-protection!

4.2 Most important symptoms and effects, both acute and delayed

Symptoms

In all cases of doubt, or when symptoms persist, seek medical advice.

4.3 Indication of any immediate medical attention and special treatment needed

First Aid, decontamination, treatment of symptoms.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media

alcohol resistant foam, Carbon dioxide (CO2), Powder, spray mist, (water)

Unsuitable extinguishing media

Strong water jet

5.2 Special hazards arising from the substance or mixture

Dense black smoke occurs during fire. Inhaling hazardous decomposing products can cause serious health damage.

Hazardous combustion products

Hazardous combustion products: Carbon dioxide (CO2), Carbon monoxide, smoke, Nitrogen oxides (NOx).

5.3 Advice for firefighters

Provide a conveniently located respiratory protective device. Cool closed containers that are near the source of the fire. Do not allow water used to extinguish fire to enter drains, ground or waterways.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Remove all sources of ignition. Ventilate affected area. Do not breathe vapours.

6.2 Environmental precautions

Do not allow to enter into surface water or drains. If the product contaminates lakes, rivers or sewages, inform competent authorities in accordance with local regulations.

6.3 Methods and material for containment and cleaning up

For containment

Isolate leaked material using non-flammable absorption agent (e.g. sand, earth, vermiculit, diatomaceous earth) and collect it for disposal in appropriate containers in accordance with the local regulations (see section 13).

For cleaning up

Clean using cleansing agents. Do not use solvents.

6.4 Reference to other sections

Safe handling: see section 7
Personal protection equipment: refer to section 8
Disposal: see section 13

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Advices on safe handling

Avoid contact with skin, eyes and clothes. Avoid respiration of swarf. Personal protection equipment: see section 8. Do not empty containers with pressure - no pressure vessel! Always keep in containers that correspond to the material of the original container. Follow the legal protection and safety regulations.

Advices on general occupational hygiene

When using do not eat, drink or smoke.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Storage in accordance with the Ordinance on Industrial Safety and Health (BetrSiVO). Keep container tightly closed. Do not empty containers with pressure - no pressure vessel! Smoking is forbidden. Access only for authorised persons. Store carefully closed containers upright to prevent any leaks. Soils have to conform to the "Guidelines for avoidance of ignition hazards due to electrostatic charges (TRGS 727)".

Hints on joint storage

Keep away from strongly acidic and alkaline materials as well as oxidizers.

Storage class LGK10 - Combustible liquids that cannot be assigned to any of the above storage classes

Further information on storage conditions

Keep container tightly closed. Smoking is forbidden. Access only for authorised persons. Store carefully closed containers upright to prevent any leaks.

7.3 Specific end use(s)

Observe technical data sheet.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limit values

CAS No.	Substance name	Source	Long-term /short-term (peak limitation)
112-34-5	2-(2-butoxyethoxy)ethanol	WEL	67.5 / 101.2 (-) mg/m³
1317-65-3	Limestone	WEL	10 / - (-) mg/m³ (inhalable fraction)
1317-65-3	Limestone	WEL	4 / - (-) mg/m³ (respirable fraction)
14807-96-6	Talc (Mg3H2(SiO3)4)	WEL	1 / - (-) mg/m³ (respirable fraction)
13463-67-7	titanium dioxide [in powder form containing 1 % or more of particles with aerodynamic diameter ≤ 10 µm]	WEL	4 / - (-) mg/m³ (respirable fraction)
13463-67-7	titanium dioxide [in powder form containing 1 % or more of particles with aerodynamic diameter ≤ 10 µm]	WEL	10 / - (-) mg/m³ (inhalable fraction)

Additional information

Long-term: Long-term occupational exposure limit value
short-term: short-term occupational exposure limit value

Biological limit values

No data available

DNEL worker

	CAS No.	Substance name	DNEL type	DNEL value
	112-34-5	2-(2-butoxyethoxy)ethanol	DNEL long-term dermal (systemic)	20 mg/kg
	112-34-5	2-(2-butoxyethoxy)ethanol	DNEL long-term inhalative (systemic)	67.5 mg/m³
	112-34-5	2-(2-butoxyethoxy)ethanol	DNEL acute inhalative (local)	15 mg/m³
	5131-66-8	3-butoxypropan-2-ol	DNEL long-term dermal (systemic)	52 mg/kg
	5131-66-8	3-butoxypropan-2-ol	DNEL long-term inhalative (systemic)	147 mg/m³
*	55965-84-9	reaction mass of 5-chloro-2- methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3- one (3:1)	DNEL long-term inhalative (local)	0.02 mg/m³
*	55965-84-9	reaction mass of 5-chloro-2- methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3- one (3:1)	DNEL acute inhalative (local)	0.04 mg/m³

7779-90-0	trizinc bis(orthophosphate)	DNEL long-term dermal (systemic)	83 mg/kg
7779-90-0	trizinc bis(orthophosphate)	DNEL long-term inhalative (systemic)	5 mg/m³
1314-13-2	zinc oxide	DNEL long-term dermal (systemic)	83 mg/kg
1314-13-2	zinc oxide	DNEL long-term inhalative (systemic)	5 mg/m³

PNEC

CAS No.	Substance name	PNEC type	PNEC Value
112-34-5	2-(2-butoxyethoxy)ethanol	PNEC aquatic, intermittent release	3.9 mg/L
112-34-5	2-(2-butoxyethoxy)ethanol	PNEC sewage treatment plant (STP)	400 mg/L
112-34-5	2-(2-butoxyethoxy)ethanol	PNEC sediment, marine water	0.4 mg/kg
112-34-5	2-(2-butoxyethoxy)ethanol	PNEC sediment, freshwater	4 mg/kg
112-34-5	2-(2-butoxyethoxy)ethanol	PNEC aquatic, freshwater	1 mg/L
112-34-5	2-(2-butoxyethoxy)ethanol	PNEC aquatic, marine water	0.1 mg/L
112-34-5	2-(2-butoxyethoxy)ethanol	PNEC soil, freshwater	0.4 mg/kg
5131-66-8	3-butoxypropan-2-ol	PNEC aquatic, intermittent release	5.25 mg/L
5131-66-8	3-butoxypropan-2-ol	PNEC sewage treatment plant (STP)	10 mg/L
5131-66-8	3-butoxypropan-2-ol	PNEC sediment, marine water	0.236 mg/kg
5131-66-8	3-butoxypropan-2-ol	PNEC sediment, freshwater	2.36 mg/kg
5131-66-8	3-butoxypropan-2-ol	PNEC aquatic, freshwater	0.525 mg/L
* 5131-66-8	3-butoxypropan-2-ol	PNEC aquatic, marine water	0.0525 mg/L
5131-66-8	3-butoxypropan-2-ol	PNEC soil, freshwater	0.16 mg/kg
* 55965-84-9	reaction mass of 5-chloro-2- methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3- one (3:1)	PNEC sewage treatment plant (STP)	0.23 mg/L
* 55965-84-9	reaction mass of 5-chloro-2- methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3- one (3:1)	PNEC sediment, marine water	0.027 mg/kg
* 55965-84-9	reaction mass of 5-chloro-2- methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3- one (3:1)	PNEC sediment, freshwater	0.027 mg/kg
* 55965-84-9	reaction mass of 5-chloro-2- methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3- one (3:1)	PNEC aquatic, freshwater	3.39 mg/L
* 55965-84-9	reaction mass of 5-chloro-2- methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3- one (3:1)	PNEC aquatic, marine water	3.39 mg/L
* 55965-84-9	reaction mass of 5-chloro-2- methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3- one (3:1)	PNEC soil, freshwater	0.01 mg/kg
7779-90-0	trizinc bis(orthophosphate)	PNEC sewage treatment plant (STP)	100 mg/L
7779-90-0	trizinc bis(orthophosphate)	PNEC sediment, marine water	56.5 mg/kg
7779-90-0	trizinc bis(orthophosphate)	PNEC sediment, freshwater	117.8 mg/kg
7779-90-0	trizinc bis(orthophosphate)	PNEC aquatic, freshwater	20.6 mg/L
7779-90-0	trizinc bis(orthophosphate)	PNEC aquatic, marine water	6.1 mg/L
7779-90-0	trizinc bis(orthophosphate)	PNEC soil, freshwater	35.6 mg/kg

8.2 Exposure controls

Provide good ventilation. This can be achieved with local or room suction. If this should not be sufficient to keep aerosol and solvent vapour concentration below the exposure limit values, a suitable respiratory protection must be used.

Personal protection equipment

Respiratory protection

If concentration of solvents is beyond the occupational exposure limit values, approved and suitable respiratory protection must be used. Observe the wear time limits according GefStoffV in combination with the rules for using respiratory protection apparatus (BGR 190). Use only respiratory protection equipment with CE-symbol including four digit test number.

Hand protection

For prolonged or repeated handling the following glove material must be used:
Suitable material: NBR (Nitrile rubber)
Thickness of the glove material >= 0.4 mm
Breakthrough time >= 480 min

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. Observe the instructions and details for use, storage, maintenance and replacement provided by the protective glove manufacturer. Penetration time of glove material depending on intensity and duration of exposure to skin.
Recommended glove articles: EN ISO 374

Skin protection

Barrier creams can help protecting exposed skin areas. In no case should they be used after contact.

Eye/face protection

Eye glasses with side protection: EN 166

Body protection

When handling with chemical substances, protective clothing with CE-labels including the four control digits must be worn. Anti-static clothing including shoes are recommended.

Remark

After contact clean skin thoroughly with water and soap or use appropriate cleanser.

Environmental exposure controls

Do not allow to enter into surface water or drains.See section 7. No additional measures necessary.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state	Liquid	
Colour	green	
Odour	characteristic	
pH at 23.0 °C (25%)	7.5 - 9.5	DIN 53785
Melting point/freezing point	-85 °C	
	Source: 3-butoxypropan-2-ol	
Initial boiling point and boiling range	100 °C	
Flash point	62 °C	
flammability	not applicable	
Lower explosion limit at 20°C	0.7 Vol-%	
	Source: 2-(2-butoxyethoxy)ethanol	
Upper explosion limit at 20°C	5.3 Vol-%	
	Source: 2-(2-butoxyethoxy)ethanol	
Vapour pressure at 20°C	0.1 mbar	
Relative vapour density	not applicable	
Density at 20 °C	1.3 kg/l	
Water solubility at 20°C	partially soluble	
Partition coefficient: n-octanol/water	see section 12	
Auto-ignition temperature	225 °C	
	Source: 2-(2-butoxyethoxy)ethanol	
Decomposition temperature	not determined	
Kinematic viscosity at 20 °C	25-35 DIN-6-SEK	

Dynamic viscosity at 20 °C	25-35 DIN-6-SEK
Viscosity	> 60s / 4mm
particle characteristics	not applicable

9.2 Other information

Solid content	62.6 %
solvent content	5.5 %
Water content	32 %

SECTION 10: Stability and reactivity

10.1 Reactivity

No specific test data related to reactivity available for this product or its ingredients.

10.2 Chemical stability

Stable when applying the recommended regulations for storage and handling. Further information on correct storage: refer to section 7.

10.3 Possibility of hazardous reactions

Keep away from strong acids, strong bases and strong oxidizing agents to avoid exothermic reactions.

10.4 Conditions to avoid

Stable when applying the recommended regulations for storage and handling. Further information on correct storage: refer to section 7. Hazardous decomposition byproducts may form with exposure to high temperatures.

10.5 Incompatible materials

No further relevant information available.

10.6 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

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

1,2-benzisothiazol-3(2H)-one
LD50: oral (Rat): = 450 mg/kg bw

2-(2-butoxyethoxy)ethanol
LD50: oral (Rat): > 2,000 mg/kg

3-butoxypropan-2-ol
LD50: dermal (Rat): > 2,000 mg/kg; (OECD 402)

LD50: oral (Rat): = 3,300 mg/kg; (OECD 423)

* **reaction mass of 5-chloro-2- methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3- one (3:1)**
LC50: inhalative (Rat): = 0.17 mg/L (4 h)

* LD50: oral (Rat): 64 mg/kg

* LD50: dermal (Rat): 92.4 mg/kg

trizinc bis(orthophosphate)
LD50: oral (Rat): > 5,000 mg/kg

LC50: inhalative (Rat): > 5.7 mg/L (4 h)

zinc oxide
LD50: oral (Mouse): = 7,950 mg/kg

LD50: oral (Rat): > 15,000 mg/kg

LC50: inhalative (Rat): > 5.7 mg/L (4 h)

Skin corrosion/irritation

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

Serious eye damage/eye irritation

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

Respiratory or skin sensitisation

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

Overall assessment on CMR properties

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

STOT-single exposure

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

STOT-repeated exposure

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

Aspiration hazard

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

Practical experience/human evidence

Inhaling of solvent components above the MWC-value can lead to health damage, e.g. irritation of the mucous membrane and respiratory organs, as well as damage to the liver, kidneys and the central nerve system. Indications for this are: Headache, Dizziness, fatigue, amyosthenia, Dizziness, in serious cases: unconsciousness. Solvents may cause some of the aforementioned effects through skin resorption. Repeated or prolonged contact with the preparation may cause removal of natural fat from the skin resulting in non-allergic contact dermatitis and/or absorption through skin. Splashing may cause eye irritation and reversible damage.

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.

SECTION 12: Ecological information

12.1 Toxicity

Toxic to aquatic life with long lasting effects.

Algae toxicity

1,2-benzisothiazol-3(2H)-one
ErC50: (Pseudokirchneriella subcapitata): = 0.11 mg/L (72 h)

2-(2-butoxyethoxy)ethanol
ErC50: > 100 mg/L (96 h)

3-butoxypropan-2-ol
ErC50: (Pseudokirchneriella subcapitata): > 1,000 mg/L (96 h)

* **reaction mass of 5-chloro-2- methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3- one (3:1)**
ErC50: = 0.018 mg/L (72 h)

trizinc bis(orthophosphate)
ErC50: > 100 mg/L

zinc oxide
ErC50: (Scenedesmus subspicatus): = 58.8 mg/L (72 h)

Daphnia toxicity

1,2-benzisothiazol-3(2H)-one
EC50 (Daphnia magna (Big water flea)): = 2.94 mg/L (48 h)

2-(2-butoxyethoxy)ethanol
EC50 (Daphnia magna (Big water flea)): = 100 mg/L (48 h)

3-butoxypropan-2-ol
EC50 (Daphnia magna (Big water flea)): > 1,000 mg/L (48 h)
Method: OECD 202

* **reaction mass of 5-chloro-2- methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3- one (3:1)**
EC50 (Daphnia magna (Big water flea)): = 1.02 mg/L (48 h)

trizinc bis(orthophosphate)
EC50 (Daphnia magna (Big water flea)): > 1,000 mg/L (48 h)

zinc oxide
EC50 (Daphnia magna (Big water flea)): > 100 mg/L (48 h)

Fish toxicity

1,2-benzisothiazol-3(2H)-one
LC50: (Oncorhynchus mykiss (Rainbow trout)): = 2.18 mg/L (96 h)

2-(2-butoxyethoxy)ethanol
LC50: (Lepomis macrochirus (Bluegill)): = 1,300 mg/L (96 h)

3-butoxypropan-2-ol
LC50: (Pimephales promelas (fathead minnow)): > 100 mg/L (96 h)

* **reaction mass of 5-chloro-2- methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3- one (3:1)**
LC50: (Danio rerio (zebrafish)): = 0.58 mg/L (96 h)

trizinc bis(orthophosphate)
LC50: (Oncorhynchus mykiss (Rainbow trout)): > 1,000 mg/L (96 h)

LC50: > 5,000 mg/L (96 h)

zinc oxide
LC50: (Danio rerio (zebrafish)): > 10,000 mg/L (96 h)

12.2 Persistence and degradability

No information available.

12.3 Bioaccumulative potential

No information available.

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

Product/Packaging disposal

Do not empty into drains; dispose of this material and its container in a safe way. Waste disposal according to directive 2008/98/EC, covering waste and dangerous waste.

Waste codes/waste designations according to EWC/AVV

080111* - Waste paint and varnish containing organic solvents or other dangerous substances
* Hazardous waste according to Directive 2008/98/EC (waste framework directive).

Other disposal recommendations

Non-contaminated packages may be recycled. Vessels not properly emptied are special waste.

SECTION 14: Transport information

14.1 UN number or ID number

UN 3082

14.2 UN proper shipping name

Land transport (ADR/RID)

Environmentally hazardous substance, liquid, n.o.s. (trizinc bis(orthophosphate), zinc oxide)

Sea transport (IMDG)

Environmentally hazardous substance, liquid, n.o.s. (contains trizinc bis(orthophosphate), zinc oxide)

Air transport (ICAO-TI / IATA-DGR)

Environmentally hazardous substance, liquid, n.o.s. (contains trizinc bis(orthophosphate), zinc oxide)

14.3 Transport hazard class(es)

Land transport (ADR/RID)	9
Sea transport (IMDG)	9

Air transport (ICAO-TI / IATA-DGR)	9

14.4 Packing group

Land transport (ADR/RID)	III
Sea transport (IMDG)	III
Air transport (ICAO-TI / IATA-DGR)	III

14.5 Environmental hazards

Land transport (ADR/RID)	ENVIRONMENTALLY HAZARDOUS
Sea transport (IMDG)	Marine pollutant / trizinc bis(orthophosphate)

14.6 Special precautions for user

Transport always in closed, upright and safe containers. Make sure that persons transporting the product know what to do in case of an accident or leakage.
Advices on safe handling: see parts 6 - 8

14.7 Maritime transport in bulk according to IMO instruments

No transport as bulk according to IBC Code.

14.8 Additional information

Land transport (ADR/RID)

Tunnel restriction code: -
Limited quantity (LQ): 5 ltr
Hazard identification number (Kemler No.): 90

Sea transport (IMDG)

EmS-No.: F-A S-F
Limited quantity (LQ): 5 ltr

Air transport (ICAO-TI / IATA-DGR)

Limited quantity (LQ): 30 Liter
in packages <= 5 litres: unadapted

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

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

Use restriction according to REACH annex XVII, no.: 03, 55

Restrictions of occupation

Observe employment restrictions under the Maternity Protection Directive 92/85/EEC or stricter national regulations, if applicable.
Observe restrictions to employment for juveniles according to the 'juvenile work protection guideline' (94/33/EC) or stricter national regulations, if applicable.

Directive 2010/75/EU on industrial emissions [Industrial Emissions Directive]

* VOC value: 74 g/l

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

VOC limit value: 2004/42/IIA(j): 140 g/l (2010)
* Maximum VOC content of the product in a ready to use condition: 87 g/L
This product meets the requirements of Regulation (EC) No. 1935/2004 on the limitation of VOC content.

Regulation (EU) No. 528/2012 on biocides

biocide, active substance: 1,2-benzisothiazol-3(2H)-one
biocide, active substance: bronopol (INN)
biocide, active substance: reaction mass of 5-chloro-2- methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3- one (3:1)

* **Directive 2012/18/EU on the control of major-accident hazards involving dangerous substances [Seveso-III-Directive]**
Hazard categories / Named dangerous substances

E2 Hazardous to the aquatic environment in Category Chronic 2
Quantity 1: 200t; Quantity 2: 500t

* **National regulations**

Observe in addition any national regulations!

Water hazard class

15.2 Chemical Safety Assessment

Chemical safety assessments for substances in this mixture were not carried out.

SECTION 16: Other information

List of relevant hazard statements and/or precautionary statements from sections 2 to 15

*	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.
	H319	Causes serious eye irritation.
	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.

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

Aquatic Chronic 2 Calculation method.

Key literature references and sources for data

Data arise from reference works and literature.

Abbreviations and acronyms

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road
OEL: Occupational Exposure Limit Value
BLV: Biological limit values
CAS: Chemical Abstracts Service
CLP: Classification, Labelling and Packaging
CMR: Carcinogenic, Mutagenic and Reprotoxic
DIN: German Institute for Standardization / German industrial standard
DNEL: Derived No-Effect Level
EAKV: European Waste Catalogue Directive
EC: Effective Concentration
EC: European Community
EN: European Standard
EU/EEA: European Economic Area
IATA-DGR: International Air Transport Association – Dangerous Goods Regulations
IBC Code: International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk
ICAO-TI: International Civil Aviation Organization Technical Instructions for the Safe Transport of Dangerous Goods by Air
IMDG Code: International Maritime Code for Dangerous Goods
ISO: International Organization for Standardization
LC: Lethal Concentration
LD: Lethal Dose
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MARPOL: Maritime Pollution: The International Convention for the Prevention of Pollution from Ships
OECD: Organisation for Economic Cooperation and Development
PBT: persistent, bioaccumulative, toxic
PNEC: Predicted No Effect Concentration
RID: Regulations concerning the International Carriage of Dangerous Goods by Rail
REACH: Registration, Evaluation, Authorisation and Restriction of Chemicals
UN: United Nations
VOC: Volatile Organic Compounds
vPvB: very persistent and very bioaccumulative

Indication of changes

* Data changed compared with the previous version.
replaces version: 4.1
replaces revision of: 18 Mar 2026