

# Joint & Stick MSDS

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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

<b>1.1. Product identifier</b>	Cordek Joint & Stick
<b>UFI</b>	HF40-N0K4-T003-FQU4
<b>1.2. Relevant identified uses of the substance or mixture and uses advised against</b>	<b>Identified uses:</b> Sealant
<b>1.3. Details of the supplier of the safety data sheet</b>	<b>Address:</b> Cordek Limited, Spring Copse Business Park, Slinfold, West Sussex, RH13 0SZ, United Kingdom <b>Telephone:</b> +44 (0)1403 799600 <b>E Mail:</b> info@cordek.com <b>Website:</b> cordek.com
<b>1.4. Emergency telephone number</b>	01403 799600 (in the UK) or your local poison control center

## SECTION 2: HAZARD IDENTIFICATION

<b>2.1. Classification of the substance or mixture</b>	<b>CLP REGULATION (EC) No 1272/2008</b> 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).
<b>CLASSIFICATION</b>	Hazardous to the Aquatic Environment (Chronic), Category 3 - Aquatic Chronic 3; H412 For full text of H phrases, see Section 16.
<b>2.2. Label elements</b>	<b>CLP REGULATION (EC) No 1272/2008</b>
<b>HAZARD STATEMENTS</b>	H412      Harmful to aquatic life with long lasting effects.
<b>PRECAUTIONARY STATEMENTS</b>	<b>Disposal:</b> P501      Dispose of contents/container in accordance with applicable local/regional/national/international regulations.
<b>SUPPLEMENTAL INFORMATION:</b>	<b>Supplemental Hazard Statements:</b> 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.
<b>2.3. Other hazards</b>	None known. This material does not contain any substances that are assessed to be a PBT or vPvB



**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
1,2-Benzenedicarboxylic acid, di-C9-11-branched alkyl esters, C10-rich	(CAS-No.) 68515-49-1 (EC-No.) 271-091-4	10 - 30	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
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 STOT RE 1, H372 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 STOT RE 1, H372

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**

<b>4.1. Description of first aid measures</b>	<b>Inhalation</b>	Remove person to fresh air. If you feel unwell, get medical attention.
	<b>Skin contact</b>	Immediately wash with soap and water. Remove contaminated clothing and wash before reuse. If signs/symptoms develop, get medical attention.
	<b>Eye contact</b>	No need for first aid is anticipated.
	<b>If swallowed</b>	Rinse mouth. If you feel unwell, get medical attention.
<b>4.2. Most important symptoms and effects, both acute and delayed</b>	No critical symptoms or effects. See Section 11.1, information on toxicological effects.	
<b>4.3. Indication of any immediate medical attention and special treatment required</b>	Not applicable	

**SECTION 5: FIRE-FIGHTING MEASURES**

<b>5.1. Extinguishing media</b>	In case of fire: Use a fire fighting agent suitable for ordinary combustible material such as water or foam to extinguish.	
<b>5.2. Special hazards arising from the substance or mixture</b>	None inherent in this product.	
<b>Hazardous Decomposition or By-Products</b>	<b>Substance</b>	<b>Condition</b>
	Carbon monoxide Carbon dioxide	During combustion During combustion
<b>5.3. Advice for fire-fighters</b>	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**

<b>6.1. Personal precautions, protective equipment and emergency procedures</b>	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.
<b>6.2. Environmental precautions</b>	Avoid release to the environment.
<b>6.3. Methods and material for containment and cleaning up</b>	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.
<b>6.4. Reference to other sections</b>	Refer to Section 8 and Section 13 for more information

**SECTION 7: HANDLING AND STORAGE**

<b>7.1. Precautions for safe handling</b>	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.
<b>7.2. Conditions for safe storage including any incompatibilities</b>	Store away from acids. Store away from oxidising agents.
<b>7.3. Specific end use(s)</b>	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**

<b>8.1 Control parameters</b>	<b>Occupational exposure limits</b>			
	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.			
<b>Ingredient</b>	<b>CAS Nbr</b>	<b>Agency</b>	<b>Limit type</b>	<b>Additional comments</b>
Carbon black	1333-86-4	UK HSC	TWA: 3.5 mg/m <sup>3</sup> ; STEL: 7 mg/m <sup>3</sup>	
Titanium dioxide	13463-67-7	UK HSC	TWA(respirable):4 mg/m <sup>3</sup> ;TWA(Inhalable):10 mg/m <sup>3</sup>	
DUST, INERT OR NUISANCE	471-34-1	UK HSC	TWA(as respirable dust):4 mg/m <sup>3</sup> ;TWA(as inhalable dust):10 mg/m <sup>3</sup>	
Limestone	471-34-1	UK HSC	TWA(respirable):4 mg/m <sup>3</sup> ;TWA(as respirable dust):4 mg/m <sup>3</sup> ;TWA(Inhalable):10 mg/m <sup>3</sup> ;TWA(as inhalable dust):10 mg/m <sup>3</sup>	
Glass, oxide, chemicals	65997-17-3	UK HSC	TWA(as fiber):5 mg/m <sup>3</sup> (1fibers/ml)	
Oxide glass chemicals	65997-17-3	Manufacturer determined	TWA(as non-fibrous, respirable)(8 hours):3 mg/m <sup>3</sup> ;TWA(as non-fibrous, inhalable fraction)(8 hours):10 mg/m <sup>3</sup>	
1,2-Benzenedicarboxylic acid, 1,2-diisodecyl ester	68515-49-1	UK HSC	TWA:5 mg/m <sup>3</sup>	

**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:

<b>Material</b>	<b>Thickness (mm)</b>	<b>Breakthrough Time</b>
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**

<b>9.1. Information on basic physical and chemical properties</b>	<b>Physical state</b>	Solid
	<b>Specific Physical Form</b>	Paste
	<b>Colour</b>	Black, Grey, White
	<b>Odor</b>	Light Odor
	<b>Odour threshold</b>	<i>No data available.</i>
	<b>Melting point/freezing point</b>	<i>No data available.</i>
	<b>Boiling point/boiling range</b>	>=120 °C
	<b>Flammability (solid, gas)</b>	Not classified
	<b>Flammable Limits(LEL)</b>	0.7 % volume
	<b>Flammable Limits(UEL)</b>	<i>No data available.</i>
	<b>Flash point</b>	91 °C [ <i>Test Method:ISO Method</i> ] [ <i>Details:ISO 3679</i> ]
	<b>Autoignition temperature</b>	<i>No data available.</i>
	<b>Decomposition temperature)</b>	<i>No data available.</i>
	<b>pH</b>	<i>Substance/mixture is non-soluble (in water)</i>
	<b>Kinematic Viscosity</b>	<i>Not applicable.</i>
	<b>Water solubility</b>	Immiscible
	<b>Solubility-non-water</b>	<i>No data available.</i>
	<b>Partition coefficient: n-octanol/water</b>	<i>No data available.</i>
	<b>Vapour pressure</b>	<i>No data available.</i>
	<b>Density</b>	<i>No data available.</i>
<b>Relative density</b>	1.34 [ <i>Ref Std:WATER=1</i> ]	
<b>Relative Vapour Density</b>	<i>No data available.</i>	
<b>9.2. Other information</b>		
<b>9.2.2 Other safety characteristics</b>	<b>EU Volatile Organic Compounds</b>	<i>No data available.</i>
	<b>Evaporation rate</b>	<i>No data available.</i>
	<b>Percent volatile</b>	<i>No data available.</i>

**SECTION 10: STABILITY AND REACTIVITY**

<b>10.1 Reactivity</b>	This material may be reactive with certain agents under certain conditions - see the remaining headings in this section	
<b>10.2 Chemical stability</b>	Stable	
<b>10.3 Possibility of hazardous reactions</b>	Hazardous polymerisation will not occur	
<b>10.4 Conditions to avoid</b>	Not determined	
<b>10.5 Incompatible materials</b>	Not determined	
<b>10.6 Hazardous decomposition products</b>	<b>Substance</b> Methanol	<b>Condition</b> 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
1,2-Benzenedicarboxylic acid, di-C9-11-branched alkyl esters, C10-rich	Dermal	Rabbit	LD50 > 3,160 mg/kg
1,2-Benzenedicarboxylic acid, di-C9-11-branched alkyl esters, C10-rich	Inhalation- Dust/Mist (4 hours)	Rat	LC50 > 12.5 mg/l
1,2-Benzenedicarboxylic acid, di-C9-11-branched alkyl esters, C10-rich	Ingestion	Rat	LD50 > 9,700 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
Tin, dioctylbis(2,4-pentanedionato-κO2,κO4)-	Dermal	Rat	LD50 > 2,000 mg/kg
Tin, dioctylbis(2,4-pentanedionato-κO2,κO4)-	Ingestion	Rat	LD50 > 2,000 mg/kg
Bis(1,2,2,6,6-pentamethyl-4-piperidyl)[[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]methyl] butylmalonate	Dermal	Rat	LD50 > 3,170 mg/kg
Bis(1,2,2,6,6-pentamethyl-4-piperidyl)[[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]methyl] butylmalonate	Ingestion	Rat	LD50 1,490 mg/kg

**Skin Corrosion/Irritation**

NAME	SPECIES	VALUE
Calcium carbonate	Rabbit	No significant irritation
1,2-Benzenedicarboxylic acid, di-C9-11-branched alkyl esters, C10-rich	Rabbit	Minimal 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
Tin, dioctylbis(2,4-pentanedionato-κO2,κO4)-	Rabbit	No significant irritation
Bis(1,2,2,6,6-pentamethyl-4-piperidyl)[[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]methyl]butylmalonate	Rabbit	No significant irritation

**Serious Eye Damage/Irritation**

NAME	SPECIES	VALUE
Calcium carbonate	Rabbit	No significant irritation
1,2-Benzenedicarboxylic acid, di-C9-11-branched alkyl esters, C10-rich	Rabbit	Mild irritant
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
Tin, dioctylbis(2,4-pentanedionato-κO2,κO4)-	Rabbit	Mild irritant
Bis(1,2,2,6,6-pentamethyl-4-piperidyl)[[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]methyl]butylmalonate	Rabbit	Mild irritant

**Skin Sensitisation**

NAME	SPECIES	VALUE
1,2-Benzenedicarboxylic acid, di-C9-11-branched alkyl esters, C10-rich	Guinea pig	Not classified
Titanium dioxide	Human and animal	Not classified
N-(3-(Trimethoxysilyl)propyl)ethylenediamine	Multiple animal species	Sensitising
Trimethoxyvinylsilane	Guinea pig	Some positive data exist, but the data are not sufficient for classification
Tin, dioctylbis(2,4-pentanedionato-κO2,κO4)-	Mouse	Sensitising
Bis(1,2,2,6,6-pentamethyl-4-piperidyl)[[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]methyl]butylmalonate	Guinea pig	Not classified

**Photosensitisation**

NAME	SPECIES	VALUE
Bis(1,2,2,6,6-pentamethyl-4-piperidyl)[[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]methyl]butylmalonate	Guinea pig	Not 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
1,2-Benzenedicarboxylic acid, di-C9-11-branched alkyl esters, C10-rich	In Vitro	Not mutagenic
1,2-Benzenedicarboxylic acid, di-C9-11-branched alkyl esters, C10-rich	In vivo	Not mutagenic
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
N-(3-(Trimethoxysilyl)propyl)ethylenediamine	In Vitro	Not mutagenic
N-(3-(Trimethoxysilyl)propyl)ethylenediamine	In vivo	Not mutagenic
Trimethoxyvinylsilane	In vivo	Not mutagenic
Trimethoxyvinylsilane	In Vitro	Some positive data exist, but the data are not sufficient for classification
Tin, dioctylbis(2,4-pentanedionato-κO2,κO4)-	In Vitro	Not mutagenic
Bis(1,2,2,6,6-pentamethyl-4-piperidyl)[[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]methyl]butylmalonate	In vivo	Not mutagenic
Bis(1,2,2,6,6-pentamethyl-4-piperidyl)[[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]methyl]butylmalonate	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
Calcium carbonate	Ingestion	Not classified for development	Rat	NOAEL 625 mg/kg/day	pre mating & during gestation
1,2-Benzenedicarboxylic acid, di-C9-11-branched alkyl esters, C10-rich	Ingestion	Not classified for female reproduction	Rat	NOAEL 927	2 generation
1,2-Benzenedicarboxylic acid, di-C9-11- branched alkyl esters, C10-rich	Ingestion	Not classified for male reproduction	Rat	NOAEL 929 mg/kg/day	2 generation
1,2-Benzenedicarboxylic acid, di-C9-11- branched alkyl esters, C10-rich	Ingestion	Toxic to development	Rat	NOAEL 38 mg/kg/day	2 generation
N-(3- (Trimethoxysilyl)propyl) ethylenediamine	Ingestion	Not classified for female reproduction	Rat	NOAEL 500 mg/kg/day	pre mating into lactation
N-(3- (Trimethoxysilyl)propyl) ethylenediamine	Ingestion	Not classified for male reproduction	Rat	NOAEL 500 mg/kg/day	28 days
N-(3- (Trimethoxysilyl)propyl) ethylenediamine	Ingestion	Not classified for development	Rat	NOAEL 750 mg/kg/day	during gestation
Trimethoxyvinylsilane	Ingestion	Not classified for male reproduction	Rat	NOAEL 1,000 mg/kg/day	pre mating into lactation
Trimethoxyvinylsilane	Ingestion	Not classified for development	Rat	NOAEL 1,000 mg/kg/day	pre mating into lactation
Trimethoxyvinylsilane	Ingestion	Not classified for female reproduction	Rat	NOAEL 1,000 mg/kg/day	pre mating 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	similar compound ds	NOAEL not available	2 generation
Bis(1,2,2,6,6-pentamethyl-4-piperidyl)[[3,5- bis(1,1-dimethylethyl)-4- hydroxyphenyl] methyl]butylmalonate	Ingestion	Not classified for female reproduction	Rat	NOAEL 10 mg/kg/day	pre mating into lactation
Bis(1,2,2,6,6-pentamethyl-4-piperidyl)[[3,5- bis(1,1-dimethylethyl)-4- hydroxyphenyl] methyl]butylmalonate	Ingestion	Not classified for male reproduction	Rat	NOAEL 10 mg/kg/day	36 days
Bis(1,2,2,6,6-pentamethyl-4-piperidyl)[[3,5- bis(1,1-dimethylethyl)-4- hydroxyphenyl] methyl]butylmalonate	Ingestion	Not classified for development	Rat	NOAEL 10 mg/kg/day	pre mating 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
N-(3-(Trimethoxysilyl)propyl)ethylenediamine	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	similar health hazards	NOAEL Not available	

## Specific Target Organ Toxicity - repeated exposure

NAME	ROUTE	TARGET ORGAN(S)	VALUE	SPECIES	TEST RESULT	EXPOSURE
Calcium carbonate	Inhalation	respiratory system	Not classified	Human	NOAEL Not available	occupational exposure
1,2-Benzenedicarboxylic acid, di-C9-11-branched alkyl esters, C10-rich	Inhalation	respiratory system   hematopoietic system   liver	Not classified	Rat	NOAEL 0.5 mg/l	2 weeks
1,2-Benzenedicarboxylic acid, di-C9-11-branched alkyl esters, C10-rich	Inhalation	kidney and/or bladder	Not classified	Rat	NOAEL 0.5 mg/l	2 generation
1,2-Benzenedicarboxylic acid, di-C9-11-branched alkyl esters, C10-rich	Ingestion	endocrine system	Not classified	Rat	NOAEL 686 mg/kg/day	90 days
1,2-Benzenedicarboxylic acid, di-C9-11-branched alkyl esters, C10-rich	Ingestion	liver   kidney and/or bladder   heart	Not classified	Rat	NOAEL 500 mg/kg/day	90 days
1,2-Benzenedicarboxylic acid, di-C9-11-branched alkyl esters, C10-rich	Ingestion	hematopoietic system	Not classified	Dog	NOAEL 320 mg/kg/day	90 days
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	Dermal	skin   endocrine system   hematopoietic system   kidney and/or bladder	Not classified	Rat	NOAEL 1,545 mg/kg/day	11 days

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N-(3- (Trimethoxysilyl) propyl)et hylenediamine	Inhalation	respiratory system	May cause damage to organs through prolonged or repeated exposure	Rat	NOAEL 0.015 mg/l	90 days
N-(3- (Trimethoxysilyl) propyl)et hylenediamine	Inhalation	hematopoietic system   eyes   kidney and/or bladder	Not classified	Rat	NOAEL 0.044 mg/l	90 days
N-(3- (Trimethoxysilyl) propyl)et hylenediamine	Ingestion	hematopoietic system   nervous system	Not classified	Rat	NOAEL 500 mg/kg/day	28 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
Tin, dioctylbis(2,4-pentanedionato-κO2,κO4)-	Ingestion	immune system	Causes damage to organs through prolonged or repeated exposure	similar compounds	NOAEL not available	
Bis(1,2,2,6,6-pentamethyl-4-piperidyl)[[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]methyl]butylmalonate	Ingestion	Gastrointestinal tract   hematopoietic system   liver   immune system	Causes damage to organs through prolonged or repeated exposure	Rat	NOAEL 2 mg/kg/day	36 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 our 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
1,2- Benzenedicarboxyl ic acid, di-C9-11- branched alkyl esters, C10-rich	68515-49-1	Activated sludge	Experimental	30 minutes	EC50	>83.3 mg/l
1,2- Benzenedicarboxyl ic acid, di-C9-11- branched alkyl esters, C10-rich	68515-49-1	Green algae	Experimental	96 hours	EC50	>100 mg/l
1,2- Benzenedicarboxyl ic acid, di-C9-11- branched alkyl esters, C10-rich	68515-49-1	Rainbow trout	Experimental	96 hours	LC50	>100 mg/l
1,2- Benzenedicarboxyl ic acid, di-C9-11- branched alkyl esters, C10-rich	68515-49-1	Water flea	Experimental	48 hours	EC50	>100 mg/l
1,2- Benzenedicarboxyl ic acid, di-C9-11- branched alkyl esters, C10-rich	68515-49-1	Green algae	Experimental	96 hours	NOEC	100 mg/l
1,2- Benzenedicarboxyl ic acid, di-C9-11- branched alkyl esters, C10-rich	68515-49-1	Water flea	Experimental	21 days	NOEC	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	N/A	Data not available or insufficient for classification	N/A	N/A	N/A

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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	ErC50	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
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
Tin, dioctylbis(2,4-pentanedionato-κO2,κO4)-	54068-28-9	Water flea	Estimated	24 hours	EC50	1.3 mg/l
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

## 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	N/A	N/A	N/A
1,2- Benzenedicarboxylic acid, di-C9-11- branched alkyl esters, C10-rich	68515-49-1	Experimental Biodegradation	28 days	BOD	74 %BOD/ThOD	OECD 301F - Manometric respirometry
Oxide glass chemicals	65997-17-3	Data not available/insufficient	N/A	N/A	N/A	N/A
Titanium dioxide	13463-67-7	Data not available/insufficient	N/A	N/A	N/A	N/A
Carbon black	1333-86-4	Data not available/insufficient	N/A	N/A	N/A	N/A
N-(3- (Trimethoxysilyl)propyl)ethylenediamine	1760-24-3	Experimental Biodegradation	28 days	Dissolv. Organic Carbon Deplet	39 %removal of DOC	EC C.4.A. DOC Die-Away Test
N-(3- (Trimethoxysilyl)propyl)ethylenediamine	1760-24-3	Experimental Hydrolysis		Hydrolytic half-life (pH 7)	1.5 minutes (t 1/2)	
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 %CO2 evolution/ THCO2 evolution	OECD 301B - Modified Sturm or CO2
Tin, dioctylbis(2,4-pentanedionato-κO2,κO4)-	54068-28-9	Data not available/insufficient	N/A	N/A	N/A	N/A
Trimethoxyvinylsilane	2768-02-7	Experimental Biodegradation	28 days	BOD	51 %BOD/ThOD	OECD 301F - Manometric respirometry

## 12.3: Bioaccumulative potential

MATERIAL	CAS NBR	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
1,2- Benzenedicarboxylic acid, di-C9-11- branched alkyl esters, C10-rich	68515-49-1	Estimated BCF - Fish	56 days	Bioaccumulation factor	<14.4	OECD305- Bioconcentration
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 - Fish	42 days	Bioaccumulation factor	9.6	

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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
Bis(1,2,2,6,6-pentamethyl-4-piperidyl)[[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]methyl]butylmalonate	63843-89-0	Experimental BCF - Fish	60 days	Bioaccumulation factor	≤4371	OECD305-Bioconcentration
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	

#### 12.4. Mobility in soil

MATERIAL	CAS NO.	TEST TYPE	STUDY TYPE	TEST RESULT	PROTOCOL
Bis(1,2,2,6,6-pentamethyl-4-piperidyl)[[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]methyl]butylmalonate	63843-89-0	Modeled Mobility in Soil	Koc	≥420 l/kg	ACD/Labs ChemSketch™
Trimethoxyvinylsilane	2768-02-7	Estimated Mobility in Soil	Koc	650 l/kg	Episuite™

#### 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 hazardous for transportation.

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

Ingredient	CAS Nbr	Classification	Regulation
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

**Restrictions on the manufacture, placing on the market and use:**

The following substance(s) contained in this product is/are subject through Annex XVII of REACH regulation to restrictions on the manufacture, placing on the market and use when present in certain dangerous substances, mixtures and articles. Users of this product are required to comply with the restrictions placed upon it by the aforementioned provision.

Ingredient	CAS Nbr
1,2-Benzenedicarboxylic acid, di-C9-11-branched alkyl esters, C10-rich	68515-49-1
Titanium dioxide	

Restriction status: listed in REACH Annex XVII

Restricted uses: See Annex XVII to Regulation (EC) No 1907/2006 for Conditions of Restriction

**Global inventory status**

Contact manufacturer for more information

**DIRECTIVE 2012/18/EU**

Seveso hazard categories, Annex 1, Part 1

None

Seveso named dangerous substances, Annex 1, Part 2

None

**Regulation (EU) No 649/2012**

CHEMICAL	IDENTIFIER(S)	ANNEX I
Tin, dioctylbis(2,4-pentanedionato-κO2,κO4)-	54068-28-9	Part 1

**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.
H372	Causes damage to organs through prolonged or repeated exposure.
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:**

CLP: Ingredient table information was deleted. Label: CLP Classification information was deleted. Label: CLP Classification information was modified.

Label: CLP Precautionary - Disposal information was added. Label: CLP Precautionary - Prevention information was deleted. Label: CLP Precautionary - Response information was deleted. Label: Graphic information was deleted.

Label: Signal Word information was deleted.

Section 02: SDS Elements: CLP Supplemental Precautionary Statements information was deleted. Section 3: Composition/ Information of ingredients table information was modified.

Section 11: Acute Toxicity table information was modified.

Section 11: Reproductive Toxicity Table information was modified. Section 11: Skin Sensitization Table information was modified.

Section 12: Component ecotoxicity information information was modified. Section 12: Persistence and Degradability information information was modified. Section 12: Bioaccumulative potential information information was modified. Section 15: Carcinogenicity information information was modified.

Two-column table displaying the unique list of H Codes and statements (std phrases) for all components of the given material. information was modified.

**DISCLAIMER:** The information on this Safety Data Sheet is based on our experience and is correct to the best of our knowledge at the date of publication, but we do not accept any liability for any loss, damage or injury resulting from its use (except as required by law). The information may not be valid for any use not referred to in this Data Sheet or use of the product in combination with other materials. For these reasons, it is important that customers carry out their own test to satisfy themselves as to the suitability of the product for their own intended applications. In addition, this SDS is being provided to convey health and safety information. If you are the importer of record of this product into the European Union, you are responsible for all regulatory requirements, including, but not limited to, product registrations/notifications, substance volume tracking, and potential substance registration.