Safety Data Sheet

according to Regulation (EC) No 1907/2006

Tikalflex Contact 12 / Clear 10

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

1.1. Product identifier

Tikalflex Contact 12 / Clear 10

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

Use of the substance/mixture

adhesive, sealant, coating

Uses advised against

Any non-intended use.

1.3. Details of the supplier of the safety data sheet

Company name:	Tikal Marine Systems GmbH	
Street:	Werkstraße 6	
Place:	D-22844 Norderstedt	
Telephone:	+49 40 526 30 60 3	Telefax: +49 40 526 30 60 5
E-mail:	info@tikal-online.de	
Internet:	www.tikal-online.com	

1.4. Emergency telephone number:

Tikal Marine Systems GmbH +49 40 526 30 60 3
Only from Malta: 112

Further Information

Safety Data Sheet according to Regulation (EC) No. 1907/2006 (amended by Regulation (EU) No 2020/878)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Regulation (EC) No 1272/2008

This mixture is not classified as hazardous in accordance with Regulation (EC) No 1272/2008.

2.2. Label elements

Regulation (EC) No 1272/2008

Special labelling of certain mixtures

EUH208	Contains trimethoxyvinylsilane; trimethoxy(vinyl)silane, N-(3 -(trimethoxysilyl)propyl)ethylenediamine, N-[3 -(dimethoxymethylsilyl)propyl]ethylenediamine, dioctylbis(pentane-2,4-dionato-O,O')tin. May produce an allergic reaction.
EUH210	Safety data sheet available on request.

2.3. Other hazards

The substances in the mixture (>0,1%) do not meet the PBT/vPvB criteria according to REACH, annex XIII. This product does not contain a substance (> 0,1%) that has endocrine disrupting properties with respect to humans as no components meets the criteria. This product does not contain a substance (> 0,1 %) 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

Relevant ingredients

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	Classification (Regulation (EC) No 1272/2008)			
2768-02-7	trimethoxyvinylsilane; trimethoxy(vinyl)silane			1 - < 2,5 %
	220-449-8	014-049-00-0	01-2119513215-52	

	Flam. Liq. 3, Acute Tox. 4, Skin Sens. 1B; H226 H332 H317			
1760-24-3	N-(3-(trimethoxysilyl)propyl)ethylenediamine			0,1 - < 1 %
	217-164-6		01-2119970215-39	
	Acute Tox. 4, Eye Dam. 1, Skin Sens. 1B, STOT RE 2; H332 H318 H317 H373			
54068-28-9	dioctylbis(pentane-2,4-dionato-O,O')tin			0,1 - < 0,5 %
	483-270-6		01-0000020199-67	
	Skin Sens. 1, STOT SE 2; H317 H371			
3069-29-2	N-[3-(dimethoxymethylsilyl)propyl]ethylenediamine			0,1 - < 0,5 %
	221-336-6		01-2119963926-21	
	Acute Tox. 4, Skin Irrit. 2, Eye Dam. 1, Skin Sens. 1A; H302 H315 H318 H317			

Full text of H and EUH statements: see section 16.

Specific Conc. Limits, M-factors and ATE

CAS No	EC No	Chemical name	Quantity
	Specific Conc. Limits, M-factors and ATE		
2768-02-7	220-449-8	trimethoxyvinylsilane; trimethoxy(vinyl)silane	1 - < 2,5 %
	inhalation: LC50 = 16,8 mg/l (vapours); inhalation: ATE = 1,5 mg/l (dusts or mists); dermal: LD50 = > 2000 mg/kg; oral: LD50 = > 5000 mg/kg		
1760-24-3	217-164-6	N-(3-(trimethoxysilyl)propyl)ethylenediamine	0,1 - < 1 %
	inhalation: LC50 = [1,49 -2,44] mg/l (vapours); inhalation: ATE = 1,5 mg/l (dusts or mists); dermal: LD50 = > 2000 mg/kg; oral: LD50 = > 2000 mg/kg		
54068-28-9	483-270-6	dioctylbis(pentane-2,4-dionato-O,O')tin	0,1 - < 0,5 %
	dermal: LD50 = > 2000 mg/kg; oral: LD50 = > 2000 mg/kg Skin Sens. 1; H317: >= 5 - 100		
3069-29-2	221-336-6	N-[3-(dimethoxymethylsilyl)propyl]ethylenediamine	0,1 - < 0,5 %
	inhalation: LC50 = > 5,2 mg/l (dusts or mists); dermal: LD50 = > 5000 mg/kg; oral: LD50 = (200 - 2000) mg/kg		

Further Information

Product does not contain listed SVHC substances > 0,1 % according to Regulation (EC) No. 1907/2006 Article 59 (REACH)

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible). Remove contaminated, saturated clothing immediately.

After inhalation

Remove casualty to fresh air and keep warm and at rest. In case of respiratory tract irritation, consult a physician.

After contact with skin

Gently wash with plenty of soap and water. In case of skin irritation, seek medical treatment.

After contact with eyes

In case of contact with eyes, rinse immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart. Subsequently consult an ophthalmologist.

After ingestion

Rinse mouth thoroughly with water. Do NOT induce vomiting. Never give anything by mouth to an unconscious person or a person with cramps. Call a physician immediately.

4.2. Most important symptoms and effects, both acute and delayed

See sections 2 and 11

4.3. Indication of any immediate medical attention and special treatment needed

Following dangerous substances will be released when the product hardens: Hydrolysis produces small

amounts of methanol.
Provide fresh air.
First Aid, decontamination, treatment of symptoms.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

Carbon dioxide (CO2). Dry extinguishing powder. Alcohol resistant foam. Water spray

Unsuitable extinguishing media

High power water jet.

5.2. Special hazards arising from the substance or mixture

In case of fire may be liberated: Carbon monoxide. Carbon dioxide (CO2).

5.3. Advice for firefighters

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

Additional information

Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.
Co-ordinate fire-fighting measures to the fire surroundings.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General advice

Safe handling: see section 7

For non-emergency personnel

Wear personal protection equipment (refer to section 8).

For emergency responders

No special measures are necessary.

6.2. Environmental precautions

Discharge into the environment must be avoided.

6.3. Methods and material for containment and cleaning up

For containment

Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents).
Treat the recovered material as prescribed in the section on waste disposal. Avoid dust formation. Clear contaminated areas thoroughly.

For cleaning up

Clean contaminated objects and areas thoroughly observing environmental regulations.

6.4. Reference to other sections

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

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling

Wear suitable protective clothing. (See section 8.)
Provide adequate ventilation as well as local exhaustion at critical locations.

Advice on protection against fire and explosion

Usual measures for fire prevention.

Advice on general occupational hygiene

Always close containers tightly after the removal of product. When using do not eat, drink or smoke. Wash

hands before breaks and after work.

Further information on handling

General protection and hygiene measures: refer to section 8

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Keep container tightly closed in a cool, well-ventilated place.

Hints on joint storage

Do not store together with: Explosives. Oxidizing solids. Oxidizing liquids. Radioactive substances. Infectious substances. Food and animal feedingstuff.

Further information on storage conditions

Keep the packing dry and well sealed to prevent contamination and absorbtion of humidity.
Recommended storage temperature: 10 - 35 °C
Protect against: frost. UV-radiation/sunlight. heat. Humidity

7.3. Specific end use(s)

See section 1.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational exposure limit values

CAS No	Name of agent	ppm	mg/m³	fib/cm³	Category	Origin
67-56-1	Methanol	200	260		TWA (8 h)	

DNEL/DMEL values

CAS No	Name of agent			
DNEL type		Exposure route	Effect	Value
2768-02-7	trimethoxyvinylsilane; trimethoxy(vinyl)silane			
Worker DNEL, long-term		inhalation	systemic	27,6 mg/m³
Worker DMEL, acute		inhalation	systemic	73,6 mg/m³
Worker DNEL, long-term		dermal	systemic	0,91 mg/kg bw/day
Consumer DNEL, long-term		inhalation	systemic	6,8 mg/m³
Consumer DNEL, acute		inhalation	systemic	54,4 mg/m³
Consumer DNEL, long-term		dermal	systemic	0,63 mg/kg bw/day
Consumer DNEL, long-term		oral	systemic	0,63 mg/kg bw/day
1760-24-3	N-(3-(trimethoxysilyl)propyl)ethylenediamine			
Worker DNEL, long-term		inhalation	systemic	130 mg/m³
Consumer DNEL, long-term		inhalation	systemic	26 mg/m³
Consumer DNEL, acute		inhalation	systemic	26400 mg/m³
Consumer DNEL, long-term		oral	systemic	4 mg/kg bw/day
,				
54068-28-9	dioctylbis(pentane-2,4-dionato-O,O')tin			
Worker , long-term		inhalation	systemic	84 mg/m³
Worker DNEL, acute		inhalation	systemic	84 mg/m³
Worker , long-term		inhalation	local	0,091 mg/m³

Worker , acute	inhalation	local	0,091 mg/m³
Worker DNEL, long-term	dermal	systemic	0,07 mg/kg bw/day
3069-29-2	N-[3-(dimethoxymethylsilyl)propyl]ethylenediamine		
Worker DNEL, long-term	inhalation	systemic	21,1 mg/m³
Worker DNEL, long-term	dermal	systemic	3 mg/kg bw/day
Consumer DNEL, long-term	inhalation	systemic	5,2 mg/m³
Consumer DNEL, long-term	dermal	systemic	1,5 mg/kg bw/day
Consumer DNEL, long-term	oral	systemic	1,5 mg/kg bw/day
Consumer DNEL, acute	oral	systemic	1,5 mg/kg bw/day
67-56-1	methanol		
Worker DNEL, long-term	inhalation	systemic	130 mg/m³
Worker DNEL, acute	inhalation	systemic	130 mg/m³
Worker DNEL, long-term	inhalation	local	130 mg/m³
Worker DNEL, acute	inhalation	local	130 mg/m³
Worker DNEL, long-term	dermal	systemic	20 mg/kg bw/day
Worker DNEL, acute	dermal	systemic	20 mg/kg bw/day
Consumer DNEL, long-term	inhalation	systemic	26 mg/m³
Consumer DNEL, acute	inhalation	systemic	26 mg/m³
Consumer DNEL, long-term	inhalation	local	26 mg/m³
Consumer DNEL, acute	inhalation	local	26 mg/m³
Consumer DNEL, long-term	dermal	systemic	4 mg/kg bw/day
Consumer DNEL, acute	dermal	systemic	4 mg/kg bw/day
Consumer DNEL, long-term	oral	systemic	4 mg/kg bw/day
Consumer DNEL, acute	oral	systemic	4 mg/kg bw/day

PNEC values

CAS No	Name of agent	
Environmental compartment		Value
2768-02-7	trimethoxyvinylsilane; trimethoxy(vinyl)silane	
Freshwater		0,34 mg/l
Freshwater (intermittent releases)		3,4 mg/l
Marine water		0,04 mg/l
Freshwater sediment		1,5 mg/kg
Marine sediment		0,15 mg/kg
Soil		0,06 mg/kg
1760-24-3	N-(3-(trimethoxysilyl)propyl)ethylenediamine	
Freshwater		0,05 mg/l
Freshwater (intermittent releases)		0,072 mg/l
Marine water		0,005 mg/l
Freshwater sediment		0,181 mg/kg
Marine sediment		0,018 mg/kg
Micro-organisms in sewage treatment plants (STP)		20 mg/l
Soil		0,007 mg/kg
54068-28-9	dioctylbis(pentane-2,4-dionato-O,O')tin	

Freshwater	0,026 mg/l
Freshwater (intermittent releases)	0,26 mg/l
Marine water	0,003 mg/l
Freshwater sediment	0,155 mg/kg
Marine sediment	0,015 mg/kg
Micro-organisms in sewage treatment plants (STP)	1 mg/l
Soil	0,016 mg/kg
3069-29-2	N-[3-(dimethoxymethylsilyl)propyl]ethylenediamine
Freshwater	0,05 mg/l
Freshwater (intermittent releases)	0,071 mg/l
Marine water	0,005 mg/l
Freshwater sediment	0,18 mg/kg
Marine sediment	0,018 mg/kg
Micro-organisms in sewage treatment plants (STP)	27,7 mg/l
Soil	0,007 mg/kg
67-56-1	methanol
Freshwater	20,8 mg/l
Freshwater (intermittent releases)	1540 mg/l
Marine water	2,08 mg/l
Freshwater sediment	77 mg/kg
Marine sediment	7,7 mg/kg
Micro-organisms in sewage treatment plants (STP)	100 mg/l
Soil	100 mg/kg

8.2. Exposure controls

Appropriate engineering controls

Technical measures and the application of suitable work processes have priority over personal protection equipment.

Provide adequate ventilation.

Individual protection measures, such as personal protective equipment

Eye/face protection

Wear safety glasses; chemical goggles (if splashing is possible). EN ISO 16321-1:2022

Hand protection

In case of prolonged or frequently repeated skin contact:
Wear suitable gloves.
Suitable material:
Butyl rubber. - Thickness of glove material: > 0,7 mm
Breakthrough time >= 8 h
NBR (Nitrile rubber). - Thickness of glove material: > 0,7 mm
Breakthrough time >= 8 h
The selected protective gloves have to satisfy the specifications of EU Directive EC/ 2016/425 and the standard EN 374 derived from it.
Before using check leak tightness / impermeability. In the case of wanting to use the gloves again, clean them before taking off and air them well.

Skin protection

Suitable protective clothing: Lab apron.

Respiratory protection

With correct and proper use, and under normal conditions, breathing protection is not required.

Respiratory protection necessary at:
-Exceeding exposure limit values
-Insufficient ventilation and Generation/formation of dust
Suitable respiratory protection apparatus: Combination filtering device (EN 14387) . Type:: A/P2
Half-face mask or quarter facepiece: maximum use concentration for substances with exposure limits: P1 filter: up to a max. of 4 times the exposure limit. P2 filter: up to a max. of 10 times the exposure limit. P3 filter: up to a max. of 30 times the expo.
The filter class must be suitable for the maximum contaminant concentration (gas/vapour/aerosol/particulates) that may arise when handling the product. If the concentration is exceeded, self-contained breathing apparatus must be used.

Environmental exposure controls

No special precautionary measures are necessary.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state:	Paste
Colour:	black
Odour:	characteristic
Odour threshold:	not determined

		Test method
Melting point/freezing point:	not determined	
Boiling point or initial boiling point and boiling range:	not determined	
Flammability:	not determined	
Lower explosion limits:	not determined	
Upper explosion limits:	not determined	
Flash point:	> 60 °C	closed cup
Auto-ignition temperature:	not determined	
Decomposition temperature:	not relevant	
pH-Value:	not determined	
Viscosity / kinematic: (at 40 °C)	> 21 mm²/s	
Water solubility:	insoluble	
Solubility in other solvents		
not determined		
Dissolution rate:	not relevant	
Partition coefficient n-octanol/water:	not relevant	
Dispersion stability:	not relevant	
Vapour pressure:	not determined	
Density:	1,58 g/cm³	
Bulk density:	not relevant	
Relative vapour density:	not determined	
Particle characteristics:	not relevant	

9.2. Other information

Information with regard to physical hazard classes

Explosive properties	
none	
Sustaining combustion:	Not sustaining combustion
Self-ignition temperature	
Solid:	not relevant
Gas:	not relevant

Oxidizing properties

none

Other safety characteristics

Evaporation rate:	not determined
Solvent separation test:	not determined
Solvent content:	not determined
Solid content:	not determined
Sublimation point:	not relevant
Softening point:	not relevant
Pour point:	not relevant
Viscosity / dynamic:	not determined
Flow time:	not determined

Further Information

No information available.

SECTION 10: Stability and reactivity

10.1. Reactivity

Product hardens with water contact/moisture.

10.2. Chemical stability

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

10.3. Possibility of hazardous reactions

No hazardous reaction when handled and stored according to provisions.
Refer to section 10.5.

10.4. Conditions to avoid

Protect against: moisture.

10.5. Incompatible materials

Materials to avoid: Oxidising agent, strong. Reducing agents, strong. Water

10.6. Hazardous decomposition products

Does not decompose when used for intended uses.
Hydrolysis produces small amounts of methanol.

SECTION 11: Toxicological information

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

Toxicocinetics, metabolism and distribution

No data available.

Acute toxicity

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

ATEmix calculated

ATE (oral) > 2000 mg/kg; ATE (dermal) > 2000 mg/kg; ATE (inhalation vapour) > 50 mg/l; ATE (inhalation dust/mist) > 12,5 mg/l

CAS No	Chemical name				
	Exposure route	Dose	Species	Source	Method
2768-02-7	trimethoxyvinylsilane; trimethoxy(vinyl)silane				
	oral	LD50 > 5000 mg/kg	Rat	REACH Dossier	OECD Guideline 401
	dermal	LD50 > 2000 mg/kg	Rabbit	REACH Dossier	OECD Guideline 402
	inhalation (4 h) vapour	LC50 16,8 mg/l	Rat	REACH Dossier	OECD Guideline 403

	inhalation dust/mist	ATE 1,5 mg/l			
1760-24-3	N-(3-(trimethoxysilyl)propyl)ethylenediamine				
	oral	LD50 > 2000 mg/kg	Rat	REACH Dossier	EPA OPPTS 870.1100
	dermal	LD50 > 2000 mg/kg	Rabbit	REACH Dossier	EPA OPPTS 870.1200
	inhalation (4 h) vapour	LC50 [1,49 - 2,44] mg/l	Rat	REACH Dossier	EPA OPPTS 870.1300
	inhalation dust/mist	ATE 1,5 mg/l			
54068-28-9	dioctylbis(pentane-2,4-dionato-O,O')tin				
	oral	LD50 > 2000 mg/kg	Rat	REACH Dossier	OECD Guideline 423
	dermal	LD50 > 2000 mg/kg	Rat	REACH Dossier	OECD Guideline 402
3069-29-2	N-[3-(dimethoxymethylsilyl)propyl]ethylenediamine				
	oral	LD50 (200 - 2000) mg/kg	Rat	REACH Dossier	OECD Guideline 423
	dermal	LD50 > 5000 mg/kg	Rabbit	REACH Dossier	OECD Guideline 402
	inhalation (4 h) dust/mist	LC50 > 5,2 mg/l	Rat	REACH Dossier	OECD Guideline 403

Irritation and corrosivity

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.

Sensitising effects

Based on available data, the classification criteria are not met.
Contains trimethoxyvinylsilane; trimethoxy(vinyl)silane, N-(3-(trimethoxysilyl)propyl)ethylenediamine, N-[3-(dimethoxymethylsilyl)propyl]ethylenediamine, dioctylbis(pentane-2,4-dionato-O,O')tin. May produce an allergic reaction.

Test results:
Skin sensitisation: non-sensitizing (OECD 406)

Carcinogenic/mutagenic/toxic effects for reproduction

Germ cell mutagenicity: Based on available data, the classification criteria are not met.
Carcinogenicity: 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

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.

Specific effects in experiment on an animal

No data available.

11.2. Information on other hazards

Endocrine disrupting properties

This product does not contain a substance (> 0,1%) that has endocrine disrupting properties with respect to humans as no components meets the criteria.

Other information

No data available.

SECTION 12: Ecological information

12.1. Toxicity

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

CAS No	Chemical name						
	Aquatic toxicity	Dose		[h] | [d]	Species	Source	Method
2768-02-7	trimethoxyvinylsilane; trimethoxy(vinyl)silane						
	Acute fish toxicity	LC50	191 mg/l	96 h	Oncorhynchus mykiss	REACH Dossier	
	Acute algae toxicity	ErC50 mg/l	> 89	72 h	Raphidocelis subcapitata	REACH Dossier	
	Acute crustacea toxicity	EC50 mg/l	168,7	48 h	Daphnia magna	REACH Dossier	EU Method C.2
	Algae toxicity	NOEC mg/l	> 89	3 d	Raphidocelis subcapitata	REACH Dossier	
	Crustacea toxicity	NOEC mg/l	28,1	21 d	Daphnia magna	REACH Dossier	OECD Guideline 211
	Acute bacteria toxicity	EC50 mg/l ( )	> 100	3 h	Activated sludge	REACH Dossier	OECD Guideline 209
1760-24-3	N-(3-(trimethoxysilyl)propyl)ethylenediamine						
	Acute fish toxicity	LC50	597 mg/l	96 h	Danio rerio	REACH Dossier	EU Method C.1
	Acute algae toxicity	ErC50	8,8 mg/l	72 h	Raphidocelis subcapitata	REACH Dossier	OECD Guideline 201
	Acute crustacea toxicity	EC50	81 mg/l	48 h	Daphnia magna	REACH Dossier	EU Method C.2
	Algae toxicity	NOEC	3,1 mg/l	3 d	Raphidocelis subcapitata	REACH Dossier	OECD Guideline 201
	Crustacea toxicity	NOEC	> 1 mg/l	21 d	Daphnia magna	REACH Dossier	
54068-28-9	dioctylbis(pentane-2,4-dionato-O,O')tin						
	Acute fish toxicity	LC50	121 mg/l	96 h	Carassius auratus, Lepomis macrochirus, Ictalurus punctatus, Salmo gairdneri	REACH Dossier	
	Acute crustacea toxicity	EC50	75 mg/l	48 h	Daphnia magna, Daphnia pulex, Ceriodaphnia reticulata	REACH Dossier	
	Acute bacteria toxicity	EC50 mg/l ( )	0,001	3 h	Activated sludge	REACH Dossier	OECD Guideline 209
3069-29-2	N-[3-(dimethoxymethylsilyl)propyl]ethylenediamine						
	Acute fish toxicity	LC50	597 mg/l	96 h	Danio rerio	REACH Dossier	EU Method C.1
	Acute crustacea toxicity	EC50 mg/l	> 100	48 h	Daphnia magna	REACH Dossier	OECD Guideline 202
	Acute bacteria toxicity	EC50 mg/l ( )	> 1000	3 h	Activated sludge	REACH Dossier	OECD Guideline 209

12.2. Persistence and degradability

CAS No	Chemical name			
	Method	Value	d	Source
	Evaluation			
2768-02-7	trimethoxyvinylsilane; trimethoxy(vinyl)silane			
	OECD 301F/ ISO 9408/ EEC 92/69/V, C.4-D	51%	28	REACH Dossier
	Not readily biodegradable (according to OECD criteria)			

1760-24-3	N-(3-(trimethoxysilyl)propyl)ethylenediamine			
	EU Method C.4-A	39	28	REACH Dossier
	Not easily bio-degradable (according to OECD-criteria).			
54068-28-9	dioctylbis(pentane-2,4-dionato-O,O')tin			
	OECD 301F / ISO 9408 / EEC 92/69 annex V, C.4-D	9 %	28	REACH Dossier
	Not easily bio-degradable (according to OECD-criteria).			
3069-29-2	N-[3-(dimethoxymethylsilyl)propyl]ethylenediamine			
	OECD 301B / ISO 9439 / EEC 92/69 annex V, C.4-C	18 - 22 %	28	REACH Dossier
	Not easily bio-degradable (according to OECD-criteria).			

12.3. Bioaccumulative potential

Partition coefficient n-octanol/water

CAS No	Chemical name	Log Pow
2768-02-7	trimethoxyvinylsilane; trimethoxy(vinyl)silane	-0,82
1760-24-3	N-(3-(trimethoxysilyl)propyl)ethylenediamine	-4
54068-28-9	dioctylbis(pentane-2,4-dionato-O,O')tin	ca. 9,259
3069-29-2	N-[3-(dimethoxymethylsilyl)propyl]ethylenediamine	1

12.4. Mobility in soil

No data 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.
The aforementioned statement applies to substances contained in the product with a minimum content of 0.1%.

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.
The aforementioned statement applies to substances contained in the product with a minimum content of 0.1%.

12.7. Other adverse effects

No data available.

Further information

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

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Disposal recommendations

Observe in addition any national regulations! Consult the local waste disposal expert about waste disposal.
Non-contaminated packages may be recycled.
According to (EWC) European Waste Catalogue, allocation of waste identity numbers/waste descriptions must be carried out in a specific way for every industry and process.
Control report for waste code/ waste marking according to (EWC) European Waste Catalogue:

List of Wastes Code - residues/unused products

080410 WASTES FROM THE MANUFACTURE, FORMULATION, SUPPLY AND USE (MFSU) OF COATINGS (PAINTS, VARNISHES AND VITREOUS ENAMELS), ADHESIVES, SEALANTS AND PRINTING INKS; wastes from MFSU of adhesives and sealants (including waterproofing products); waste adhesives and sealants other than those mentioned in 08 04 09

List of Wastes Code - used product

080410 WASTES FROM THE MANUFACTURE, FORMULATION, SUPPLY AND USE (MFSU) OF COATINGS (PAINTS, VARNISHES AND VITREOUS ENAMELS), ADHESIVES, SEALANTS AND PRINTING INKS; wastes from MFSU of adhesives and sealants (including waterproofing products); waste adhesives and sealants other than those mentioned in 08 04 09

List of Wastes Code - contaminated packaging

150106 WASTE PACKAGING; ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED; packaging (including separately collected municipal packaging waste); mixed packaging

Contaminated packaging

Handle contaminated packages in the same way as the substance itself.

SECTION 14: Transport information

Land transport (ADR/RID)

14.1. UN number or ID number:	No dangerous good in sense of these transport regulations.
14.2. UN proper shipping name:	No dangerous good in sense of these transport regulations.
14.3. Transport hazard class(es):	No dangerous good in sense of these transport regulations.
14.4. Packing group:	No dangerous good in sense of these transport regulations.

Inland waterways transport (ADN)

14.1. UN number or ID number:	No dangerous good in sense of these transport regulations.
14.2. UN proper shipping name:	No dangerous good in sense of these transport regulations.
14.3. Transport hazard class(es):	No dangerous good in sense of these transport regulations.
14.4. Packing group:	No dangerous good in sense of these transport regulations.

Marine transport (IMDG)

14.1. UN number or ID number:	No dangerous good in sense of these transport regulations.
14.2. UN proper shipping name:	No dangerous good in sense of these transport regulations.
14.3. Transport hazard class(es):	No dangerous good in sense of these transport regulations.

Air transport (ICAO-TI/IATA-DGR)

14.1. UN number or ID number:	No dangerous good in sense of these transport regulations.
14.2. UN proper shipping name:	No dangerous good in sense of these transport regulations.
14.3. Transport hazard class(es):	No dangerous good in sense of these transport regulations.

14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: No

14.6. Special precautions for user

refer to section 6 - 8

14.7. Maritime transport in bulk according to IMO instruments

not relevant

SECTION 15: Regulatory information

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

EU regulatory information

Restrictions on use (REACH, annex XVII):

Entry 20, Entry 40, Entry 52, Entry 75

Directive 2010/75/EU on industrial emissions:	not determined
Directive 2004/42/EC on VOC in paints and varnishes:	not determined
Information according to Directive 2012/18/EU (SEVESO III):	Not subject to 2012/18/EU (SEVESO III)

Additional information

Safety Data Sheet according to Regulation (EC) No. 1907/2006 (amended by Regulation (EU) No 2020/878)
This mixture is classified as not hazardous according to Regulation (EC) 1272/2008 [CLP].
REACH 1907/2006 Appendix XVII, No (mixture):
20: dioctylbis(pentane-2,4-dionato-O,O')tin
52: Di-"isononyl" phthalate

National regulatory information

Water hazard class (D): 1 - slightly hazardous to water

15.2. Chemical safety assessment

For the following substances of this mixture a chemical safety assessment has been carried out:
trimethoxyvinylsilane; trimethoxy(vinyl)silane
N-(3-(trimethoxysilyl)propyl)ethylenediamine
N-[3-(dimethoxymethylsilyl)propyl]ethylenediamine

SECTION 16: Other information

Changes

Rev. 1,0; Initial release: 05.11.2021
Rev. 2,0; Revision: 30.08.2024; Changes in section: 1 - 16

Abbreviations and acronyms

Flam. Liq: Flammable liquid
Acute Tox: Acute toxicity
Skin Irrit: Skin irritation
Eye Dam: Eye damage
Skin Sens: Skin sensitisation
STOT SE: Specific target organ toxicity - single exposure
STOT RE: Specific target organ toxicity - repeated exposure
ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
CAS: Chemical Abstracts Service
CLP: Classification, Labelling and Packaging of substances and mixtures
DNEL: Derived No Effect Level
d: day(s)
EINECS: European INventory of Existing Commercial chemical Substances
ELINCS: European LIst of Notified Chemical Substances
ECHA: European Chemicals Agency
EWC: European Waste Catalogue
IARC: INTERNATIONAL AGENCY FOR RESEARCH ON CANCER
IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)
ICAO: International Civil Aviation Organization
ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO)
GHS: Globally Harmonized System of Classification and Labelling of Chemicals
GefStoffV: Gefahrstoffverordnung (Ordinance on Hazardous Substances, Germany)
h: hour
LOAEL: Lowest observed adverse effect level
LOAEC: Lowest observed adverse effect concentration
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
NOAEL: No observed adverse effect level
NOAEC: No observed adverse effect concentration
NLP: No-Longer Polymers
N/A: not applicable
OECD: Organisation for Economic Co-operation and Development
PNEC: predicted no effect concentration
PBT: Persistent bioaccumulative toxic
RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
REACH: Registration, Evaluation, Authorisation of Chemicals
SVHC: substance of very high concern
TRGS: Technische Regeln für Gefahrstoffe
UN: United Nations
VOC: Volatile Organic Compounds
WGK: Water Hazard Class (Germany)

Relevant H and EUH statements (number and full text)

H226	Flammable liquid and vapour.
H302	Harmful if swallowed.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H332	Harmful if inhaled.
H371	May cause damage to organs.
H373	May cause damage to organs through prolonged or repeated exposure.

EUH208	Contains trimethoxyvinylsilane; trimethoxy(vinyl)silane, N-(3 -(trimethoxysilyl)propyl)ethylenediamine, N-[3 -(dimethoxymethylsilyl)propyl]ethylenediamine, dioctylbis(pentane-2,4-dionato-O,O')tin. May produce an allergic reaction.
EUH210	Safety data sheet available on request.

Further Information

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.

(The data for the relevant ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)