

Safety Data Sheet according to (EC) No 1907/2006 as amended

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SDS No.: 634030 V005.0

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

1.1. Product identifier

TEROSON MS 9320SF GY

TEROSON MS 9320SF GY

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

Intended use: MS Sealant

1.3. Details of the supplier of the safety data sheet

Henkel Ltd Adhesives Wood Lane End

HP2 4RQ Hemel Hempstead

Great Britain

Phone: +44 (1442) 278000 Fax-no.: +44 (1442) 278071

ua-productsafety.uk@henkel.com

For Safety Data Sheet updates please visit our website https://mysds.henkel.com/index.html#/appSelection or www.henkel-adhesives.com.

1.4. Emergency telephone number

24 Hours Emergency Tel: +44 0 8701 906777 - For further general health & safety, technical and practical advice on this product, please call +44 (0) 1606 593933 or write to: Technical Services; Henkel Limited; Road 5; Winsford Industrial Estate; Winsford; Cheshire; CW7 3QY- Email: technical.services@henkel.co.uk

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (CLP):

The substance or mixture is not hazardous according to Regulation (EC) No 1272/2008 (CLP).

2.2. Label elements

Label elements (CLP):

The substance or mixture is not hazardous according to Regulation (EC) No 1272/2008 (CLP).

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

dust.

Contains: Trimethoxyvinylsilane May produce an allergic reaction.

Safety data sheet available on request.

2.3. Other hazards

None if used properly.

Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

General chemical description:

Sealant

Base substances of preparation:

Silane-modified polyether

Declaration of the ingredients according to CLP (EC) No 1272/2008:

Hazardous components CAS-No.	EC Number REACH-Reg No.	content	Classification
Titanium dioxide 13463-67-7	236-675-5 01-2119489379-17	1-< 3 %	Carc. 2; Inhalation H351
Trimethoxyvinylsilane 2768-02-7	220-449-8 01-2119513215-52	0,1-< 1 %	Flam. Liq. 3 H226 Acute Tox. 4; Inhalation H332 STOT RE 2 H373 Skin Sens. 1B H317
Bis(2,2,6,6-tetramethyl-4-piperidyl) sebacate 52829-07-9	258-207-9 01-2119537297-32	0,1-< 1 %	Repr. 2 H361f Eye Dam. 1 H318 Aquatic Chronic 2 H411 Aquatic Acute 1 H400

For full text of the H - statements and other abbreviations see section 16 "Other information". Substances without classification may have community workplace exposure limits available.

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation:

Move to fresh air, consult doctor if complaint persists.

Skin contact:

Rinse with running water and soap. Apply replenishing cream. Change all contaminated clothing. If necessary, see a dermatologist.

Eye contact:

Rinse immediately with plenty of running water (for 10 minutes). Seek medical attention if necessary.

Ingestion:

Rinse mouth, drink 1-2 glasses of water, do not induce vomiting, consult a doctor.

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

An allergic reaction cannot be excluded after repeated skin contact.

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

See section: Description of first aid measures

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media:

All common extinguishing agents are suitable.

Extinguishing media which must not be used for safety reasons:

High pressure waterjet

5.2. Special hazards arising from the substance or mixture

In case of fire toxic gases can be released.

5.3. Advice for firefighters

Wear self-contained breathing apparatus.

Wear protective equipment.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Wear protective equipment.

6.2. Environmental precautions

Do not empty into drains / surface water / ground water.

6.3. Methods and material for containment and cleaning up

Remove mechanically.

Dispose of contaminated material as waste according to Section 13.

6.4. Reference to other sections

See advice in section 8

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Hygiene measures:

Wash hands before work breaks and after finishing work.

Do not eat, drink or smoke while working.

7.2. Conditions for safe storage, including any incompatibilities

Ensure good ventilation/extraction.

Temperatures between + 10 °C and + 25 °C

7.3. Specific end use(s)

MS Sealant

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational Exposure Limits

Valid for

Great Britain

Ingredient [Regulated substance]	ppm	mg/m³	Value type	Short term exposure limit category / Remarks	Regulatory list
Limestone 1317-65-3 [CALCIUM CARBONATE, INHALABLE DUST]		10	Time Weighted Average (TWA):		EH40 WEL
Limestone 1317-65-3 [CALCIUM CARBONATE, RESPIRABLE DUST]		4	Time Weighted Average (TWA):		EH40 WEL
Limestone 1317-65-3 [LIMESTONE, RESPIRABLE MARBLE, RESPIRABLE]		4	Time Weighted Average (TWA):		EH40 WEL
Limestone 1317-65-3 [LIMESTONE, TOTAL INHALABLE MARBLE, TOTAL INHALABLE]		10	Time Weighted Average (TWA):		EH40 WEL
Calcium carbonate 471-34-1 [CALCIUM CARBONATE, INHALABLE DUST]		10	Time Weighted Average (TWA):		EH40 WEL
Calcium carbonate 471-34-1 [CALCIUM CARBONATE, RESPIRABLE DUST]		4	Time Weighted Average (TWA):		EH40 WEL
Calcium carbonate 471-34-1 [LIMESTONE, RESPIRABLE MARBLE, RESPIRABLE]		4	Time Weighted Average (TWA):		EH40 WEL
Calcium carbonate 471-34-1 [LIMESTONE, TOTAL INHALABLE MARBLE, TOTAL INHALABLE]		10	Time Weighted Average (TWA):		EH40 WEL
Calcium carbonate 471-34-1 [Dust, inhalable dust]		10	Time Weighted Average (TWA):		EH40 WEL
Calcium carbonate 471-34-1 [Dust, respirable dust]		4	Time Weighted Average (TWA):		EH40 WEL
Di-"isononyl" phthalate 28553-12-0 [DIISONONYL PHTHALATE]		5	Time Weighted Average (TWA):		EH40 WEL
Titanium dioxide 13463-67-7 [TITANIUM DIOXIDE, RESPIRABLE]		4	Time Weighted Average (TWA):		EH40 WEL
Titanium dioxide 13463-67-7 [TITANIUM DIOXIDE, TOTAL INHALABLE]		10	Time Weighted Average (TWA):		EH40 WEL

Occupational Exposure Limits

Valid for

Ireland

Ingredient [Regulated substance]	ppm	mg/m ³	Value type	Short term exposure limit category / Remarks	Regulatory list
Limestone 1317-65-3 [CALCIUM CARBONATE]		4	Time Weighted Average (TWA):		IR_OEL
Limestone 1317-65-3		10	Time Weighted Average (TWA):		IR_OEL

Calcium carbonate	4	Time Weighted Average	IR_OEL
471-34-1		(TWA):	
[CALCIUM CARBONATE]			
Calcium carbonate	10	Time Weighted Average	IR_OEL
471-34-1		(TWA):	
[CALCIUM CARBONATE]			
Calcium carbonate	4	Time Weighted Average	IR_OEL
471-34-1		(TWA):	
[DUSTS NON-SPECIFIC]			
Calcium carbonate	10	Time Weighted Average	IR_OEL
471-34-1		(TWA):	
[DUSTS NON-SPECIFIC]			
Di-"isononyl" phthalate	5	Time Weighted Average	IR_OEL
28553-12-0		(TWA):	
[DIISONONYL PHTHALATE]			
Titanium dioxide	10	Time Weighted Average	IR_OEL
13463-67-7		(TWA):	
[TITANIUM DIOXIDE]			
Titanium dioxide	4	Time Weighted Average	IR_OEL
13463-67-7		(TWA):	
[TITANIUM DIOXIDE]			

$\label{eq:predicted} \textbf{Predicted No-Effect Concentration (PNEC):}$

Name on list	Environmental Compartment	Exposure period	Value				Remarks
		F	mg/l	ppm	mg/kg	others	
Titanium dioxide 13463-67-7	aqua (freshwater)		3		3 3		no hazard identified
Titanium dioxide 13463-67-7	aqua (marine water)						no hazard identified
Titanium dioxide 13463-67-7	sewage treatment plant (STP)						no hazard identified
Titanium dioxide 13463-67-7	sediment (freshwater)						no hazard identified
Titanium dioxide 13463-67-7	sediment (marine water)						no hazard identified
Titanium dioxide 13463-67-7	Soil						no hazard identified
Titanium dioxide 13463-67-7	Aquatic (intermit. releases)						no hazard identified
Titanium dioxide 13463-67-7	Predator						no hazard identified
Trimethoxyvinylsilane 2768-02-7	aqua (freshwater)		0,4 mg/l				
Trimethoxyvinylsilane 2768-02-7	aqua (marine water)		0,04 mg/l				
Trimethoxyvinylsilane 2768-02-7	freshwater - intermittent		1,21 mg/l				
Trimethoxyvinylsilane 2768-02-7	sediment (freshwater)				1,5 mg/kg		
Trimethoxyvinylsilane 2768-02-7	sediment (marine water)				0,15 mg/kg		
Trimethoxyvinylsilane 2768-02-7	Soil				0,06 mg/kg		
Trimethoxyvinylsilane 2768-02-7	sewage treatment plant (STP)		6,6 mg/l				
Bis(2,2,6,6-tetramethyl-4-piperidyl) sebacate 52829-07-9	aqua (freshwater)		0,018 mg/l				
Bis(2,2,6,6-tetramethyl-4-piperidyl) sebacate 52829-07-9	aqua (marine water)		0,0018 mg/l				
Bis(2,2,6,6-tetramethyl-4-piperidyl) sebacate 52829-07-9	aqua (intermittent releases)		0,007 mg/l				
Bis(2,2,6,6-tetramethyl-4-piperidyl) sebacate 52829-07-9	(freshwater)				29 mg/kg		
Bis(2,2,6,6-tetramethyl-4-piperidyl) sebacate 52829-07-9	(marine water)				2,9 mg/kg		
Bis(2,2,6,6-tetramethyl-4-piperidyl) sebacate 52829-07-9					5,9 mg/kg		
Bis(2,2,6,6-tetramethyl-4-piperidyl) sebacate 52829-07-9	sewage treatment plant (STP)		1 mg/l				

Derived No-Effect Level (DNEL):

Name on list	Application Area	Route of Exposure	Health Effect	Exposure Time	Value	Remarks
Trimethoxyvinylsilane 2768-02-7	Workers	dermal	Long term exposure - systemic effects		3,9 mg/kg	
Trimethoxyvinylsilane 2768-02-7	Workers	inhalation	Long term exposure - systemic effects		27,6 mg/m3	
Trimethoxyvinylsilane 2768-02-7	General population	dermal	Long term exposure - systemic effects		7,8 mg/kg	
Trimethoxyvinylsilane 2768-02-7	General population	inhalation	Long term exposure - systemic effects		6,7 mg/m3	
Trimethoxyvinylsilane 2768-02-7	General population	oral	Long term exposure - systemic effects		0,3 mg/kg	
Bis(2,2,6,6-tetramethyl-4-piperidyl) sebacate 52829-07-9	Workers	dermal	Long term exposure - systemic effects		1,8 mg/kg	
Bis(2,2,6,6-tetramethyl-4-piperidyl) sebacate 52829-07-9	Workers	Inhalation	Long term exposure - systemic effects		1,27 mg/m3	
Bis(2,2,6,6-tetramethyl-4-piperidyl) sebacate 52829-07-9	General population	Inhalation	Long term exposure - systemic effects		0,31 mg/m3	
Bis(2,2,6,6-tetramethyl-4-piperidyl) sebacate 52829-07-9	General population	dermal	Long term exposure - systemic effects		0,9 mg/kg	
Bis(2,2,6,6-tetramethyl-4-piperidyl) sebacate 52829-07-9	General population	oral	Long term exposure - systemic effects		0,18 mg/kg	

Biological Exposure Indices:

None

8.2. Exposure controls:

Engineering controls:

Ensure good ventilation/extraction.

Respiratory protection:

The product should only be used at workplaces with intensive ventilation/extraction.

If intensive ventilation/extraction is not possible respiratory protection equipment with ABEK P2 filter (EN 14387) should be worn.

Hand protection:

Chemical-resistant protective gloves (EN 374). Suitable materials for short-term contact or splashes (recommended: at least protection index 2, corresponding to > 30 minutes permeation time as per EN 374): Polychloroprene (CR; >= 1 mm thickness) or natural rubber (NR; >=1 mm thickness) Suitable materials for longer, direct contact (recommended: protection index 6, corresponding to > 480 minutes permeation time as per EN 374): Polychloroprene (CR; >= 1 mm thickness) or natural rubber (NR; >=1 mm thickness) This information is based on literature references and on information provided by glove manufacturers, or is derived by analogy with similar substances. Please note that in practice the working life of chemical-resistant protective gloves may be considerably shorter than the permeation time determined in accordance with EN 374 as a result of the many influencing factors (e.g. temperature). If signs of wear and tear are noticed then the gloves should be replaced.

Eye protection:

Protective goggles

Protective eye equipment should conform to EN166.

Skin protection:

Wear protective equipment.

Protective clothing should conform to EN 14605 for liquid splashes or to EN 13982 for dusts.

Advices to personal protection equipment:

Use only personal protection that's CE-labelled according to Directive 89/686/EEC (Europe) or to Regulation No. 819 of 19 August 1994 (Norway).

The information provided on personal protective equipment is for guidance purposes only. A full risk assessment should be conducted prior to using this product to determine the appropriate personal protective equipment to suit local conditions. Personal protective equipment should conform to the relevant EN standard.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance paste

pasty grey

Odor characteristic

Odour threshold No data available / Not applicable

pH Not applicable, Mixture reacts with water.

Melting point

Solidification temperature

Initial boiling point

No data available / Not applicable
No data available / Not applicable
No data available / Not applicable

Flash point $> 160 \,^{\circ}\text{C} (> 320 \,^{\circ}\text{F})$

Evaporation rate

No data available / Not applicable
Flammability

No data available / Not applicable
Explosive limits

No data available / Not applicable
Vapour pressure

No data available / Not applicable
Relative vapour density:

No data available / Not applicable

Density 1,54 g/cm3

(20 °C (68 °F))

Bulk density No data available / Not applicable Solubility No data available / Not applicable No data available / Not applicable Solubility (qualitative) Partition coefficient: n-octanol/water No data available / Not applicable Auto-ignition temperature No data available / Not applicable No data available / Not applicable Decomposition temperature No data available / Not applicable Viscosity Viscosity (kinematic) No data available / Not applicable Explosive properties No data available / Not applicable Oxidising properties No data available / Not applicable

9.2. Other information

No data available / Not applicable

SECTION 10: Stability and reactivity

10.1. Reactivity

None if used for intended purpose.

10.2. Chemical stability

Stable under recommended storage conditions.

10.3. Possibility of hazardous reactions

See section reactivity

10.4. Conditions to avoid

None if used for intended purpose.

10.5. Incompatible materials

None if used properly.

10.6. Hazardous decomposition products

No decomposition if used according to specifications.

SECTION 11: Toxicological information

General toxicological information:

An allergic reaction cannot be excluded after repeated skin contact.

11.1. Information on toxicological effects

Acute oral toxicity:

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances	Value	Value	Species	Method
CAS-No.	type			
Titanium dioxide	LD50	> 5.000 mg/kg	rat	OECD Guideline 425 (Acute Oral Toxicity: Up-and-Down
13463-67-7				Procedure)
Trimethoxyvinylsilane 2768-02-7	LD50	7.120 mg/kg	rat	OECD Guideline 401 (Acute Oral Toxicity)
Bis(2,2,6,6-tetramethyl-4-	LD50	3.700 mg/kg	rat	OECD Guideline 423 (Acute Oral toxicity)
piperidyl) sebacate	LD30	3.700 mg/kg	Tat	OLCD Guideline 423 (Acute Of at toxicity)
52829-07-9				

Acute dermal toxicity:

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances	Value	Value	Species	Method
CAS-No.	type			
Titanium dioxide	LD50	>= 10.000	hamster	not specified
13463-67-7		mg/kg		
Trimethoxyvinylsilane	LD50	3.200 mg/kg	rabbit	OECD Guideline 402 (Acute Dermal Toxicity)
2768-02-7				
Bis(2,2,6,6-tetramethyl-4-	LD50	> 3.170 mg/kg	rat	OECD Guideline 402 (Acute Dermal Toxicity)
piperidyl) sebacate				
52829-07-9				

Acute inhalative toxicity:

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances	Value	Value	Test atmosphere	Exposure	Species	Method
CAS-No.	type			time		
Titanium dioxide 13463-67-7	LC50	> 6,82 mg/l	dust	4 h	rat	not specified
Trimethoxyvinylsilane 2768-02-7	LC50	16,8 mg/l	vapour	4 h	rat	OECD Guideline 403 (Acute Inhalation Toxicity)

Skin corrosion/irritation:

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances	Result	Exposure	Species	Method
CAS-No.		time		
Titanium dioxide	not irritating	4 h	rabbit	equivalent or similar to OECD Guideline 404 (Acute
13463-67-7				Dermal Irritation / Corrosion)
Trimethoxyvinylsilane	not irritating		rabbit	other guideline:
2768-02-7				
Bis(2,2,6,6-tetramethyl-4-	not irritating	24 h	rabbit	EPA OPP 81-5 (Acute Dermal Irritation)
piperidyl) sebacate				
52829-07-9				

Serious eye damage/irritation:

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances	Result	Exposure	Species	Method
CAS-No.		time		
Titanium dioxide	not irritating		rabbit	OECD Guideline 405 (Acute Eye Irritation / Corrosion)
13463-67-7				
Trimethoxyvinylsilane	not irritating		rabbit	OECD Guideline 405 (Acute Eye Irritation / Corrosion)
2768-02-7				
Bis(2,2,6,6-tetramethyl-4-	corrosive	24 h	rabbit	OECD Guideline 405 (Acute Eye Irritation / Corrosion)
piperidyl) sebacate				
52829-07-9				

Respiratory or skin sensitization:

The mixture is classified based on threshold limits referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Result	Test type	Species	Method
Titanium dioxide 13463-67-7	not sensitising	Mouse local lymphnode assay (LLNA)	mouse	equivalent or similar to OECD Guideline 429 (Skin Sensitisation: Local Lymph Node Assay)
Trimethoxyvinylsilane 2768-02-7	sensitising	Buehler test	guinea pig	OECD Guideline 406 (Skin Sensitisation)
Bis(2,2,6,6-tetramethyl-4- piperidyl) sebacate 52829-07-9	not sensitising	Guinea pig maximisation test	guinea pig	OECD Guideline 406 (Skin Sensitisation)

Germ cell mutagenicity:

The mixture is classified based on threshold limits referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Result	Type of study / Route of administration	Metabolic activation / Exposure time	Species	Method
Titanium dioxide 13463-67-7	negative	bacterial reverse mutation assay (e.g Ames test)	with and without		OECD Guideline 471 (Bacterial Reverse Mutation Assay)
Titanium dioxide 13463-67-7	negative	in vitro mammalian chromosome aberration test	with and without		OECD Guideline 473 (In vitro Mammalian Chromosome Aberration Test)
Titanium dioxide 13463-67-7	negative	mammalian cell gene mutation assay	with and without		OECD Guideline 476 (In vitro Mammalian Cell Gene Mutation Test)
Trimethoxyvinylsilane 2768-02-7	negative	bacterial reverse mutation assay (e.g Ames test)	with and without		OECD Guideline 471 (Bacterial Reverse Mutation Assay)
Trimethoxyvinylsilane 2768-02-7	positive	in vitro mammalian chromosome aberration test	with and without		OECD Guideline 473 (In vitro Mammalian Chromosome Aberration Test)
Trimethoxyvinylsilane 2768-02-7	negative	mammalian cell gene mutation assay	with and without		OECD Guideline 476 (In vitro Mammalian Cell Gene Mutation Test)
Bis(2,2,6,6-tetramethyl-4- piperidyl) sebacate 52829-07-9	negative	bacterial reverse mutation assay (e.g Ames test)	with and without		OECD Guideline 471 (Bacterial Reverse Mutation Assay)
Bis(2,2,6,6-tetramethyl-4-piperidyl) sebacate 52829-07-9	negative	in vitro mammalian chromosome aberration test	with and without		OECD Guideline 473 (In vitro Mammalian Chromosome Aberration Test)
Bis(2,2,6,6-tetramethyl-4-piperidyl) sebacate 52829-07-9	negative	mammalian cell gene mutation assay	with and without		OECD Guideline 476 (In vitro Mammalian Cell Gene Mutation Test)
Titanium dioxide 13463-67-7	negative	oral: gavage		mouse	OECD Guideline 474 (Mammalian Erythrocyte Micronucleus Test)
Trimethoxyvinylsilane 2768-02-7	negative	intraperitoneal		mouse	other guideline:

Carcinogenicity

The mixture is classified based on threshold limits referring to the classified substances present in the mixture.

Hazardous components CAS-No.	Result	Route of application	Exposure time / Frequency of treatment	Species	Sex	Method
Titanium dioxide 13463-67-7	not carcinogenic	inhalation	24 m 6 h/d; 5 d/w	rat	male/female	OECD Guideline 453 (Combined Chronic Toxicity / Carcinogenicity Studies)

Reproductive toxicity:

The mixture is classified based on threshold limits referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Result / Value	Test type	Route of application	Species	Method
Titanium dioxide	NOAEL P > 1.000 mg/kg		oral: gavage	rat	OECD Guideline 421
13463-67-7					(Reproduction /
	NOAEL F1 > 1.000 mg/kg				Developmental Toxicity
					Screening Test)
Trimethoxyvinylsilane	NOAEL P 250 mg/kg	one-	oral: gavage	rat	OECD Combined Repeated
2768-02-7		generation			Dose and Reproductive /
		study			Developmental Toxicity
					Screening Test (Precursor
					Protocol of GL 422)
Trimethoxyvinylsilane	NOAEL P 1.000 mg/kg	one-	oral: gavage	rat	OECD Combined Repeated
2768-02-7		generation			Dose and Reproductive /
		study			Developmental Toxicity
					Screening Test (Precursor
					Protocol of GL 422)
Trimethoxyvinylsilane	NOAEL F1 1.000 mg/kg	one-	oral: gavage	rat	OECD Combined Repeated
2768-02-7		generation			Dose and Reproductive /
		study			Developmental Toxicity
					Screening Test (Precursor
					Protocol of GL 422)
Bis(2,2,6,6-tetramethyl-4-	NOAEL P 109 mg/kg	two-	oral: feed	rat	OECD Guideline 443
piperidyl) sebacate		generation			(Extended One-Generation
52829-07-9	NOAEL F1 121 mg/kg	study			Reproductive Toxicity
					Study)

STOT-single exposure:

No data available.

STOT-repeated exposure::

The mixture is classified based on threshold limits referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Result / Value	Route of application	Exposure time / Frequency of	Species	Method
			treatment		
Titanium dioxide 13463-67-7	NOAEL 1.000 mg/kg	oral: gavage	90 d daily	rat	OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity in Rodents)
Trimethoxyvinylsilane 2768-02-7	NOAEL < 62,5 mg/kg	oral: gavage	42d daily	rat	OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test)
Trimethoxyvinylsilane 2768-02-7	NOAEL 0,605 mg/l	inhalation: vapour	5 days/week for 14 weeks 6 hours/day	rat	not specified
Bis(2,2,6,6-tetramethyl-4- piperidyl) sebacate 52829-07-9	NOAEL 36 mg/kg	oral: feed	daily	rat	other guideline:

Aspiration hazard:

No data available.

SECTION 12: Ecological information

General ecological information:

Do not empty into drains, soil or bodies of water.

12.1. Toxicity

Toxicity (Fish):

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances	Value	Value	Exposure time	Species	Method
CAS-No.	type				
Titanium dioxide	LC50	Toxicity > Water	48 h	Leuciscus idus	OECD Guideline 203 (Fish,
13463-67-7		solubility			Acute Toxicity Test)
Trimethoxyvinylsilane	LC50	191 mg/l	96 h	Oncorhynchus mykiss	OECD Guideline 203 (Fish,
2768-02-7					Acute Toxicity Test)
Bis(2,2,6,6-tetramethyl-4-	LC50	4,4 mg/l	96 h	Lepomis macrochirus	OECD Guideline 203 (Fish,
piperidyl) sebacate					Acute Toxicity Test)
52829-07-9					

Toxicity (Daphnia):

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances	Value	Value	Exposure time	Species	Method
CAS-No.	type				
Titanium dioxide	EC50	Toxicity > Water	48 h	Daphnia magna	OECD Guideline 202
13463-67-7		solubility			(Daphnia sp. Acute
					Immobilisation Test)
Trimethoxyvinylsilane	EC50	168,7 mg/l	48 h	Daphnia magna	EU Method C.2 (Acute
2768-02-7					Toxicity for Daphnia)
Bis(2,2,6,6-tetramethyl-4-	EC50	8,58 mg/l	48 h	Daphnia magna	OECD Guideline 202
piperidyl) sebacate					(Daphnia sp. Acute
52829-07-9					Immobilisation Test)

Chronic toxicity to aquatic invertebrates

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Value type	Value	Exposure time	Species	Method
Trimethoxyvinylsilane 2768-02-7	NOEC	28,1 mg/l	21 d	Daphnia magna	OECD 211 (Daphnia magna, Reproduction Test)
Bis(2,2,6,6-tetramethyl-4-piperidyl) sebacate 52829-07-9	NOEC	0,23 mg/l	21 d	Daphnia magna	OECD 211 (Daphnia magna, Reproduction Test)

Toxicity (Algae):

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Value type	Value	Exposure time	Species	Method
Titanium dioxide 13463-67-7	EC50	Toxicity > Water solubility	72 h	Pseudokirchneriella subcapitata	OECD Guideline 201 (Alga, Growth Inhibition Test)
Trimethoxyvinylsilane 2768-02-7	EC50	> 957 mg/l	72 h	Desmodesmus subspicatus	EU Method C.3 (Algal Inhibition test)
Trimethoxyvinylsilane 2768-02-7	NOEC	957 mg/l	72 h	Desmodesmus subspicatus	EU Method C.3 (Algal Inhibition test)
Bis(2,2,6,6-tetramethyl-4- piperidyl) sebacate 52829-07-9	EC50	0,705 mg/l	72 h	Pseudokirchneriella subcapitata	OECD Guideline 201 (Alga, Growth Inhibition Test)
Bis(2,2,6,6-tetramethyl-4-piperidyl) sebacate 52829-07-9	EC10	0,188 mg/l	72 h	Pseudokirchneriella subcapitata	OECD Guideline 201 (Alga, Growth Inhibition Test)

Toxicity to microorganisms

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances	Value	Value	Exposure time	Species	Method
CAS-No.	type				
Titanium dioxide	EC0	Toxicity > Water	24 h	Pseudomonas fluorescens	DIN 38412, part 8
13463-67-7		solubility			(Pseudomonas
					Zellvermehrungshemm-
					Test)
Trimethoxyvinylsilane	EC50	> 100 mg/l	3 h	activated sludge of a	OECD Guideline 209
2768-02-7				predominantly domestic sewage	(Activated Sludge,
					Respiration Inhibition Test)
Bis(2,2,6,6-tetramethyl-4-	EC50	> 100 mg/l	3 h	activated sludge, domestic	OECD Guideline 209
piperidyl) sebacate					(Activated Sludge,
52829-07-9					Respiration Inhibition Test)

12.2. Persistence and degradability

Hazardous substances CAS-No.	Result	Test type	Degradability	Exposure time	Method
Trimethoxyvinylsilane 2768-02-7	not readily biodegradable.	aerobic	51 %	28 d	OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test)
Bis(2,2,6,6-tetramethyl-4- piperidyl) sebacate 52829-07-9	not readily biodegradable.	aerobic	24 %	28 d	OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test)

12.3. Bioaccumulative potential

No data available.

12.4. Mobility in soil

Hazardous substances CAS-No.	LogPow	Temperature	Method
Bis(2,2,6,6-tetramethyl-4- piperidyl) sebacate 52829-07-9	0,35	25 °C	OECD Guideline 107 (Partition Coefficient (n-octanol / water), Shake Flask Method)

12.5. Results of PBT and vPvB assessment

Hazardous substances	PBT / vPvB
CAS-No.	
Titanium dioxide	According to Annex XIII of regulation (EC) 1907/2006 a PBT and vPvB assessment shall not
13463-67-7	be conducted for inorganic substances.
Trimethoxyvinylsilane	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very
2768-02-7	Bioaccumulative (vPvB) criteria.
Bis(2,2,6,6-tetramethyl-4-piperidyl) sebacate	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very
52829-07-9	Bioaccumulative (vPvB) criteria.

12.6. Other adverse effects

No data available.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Product disposal:

In consultation with the responsible local authority, must be subjected to special treatment.

Waste code

The valid EWC waste code numbers are source-related. The manufacturer is therefore unable to specify EWC waste codes for the articles or products used in the various sectors. The EWC codes listed are intended as a recommendation for users. We will be happy to advise you.

08 04 10 Waste adhesives and sealants other than those mentioned in 08 04 09.

SECTION 14: Transport information

14.1. UN number

Not hazardous according to RID, ADR, ADN, IMDG, IATA-DGR.

14.2. UN proper shipping name

Not hazardous according to RID, ADR, ADN, IMDG, IATA-DGR.

14.3. Transport hazard class(es)

Not hazardous according to RID, ADR, ADN, IMDG, IATA-DGR.

14.4. Packing group

Not hazardous according to RID, ADR, ADN, IMDG, IATA-DGR.

14.5. Environmental hazards

Not hazardous according to RID, ADR, ADN, IMDG, IATA-DGR.

14.6. Special precautions for user

Not hazardous according to RID, ADR, ADN, IMDG, IATA-DGR.

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

not applicable

SECTION 15: Regulatory information

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

Ozone Depleting Substance (ODS) (Regulation (EC) No 1005/2009): Prior Informed Consent (PIC) (Regulation (EU) No 649/2012): Persistent organic pollutants (Regulation (EU) 2019/1021):

Not applicable Not applicable Not applicable

VOC content (2010/75/EU) 5,9 %

15.2. Chemical safety assessment

A chemical safety assessment has been carried out.

SECTION 16: Other information

The labelling of the product is indicated in Section 2. The full text

of all abbreviations indicated by codes in this safety data sheet are as follows:

H226 Flammable liquid and vapor.

H317 May cause an allergic skin reaction.

H318 Causes serious eye damage.

H332 Harmful if inhaled.

H351 Suspected of causing cancer.

H361f Suspected of damaging fertility.

H373 May cause damage to organs through prolonged or repeated exposure.

H400 Very toxic to aquatic life.

H411 Toxic to aquatic life with long lasting effects.

Further information:

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This information is based on our current level of knowledge and relates to the product in the state in which it is delivered. It is intended to describe our products from the point of view of safety requirements and is not intended to guarantee any particular properties.

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