

Safety Data Sheet

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This Safety Data Sheet has been prepared in accordance with the REACH Regulation (EC) 1907/2006 and its modifications.

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

1.1. Product identifier

BOARD-FIX

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

Identified uses

Sealant.

1.3. Details of the supplier of the safety data sheet

Address: EMFI S.A.S, 3 rue Ettore Bugatti, C.S. 40030, 67501 HAGUENAU Cédex, France
Telephone: + 33 (0)3 88 90 60 00
E Mail: emfi.sdsquestions@mmm.com
Website: <http://www.emfi.com>

1.4. Emergency telephone number

ORFILA: +33 (0)1 45 42 59 59 (in France) or your local poison control center

SECTION 2: Hazard identification

2.1. Classification of the substance or mixture

CLP REGULATION (EC) No 1272/2008

The health and environmental classifications of this material have been derived using the calculation method, except in cases where test data are available or the physical form impacts classification. Classification(s) based on test data or physical form are noted below, if applicable.

The carcinogenicity classification for titanium dioxide is not applicable based on physical form (material is not a powder).

CLASSIFICATION:

Hazardous to the Aquatic Environment (Chronic), Category 3 - Aquatic Chronic 3; H412

For full text of H phrases, see Section 16.

2.2. Label elements

CLP REGULATION (EC) No 1272/2008

HAZARD STATEMENTS:

H412 Harmful to aquatic life with long lasting effects.

SUPPLEMENTAL INFORMATION:**Supplemental Hazard Statements:**

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

EUH208 Contains Tin, dioctylbis(2,4-pentanedionato-κO2,κO4)-. | Trimethoxyvinylsilane. | N-(3-(Trimethoxysilyl)propyl)ethylenediamine. May produce an allergic reaction.

2% of the mixture consists of components of unknown acute oral toxicity.

Contains 32% of components with unknown hazards to the aquatic environment.

2.3. Other hazards

None known.

SECTION 3: Composition/information on ingredients**3.1. Substances**

Not applicable

3.2. Mixtures

Ingredient	Identifier(s)	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Calcium carbonate	(CAS-No.) 471-34-1 (EC-No.) 207-439-9	30 - 60	Substance with a national occupational exposure limit
Oxide glass chemicals	(CAS-No.) 65997-17-3 (EC-No.) 266-046-0	3 - 7	Substance with a national occupational exposure limit
Titanium dioxide	(CAS-No.) 13463-67-7 (EC-No.) 236-675-5 (REACH-No.) 01-2119489379-17	1 - 5	Carc. 2, H351 (inhalation)
Carbon black	(CAS-No.) 1333-86-4 (EC-No.) 215-609-9 (REACH-No.) 01-2119384822-32	< 3	Substance with a national occupational exposure limit

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Tin, dioctylbis(2,4-pentanedionato-κO2,κO4)-	(CAS-No.) 54068-28-9 (EC-No.) ELINCS 483-270-6 (REACH-No.) 01-0000020199-67	< 1	Skin Sens. 1B, H317 Repr. 2, H361d Aquatic Chronic 2, H411
Trimethoxyvinylsilane	(CAS-No.) 2768-02-7 (EC-No.) 220-449-8 (REACH-No.) 01-2119513215-52	< 1	Skin Sens. 1B, H317 Flam. Liq. 3, H226 Acute Tox. 4, H332
N-(3-(Trimethoxysilyl)propyl)ethylenediamine	(CAS-No.) 1760-24-3 (EC-No.) 217-164-6 (REACH-No.) 01-2119970215-39	< 1	Acute Tox. 4, H332 Acute Tox. 4, H302 Eye Dam. 1, H318 Skin Sens. 1, H317 STOT RE 2, H373
Bis(1,2,2,6,6-pentamethyl-4-piperidyl)[[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]methyl]butylmalonate	(CAS-No.) 63843-89-0 (EC-No.) 264-513-3 (REACH-No.) 01-2119978231-37	< 0.1	Aquatic Chronic 1, H410, M=10 Acute Tox. 4, H302

Please see section 16 for the full text of any H statements referred to in this section

For information on ingredient occupational exposure limits or PBT or vPvB status, see sections 8 and 12 of this SDS

SECTION 4: First aid measures**4.1. Description of first aid measures****Inhalation**

Remove person to fresh air. If you feel unwell, get medical attention.

Skin contact

Immediately wash with soap and water. Remove contaminated clothing and wash before reuse. If signs/symptoms develop, get medical attention.

Eye contact

No need for first aid is anticipated.

If swallowed

Rinse mouth. If you feel unwell, get medical attention.

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

No critical symptoms or effects. See Section 11.1, information on toxicological effects.

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

Not applicable.

SECTION 5: Fire-fighting measures

5.1. Extinguishing media

In case of fire: Use a fire fighting agent suitable for ordinary combustible material such as water or foam to extinguish.

5.2. Special hazards arising from the substance or mixture

None inherent in this product.

Hazardous Decomposition or By-Products**Substance**

Carbon monoxide

Carbon dioxide.

Condition

During combustion.

During combustion.

5.3. Advice for fire-fighters

Wear full protective clothing, including helmet, self-contained, positive pressure or pressure demand breathing apparatus, bunker coat and pants, bands around arms, waist and legs, face mask, and protective covering for exposed areas of the head.

SECTION 6: Accidental release measures**6.1. Personal precautions, protective equipment and emergency procedures**

Evacuate area. Ventilate the area with fresh air. For large spill, or spills in confined spaces, provide mechanical ventilation to disperse or exhaust vapours, in accordance with good industrial hygiene practice. Refer to other sections of this SDS for information regarding physical and health hazards, respiratory protection, ventilation, and personal protective equipment.

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

Collect as much of the spilled material as possible. Place in a closed container approved for transportation by appropriate authorities. Clean up residue. Seal the container. Dispose of collected material as soon as possible.

6.4. Reference to other sections

Refer to Section 8 and Section 13 for more information

SECTION 7: Handling and storage**7.1. Precautions for safe handling**

Do not handle until all safety precautions have been read and understood. Do not breathe dust/fume/gas/mist/vapours/spray. Do not get in eyes, on skin, or on clothing. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace. Avoid release to the environment. Wash contaminated clothing before reuse. Avoid contact with oxidising agents (eg. chlorine, chromic acid etc.) Use personal protective equipment (eg. gloves, respirators...) as required.

7.2. Conditions for safe storage including any incompatibilities

Store away from acids. Store away from oxidising agents.

7.3. Specific end use(s)

See information in Section 7.1 and 7.2 for handling and storage recommendations. See Section 8 for exposure controls and personal protection recommendations.

SECTION 8: Exposure controls/personal protection**8.1 Control parameters****Occupational exposure limits**

If a component is disclosed in section 3 but does not appear in the table below, an occupational exposure limit is not available for the component.

Ingredient	CAS Nbr	Agency	Limit type	Additional comments
Carbon black	1333-86-4	UK HSC	TWA: 3.5 mg/m ³ ; STEL: 7 mg/m ³	
Titanium dioxide	13463-67-7	UK HSC	TWA(respirable):4 mg/m ³ ;TWA(Inhalable):10 mg/m ³	
Limestone	471-34-1	UK HSC	TWA(respirable):4 mg/m ³ ;TWA(as respirable dust):4 mg/m ³ ;TWA(Inhalable):10 mg/m ³ ;TWA(as inhalable dust):10 mg/m ³	
Glass, oxide, chemicals	65997-17-3	UK HSC	TWA(as fiber):5 mg/m ³ (1 fibers/ml)	
Oxide glass chemicals	65997-17-3	Manufacturer determined	TWA(as non-fibrous, respirable)(8 hours):3 mg/m ³ ;TWA(as non-fibrous, inhalable fraction)(8 hours):10 mg/m ³	

UK HSC : UK Health and Safety Commission
TWA: Time-Weighted-Average
STEL: Short Term Exposure Limit
CEIL: Ceiling

Biological limit values

No biological limit values exist for any of the components listed in Section 3 of this safety data sheet.

Recommended monitoring procedures:Information on recommended monitoring procedures can be obtained from UK HSC

8.2. Exposure controls

8.2.1. Engineering controls

Use general dilution ventilation and/or local exhaust ventilation to control airborne exposures to below relevant Exposure Limits and/or control dust/fume/gas/mist/vapours/spray. If ventilation is not adequate, use respiratory protection equipment.

8.2.2. Personal protective equipment (PPE)

Eye/face protection

Select and use eye/face protection to prevent contact based on the results of an exposure assessment. The following eye/face protection(s) are recommended:
Safety glasses with side shields.

Applicable Norms/Standards

Use eye protection conforming to EN 166

Skin/hand protection

Select and use gloves and/or protective clothing approved to relevant local standards to prevent skin contact based on the results of an exposure assessment. Selection should be based on use factors such as exposure levels, concentration of the substance or mixture, frequency and duration, physical challenges such as temperature extremes, and other use conditions. Consult with your glove and/or protective clothing manufacturer for selection of appropriate compatible gloves/protective clothing. Note: Nitrile gloves may be worn over polymer laminate gloves to improve dexterity. Gloves made from the following material(s) are recommended:

Material	Thickness (mm)	Breakthrough Time
Polymer laminate	No data available	No data available

Applicable Norms/Standards

Use gloves tested to EN 374

Respiratory protection

An exposure assessment may be needed to decide if a respirator is required. If a respirator is needed, use respirators as part of a full respiratory protection program. Based on the results of the exposure assessment, select from the following respirator type(s) to reduce inhalation exposure:

Half facepiece or full facepiece air-purifying respirator suitable for organic vapours and particulates

For questions about suitability for a specific application, consult with your respirator manufacturer.

Applicable Norms/Standards

Use a respirator conforming to EN 140 or EN 136: filter types A & P

SECTION 9: Physical and chemical properties**9.1. Information on basic physical and chemical properties**

Physical state	Solid.
Specific Physical Form:	Paste
Colour	Black, Grey, White
Odor	Light Odor
Odour threshold	<i>No data available.</i>
Melting point/freezing point	<i>No data available.</i>
Boiling point/boiling range	≥ 120 °C
Flammability (solid, gas)	Not classified
Flammable Limits(LEL)	0.7 % volume
Flammable Limits(UEL)	<i>No data available.</i>
Flash point	91 °C [<i>Test Method:ISO Method</i>] [<i>Details:ISO 3679</i>]
Autoignition temperature	<i>No data available.</i>
Decomposition temperature	<i>No data available.</i>
pH	
Kinematic Viscosity	<i>Not applicable.</i>
Water solubility	Immiscible
Solubility- non-water	<i>No data available.</i>
Partition coefficient: n-octanol/water	<i>No data available.</i>
Vapour pressure	<i>No data available.</i>
Density	<i>No data available.</i>
Relative density	1.34 [<i>Ref Std:WATER=1</i>]
Relative Vapor Density	<i>No data available.</i>

9.2. Other information

9.2.2 Other safety characteristics

EU Volatile Organic Compounds
Evaporation rate
Percent volatile

No data available.
No data available.
No data available.

SECTION 10: Stability and reactivity

10.1 Reactivity

This material may be reactive with certain agents under certain conditions - see the remaining headings in this section

10.2 Chemical stability

Stable.

10.3 Possibility of hazardous reactions

Hazardous polymerisation will not occur.

10.4 Conditions to avoid

Not determined

10.5 Incompatible materials

Not determined

10.6 Hazardous decomposition products

Substance
Methanol

Condition
Moisture.

Refer to section 5.2 for hazardous decomposition products during combustion.

SECTION 11: Toxicological information

The information below may not agree with the EU material classification in Section 2 and/or the ingredient classifications in Section 3 if specific ingredient classifications are mandated by a competent authority. In addition, statements and data presented in Section 11 are based on UN GHS calculation rules and classifications derived from internal hazard assessments.

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

Signs and Symptoms of Exposure

Based on test data and/or information on the components, this material may produce the following health effects:

Inhalation

No known health effects.

Skin contact

Contact with the skin during product use is not expected to result in significant irritation. Allergic skin reaction (non-photo induced): Signs/symptoms may include redness, swelling, blistering, and itching.

Eye contact

Contact with the eyes during product use is not expected to result in significant irritation.

Ingestion

Gastrointestinal irritation: Signs/symptoms may include abdominal pain, stomach upset, nausea, vomiting and diarrhoea. May cause additional health effects (see below).

Additional Health Effects:

Reproductive/Developmental Toxicity:

Contains a chemical or chemicals which can cause birth defects or other reproductive harm.

Toxicological Data

If a component is disclosed in section 3 but does not appear in a table below, either no data are available for that endpoint or the data are not sufficient for classification.

Acute Toxicity

Name	Route	Species	Value
Overall product	Ingestion		No data available; calculated ATE >5,000 mg/kg
Calcium carbonate	Dermal	Rat	LD50 > 2,000 mg/kg
Calcium carbonate	Inhalation-Dust/Mist (4 hours)	Rat	LC50 3 mg/l
Calcium carbonate	Ingestion	Rat	LD50 6,450 mg/kg
Oxide glass chemicals	Dermal		LD50 estimated to be > 5,000 mg/kg
Oxide glass chemicals	Ingestion		LD50 estimated to be 2,000 - 5,000 mg/kg
Titanium dioxide	Dermal	Rabbit	LD50 > 10,000 mg/kg
Titanium dioxide	Inhalation-Dust/Mist (4 hours)	Rat	LC50 > 6.82 mg/l
Titanium dioxide	Ingestion	Rat	LD50 > 10,000 mg/kg
Carbon black	Dermal	Rabbit	LD50 > 3,000 mg/kg
Carbon black	Ingestion	Rat	LD50 > 8,000 mg/kg
N-(3-(Trimethoxysilyl)propyl)ethylenediamine	Dermal	Rabbit	LD50 > 2,000 mg/kg
N-(3-(Trimethoxysilyl)propyl)ethylenediamine	Inhalation-Dust/Mist (4 hours)	Rat	LC50 >1.49, <2.44 mg/l
N-(3-(Trimethoxysilyl)propyl)ethylenediamine	Ingestion	Rat	LD50 1,897 mg/kg
Trimethoxyvinylsilane	Dermal	Rabbit	LD50 3,260 mg/kg
Trimethoxyvinylsilane	Inhalation-Vapour (4 hours)	Rat	LC50 16.8 mg/l
Trimethoxyvinylsilane	Ingestion	Rat	LD50 7,120 mg/kg

ATE = acute toxicity estimate

Skin Corrosion/Irritation

Name	Species	Value
Calcium carbonate	Rabbit	No significant irritation
Oxide glass chemicals	Professional judgement	No significant irritation
Titanium dioxide	Rabbit	No significant irritation
Carbon black	Rabbit	No significant irritation
N-(3-(Trimethoxysilyl)propyl)ethylenediamine	Rabbit	Mild irritant
Trimethoxyvinylsilane	Rabbit	Minimal irritation

Serious Eye Damage/Irritation

Name	Species	Value
Calcium carbonate	Rabbit	No significant irritation
Oxide glass chemicals	Professional judgement	No significant irritation
Titanium dioxide	Rabbit	No significant irritation
Carbon black	Rabbit	No significant irritation
N-(3-(Trimethoxysilyl)propyl)ethylenediamine	Rabbit	Corrosive
Trimethoxyvinylsilane	Rabbit	No significant irritation

Skin Sensitisation

Name	Species	Value
Titanium dioxide	Human and animal	Not classified
N-(3-(Trimethoxysilyl)propyl)ethylenediamine	Multiple animal species	Sensitising
Trimethoxyvinylsilane	Guinea pig	Not classified
Tin, dioctylbis(2,4-pentanedionato-κO2,κO4)-	Mouse	Sensitising

Respiratory Sensitisation

For the component/components, either no data is currently available or the data is not sufficient for classification.

Germ Cell Mutagenicity

Name	Route	Value
Oxide glass chemicals	In Vitro	Some positive data exist, but the data are not sufficient for classification
Titanium dioxide	In Vitro	Not mutagenic
Titanium dioxide	In vivo	Not mutagenic
Carbon black	In Vitro	Not mutagenic
Carbon black	In vivo	Some positive data exist, but the data are not sufficient for classification
Trimethoxyvinylsilane	In vivo	Not mutagenic
Trimethoxyvinylsilane	In Vitro	Some positive data exist, but the data are not sufficient for classification

Carcinogenicity

Name	Route	Species	Value
Oxide glass chemicals	Inhalation	Multiple animal species	Some positive data exist, but the data are not sufficient for classification
Titanium dioxide	Ingestion	Multiple animal species	Not carcinogenic
Titanium dioxide	Inhalation	Rat	Carcinogenic.
Carbon black	Dermal	Mouse	Not carcinogenic
Carbon black	Ingestion	Mouse	Not carcinogenic
Carbon black	Inhalation	Rat	Carcinogenic.

Reproductive Toxicity**Reproductive and/or Developmental Effects**

Name	Route	Value	Species	Test result	Exposure Duration
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Calcium carbonate	Ingestion	Not classified for development	Rat	NOAEL 625 mg/kg/day	prematuring & during gestation
Trimethoxyvinylsilane	Ingestion	Not classified for male reproduction	Rat	NOAEL 1,000 mg/kg/day	prematuring into lactation
Trimethoxyvinylsilane	Ingestion	Not classified for development	Rat	NOAEL 1,000 mg/kg/day	prematuring into lactation
Trimethoxyvinylsilane	Ingestion	Not classified for female reproduction	Rat	NOAEL 1,000 mg/kg/day	prematuring into lactation
Trimethoxyvinylsilane	Inhalation	Not classified for development	Rat	NOAEL 1.8 mg/l	during organogenesis
Tin, dioctylbis(2,4-pentanedionato-κO2,κO4)-	Ingestion	Toxic to development	Rat	NOAEL 1.8 mg/kg/day	prematuring into lactation

Target Organ(s)

Specific Target Organ Toxicity - single exposure

Name	Route	Target Organ(s)	Value	Species	Test result	Exposure Duration
Calcium carbonate	Inhalation	respiratory system	Not classified	Rat	NOAEL 0.812 mg/l	90 minutes

Specific Target Organ Toxicity - repeated exposure

Name	Route	Target Organ(s)	Value	Species	Test result	Exposure Duration
Calcium carbonate	Inhalation	respiratory system	Not classified	Human	NOAEL Not available	occupational exposure
Oxide glass chemicals	Inhalation	respiratory system	Not classified	Human	NOAEL not available	occupational exposure
Titanium dioxide	Inhalation	respiratory system	Some positive data exist, but the data are not sufficient for classification	Rat	LOAEL 0.01 mg/l	2 years
Titanium dioxide	Inhalation	pulmonary fibrosis	Not classified	Human	NOAEL Not available	occupational exposure
Carbon black	Inhalation	pneumoconiosis	Not classified	Human	NOAEL Not available	occupational exposure
N-(3-(Trimethoxysilyl)propyl)ethylenediamine	Inhalation	respiratory system	May cause damage to organs though prolonged or repeated exposure	Rat	NOAEL 0.015 mg/l	90 days
Trimethoxyvinylsilane	Inhalation	kidney and/or bladder	Not classified	Rat	NOAEL mg/l	14 weeks
Trimethoxyvinylsilane	Inhalation	hematopoietic system eyes	Not classified	Rat	NOAEL 2.4 mg/l	14 weeks
Trimethoxyvinylsilane	Ingestion	kidney and/or bladder	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 250 mg/kg/day	40 days
Trimethoxyvinylsilane	Ingestion	endocrine system hematopoietic system liver immune system	Not classified	Rat	NOAEL 1,000 mg/kg/day	40 days

Aspiration Hazard

For the component/components, either no data is currently available or the data is not sufficient for classification.

Please contact the address or phone number listed on the first page of the SDS for additional toxicological information on this material and/or its components.

11.2. Information on other hazards

This material does not contain any substances that are assessed to be an endocrine disruptor for human health.

SECTION 12: Ecological information

The information below may not agree with the EU material classification in Section 2 and/or the ingredient classifications in Section 3 if specific ingredient classifications are mandated by a competent authority. In addition, statements and data presented in Section 12 are based on UN GHS calculation rules and classifications derived from 3M assessments.

12.1. Toxicity

No product test data available.

Material	CAS #	Organism	Type	Exposure	Test endpoint	Test result
Calcium carbonate	471-34-1	Green algae	Experimental	72 hours	EC50	>100 mg/l
Calcium carbonate	471-34-1	Rainbow trout	Experimental	96 hours	LC50	>100 mg/l
Calcium carbonate	471-34-1	Water flea	Experimental	48 hours	EC50	>100 mg/l
Calcium carbonate	471-34-1	Green algae	Experimental	72 hours	EC10	100 mg/l
Oxide glass chemicals	65997-17-3	Green algae	Experimental	72 hours	EC50	>1,000 mg/l
Oxide glass chemicals	65997-17-3	Water flea	Experimental	72 hours	EC50	>1,000 mg/l
Oxide glass chemicals	65997-17-3	Zebra Fish	Experimental	96 hours	LC50	>1,000 mg/l
Oxide glass chemicals	65997-17-3	Green algae	Experimental	72 hours	NOEC	>=1,000 mg/l
Titanium dioxide	13463-67-7	Activated sludge	Experimental	3 hours	NOEC	>=1,000 mg/l
Titanium dioxide	13463-67-7	Diatom	Experimental	72 hours	EC50	>10,000 mg/l
Titanium dioxide	13463-67-7	Fathead minnow	Experimental	96 hours	LC50	>100 mg/l
Titanium dioxide	13463-67-7	Water flea	Experimental	48 hours	EC50	>100 mg/l
Titanium dioxide	13463-67-7	Diatom	Experimental	72 hours	NOEC	5,600 mg/l
Carbon black	1333-86-4	Activated sludge	Experimental	3 hours	EC50	>=100 mg/l
Carbon black	1333-86-4		Data not available or insufficient for classification			N/A
N-(3-(Trimethoxysilyl)propyl)ethylenediamine	1760-24-3	Bacteria	Experimental	16 hours	EC50	67 mg/l
N-(3-(Trimethoxysilyl)propyl)ethylenediamine	1760-24-3	Fathead minnow	Experimental	96 hours	LC50	168 mg/l
N-(3-(Trimethoxysilyl)propyl)ethylenediamine	1760-24-3	Green Algae	Experimental	72 hours	EC50	8.8 mg/l
N-(3-(Trimethoxysilyl)propyl)ethylenediamine	1760-24-3	Water flea	Experimental	48 hours	EC50	81 mg/l
N-(3-(Trimethoxysilyl)propyl)ethylenediamine	1760-24-3	Green Algae	Experimental	72 hours	NOEC	3.1 mg/l
Tin, dioctylbis(2,4-pentanedionato-	54068-28-9	Water flea	Estimated	24 hours	EC50	1.3 mg/l

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κO2,κO4)-						
Tin, dioctylbis(2,4-pentanedionato-κO2,κO4)-	54068-28-9	Water flea	Estimated	21 days	NOEC	0.52 mg/l
Trimethoxyvinylsilane	2768-02-7	Bacteria	Experimental	5 hours	EC10	1.1 mg/l
Trimethoxyvinylsilane	2768-02-7	Green algae	Experimental	72 hours	EC50	>957 mg/l
Trimethoxyvinylsilane	2768-02-7	Rainbow trout	Experimental	96 hours	LC50	191 mg/l
Trimethoxyvinylsilane	2768-02-7	Water flea	Experimental	48 hours	EC50	169 mg/l
Trimethoxyvinylsilane	2768-02-7	Green algae	Experimental	72 hours	NOEC	957 mg/l
Trimethoxyvinylsilane	2768-02-7	Water flea	Experimental	21 days	NOEC	28 mg/l
Bis(1,2,2,6,6-pentamethyl-4-piperidyl)[[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]methyl]butylmalonate	63843-89-0	Activated sludge	Experimental	3 hours	IC20	>100 mg/l
Bis(1,2,2,6,6-pentamethyl-4-piperidyl)[[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]methyl]butylmalonate	63843-89-0	Water flea	Experimental	21 days	NOEC	0.002 mg/l

12.2. Persistence and degradability

Material	CAS Nbr	Test type	Duration	Study Type	Test result	Protocol
Calcium carbonate	471-34-1	Data not available - insufficient			N/A	
Oxide glass chemicals	65997-17-3	Data not available - insufficient			N/A	
Titanium dioxide	13463-67-7	Data not available - insufficient			N/A	
Carbon black	1333-86-4	Data not available - insufficient			N/A	
N-(3-(Trimethoxysilyl)propyl)ethylenediamine	1760-24-3	Experimental Hydrolysis		Hydrolytic half-life	1.5 minutes (t 1/2)	Non-standard method
N-(3-(Trimethoxysilyl)propyl)ethylenediamine	1760-24-3	Experimental Biodegradation	28 days	Dissolv. Organic Carbon Deplet	39 % weight	Non-standard method
Tin, dioctylbis(2,4-pentanedionato-κO2,κO4)-	54068-28-9	Data not available - insufficient			N/A	
Trimethoxyvinylsilane	2768-02-7	Experimental Biodegradation	28 days	BOD	51 % BOD/ThBOD	OECD 301F - Manometric respirometry
Bis(1,2,2,6,6-pentamethyl-4-piperidyl)[[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]methyl]butylmalonate	63843-89-0	Experimental Biodegradation	28 days	CO2 evolution	2 % weight	OECD 301B - Modified sturm or CO2

12.3 : Bioaccumulative potential

BOARD-FIX

Material	Cas No.	Test type	Duration	Study Type	Test result	Protocol
Calcium carbonate	471-34-1	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Oxide glass chemicals	65997-17-3	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Titanium dioxide	13463-67-7	Experimental BCF-Carp	42 days	Bioaccumulation factor	9.6	Non-standard method
Carbon black	1333-86-4	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
N-(3-(Trimethoxysilyl)propyl)ethylenediamine	1760-24-3	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Tin, dioctylbis(2,4-pentanedionato-κO2,κO4)-	54068-28-9	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Trimethoxyvinylsilane	2768-02-7	Estimated Bioconcentration		Log Kow	-2	Non-standard method
Bis(1,2,2,6,6-pentamethyl-4-piperidyl)[[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]methyl]butylmalonate	63843-89-0	Experimental BCF-Carp	60 days	Bioaccumulation factor	≤437.1	OECD 305C-Bioaccum degree fish

12.4. Mobility in soil

Material	Cas No.	Test type	Study Type	Test result	Protocol
Trimethoxyvinylsilane	2768-02-7	Estimated Mobility in Soil	Koc	650 l/kg	Episuite™
Bis(1,2,2,6,6-pentamethyl-4-piperidyl)[[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]methyl]butylmalonate	63843-89-0	Estimated Mobility in Soil	Koc	≥4 l/kg	ACD/Labs ChemSketch™

12.5. Results of the PBT and vPvB assessment

This material does not contain any substances that are assessed to be a PBT or vPvB

12.6. Endocrine disrupting properties

This material does not contain any substances that are assessed to be an endocrine disruptor for environmental effects

12.7. Other adverse effects

No information available.

SECTION 13: Disposal considerations**13.1 Waste treatment methods**

Dispose of contents/ container in accordance with the local/regional/national/international regulations.

Dispose of waste product in a permitted industrial waste facility. As a disposal alternative, incinerate in a permitted waste incineration facility. Proper destruction may require the use of additional fuel during incineration processes. Empty drums/barrels/containers used for transporting and handling hazardous chemicals (chemical substances/mixtures/preparations

classified as Hazardous as per applicable regulations) shall be considered, stored, treated & disposed of as hazardous wastes unless otherwise defined by applicable waste regulations. Consult with the respective regulating authorities to determine the available treatment and disposal facilities.

The coding of a waste stream is based on the application of the product by the consumer. Since this is out of the control of the manufacturer, no waste code(s) for products after use will be provided. Please refer to the European Waste Code (EWC - 2000/532/CE and amendments) to assign the correct waste code to your waste stream. Ensure national and/or regional regulations are complied with and always use a licensed waste contractor

EU waste code (product as sold)

08 04 09* Waste adhesives and sealants containing organic solvents or other dangerous substances

SECTION 14: Transportation information

Not regulated for transportation.

SECTION 15: Regulatory information**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture****Carcinogenicity**

<u>Ingredient</u>	<u>CAS Nbr</u>	<u>Classification</u>	<u>Regulation</u>
Carbon black	1333-86-4	Grp. 2B: Possible human carc.	International Agency for Research on Cancer
Titanium dioxide	13463-67-7	Grp. 2B: Possible human carc.	International Agency for Research on Cancer

Global inventory status

Contact manufacturer for more information

15.2. Chemical Safety Assessment

A chemical safety assessment has not been carried out for this mixture. Chemical safety assessments for the contained substances may have been carried out by the registrants of the substances in accordance with Regulation (EC) No 1907/2006, as amended.

SECTION 16: Other information**List of relevant H statements**

H226	Flammable liquid and vapour.
H302	Harmful if swallowed.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H332	Harmful if inhaled.

H351i	Suspected of causing cancer by inhalation.
H361d	Suspected of damaging the unborn child.
H373	May cause damage to organs through prolonged or repeated exposure.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

Revision information:

No revision information

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