Yachtcare Epoxy Base Filler B-Comp.

Version		Revision Date:	Date of last issue: 23.08.2022
2.1	DE / EN	14.09.2023	Date of first issue: 23.08.2022

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

1.1 Product identifier

Trade name : Yachtcare Epoxy Base Filler B-Comp.

Product code : 148.635

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

Use of the Sub-stance/Mixture : Curing chemical
Epoxy curing agent

Recommended restrictions on use : Industrial use, professional use, public use

1.3 Details of the supplier of the safety data sheet

Company : Vosschemie GmbH
Esinger Steinweg 50
25436 Uetersen
Germany

info@vosschemie.de

Telephone : 04122 717 0
Telefax : 04122 717158

Responsible Department : Laboratory

04122 717 0
sds@vosschemie.de

1.4 Emergency telephone

Telephone : Giftinformationszentrum (GIZ)-Nord,
Göttingen, Deutschland
0551 19240

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SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008)

Skin corrosion, Sub-category 1B	H314: Causes severe skin burns and eye damage.
Serious eye damage, Category 1	H318: Causes serious eye damage.
Skin sensitization, Category 1	H317: May cause an allergic skin reaction.
Long-term (chronic) aquatic hazard, Category 3	H412: Harmful to aquatic life with long lasting effects.

2.2 Label elements

Labeling (REGULATION (EC) No 1272/2008)

Hazard pictograms :

Signal Word : Danger

Hazard Statements :
H314 Causes severe skin burns and eye damage.
H317 May cause an allergic skin reaction.
H412 Harmful to aquatic life with long lasting effects.

Precautionary Statements :
P101 If medical advice is needed, have product container or label at hand.
P102 Keep out of reach of children.

Prevention:

P260 Do not breathe dusts or mists.
P273 Avoid release to the environment.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

Response:

P301 + P330 + P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.
P305 + P351 + P338 + P310 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/ doctor.

Storage:

P405 Store locked up.

Disposal:

P501 Dispose of contents/ container to an approved facility in accordance with local, regional, national and international regulations.

Hazardous ingredients which must be listed on the label:

m-phenylenebis(methylamine)
3-aminomethyl-3,5,5-trimethylcyclohexylamine
Phenol, styrenated
N-(3-(trimethoxysilyl)propyl)ethylenediamine
Fatty acids, C18-unsatd., trimers, compds. with oleylamine
Fatty acids, tall-oil, compds. with oleylamine

Additional Labeling

EUH212 Warning! Hazardous respirable dust may be formed when used. Do not breathe dust.

2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

Ecological information: This substance/mixture contains components considered to have endocrine disrupting properties for environment , according to REACH Article 57(f), Commission Regulation (EU) 2018/605 or Commission Delegated Regulation (EU) 2017/2100.

Toxicological information: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Chemical nature : Mixture

Components

Chemical name	CAS-No. EC-No. Index-No. Registration number	Classification	Concentration (% w/w)
benzyl alcohol	100-51-6 202-859-9 603-057-00-5	Acute Tox. 4; H302 Acute Tox. 4; H332 Eye Irrit. 2; H319 Acute toxicity estimate Acute oral toxicity: 1.620 mg/kg	>= 5 - < 10

		Acute inhalation toxicity (dust/mist): 4,178 mg/l	
m-phenylenebis(methylamine)	1477-55-0 216-032-5 01-2119480150-50	Acute Tox. 4; H302 Acute Tox. 4; H332 Skin Corr. 1B; H314 Eye Dam. 1; H318 Skin Sens. 1B; H317 Aquatic Chronic 3; H412 --- Acute toxicity estimate Acute oral toxicity: 930 mg/kg Acute inhalation toxicity (dust/mist): 1,34 mg/l	>= 5 - < 10
3-aminomethyl-3,5,5-trimethylcyclohexylamine	2855-13-2 220-666-8 612-067-00-9 01-2119514687-32	Acute Tox. 4; H302 Acute Tox. 4; H312 Skin Corr. 1B; H314 Eye Dam. 1; H318 Skin Sens. 1A; H317 Aquatic Chronic 3; H412 --- specific concentration limit Skin Sens. 1A; H317 >= 0,001 % --- Acute toxicity estimate Acute oral toxicity: 1.030 mg/kg Acute dermal toxicity: 1.100 mg/kg	>= 5 - < 10
Phenol, styrenated	61788-44-1 262-975-0 01-2119979575-18	Skin Irrit. 2; H315 Skin Sens. 1B; H317 Aquatic Chronic 2; H411	>= 1 - < 5
titanium dioxide; [in powder form containing 1 % or more of particles with aerodynamic diameter ≤ 10 µm]	13463-67-7 236-675-5 022-006-00-2 01-2119489379-17	Carc. 2; H351	>= 1 - < 2,5
N-(3-(trimethoxysilyl)propyl)ethylenediamine	1760-24-3 217-164-6 01-2119970215-39	Acute Tox. 4; H332 Eye Dam. 1; H318 Skin Sens. 1B; H317 STOT RE 2; H373 ---	>= 0,1 - < 0,5

		Acute toxicity estimate Acute inhalation toxicity (dust/mist): 1,5 mg/l 1,5 mg/l	
Fatty acids, C18-unsatd., trimers, compds. with oleylamine	147900-93-4 604-612-4 01-2119971821-33	Acute Tox. 4; H302 Skin Sens. 1; H317 STOT RE 2; H373 Aquatic Chronic 2; H411 --- Acute toxicity estimate Acute oral toxicity: 1.570 mg/kg	>= 0,1 - < 0,5
Fatty acids, tall-oil, compds. with oleylamine	85711-55-3 288-315-1 01-2119974148-28	Eye Dam. 1; H318 Skin Sens. 1A; H317 STOT RE 2; H373	< 0,1

For explanation of abbreviations see section 16.

SECTION 4: First aid measures

4.1 Description of first-aid measures

General advice : First aider needs to protect himself.
Remove from exposure, lie down.
If unconscious, place in recovery position and seek medical advice.
Take off contaminated clothing and shoes immediately.
Wash contaminated clothing before re-use.

If inhaled : Move to fresh air.
Get medical attention.

In case of skin contact : Wash off immediately with soap and plenty of water.
Get medical attention immediately.

In case of eye contact : Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.
If easy to do, remove contact lens, if worn.
Protect unharmed eye.
Call a physician immediately.

If swallowed : Clean mouth with water and drink afterwards plenty of water.
Do NOT induce vomiting.
Call a physician immediately.

4.2 Most important symptoms and effects, both acute and delayed

Risks : May cause an allergic skin reaction.

Causes serious eye damage.
Causes severe burns.

4.3 Indication of any immediate medical attention and special treatment needed

Treatment : Treat symptomatically.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media : Carbon dioxide (CO2)
Dry powder
Foam
Water spray jet

Unsuitable extinguishing media : High volume water jet

5.2 Special hazards arising from the substance or mixture

Specific hazards during fire fighting : Hazardous decomposition products formed under fire conditions.

Hazardous combustion products : Carbon monoxide, carbon dioxide and unburned hydrocarbons (smoke).
Nitrogen oxides (NOx)

5.3 Advice for firefighters

Special protective equipment for fire-fighters : Wear self-contained breathing apparatus and protective suit.

Specific extinguishing methods : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Standard procedure for chemical fires.

Further information : Use water spray to cool unopened containers.
Collect contaminated fire extinguishing water separately. This must not be discharged into drains.
Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.
In the event of fire and/or explosion do not breathe fumes.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions : Wear personal protective equipment.
Evacuate personnel to safe areas.
Ensure adequate ventilation, especially in confined areas.
Avoid contact with skin, eyes and clothing.

Avoid inhalation of vapor or mist.
Treat recovered material as described in the section "Disposal considerations".

6.2 Environmental precautions

Environmental precautions : Do not flush into surface water or sanitary sewer system.
Avoid subsoil penetration.
If the product contaminates rivers and lakes or drains inform respective authorities.

6.3 Methods and material for containment and cleaning up

Methods for cleaning up : Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).
Shovel into suitable container for disposal.

6.4 Reference to other sections

For personal protection see section 8., For disposal considerations see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Technical measures : Ensure that eyewash stations and safety showers are close to the workstation location.

Local/Total ventilation : Ensure adequate ventilation.

Advice on safe handling : Handle in accordance with good industrial hygiene and safety practice.
Wear personal protective equipment.
Never return unused material to storage receptacle.
Avoid inhalation of vapor or mist.
Keep container closed when not in use.

Advice on protection against fire and explosion : Normal measures for preventive fire protection. Keep away from open flames, hot surfaces and sources of ignition.

Hygiene measures : When using do not eat, drink or smoke. Keep away from food, drink and animal feedingstuffs. Avoid contact with skin, eyes and clothing. Take off all contaminated clothing immediately. Wash contaminated clothing before re-use. Wash hands before breaks and at the end of workday. Avoid exposure to vapor.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers : Store in original container. Keep containers tightly closed in a dry, cool and well-ventilated place. Keep away from heat and sources of ignition. Keep away from direct sunlight.

Containers which are opened must be carefully resealed and

kept upright to prevent leakage.

Advice on common storage : Keep away from food and drink.

Incompatible with strong acids and bases.
Incompatible with oxidizing agents.

Storage class (TRGS 510) : 8A

Further information on storage stability : Protect from frost.

7.3 Specific end use(s)

Specific use(s) : No data available

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational Exposure Limits

Components	CAS-No.	Value type (Form of exposure)	Control parameters	Basis
benzyl alcohol	100-51-6	AGW (Vapour and aerosols)	5 ppm 22 mg/m3	DE TRGS 900
	Peak-limit category: 2;(I)			
	Further information: Skin absorption, When there is compliance with the OEL and biological tolerance values, there is no risk of harming the unborn child			
Siliciumdioxide	112945-52-5	AGW (Inhalable fraction)	4 mg/m3 (Silica)	DE TRGS 900
	Further information: When there is compliance with the OEL and biological tolerance values, there is no risk of harming the unborn child			
titanium dioxide; [in powder form containing 1 % or more of particles with aerodynamic diameter ≤ 10 µm]	13463-67-7	AGW (Inhalable fraction)	10 mg/m3 (Titanium dioxide)	DE TRGS 900
	Peak-limit category: 2;(II)			
	Further information: When there is compliance with the OEL and biological tolerance values, there is no risk of harming the unborn child			
		AGW (Alveolate fraction)	1,25 mg/m3 (Titanium dioxide)	DE TRGS 900
	Peak-limit category: 2;(II)			
	Further information: When there is compliance with the OEL and biological tolerance values, there is no risk of harming the unborn child			

Derived No Effect Level (DNEL) according to Regulation (EC) No. 1907/2006:

Substance name	End Use	Routes of exposure	Potential health effects	Value
benzyl alcohol	Workers	Inhalation	Long-term systemic	22 mg/m3

			effects	
	Workers	Inhalation	Acute systemic effects	110 mg/m3
	Workers	Skin contact	Long-term systemic effects	8 mg/kg bw/day
	Workers	Skin contact	Acute systemic effects	40 mg/kg bw/day
	Consumers	Inhalation	Long-term systemic effects	5,4 mg/m3
	Consumers	Inhalation	Acute systemic effects	27 mg/m3
	Consumers	Skin contact	Long-term systemic effects	4 mg/kg bw/day
	Consumers	Skin contact	Acute systemic effects	20 mg/kg bw/day
	Consumers	Oral	Long-term systemic effects	4 mg/kg bw/day
	Consumers	Oral	Acute systemic effects	20 mg/kg bw/day
3-aminomethyl-3,5,5-trimethylcyclohexylamine	Workers	Inhalation	Long-term local effects, Acute local effects	0,073 mg/m3
	Consumers	Oral	Long-term systemic effects	0,526 mg/kg
Phenol, styrenated	Workers	Inhalation	Long-term systemic effects	74 mg/m3
	Workers	Skin contact	Long-term systemic effects	21 mg/kg
	Consumers	Inhalation	Long-term systemic effects	13,1 mg/m3
	Consumers	Skin contact, Oral	Long-term systemic effects	7,5 mg/kg

Predicted No Effect Concentration (PNEC) according to Regulation (EC) No. 1907/2006:

Substance name	Environmental Compartment	Value
benzyl alcohol	Fresh water	1 mg/l
	Sea water	0,1 mg/l
	Sewage treatment plant (STP)	39 mg/l
	Fresh water sediment	5,27 mg/kg dry weight (d.w.)
	Sea sediment	0,527 mg/kg dry weight (d.w.)
	Soil	0,456 mg/kg dry weight (d.w.)
3-aminomethyl-3,5,5-trimethylcyclohexylamine	Fresh water	0,06 mg/l
	Sea water	0,006 mg/l
	Sewage treatment plant (STP)	3,18 mg/l
	Fresh water sediment	5,784 mg/kg
	Sea sediment	0,578 mg/kg
	Soil	1,121 mg/kg
Phenol, styrenated	Fresh water	0,004 mg/l

	Sea water	0,0004 mg/l
	Sewage treatment plant (STP)	36,2 mg/l
	Fresh water sediment	0,248 mg/kg
	Sea sediment	0,0248 mg/kg
	Soil	0,0473 mg/kg
N-(3-(trimethoxysi-lyl)propyl)ethylenediamine	Fresh water	0,05 mg/l
	Sea water	0,005 mg/l
	Sewage treatment plant (STP)	20 mg/l
	Fresh water sediment	0,181 mg/kg dry weight (d.w.)
	Sea sediment	0,018 mg/kg dry weight (d.w.)
	Soil	0,007 mg/kg dry weight (d.w.)

8.2 Exposure controls

Personal protective equipment

Eye/face protection : Safety glasses with side-shields conforming to EN166

Hand protection
- Material : Viton®
- Directive : DIN EN 374

- Remarks : Gloves should be discarded and replaced if there is any indication of degradation or chemical breakthrough. The data about break through time/strength of material are standard values! The exact break through time/strength of material has to be obtained from the producer of the protective glove. The choice of an appropriate glove does not only depend on its material but also on other quality features and is different from one producer to the other.
In case of contact through splashing: Nitrile rubber

Skin and body protection : Please wear suitable protective clothing, e.g. made of cotton or heat-resistant synthetic fibres.
Long sleeved clothing

Respiratory protection : Apply technical measures to comply with the occupational exposure limits.
When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.

- Filter type : Combined particulates and organic vapor type (A-P)

Protective measures : Ensure that eye flushing systems and safety showers are located close to the working place.
Avoid contact with the skin and the eyes.
Follow the skin protection plan.
Handle and open container with care.

When using do not eat or drink.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state	:	paste
Color	:	gray
Odor	:	characteristic
Melting point/range	:	No data available
Boiling point/boiling range	:	No data available
Upper explosion limit / Upper flammability limit	:	No data available
Lower explosion limit / Lower flammability limit	:	No data available
Flash point	:	> 100 °C
Autoignition temperature	:	No data available
pH	:	No data available substance/mixture is non-soluble (in water)
Viscosity		
Viscosity, dynamic	:	No data available
Viscosity, kinematic	:	No data available
Solubility(ies)		
Water solubility	:	insoluble
Partition coefficient: n-octanol/water	:	No data available
Vapor pressure	:	No data available
Density	:	1,95 g/cm3 (20 °C)

9.2 Other information

No data available

SECTION 10: Stability and reactivity

10.1 Reactivity

No decomposition if used as directed.

10.2 Chemical stability

No decomposition if stored and applied as directed.

10.3 Possibility of hazardous reactions

Hazardous reactions : No dangerous reaction known under conditions of normal use.

10.4 Conditions to avoid

Conditions to avoid : No data available

10.5 Incompatible materials

Materials to avoid : Acids and bases
Oxidizing agents
Isocyanates

10.6 Hazardous decomposition products

Carbon monoxide, carbon dioxide and unburned hydrocarbons (smoke).
Nitrogen oxides (NOx)

SECTION 11: Toxicological information

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

Acute toxicity

Not classified based on available information.

Product:

Acute oral toxicity : Acute toxicity estimate: > 2.000 mg/kg
Method: Calculation method

Acute inhalation toxicity : Acute toxicity estimate: > 5 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist
Method: Calculation method

Acute dermal toxicity : Acute toxicity estimate: > 2.000 mg/kg
Method: Calculation method

Components:

benzyl alcohol:

Acute oral toxicity : LD50 Oral (Rat): 1.620 mg/kg

Acute inhalation toxicity : LC50 (Rat): > 4,178 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist
Method: OECD Test Guideline 403

Acute dermal toxicity : LD50 Dermal (Rabbit): > 2.000 mg/kg

m-phenylenebis(methylamine):

Acute oral toxicity	:	LD50 Oral (Rat): 930 mg/kg Method: OECD Test Guideline 401
Acute inhalation toxicity	:	LC50 (Rat): 1,34 mg/l Exposure time: 4 h Test atmosphere: dust/mist
Acute dermal toxicity	:	LD50 Dermal (Rat): > 3.100 mg/kg

3-aminomethyl-3,5,5-trimethylcyclohexylamine:

Acute oral toxicity	:	Acute toxicity estimate: 1.030 mg/kg Method: Acute toxicity estimate according to Regulation (EC) No. 1272/2008 LD50 Oral (Rat): 1.030 mg/kg Method: OECD Test Guideline 401
Acute inhalation toxicity	:	LC50 (Rat): > 5,01 mg/l Exposure time: 4 h Test atmosphere: dust/mist Method: OECD Test Guideline 403
Acute dermal toxicity	:	Acute toxicity estimate: 1.100 mg/kg Method: Expert judgment

Phenol, styrenated:

Acute oral toxicity	:	LD50 Oral (Rat): > 2.000 mg/kg Method: OECD Test Guideline 423
Acute inhalation toxicity	:	LC0 (Rat): 4,92 mg/l Exposure time: 4 h Test atmosphere: dust/mist Method: OECD Test Guideline 403 Assessment: The substance or mixture has no acute inhalation toxicity
Acute dermal toxicity	:	LD50 Dermal (Rat): > 2.000 mg/kg Method: OECD Test Guideline 402

titanium dioxide; [in powder form containing 1 % or more of particles with aerodynamic diameter ≤ 10 µm]:

Acute oral toxicity	:	LD50 Oral (Rat): > 5.000 mg/kg
Acute inhalation toxicity	:	LD50 (Rat): > 6,82 mg/l Exposure time: 4 h Test atmosphere: dust/mist

N-(3-(trimethoxysilyl)propyl)ethylenediamine:

Acute oral toxicity	:	LD50 Oral (Rat): 2.295 mg/kg

Acute inhalation toxicity	:	LC50 (Rat): > 1,49 - < 2,44 mg/l Exposure time: 4 h Test atmosphere: dust/mist Method: OECD Test Guideline 403 Acute toxicity estimate: 1,5 mg/l Exposure time: 4 h Test atmosphere: dust/mist Method: Calculation method
Acute dermal toxicity	:	LD50 Dermal (Rabbit): > 2.000 mg/kg

Fatty acids, C18-unsatd., trimers, compds. with oleylamine:

Acute oral toxicity	:	LD50 Oral (Rat): 1.570 mg/kg

Fatty acids, tall-oil, compds. with oleylamine:

Acute oral toxicity	:	LD50 Oral (Rat): > 2.000 mg/kg Method: OECD Test Guideline 423 Assessment: The substance or mixture has no acute oral toxicity
Acute inhalation toxicity	:	Assessment: The substance or mixture has no acute inhalation toxicity

Skin corrosion/irritation

Causes severe burns.

Components:

m-phenylenebis(methylamine):

Assessment	:	Causes burns.

Phenol, styrenated:

Result	:	Skin irritation

titanium dioxide; [in powder form containing 1 % or more of particles with aerodynamic diameter ≤ 10 µm]:

Remarks	:	No skin irritation

N-(3-(trimethoxysilyl)propyl)ethylenediamine:

Result	:	No skin irritation

Serious eye damage/eye irritation

Causes serious eye damage.

Components:

benzyl alcohol:

Result : Moderate eye irritation

m-phenylenebis(methylamine):
Result : Risk of serious damage to eyes.

titanium dioxide; [in powder form containing 1 % or more of particles with aerodynamic diameter ≤ 10 µm]:
Remarks : Dust contact with the eyes can lead to mechanical irritation.

N-(3-(trimethoxysilyl)propyl)ethylenediamine:
Result : Irreversible effects on the eye

Fatty acids, tall-oil, compds. with oleylamine:
Result : Risk of serious damage to eyes.

Respiratory or skin sensitization

Skin sensitization
May cause an allergic skin reaction.

Respiratory sensitization
Not classified based on available information.

Components:

m-phenylenebis(methylamine):
Result : The product is a skin sensitizer, sub-category 1B.

Phenol, styrenated:
Result : The product is a skin sensitizer, sub-category 1B.

titanium dioxide; [in powder form containing 1 % or more of particles with aerodynamic diameter ≤ 10 µm]:
Remarks : No known sensitising effect.

N-(3-(trimethoxysilyl)propyl)ethylenediamine:
Result : The product is a skin sensitizer, sub-category 1B.

Fatty acids, C18-unsatd., trimers, compds. with oleylamine:
Result : May cause sensitization by skin contact.

Fatty acids, tall-oil, compds. with oleylamine:
Result : The product is a skin sensitizer, sub-category 1A.

Germ cell mutagenicity

Not classified based on available information.

Carcinogenicity

Not classified based on available information.

Reproductive toxicity

Not classified based on available information.

STOT-single exposure

Not classified based on available information.

STOT-repeated exposure

Not classified based on available information.

Components:

N-(3-(trimethoxysilyl)propyl)ethylenediamine:

Assessment : May cause damage to organs through prolonged or repeated exposure.

Fatty acids, C18-unsatd., trimers, compds. with oleylamine:

Assessment : May cause damage to organs through prolonged or repeated exposure.

Fatty acids, tall-oil, compds. with oleylamine:

Assessment : May cause damage to organs through prolonged or repeated exposure.

Aspiration toxicity

Not classified based on available information.

11.2 Information on other hazards

Endocrine disrupting properties

Product:

Assessment : The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

SECTION 12: Ecological information

12.1 Toxicity

Components:

benzyl alcohol:

Toxicity to fish : LC50 (Pimephales promelas (fathead minnow)): 460 mg/l

Exposure time: 96 h

Toxicity to daphnia and other aquatic invertebrates	:	EC50 (Daphnia magna (Water flea)): 230 mg/l Exposure time: 48 h Method: OECD Test Guideline 202
Toxicity to algae/aquatic plants	:	NOEC (Pseudokirchneriella subcapitata (green algae)): 310 mg/l Exposure time: 72 h Method: OECD Test Guideline 201
Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)	:	NOEC: 51 mg/l Exposure time: 21 d Species: Daphnia magna (Water flea) Method: OECD Test Guideline 211

m-phenylenebis(methylamine):

Toxicity to fish	:	LC50 (Oryzias latipes (Orange-red killifish)): 87,6 mg/l Exposure time: 96 h Method: OECD Test Guideline 203
Toxicity to daphnia and other aquatic invertebrates	:	EC50 (Daphnia magna (Water flea)): 15,2 mg/l Exposure time: 48 h Method: OECD Test Guideline 202
Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)	:	NOEC: 4,7 mg/l Exposure time: 21 d Species: Daphnia magna (Water flea) Method: OECD Test Guideline 211

Ecotoxicology Assessment

Chronic aquatic toxicity	:	Harmful to aquatic life with long lasting effects.

3-aminomethyl-3,5,5-trimethylcyclohexylamine:

Toxicity to fish	:	LC50 (Leuciscus idus (Golden orfe)): 110 mg/l Exposure time: 96 h Method: Regulation (EC) No. 440/2008, Annex, C.1
Toxicity to daphnia and other aquatic invertebrates	:	EC50 (Daphnia magna (Water flea)): 23 mg/l End point: Immobilization Exposure time: 48 h Method: OECD Test Guideline 202
Toxicity to algae/aquatic plants	:	EC50 (Desmodesmus subspicatus (green algae)): > 50 mg/l End point: Growth rate Exposure time: 72 h Method: Regulation (EC) No. 440/2008, Annex, C.3
Toxicity to microorganisms	:	EC10 (Pseudomonas putida): 1.120 mg/l Exposure time: 18 h

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)	:	NOEC: 3 mg/l Exposure time: 21 d Species: Daphnia magna (Water flea)

Phenol, styrenated:

Toxicity to fish	:	LC50 (Fish): 5,6 mg/l Exposure time: 96 h
Toxicity to daphnia and other aquatic invertebrates	:	EC50 (Daphnia magna (Water flea)): 4,6 mg/l Exposure time: 48 h Method: OECD Test Guideline 202
Toxicity to algae/aquatic plants	:	EL50 (Chlorella vulgaris (Fresh water algae)): 20,42 mg/l End point: Growth rate Exposure time: 72 h Method: OECD Test Guideline 201
Toxicity to microorganisms	:	EC50 (activated sludge): 362 mg/l Exposure time: 3 h
Toxicity to fish (Chronic toxicity)	:	NOEC: 0,1879 mg/l Exposure time: 35 d Species: Danio rerio (zebra fish)
Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)	:	NOEC: 0,2 mg/l Exposure time: 21 d Species: Daphnia magna (Water flea)

titanium dioxide; [in powder form containing 1 % or more of particles with aerodynamic diameter ≤ 10 µm]:

Toxicity to daphnia and other aquatic invertebrates	:	EC50 (Daphnia magna (Water flea)): > 1.000 mg/l Exposure time: 48 h

N-(3-(trimethoxysilyl)propyl)ethylenediamine:

Toxicity to fish	:	LC50 (Danio rerio (zebra fish)): 597 mg/l Exposure time: 96 h Method: Regulation (EC) No. 440/2008, Annex, C.1
Toxicity to daphnia and other aquatic invertebrates	:	EC50 (Daphnia magna (Water flea)): 81 mg/l Exposure time: 48 h Method: Regulation (EC) No. 440/2008, Annex, C.2
Toxicity to algae/aquatic plants	:	EC50 (Pseudokirchneriella subcapitata (algae)): 8,8 mg/l End point: Growth rate Exposure time: 72 h Method: OECD Test Guideline 201 NOEC (Pseudokirchneriella subcapitata (algae)): 3,1 mg/l End point: Growth rate Exposure time: 72 h Method: OECD Test Guideline 201

Toxicity to microorganisms : EC50 (Pseudomonas putida): 67 mg/l
End point: Growth rate
Exposure time: 16 h

Ecotoxicology Assessment

Chronic aquatic toxicity : This product has no known ecotoxicological effects.

Fatty acids, C18-unsatd., trimers, compds. with oleylamine:

Ecotoxicology Assessment

Chronic aquatic toxicity : Toxic to aquatic life with long lasting effects.

Fatty acids, tall-oil, compds. with oleylamine:

Toxicity to fish : LL50 (Oncorhynchus mykiss (rainbow trout)): > 100 mg/l
Exposure time: 96 h

12.2 Persistence and degradability

Components:

benzyl alcohol:

Biodegradability : Result: rapidly biodegradable
Biodegradation: 95 %
Related to: Chemical oxygen demand
Exposure time: 21 d
Method: OECD Test Guideline 301A

m-phenylenebis(methylamine):

Biodegradability : Result: Not rapidly biodegradable

3-aminomethyl-3,5,5-trimethylcyclohexylamine:

Biodegradability : Biodegradation: 8 %
Exposure time: 28 d
Method: Regulation (EC) No. 440/2008, Annex, C.4-A

Phenol, styrenated:

Biodegradability : Biodegradation: 4 %
Exposure time: 28 d
Method: OECD Test Guideline 310

N-(3-(trimethoxysilyl)propyl)ethylenediamine:

Biodegradability : Result: Not readily biodegradable.
Biodegradation: 39 %
Exposure time: 28 d
Method: Regulation (EC) No. 440/2008, Annex, C.4-A

Fatty acids, tall-oil, compds. with oleylamine:

Biodegradability : Result: Readily biodegradable.

12.3 Bioaccumulative potential

Components:

benzyl alcohol:

Partition coefficient: n-octanol/water : log Pow: 1,05 (20 °C)

m-phenylenebis(methylamine):

Partition coefficient: n-octanol/water : log Pow: 0,18 (25 °C)
Method: OECD Test Guideline 107

3-aminomethyl-3,5,5-trimethylcyclohexylamine:

Partition coefficient: n-octanol/water : log Pow: 0,99 (23 °C)
pH: 6,34

Phenol, styrenated:

Bioaccumulation : Species: Cyprinus carpio (Carp)
Temperature: 25 °C
Bioconcentration factor (BCF): 139 - 187
Method: OECD Test Guideline 305C

Partition coefficient: n-octanol/water : log Pow: 3,03 (23,6 °C)

titanium dioxide; [in powder form containing 1 % or more of particles with aerodynamic diameter ≤ 10 µm]:

Partition coefficient: n-octanol/water : Remarks: Not applicable

N-(3-(trimethoxysilyl)propyl)ethylenediamine:

Partition coefficient: n-octanol/water : log Pow: -0,82

Fatty acids, C18-unsatd., trimers, compds. with oleylamine:

Partition coefficient: n-octanol/water : log Pow: > 5,7 (20 °C)

Fatty acids, tall-oil, compds. with oleylamine:

Partition coefficient: n-octanol/water : Pow: 1 - 6,2 (25 °C)
pH: 4 - 9
Method: OECD Test Guideline 117

12.4 Mobility in soil

No data available

12.5 Results of PBT and vPvB assessment

Product:

Assessment : This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

12.6 Endocrine disrupting properties

Product:

Assessment : This substance/mixture contains components considered to have endocrine disrupting properties for environment , according to REACH Article 57(f), Commission Regulation (EU) 2018/605 or Commission Delegated Regulation (EU) 2017/2100.

Components:

Phenol, styrenated:

Assessment : The substance is identified as having endocrine disrupting properties according to Commission Regulation (EU) 2018/605 or Commission Delegated Regulation (EU) 2017/2100.

12.7 Other adverse effects

Product:

Additional ecological information : No data available

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product : Do not mix waste streams during collection.
Do not dispose of with domestic refuse.
Do not empty into drains, dispose of this material and its container at hazardous or special waste collection point.
Dispose of in accordance with local regulations.

Contaminated packaging : Packaging that is not properly emptied must be disposed of as the unused product.
Dispose of in accordance with local regulations.

Waste Code : The following Waste Codes are only suggestions:
07 02 08, other still bottoms and reaction residues

SECTION 14: Transport information

14.1 UN number or ID number

ADN	:	UN 1759
ADR	:	UN 1759
RID	:	UN 1759
IMDG	:	UN 1759
IATA	:	UN 1759

14.2 UN proper shipping name

ADN	:	CORROSIVE SOLID, N.O.S.
ADR	:	CORROSIVE SOLID, N.O.S.
RID	:	CORROSIVE SOLID, N.O.S.
IMDG	:	CORROSIVE SOLID, N.O.S.
IATA	:	Corrosive solid, n.o.s.

14.3 Transport hazard class(es)

		Class	Subsidiary risks
ADN	:	8	
ADR	:	8	
RID	:	8	
IMDG	:	8	
IATA	:	8	

14.4 Packing group

ADN

Packing group	:	II
Classification Code	:	C10
Hazard Identification Number	:	80
Labels	:	8

ADR

Packing group	:	II
Classification Code	:	C10
Hazard Identification Number	:	80
Labels	:	8
Tunnel restriction code	:	(E)

RID

Packing group	:	II
Classification Code	:	C10
Hazard Identification Number	:	80
Labels	:	8

IMDG

Packing group	:	II
Labels	:	8
EmS Code	:	F-A, S-B

IATA (Cargo)

Packing instruction (cargo aircraft)	:	863
Packing instruction (LQ)	:	Y844
Packing group	:	II
Labels	:	Corrosive

IATA (Passenger)

Packing instruction (passenger aircraft)	:	859
Packing instruction (LQ)	:	Y844
Packing group	:	II
Labels	:	Corrosive

14.5 Environmental hazards

ADN
Environmentally hazardous : no

ADR
Environmentally hazardous : no

RID
Environmentally hazardous : no

IMDG
Marine pollutant : no

14.6 Special precautions for user

The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

14.7 Maritime transport in bulk according to IMO instruments

Not applicable for product as supplied.

SECTION 15: Regulatory information

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

REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles (Annex XVII)	:	Conditions of restriction for the following entries should be considered: Number on list 75 If you intend to use this product as tattoo ink, please contact your vendor. benzyl alcohol (Number on list 3)
REACH - Candidate List of Substances of Very High	:	Not applicable

Concern for Authorization (Article 59).

Regulation (EC) No 1005/2009 on substances that deplete the ozone layer : Not applicable

Regulation (EU) 2019/1021 on persistent organic pollutants (recast) : Not applicable

REACH - List of substances subject to authorisation (Annex XIV) : Not applicable

Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances. Not applicable

Water hazard class (Germany) : WGK 2 obviously hazardous to water
Classification according to AwSV, Annex 1 (5.2)

Other regulations:

BG-Merkblatt M004, M051 (German regulatory requirements)

Take note of Directive 94/33/EC on the protection of young people at work or stricter national regulations, where applicable.

15.2 Chemical Safety Assessment

A chemical safety assessment according to (EC) regulation 1907/2006 (REACH) has not been carried out for this product.

SECTION 16: Other information

Full text of H-Statements

H302	:	Harmful if swallowed.
H312	:	Harmful 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.
H332	:	Harmful if inhaled.
H351	:	Suspected of causing cancer if inhaled.
H373	:	May cause damage to organs through prolonged or repeated exposure.
H411	:	Toxic to aquatic life with long lasting effects.
H412	:	Harmful to aquatic life with long lasting effects.

Full text of other abbreviations

Acute Tox.	:	Acute toxicity
Aquatic Chronic	:	Long-term (chronic) aquatic hazard

Carc.	:	Carcinogenicity
Eye Dam.	:	Serious eye damage
Eye Irrit.	:	Eye irritation
Skin Corr.	:	Skin corrosion
Skin Irrit.	:	Skin irritation
Skin Sens.	:	Skin sensitization
STOT RE	:	Specific target organ toxicity - repeated exposure
DE TRGS 900	:	Germany. TRGS 900 - Occupational exposure limit values.
DE TRGS 900 / AGW	:	Time Weighted Average

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - Agreement concerning the International Carriage of Dangerous Goods by Road; AIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECHA - European Chemicals Agency; EC-Number - European Community number; ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RID - Regulations concerning the International Carriage of Dangerous Goods by Rail; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; SVHC - substance of very high concern; TCSI - Taiwan Chemical Substance Inventory; TECI - Thailand Existing Chemicals Inventory; TRGS - Technical Rule for Hazardous Substances; TSCA - Toxic Substances Control Act (United States); UN - United Nations; vPvB - Very Persistent and Very Bioaccumulative

Further information

Classification of the mixture:		**Classification procedure:**
Skin Corr. 1B	H314	Calculation method
Eye Dam. 1	H318	Calculation method
Skin Sens. 1	H317	Calculation method
Aquatic Chronic 3	H412	Calculation method

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

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