

Safety Data Sheet

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



Harmony in
Chemistry

Trade name : Rostosan Plus (011210339010-0593)
Red-brown rust primer

Revision date : 05.03.2020

Version (Revision) : 19.0.0 (18.0.0)

Print date : 09.03.2020

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

1.1 Product identifier

Rostosan Plus
Red-brown rust primer

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

Coatings and paints, fillers, putties, thinners

1.3 Details of the supplier of the safety data sheet

Supplier : Chemische Werke Kluthé
Werk Oberhausen

Street : Feldstraße 55

Postal code/city : D 46149 Oberhausen

Telephone : +49208 / 9948-166

Telefax : +49208 / 9948-151

Information contact : sds.ob@kluthe.com

1.4 Emergency telephone number

+49177 / 2144737 (24 h)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

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

Flam. Liq. 3 ; H226 - Flammable liquids : Category 3 ; Flammable liquid and vapour.

STOT SE 3 ; H335 - STOT-single exposure : Category 3 ; May cause respiratory irritation.

STOT SE 3 ; H336 - STOT-single exposure : Category 3 ; May cause drowsiness or dizziness.

Aquatic Chronic 2 ; H411 - Hazardous to the aquatic environment : Chronic 2 ; Toxic to aquatic life with long lasting effects.

2.2 Label elements

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

Hazard pictograms



Flame (GHS02) · Environment (GHS09) · Exclamation mark (GHS07)

Signal word

Warning

Hazard components for labelling

HYDROCARBONS, C9, AROMATES ; EC No. : 918-668-5

Hazard statements

H226	Flammable liquid and vapour.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
H411	Toxic to aquatic life with long lasting effects.

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Precautionary statements

- P102 Keep out of reach of children.
P101 If medical advice is needed, have product container or label at hand.
P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P370+P378 In case of fire: Use foam (alcohol resistant), carbon dioxide, dry powder or water spray for extinction.
P405 Store locked up.
P501 Dispose of contents/container according to local regulations

Supplemental Hazard information (EU)

EUH066 Repeated exposure may cause skin dryness or cracking.

Special rules for supplemental label elements for certain mixtures

EUH208 Contains KOBALTKARBOXYLAT. May produce an allergic reaction.

Additional information

P240 - Ground and bond container and receiving equipment. P241 - Use explosion-proof electrical/ventilating/lighting equipment. P242 - Use non-sparking tools. P243 - Take action to prevent static discharges.

2.3 Other hazards

None

SECTION 3: Composition/information on ingredients

Gemisch aus oxidativ trocknenden Alkydharzen, organischen und anorganischen Pigmenten und organischen Lösemitteln

3.2 Mixtures

Hazardous ingredients

HYDROCARBONS, C9, AROMATES ; REACH No. : 01-2119455851-35 ; EC No. : 918-668-5

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

Classification 1272/2008 [CLP] : Flam. Liq. 3 ; H226 Asp. Tox. 1 ; H304 STOT SE 3 ; H335 STOT SE 3 ; H336 Aquatic Chronic 2 ; H411

XYLENE (Reaction product of xylene and ethylbenzene) ; REACH No. : 01-2119539452-40 ; EC No. : 905-588-0

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

Classification 1272/2008 [CLP] : Flam. Liq. 3 ; H226 Asp. Tox. 1 ; H304 STOT RE 2 ; H373 Acute Tox. 4 ; H312 Acute Tox. 4 ; H332 Skin Irrit. 2 ; H315 Eye Irrit. 2 ; H319 STOT SE 3 ; H335

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

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

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

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

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

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

ALUMINIUMTRIHYDROGENDIPHOSPHATE ; EC No. : 237-714-9 ; CAS No. : 13939-25-8

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

Classification 1272/2008 [CLP] : Skin Irrit. 2 ; H315 Eye Irrit. 2 ; H319 STOT SE 3 ; H335

KOBALTKARBOXYLAT ; EC No. : 237-015-9 ; CAS No. : 13586-82-8

Weight fraction : $\geq 0,1 - < 0,3$ %

Classification 1272/2008 [CLP] : Repr. 1B ; H360 Acute Tox. 4 ; H302 Skin Irrit. 2 ; H315 Skin Sens. 1 ; H317 Aquatic Chronic 2 ; H411

2-ETHYLHEXANOAT, ZIRKONIUMSALZ ; REACH No. : 01-21199790285-27 ; EC No. : 245-018-1 ; CAS No. : 22464-99-9

Weight fraction : $< 0,5$ %

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Classification 1272/2008 [CLP] : Repr. 2 ; H361d

This mixture contains the following substances of very high concern (SVHC) which are included in the Candidate List according to Article 59 of REACH

None

This mixture contains the following substances of very high concern (SVHC) which are subject to authorisation according to Annex XIV of REACH

None

Additional information

Full text of H- and EUH-phrases: see section 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

General information

Remove affected person from the danger area and lay down. In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

Following inhalation

Remove casualty to fresh air and keep warm and at rest. If breathing is irregular or stopped, administer artificial respiration. If unconscious place in recovery position and seek medical advice.

In case of skin contact

Remove contaminated, saturated clothing immediately. After contact with skin, wash immediately with plenty of water and soap. Do not wash with: Solvents/Thinner

After eye contact

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.

After ingestion

Do NOT induce vomiting. If accidentally swallowed rinse the mouth with plenty of water (only if the person is conscious) and obtain immediate medical attention.

4.2 Most important symptoms and effects, both acute and delayed

No information available.

4.3 Indication of any immediate medical attention and special treatment needed

None

SECTION 5: Firefighting measures

5.1 Extinguishing media

Carbon dioxide (CO₂) alcohol resistant foam Water mist Dry extinguishing powder

Unsuitable extinguishing media

Full water jet

5.2 Special hazards arising from the substance or mixture

Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Remove product from area of fire. Use water spray jet to protect personnel and to cool endangered containers. Do not inhale explosion and combustion gases.

5.3 Advice for firefighters

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

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SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Remove all sources of ignition. Provide adequate ventilation. See protective measures under point 7 and 8.

6.2 Environmental precautions

Do not allow to enter into surface water or drains.

6.3 Methods and material for containment and cleaning up

Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents). Collect in closed and suitable containers for disposal.

6.4 Reference to other sections

Safe handling: see section 7 Personal protection equipment: see section 8 Disposal: see section 13 National regulations see section 15.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

If local exhaust ventilation is not possible or not sufficient, the entire working area should be ventilated by technical means. Avoid: Skin contact Eye contact Inhalation Only use the material in places where open light, fire and other flammable sources can be kept away. Vapours are heavier than air, spread along floors and form explosive mixtures with air. Take precautionary measures against static discharges.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Keep/Store only in original container. Keep in a cool, well-ventilated place.

Hints on joint storage

Storage class (TRGS 510) : 3

7.3 Specific end use(s)

None

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limit values

HYDROCARBONS, C9, AROMATES

Limit value type (country of origin) : AGW (D)
Limit value : 200 mg/m³ / 8 h
Version : 16.09.2013

XYLENE (Reaction product of xylene and ethylbenzene)

Limit value type (country of origin) : TRGS 900 (D)
Limit value : 100 ppm / 440 mg/m³
Peak limitation : 2(II)
Remark : H
Version : 01.03.2018

Limit value type (country of origin) : STEL (EC)
Limit value : 100 ppm / 442 mg/m³
Remark : H
Version : 31.01.2018

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Limit value type (country of origin) : TWA (EC)
Limit value : 50 ppm / 221 mg/m³
Remark : H
Version : 31.01.2018

Biological limit values

XYLENE (Reaction product of xylene and ethylbenzene)

Limit value type (country of origin) : TRGS 903 (D)
Parameter : Methylhippuric acid / Urine (U) / End of exposure or end of shift
Limit value : 2000 mg/l
Version : 01.03.2018

DNEL-/PNEC-values

DNEL/DMEL

Limit value type : DNEL Consumer (systemic) (HYDROCARBONS, C9, AROMATES)
Exposure route : Inhalation
Exposure frequency : Long-term
Limit value : 32 mg/m³

Limit value type : DNEL Consumer (systemic) (HYDROCARBONS, C9, AROMATES)
Exposure route : Dermal
Exposure frequency : Long-term
Limit value : 11 mg/kg

Limit value type : DNEL Consumer (systemic) (HYDROCARBONS, C9, AROMATES)
Exposure route : Oral
Exposure frequency : Long-term
Limit value : 11 mg/kg

Limit value type : DNEL worker (systemic) (HYDROCARBONS, C9, AROMATES)
Exposure route : Dermal
Exposure frequency : Long-term
Limit value : 25 mg/kg

Limit value type : DNEL worker (systemic) (HYDROCARBONS, C9, AROMATES)
Exposure route : Inhalation
Exposure frequency : Long-term
Limit value : 150 mg/m³

Limit value type : DNEL Consumer (local) (XYLENE (Reaction product of xylene and ethylbenzene))
Exposure route : Inhalation
Exposure frequency : Long-term
Limit value : 65,3 mg/m³

Limit value type : DNEL Consumer (local) (XYLENE (Reaction product of xylene and ethylbenzene))
Exposure route : Inhalation
Exposure frequency : Short-term
Limit value : 260 mg/m³

Limit value type : DNEL Consumer (systemic) (XYLENE (Reaction product of xylene and ethylbenzene))
Exposure route : Inhalation
Exposure frequency : Long-term
Limit value : 14,8 mg/m³

Limit value type : DNEL Consumer (systemic) (XYLENE (Reaction product of xylene and ethylbenzene))
Exposure route : Inhalation
Exposure frequency : Short-term
Limit value : 260 mg/m³

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Limit value type :	DNEL Consumer (systemic) (XYLENE (Reaction product of xylene and ethylbenzene))
Exposure route :	Oral
Exposure frequency :	Long-term
Limit value :	1,6 mg/kg
Limit value type :	DNEL worker (local) (XYLENE (Reaction product of xylene and ethylbenzene))
Exposure route :	Inhalation
Exposure frequency :	Long-term
Limit value :	221 mg/m ³
Limit value type :	DNEL worker (local) (XYLENE (Reaction product of xylene and ethylbenzene))
Exposure route :	Inhalation
Exposure frequency :	Short-term
Limit value :	289 mg/m ³
Limit value type :	DNEL worker (systemic) (XYLENE (Reaction product of xylene and ethylbenzene))
Exposure route :	Inhalation
Exposure frequency :	Long-term
Limit value :	211 mg/m ³
Limit value type :	DNEL worker (systemic) (XYLENE (Reaction product of xylene and ethylbenzene))
Exposure route :	Inhalation
Exposure frequency :	Short-term
Limit value :	442 mg/m ³
Limit value type :	DNEL worker (systemic) (XYLENE (Reaction product of xylene and ethylbenzene))
Exposure route :	Dermal
Exposure frequency :	Long-term
Limit value :	180 mg/kg
Limit value type :	DNEL Consumer (systemic) (ZINC OXIDE ; CAS No. : 1314-13-2)
Exposure route :	Oral
Exposure frequency :	Long-term
Limit value :	0,83 mg/kg
Limit value type :	DNEL Consumer (systemic) (ZINC OXIDE ; CAS No. : 1314-13-2)
Exposure route :	Dermal
Exposure frequency :	Long-term
Limit value :	83 mg/kg
Limit value type :	DNEL Consumer (systemic) (ZINC OXIDE ; CAS No. : 1314-13-2)
Exposure route :	Inhalation
Exposure frequency :	Long-term
Limit value :	2,5 mg/m ³
Limit value type :	DNEL worker (systemic) (ZINC OXIDE ; CAS No. : 1314-13-2)
Exposure route :	Dermal
Exposure frequency :	Long-term
Limit value :	83 mg/kg
Limit value type :	DNEL worker (systemic) (ZINC OXIDE ; CAS No. : 1314-13-2)
Exposure route :	Inhalation
Exposure frequency :	Long-term
Limit value :	5 mg/m ³
PNEC	
Limit value type :	PNEC (Aquatic, freshwater) (XYLENE (Reaction product of xylene and ethylbenzene))
Limit value :	0,327 mg/l
Limit value type :	PNEC (Aquatic, marine water) (XYLENE (Reaction product of xylene and ethylbenzene))

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Limit value :	0,327 mg/l
Limit value type :	PNEC (Sediment, freshwater) (XYLENE (Reaction product of xylene and ethylbenzene))
Limit value :	12,46 mg/kg
Limit value type :	PNEC (Sediment, marine water) (XYLENE (Reaction product of xylene and ethylbenzene))
Limit value :	12,46 mg/kg
Limit value type :	PNEC (Soil) (XYLENE (Reaction product of xylene and ethylbenzene))
Limit value :	2,31 mg/kg
Limit value type :	PNEC (Sewage treatment plant) (XYLENE (Reaction product of xylene and ethylbenzene))
Limit value :	6,58 mg/l
Limit value type :	PNEC (Aquatic, freshwater) (ZINC OXIDE ; CAS No. : 1314-13-2)
Limit value :	20,6 µg/l
Limit value type :	PNEC (Aquatic, marine water) (ZINC OXIDE ; CAS No. : 1314-13-2)
Limit value :	6,1 µg/l
Limit value type :	PNEC (Sediment, freshwater) (ZINC OXIDE ; CAS No. : 1314-13-2)
Limit value :	117,8 mg/kg
Limit value type :	PNEC (Sediment, marine water) (ZINC OXIDE ; CAS No. : 1314-13-2)
Limit value :	56,5 mg/kg
Limit value type :	PNEC (Soil) (ZINC OXIDE ; CAS No. : 1314-13-2)
Limit value :	35,6 mg/kg
Limit value type :	PNEC (Sewage treatment plant) (ZINC OXIDE ; CAS No. : 1314-13-2)
Limit value :	100 µg/l
Limit value type :	PNEC (Aquatic, freshwater) (TRIZINC BIS(ORTHOPHOSPHATE) ; CAS No. : 7779-90-0)
Limit value :	20,6 µg/l
Limit value type :	PNEC (Aquatic, marine water) (TRIZINC BIS(ORTHOPHOSPHATE) ; CAS No. : 7779-90-0)
Limit value :	6,1 µg/l
Limit value type :	PNEC (Sediment, freshwater) (TRIZINC BIS(ORTHOPHOSPHATE) ; CAS No. : 7779-90-0)
Limit value :	235,6 mg/kg
Limit value type :	PNEC (Sediment, marine water) (TRIZINC BIS(ORTHOPHOSPHATE) ; CAS No. : 7779-90-0)
Limit value :	113 mg/kg
Limit value type :	PNEC (Soil) (TRIZINC BIS(ORTHOPHOSPHATE) ; CAS No. : 7779-90-0)
Limit value :	106,8 mg/kg
Limit value type :	PNEC (Sewage treatment plant) (TRIZINC BIS(ORTHOPHOSPHATE) ; CAS No. : 7779-90-0)
Limit value :	52 µg/l

8.2 Exposure controls

Personal protection equipment

Eye/face protection

Eye glasses In case of increased risk, additionally Eye glasses with side protection

Skin protection

Hand protection

Do not wear gloves near rotary machines and tools. Check leak tightness/impermeability prior to use. 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.

Suitable gloves type : Disposable gloves.

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Suitable material : NBR (Nitrile rubber)
Breakthrough time : >= 480 min
Thickness of the glove material : 0,4 mm

Body protection

Disposable suit Overall

Respiratory protection

Usually no personal respiratory protection necessary. Respiratory protection necessary at: insufficient ventilation

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance : liquid

Colour : pigmented

Odour : characteristic

Safety characteristics

Physical state :				Liquid	
Melting point/freezing point :				not determined	
Initial boiling point and boiling range :	(1013 hPa)	>		100,0	°C
Decomposition temperature :				No data available	
Flash point :		>		23,0	°C DIN 51755 part 1
Auto-ignition temperature :				not determined	
Oxidising liquids :				No data available.	
Lower explosion limit :					Vol-%
Upper explosion limit :					Vol-%
Vapour pressure :	(50 °C)	<		1100,0	hPa
Density :	(20 °C)	approx.		1,390	g/cm ³
Solvent separation test :	(20 °C)	<		3,0	%
Water solubility :	(20 °C)			practically insoluble	
pH-value:	(20 °C / conc.)			not applicable	
log P O/W :				No data available	
Flow time :	(20 °C)	>		100	s DIN-cup 4 mm
Odour threshold :				not determined	
Relative vapour density :	(20 °C)			No data available	(air = 1)
Vapourisation rate :				No data available	(Ether = 1)
Maximum VOC content (EC) :	(20 °C)				Wt % gem. RL 2010/75/EG
Max. VOC content (Decopaint):	(20 °C)			29,7	Wt % gem. RL 2004/42/EG

9.2 Other information

no more data available

SECTION 10: Stability and reactivity

10.1 Reactivity

No information available.

10.2 Chemical stability

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

10.3 Possibility of hazardous reactions

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Formation of explosive mixtures with: Air. possible

10.4 Conditions to avoid

Heat, sparks, flames and other ignition sources.

10.5 Incompatible materials

Alkali (lye), concentrated. Acid, concentrated. Oxidising agent, strong.

10.6 Hazardous decomposition products

Carbon dioxide. Carbon monoxide

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

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

Acute oral toxicity

Parameter :	LD50 (HYDROCARBONS, C9, AROMATES)
Exposure route :	Oral
Species :	Rat
Effective dose :	3592 mg/kg
Method :	OECD 401
Parameter :	LD50 (XYLENE (Reaction product of xylene and ethylbenzene))
Exposure route :	Oral
Species :	Rat
Effective dose :	> 5000 mg/kg
Parameter :	LD50 (ZINC OXIDE ; CAS No. : 1314-13-2)
Exposure route :	Oral
Species :	Rat
Effective dose :	7950 mg/kg
Method :	OECD 401

Acute dermal toxicity

Parameter :	LD50 (HYDROCARBONS, C9, AROMATES)
Exposure route :	Dermal
Species :	Rabbit
Effective dose :	> 3160 mg/kg
Method :	OECD 402
Parameter :	LD50 (XYLENE (Reaction product of xylene and ethylbenzene))
Exposure route :	Dermal
Species :	Rabbit
Effective dose :	12126 mg/kg

Acute inhalation toxicity

Parameter :	LC50 (XYLENE (Reaction product of xylene and ethylbenzene))
Exposure route :	Inhalation (vapour)
Species :	Rat
Effective dose :	27571 mg/m ³
Exposure time :	4 h
Parameter :	LC50 (ZINC OXIDE ; CAS No. : 1314-13-2)
Exposure route :	Inhalation
Species :	Rat
Effective dose :	> 5,7 mg/l
Exposure time :	4 h

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Method : OECD 403
Parameter : LC50 (ZINC OXIDE ; CAS No. : 1314-13-2)
Exposure route : Inhalation
Species : Mouse
Effective dose : 2500 mg/m³

Corrosion

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

Respiratory or skin sensitisation

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

CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)

Carcinogenicity

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

Germ cell mutagenicity

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

Reproductive toxicity

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

STOT-single exposure

May cause respiratory irritation. May cause drowsiness or dizziness.

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.

11.5 Additional information

Toxicological data are not available.

SECTION 12: Ecological information

12.1 Toxicity

Aquatic toxicity

Toxic to aquatic life with long lasting effects.

Acute (short-term) fish toxicity

Parameter : LL50 (HYDROCARBONS, C9, AROMATES)
Species : Oncorhynchus mykiss (Rainbow trout)
Effective dose : 9,2 mg/l
Exposure time : 96 h
Parameter : LC50 (XYLENE (Reaction product of xylene and ethylbenzene))
Species : Oncorhynchus mykiss (Rainbow trout)
Effective dose : 2,6 mg/l
Exposure time : 96 h
Method : OECD 203
Parameter : LC50 (TRIZINC BIS(ORTHOPHOSPHATE) ; CAS No. : 7779-90-0)
Species : Oncorhynchus mykiss (Rainbow trout)
Effective dose : 0,33 - 6,06 mg/l
Exposure time : 96 h

Acute (short-term) toxicity to crustacea

Parameter : NOEC (HYDROCARBONS, C9, AROMATES)
Species : Daphnia magna (Big water flea)

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Effective dose : 3,2 mg/l
Exposure time : 48 h
Parameter : EC50 (XYLENE (Reaction product of xylene and ethylbenzene))
Species : Daphnia magna (Big water flea)
Effective dose : 1 mg/l
Exposure time : 24 h
Method : OECD 202
Parameter : EC50 (ZINC OXIDE ; CAS No. : 1314-13-2)
Species : ceriodaphnia dubia
Effective dose : 0,413 mg/l
Exposure time : 48 h
Parameter : EC50 (TRIZINC BIS(ORTHOPHOSPHATE) ; CAS No. : 7779-90-0)
Species : ceriodaphnia dubia
Effective dose : 0,96 mg/l
Exposure time : 48 h

Chronic (long-term) toxicity to crustacea

Parameter : NOEC (ZINC OXIDE ; CAS No. : 1314-13-2)
Species : Daphnia magna (Big water flea)
Effective dose : 82 µg/l
Exposure time : 7 D

Acute (short-term) toxicity to aquatic algae and cyanobacteria

Parameter : EL50 (HYDROCARBONS, C9, AROMATES)
Species : Pseudokirchneriella subcapitata
Effective dose : 2,629 mg/l
Exposure time : 72 h
Parameter : EC50 (XYLENE (Reaction product of xylene and ethylbenzene))
Species : Selenastrum capricornutum
Effective dose : 2,2 mg/l
Exposure time : 73 h
Method : OECD 201
Parameter : EC50 (ZINC OXIDE ; CAS No. : 1314-13-2)
Species : Selenastrum capricornutum
Effective dose : 0,137 mg/l
Exposure time : 72 h
Method : OECD 201
Parameter : EC50 (TRIZINC BIS(ORTHOPHOSPHATE) ; CAS No. : 7779-90-0)
Species : Selenastrum capricornutum
Effective dose : 0,32 mg/l
Exposure time : 72 h

Chronic (long-term) algae toxicity

Parameter : NOEC (ZINC OXIDE ; CAS No. : 1314-13-2)
Species : Pseudokirchneriella subcapitata
Effective dose : 19 µg/l
Exposure time : 7 D

Toxicity to microorganisms

Parameter : EC50 (XYLENE (Reaction product of xylene and ethylbenzene))
Species : Belebtschlamm
Effective dose : 16 mg/l
Exposure time : 28 D
Method : OECD F

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12.2 Persistence and degradability

Biodegradation

Parameter :	Biodegradation (HYDROCARBONS, C9, AROMATES)
Inoculum :	Degree of elimination
Degradation rate :	78 %
Test duration :	28 D
Evaluation :	Readily biodegradable (according to OECD criteria).
Parameter :	Biodegradation (XYLENE (Reaction product of xylene and ethylbenzene))
Degradation rate :	90 %
Test duration :	28 D
Evaluation :	Readily biodegradable (according to OECD criteria).
Method :	OECD 301F

12.3 Bioaccumulative potential

Parameter :	Bioconcentration factor (BCF) (XYLENE (Reaction product of xylene and ethylbenzene))
Value :	25,9
Parameter :	Log KOW (HYDROCARBONS, C9, AROMATES)
Value :	3,7 - 4,5
Parameter :	Log KOW (XYLENE (Reaction product of xylene and ethylbenzene))
Value :	3,1 - 3,2

12.4 Mobility in soil

No information available.

12.5 Results of PBT and vPvB assessment

No information available.

12.6 Other adverse effects

No information available.

12.7 Additional ecotoxicological information

None

SECTION 13: Disposal considerations

Dispose according to legislation.

13.1 Waste treatment methods

Directive 2008/98/EC (Waste Framework Directive)

After intended use

Waste codes/waste designations according to EWC/AVV

Waste code (EWC/AVV) : 08 01 11* (Waste paint and varnish containing organic solvents or other dangerous substances)

13.2 Additional information

None

SECTION 14: Transport information

14.1 UN number

UN 1263

14.2 UN proper shipping name

Land transport (ADR/RID)

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PAINT

Sea transport (IMDG)

PAINT (HYDROCARBONS, C9, AROMATES · ZINC OXIDE · TRIZINC BIS(ORTHOPHOSPHATE))

Air transport (ICAO-TI / IATA-DGR)

PAINT

14.3 Transport hazard class(es)

Land transport (ADR/RID)

Class(es) : 3
Classification code : F1
Hazard identification number (Kemler No.) : 30
Tunnel restriction code : D/E
Special provisions : LQ 5 I · E 1 · ADR : - (<= 5 I ; 2.2.3.1.5 + N)
Hazard label(s) : 3 / N

Sea transport (IMDG)

Class(es) : 3
EmS-No. : F-E / S-E
Special provisions : LQ 5 I · E 1 · IMDG-Code segregation group 7 - Heavy metal and their salts (including their organometallic compounds)
Hazard label(s) : 3 / N

Air transport (ICAO-TI / IATA-DGR)

Class(es) : 3
Special provisions : E 1
Hazard label(s) : 3

14.4 Packing group

III

14.5 Environmental hazards

Land transport (ADR/RID) : Yes
Sea transport (IMDG) : Yes (P)
Air transport (ICAO-TI / IATA-DGR) : Yes

14.6 Special precautions for user

None

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, 40

National regulations

Technische Anleitung Luft (TA-Luft)

Weight fraction (Number 5.2.5. I) : < 5 %

Water hazard class (WGK)

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

Percentage of carcinogenic substances WGK 2 : < 0,1 %

Percentage of carcinogenic substances WGK 3 : < 0,1 %

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Percentage of carcinogenic substances :	< 0,1 %
Percentage of substances WGK 3 :	0 %
Percentage of substances WGK 3 with M-Factor :	0 %
Percentage of substances WGK 2 :	34,72 %
Percentage of substances WGK 2 with M-Factor :	0 %
Percentage of substances WGK 1 :	2,46 %
Percentage of floating liquids :	0 %
Percentage of substances non-hazardous to water (nwg) :	61,52 %
Percentage of substances unidentified :	0 %

15.2 Chemical safety assessment

No information available.

SECTION 16: Other information

16.1 Indication of changes

02. Special rules for supplemental label elements for certain mixtures · 02. Label elements - Additional information · 03. Hazardous ingredients · 07. Hints on joint storage - Storage class · 08. Occupational exposure limit values · 15. Water hazard class (WGK)

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)
BCF: Bio-Concentration Factor
BOD(5): Biochemical oxygen demand (within 5 days)
CAS: Chemical Abstract Service
CLP: Classification, Labelling and Packaging
CMR: Carcinogenic, Mutagenic, toxic for Reproduction
DIN: German Standards Institute / German industrial norm
DNEL: Derived No Effect Level
DOC: Dissolved organic carbon
EAK/ AVV: European waste catalogue/ waste directory-regulation
EC50: Effective Concentration 50%
ECHA: European Chemical Agency
EINECS: European Inventory of Existing Commercial Chemical Substances
GHS: Globally Harmonised System of Classification, Labelling and Packaging of Chemicals
IATA: International Air Transport Association
IC50: Inhibition Concentration 50%
IMDG: International Maritime Dangerous Goods Code
LC50: Lethal Concentration 50% - LD50: Lethal dose 50%
MAK: Treshold limit values Germany
NLP: No Longer Polymers
NOAEC: No Observed Adverse Effect Concentration
NOAEL: No Observed Adverse Effect Level
OECD: Organization for Economic Cooperation and Development
PBT: persistent, bioaccumulative, toxic
PC: Product category
PNEC: Predicted No Effect Concentration
REACH: Registration, Evaluation and Authorization of Chemicals
RID: Regulations concerning the international carriage of dangerous goods by rail
(Règlement International concernant le transport de marchandises dangereuses par chemin de fer)

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STEL: Short-term Exposure Limit
STP: Sewage treatment plant
SVHC: Substance of Very High Concern
TLV: Threshold Limit Value
TWA: Time Weighted Average
UN: United Nations
VOC: Volatile Organic Compounds
vPvB: very persistent, very bioaccumulative

16.3 Key literature references and sources for data

None

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

No information available.

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

H226	Flammable liquid and vapour.
H302	Harmful if swallowed.
H304	May be fatal if swallowed and enters airways.
H312	Harmful in contact with skin.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
H360	May damage fertility or the unborn child
H361d	Suspected of damaging the unborn child.
H373	May cause 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.

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.