



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

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Ceresit CM 77 Ultraflex

SDS No. : 442103
V009.0

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

1.1. Product identifier

Ceresit CM 77 Ultraflex
UFI: KSE8-0032-Y00F-K7QT

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

Intended use:
Tile adhesive

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

SDSinfo.Adhesive@henkel.com

For Safety Data Sheet updates please visit our website www.mysds.henkel.com 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):

Serious eye irritation	Category 2
H319 Causes serious eye irritation.	
Skin sensitizer	Category 1
H317 May cause an allergic skin reaction.	
Specific target organ toxicity - repeated exposure	Category 2
H373 May cause damage to organs through prolonged or repeated exposure.	

2.2. Label elements

Label elements (CLP):

Hazard pictogram:



Contains

Quartz (SiO₂) "respirable particulates (reaches the alveoli)" (RCS) $\geq 1\%$ - $< 10\%$

Trimethoxyvinylsilane

Signal word:

Warning

Hazard statement:

H317 May cause an allergic skin reaction.
H319 Causes serious eye irritation.
H373 May cause damage to organs through prolonged or repeated exposure.

Supplemental information

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

Precautionary statement:

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

**Precautionary statement:
Prevention**

P260 Do not breathe mist/vapours.
P280 Wear protective gloves/eye protection.

**Precautionary statement:
Response**

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337+P313 If eye irritation persists: Get medical advice/attention.

**Precautionary statement:
Disposal**

P501 Dispose of contents/container in accordance with national regulation.

2.3. Other hazards

Evolves methanol during cure.

Following substances are present in a concentration \geq the concentration limit for depiction in Section 3 and fulfill the criteria for PBT/vPvB, or were identified as endocrine disruptor (ED):

This mixture does not contain any substances in a concentration \geq the concentration limit for depiction in Section 3 that are assessed to be a PBT, vPvB or ED.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

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

Hazardous components CAS-No. EC Number REACH-Reg No.	Concentration	Classification	Specific Conc. Limits, M-factors and ATEs	Add. Information
Quartz (SiO ₂) "respirable particulates (reaches the alveoli)" (RCS) >=1% - <10% 14808-60-7 238-878-4	20- < 40 %	STOT RE 2, H373		
Quartz (SiO ₂), <1% respirable 14808-60-7 238-878-4	10- < 20 %			
Trimethoxyvinylsilane 2768-02-7 220-449-8 01-2119513215-52	1- < 5 %	Flam. Liq. 3, H226 Acute Tox. 4, Inhalation, H332 Skin Sens. 1B, H317		
Titanium dioxide < 1% particles with diameter ≤ 10 µm 13463-67-7 236-675-5 01-2119489379-17	1- < 5 %			
Bis(2,2,6,6-tetramethyl-4-piperidyl) sebacate 52829-07-9 258-207-9 01-2119537297-32	1- < 2,5 %	Repr. 2, H361f Eye Dam. 1, H318 Aquatic Chronic 2, H411 Aquatic Acute 1, H400	M acute = 1	

If no ATE values are displayed, please refer to LD/LC50 values in Section 11.
For full text of the H - statements and other abbreviations see section 16 "Other information".

SECTION 4: First aid measures

4.1. Description of first aid measures

General information:

In case of adverse health effects seek medical advice.

Inhalation:

Move to fresh air, consult doctor if complaint persists.

Skin contact:

Rinse with running water and soap. Skin care. Remove contaminated clothes immediately.

Eye contact:

Immediately flush eyes with soft jet of water or eye rinse solution for at least 5 minutes. If pains remain (intensive smarting, sensitivity to light, visual disturbance) continue flushing and contact/seek doctor or hospital.

Ingestion:

Rinse mouth and throat. Drink 1-2 glasses of water. Seek medical advice.

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

May cause an allergic skin reaction.

Causes serious eye irritation.

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:

carbon dioxide, foam, powder, water spray jet, fine water spray

Extinguishing media which must not be used for safety reasons:

High pressure waterjet

5.2. Special hazards arising from the substance or mixture

In the event of a fire, carbon monoxide (CO) and carbon dioxide (CO₂) 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.

Avoid contact with skin and eyes.

Ensure adequate ventilation.

6.2. Environmental precautions

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

6.3. Methods and material for containment and cleaning up

Dispose of contaminated material as waste according to Section 13.

Remove mechanically.

6.4. Reference to other sections

See advice in section 8

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Ensure that workrooms are adequately ventilated.

Avoid skin and eye contact.

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

Store in sealed original container.

Keep container tightly sealed.

Store in a cool, dry place.

Storage at 0 to 25°C is recommended.

Do not store together with food or other consumables (coffee, tea, tobacco, etc.).

7.3. Specific end use(s)

Tile adhesive

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational Exposure Limits

Valid for
Great Britain

Ingredient [Regulated substance]	ppm	mg/m ³	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
Quartz (SiO ₂) 14808-60-7 [SILICA, RESPIRABLE CRYSTALLINE]		0,1	Time Weighted Average (TWA):		EH40 WEL
Quartz (SiO ₂) 14808-60-7 [RESPIRABLE CRYSTALLINE SILICA DUST]		0,1	Time Weighted Average (TWA):		EU OELIII
Quartz (SiO ₂) 14808-60-7 [SILICA, RESPIRABLE CRYSTALLINE]		0,1	Time Weighted Average (TWA):		EH40 WEL
Quartz (SiO ₂) 14808-60-7 [RESPIRABLE CRYSTALLINE SILICA DUST]		0,1	Time Weighted Average (TWA):		EU OELIII
Titanium dioxide 13463-67-7 [Titanium dioxide, total inhalable]		10	Time Weighted Average (TWA):		EH40 WEL
Titanium dioxide 13463-67-7 [Titanium dioxide, respirable]		4	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 [CALCIUM CARBONATE]		10	Time Weighted Average (TWA):		IR_OEL
Quartz (SiO ₂) 14808-60-7 [RESPIRABLE CRYSTALLINE SILICA DUST]		0,1	Time Weighted Average (TWA):		EU OELIII
Quartz (SiO ₂) 14808-60-7 [Silica, crystalline, respirable dust (Cristobalite, Quartz, Tridymite, Tripoli)]		0,1	Time Weighted Average (TWA):	Binding OELV	IR_OEL
Quartz (SiO ₂)		0,1	Time Weighted Average		EU OELIII

14808-60-7 [RESPIRABLE CRYSTALLINE SILICA DUST]			(TWA):		
Quartz (SiO ₂) 14808-60-7 [Silica, crystalline, respirable dust (Cristobalite, Quartz, Tridymite, Tripoli)]		0,1	Time Weighted Average (TWA):	Binding OELV	IR_OEL
Titanium dioxide 13463-67-7 [Titanium dioxide]		4	Time Weighted Average (TWA):		IR_OEL
Titanium dioxide 13463-67-7 [Titanium dioxide]		10	Time Weighted Average (TWA):		IR_OEL

Predicted No-Effect Concentration (PNEC):

Name on list	Environmental Compartment	Exposure period	Value				Remarks
			mg/l	ppm	mg/kg	others	
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		
Bis(2,2,6,6-tetramethyl-4-piperidyl) sebacate 52829-07-9	aqua (freshwater)		0,004 mg/l				
Bis(2,2,6,6-tetramethyl-4-piperidyl) sebacate 52829-07-9	aqua (marine water)		0,00038 mg/l				
Bis(2,2,6,6-tetramethyl-4-piperidyl) sebacate 52829-07-9	Freshwater - intermittent		0,007 mg/l				
Bis(2,2,6,6-tetramethyl-4-piperidyl) sebacate 52829-07-9	sediment (freshwater)				5,9 mg/kg		
Bis(2,2,6,6-tetramethyl-4-piperidyl) sebacate 52829-07-9	sediment (marine water)				0,59 mg/kg		
Bis(2,2,6,6-tetramethyl-4-piperidyl) sebacate 52829-07-9	Soil				1,18 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		0,91 mg/kg	
Trimethoxyvinylsilane 2768-02-7	Workers	inhalation	Long term exposure - systemic effects		27,6 mg/m ³	
Trimethoxyvinylsilane 2768-02-7	General population	dermal	Long term exposure - systemic effects		0,63 mg/kg	
Trimethoxyvinylsilane 2768-02-7	General population	inhalation	Long term exposure - systemic effects		6,8 mg/m ³	
Trimethoxyvinylsilane 2768-02-7	General population	oral	Long term exposure - systemic effects		0,63 mg/kg	
Trimethoxyvinylsilane 2768-02-7	Workers	inhalation	Acute/short term exposure - systemic effects		73,6 mg/m ³	
Trimethoxyvinylsilane 2768-02-7	General population	inhalation	Acute/short term exposure - systemic effects		54,4 mg/m ³	
Trimethoxyvinylsilane 2768-02-7	Workers	dermal	Long term exposure - local effects			
Trimethoxyvinylsilane 2768-02-7	Workers	dermal	Acute/short term exposure - local effects			
Trimethoxyvinylsilane 2768-02-7	General population	dermal	Long term exposure - local effects			
Trimethoxyvinylsilane 2768-02-7	General population	dermal	Acute/short term exposure - local effects			
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/m ³	
Bis(2,2,6,6-tetramethyl-4-piperidyl) sebacate 52829-07-9	General population	Inhalation	Long term exposure - systemic effects		0,31 mg/m ³	
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:

Respiratory protection:

Suitable breathing mask when there is inadequate ventilation.

Filter : AX (EN 14387)

This recommendation should be matched to local conditions.

Hand protection:

In the case of longer contact protective gloves made from nitrile rubber are recommended according to EN 374.

material thickness > 0.1 mm

Perforation time > 480 minutes

In the case of longer and repeated contact please note that in practice the penetration times may be considerably shorter than those determined according to EN 374. The protective gloves must always be checked for their suitability for use at the specific workplace (e.g. mechanical and thermal stress, product compatibility, antistatic effects, etc.). The gloves must be replaced immediately at the first signs of wear and tear. The information provided by the manufacturers and given in the relevant trade association regulations for industrial safety must always be observed. We recommend that a hand care plan is drawn up in cooperation with a glove manufacturer and the trade association in accordance with the local operating conditions.

Eye protection:

Goggles which can be tightly sealed.

Protective eye equipment should conform to EN166.

Skin protection:

Suitable protective clothing

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

Advices to personal protection equipment:

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**

Delivery form	paste
Colour	white
Odor	specific
Physical state	solid
Melting point	> 1.000 °C (> 1832 °F)
Solidification temperature	Not applicable, Product is a solid.
Initial boiling point	> 1.000 °C (> 1832 °F)
Flammability	The product is not flammable.
Explosive limits	Not applicable, Product is a solid.
Flash point	Not applicable, Product is a solid.
Auto-ignition temperature	Not applicable, Product is a solid.
Decomposition temperature	Not applicable, Substance/mixture is not self-reactive, no organic peroxide and does not decompose under foreseen conditions of use
pH	Not applicable, Product reacts with water.
Viscosity (kinematic)	Not applicable, Product is a solid.
Viscosity, dynamic (Brookfield; 40 °C (104 °F); Spindle No: F)	330.000 - 450.000 mPa.s ISO 2555-89 Viscosity according to Brookfield
Solubility (qualitative) (23 °C (73.4 °F); Solvent: Water)	Partially soluble
Partition coefficient: n-octanol/water	Not applicable
Vapour pressure (20 °C (68 °F))	Mixture < 0,1 hPa
Bulk density	1,55 - 1,60 g/cm ³
Relative vapour density:	Not applicable, Product is a solid.
Particle characteristics	Particle Size Analysis <= 1 mm Number based calculation method

9.2. Other information

Other information not applicable for this product

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

Evolves methanol during cure.

SECTION 11: Toxicological information**11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008****Acute oral toxicity:**

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

Hazardous substances CAS-No.	Value type	Value	Species	Method
Quartz (SiO ₂) "respirable particulates (reaches the alveoli)" (RCS) >=1% - <10% 14808-60-7	LD50	> 2.000 mg/kg	not specified	not specified
Quartz (SiO ₂), <1% respirable 14808-60-7	LD50	> 5.050 mg/kg	rat	not specified
Trimethoxyvinylsilane 2768-02-7	LD50	6.899 mg/kg	rat	equivalent or similar to OECD Guideline 401 (Acute Oral Toxicity)
Titanium dioxide < 1% particles with diameter ≤ 10 µm 13463-67-7	LD50	> 5.000 mg/kg	rat	OECD Guideline 425 (Acute Oral Toxicity: Up-and-Down Procedure)
Bis(2,2,6,6-tetramethyl-4-piperidyl) sebacate 52829-07-9	LD50	3.700 mg/kg	rat	OECD Guideline 423 (Acute Oral toxicity)

Acute dermal toxicity:

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

Hazardous substances CAS-No.	Value type	Value	Species	Method
Quartz (SiO ₂) "respirable particulates (reaches the alveoli)" (RCS) >=1% - <10% 14808-60-7	LD50	> 2.000 mg/kg	not specified	not specified
Quartz (SiO ₂), <1% respirable 14808-60-7	LD50	> 2.000 mg/kg	not specified	not specified
Trimethoxyvinylsilane 2768-02-7	LD50	3.158 mg/kg	rabbit	equivalent or similar to OECD Guideline 402 (Acute Dermal Toxicity)
Titanium dioxide < 1% particles with diameter ≤ 10 µm 13463-67-7	LD50	>= 10.000 mg/kg	hamster	not specified
Bis(2,2,6,6-tetramethyl-4-piperidyl) sebacate 52829-07-9	LD50	> 3.170 mg/kg	rat	OECD Guideline 402 (Acute Dermal Toxicity)

Acute inhalative toxicity:

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

Hazardous substances CAS-No.	Value type	Value	Test atmosphere	Exposure time	Species	Method
Trimethoxyvinylsilane 2768-02-7	LC50	16,8 mg/l	vapour	4 h	rat	equivalent or similar to OECD Guideline 403 (Acute Inhalation Toxicity)
Titanium dioxide < 1% particles with diameter ≤ 10 µm 13463-67-7	LC50	> 6,82 mg/l	dust	4 h	rat	not specified

Skin corrosion/irritation:

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

Hazardous substances CAS-No.	Result	Exposure time	Species	Method
Trimethoxyvinylsilane 2768-02-7	not irritating		rabbit	other guideline:
Titanium dioxide < 1% particles with diameter ≤ 10 µm 13463-67-7	not irritating	4 h	rabbit	equivalent or similar to OECD Guideline 404 (Acute Dermal Irritation / Corrosion)
Bis(2,2,6,6-tetramethyl-4- piperidyl) sebacate 52829-07-9	not irritating	24 h	rabbit	EPA OPP 81-5 (Acute Dermal Irritation)

Serious eye damage/irritation:

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

Hazardous substances CAS-No.	Result	Exposure time	Species	Method
Trimethoxyvinylsilane 2768-02-7	not irritating		rabbit	OECD Guideline 405 (Acute Eye Irritation / Corrosion)
Titanium dioxide < 1% particles with diameter ≤ 10 µm 13463-67-7	not irritating		rabbit	OECD Guideline 405 (Acute Eye Irritation / Corrosion)
Bis(2,2,6,6-tetramethyl-4- piperidyl) sebacate 52829-07-9	corrosive	24 h	rabbit	OECD Guideline 405 (Acute Eye Irritation / Corrosion)

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
Trimethoxyvinylsilane 2768-02-7	Sub-Category 1B (sensitising)	Buehler test	guinea pig	OECD Guideline 406 (Skin Sensitisation)
Titanium dioxide < 1% particles with diameter ≤ 10 µm 13463-67-7	not sensitising	Mouse local lymphnode assay (LLNA)	mouse	equivalent or similar to OECD Guideline 429 (Skin Sensitisation: Local Lymph Node Assay)
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
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)
Titanium dioxide < 1% particles with diameter ≤ 10 µm 13463-67-7	negative	bacterial reverse mutation assay (e.g Ames test)	with and without		OECD Guideline 471 (Bacterial Reverse Mutation Assay)
Titanium dioxide < 1% particles with diameter ≤ 10 µm 13463-67-7	negative	in vitro mammalian chromosome aberration test	with and without		OECD Guideline 473 (In vitro Mammalian Chromosome Aberration Test)
Titanium dioxide < 1% particles with diameter ≤ 10 µm 13463-67-7	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)
Trimethoxyvinylsilane 2768-02-7	negative	intraperitoneal		mouse	other guideline:
Titanium dioxide < 1% particles with diameter ≤ 10 µm 13463-67-7	negative	oral: gavage		mouse	OECD Guideline 474 (Mammalian Erythrocyte Micronucleus Test)

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 < 1% particles with diameter ≤ 10 µm 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
Trimethoxyvinylsilane 2768-02-7	NOAEL P 250 mg/kg	one-generation study	oral: gavage	rat	OECD Combined Repeated Dose and Reproductive / Developmental Toxicity Screening Test (Precursor Protocol of GL 422)
Trimethoxyvinylsilane 2768-02-7	NOAEL P 1.000 mg/kg	one-generation study	oral: gavage	rat	OECD Combined Repeated Dose and Reproductive / Developmental Toxicity Screening Test (Precursor Protocol of GL 422)
Trimethoxyvinylsilane 2768-02-7	NOAEL F1 1.000 mg/kg	one-generation study	oral: gavage	rat	OECD Combined Repeated Dose and Reproductive / Developmental Toxicity Screening Test (Precursor Protocol of GL 422)
Titanium dioxide < 1% particles with diameter ≤ 10 µm 13463-67-7	NOAEL P > 1.000 mg/kg NOAEL F1 > 1.000 mg/kg		oral: gavage	rat	OECD Guideline 421 (Reproduction / Developmental Toxicity Screening Test)
Bis(2,2,6,6-tetramethyl-4-piperidyl) sebacate 52829-07-9	NOAEL P 109 mg/kg NOAEL F1 121 mg/kg	two-generation study	oral: feed	rat	OECD Guideline 443 (Extended One-Generation 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 treatment	Species	Method
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
Trimethoxyvinylsilane 2768-02-7	NOAEL 50 mg/kg	oral: gavage	28 d daily	rat	OECD Guideline 407 (Repeated Dose 28-Day Oral Toxicity in Rodents)
Titanium dioxide < 1% particles with diameter ≤ 10 µm 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)
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.

11.2 Information on other hazards

not applicable

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.

The table below presents the data of the classified substances present in the mixture.

Hazardous substances CAS-No.	Value type	Value	Exposure time	Species	Method
Quartz (SiO ₂), <1% respirable 14808-60-7	LC50	> 1.000 mg/l	96 h	not specified	OECD Guideline 203 (Fish, Acute Toxicity Test)
Trimethoxyvinylsilane 2768-02-7	LC50	191 mg/l	96 h	Oncorhynchus mykiss	OECD Guideline 203 (Fish, Acute Toxicity Test)
Titanium dioxide < 1% particles with diameter ≤ 10 µm 13463-67-7	LC50	Toxicity > Water solubility	48 h	Danio rerio	other guideline:
Titanium dioxide < 1% particles with diameter ≤ 10 µm 13463-67-7	NOEC	Toxicity > Water solubility	8 d	Danio rerio	OECD Guideline 212 (Fish, Short-term Toxicity Test on Embryo and Sac-Fry Stages)
Bis(2,2,6,6-tetramethyl-4-piperidyl) sebacate 52829-07-9	LC50	4,4 mg/l	96 h	Lepomis macrochirus	OECD Guideline 203 (Fish, Acute Toxicity Test)

Toxicity (aquatic invertebrates):

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

The table below presents the data of the classified substances present in the mixture.

Hazardous substances CAS-No.	Value type	Value	Exposure time	Species	Method
Quartz (SiO ₂), <1% respirable 14808-60-7	EC50	> 1.000 mg/l	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
Trimethoxyvinylsilane 2768-02-7	EC50	168,7 mg/l	48 h	Daphnia magna	EU Method C.2 (Acute Toxicity for Daphnia)
Titanium dioxide < 1% particles with diameter ≤ 10 µm 13463-67-7	EC50	Toxicity > Water solubility	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
Bis(2,2,6,6-tetramethyl-4-piperidyl) sebacate 52829-07-9	EC50	8,58 mg/l	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)

Chronic toxicity (aquatic invertebrates):

The table below presents the data of 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.

The table below presents the data of the classified substances present in the mixture.

Hazardous substances CAS-No.	Value type	Value	Exposure time	Species	Method
Quartz (SiO ₂), <1% respirable 14808-60-7	EC50	> 1.000 mg/l	72 h	not specified	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)
Titanium dioxide < 1% particles with diameter ≤ 10 µm 13463-67-7	EC50	Toxicity > Water solubility	72 h	Pseudokirchneriella subcapitata	OECD Guideline 201 (Alga, Growth Inhibition Test)
Titanium dioxide < 1% particles with diameter ≤ 10 µm 13463-67-7	NOEC	Toxicity > Water solubility	72 h	Pseudokirchneriella subcapitata	OECD Guideline 201 (Alga, Growth 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 (microorganisms):

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

The table below presents the data of the classified substances present in the mixture.

Hazardous substances CAS-No.	Value type	Value	Exposure time	Species	Method
Quartz (SiO ₂), <1% respirable 14808-60-7	EC0	> 1.000 mg/l	3 h	not specified	OECD Guideline 209 (Activated Sludge, Respiration Inhibition Test)
Trimethoxyvinylsilane 2768-02-7	EC50	> 100 mg/l	3 h	activated sludge of a predominantly domestic sewage	OECD Guideline 209 (Activated Sludge, Respiration Inhibition Test)
Titanium dioxide < 1% particles with diameter ≤ 10 µm 13463-67-7	EC50	Toxicity > Water solubility	3 h	activated sludge	ISO 8192 (Test for Inhibition of Oxygen Consumption by Activated Sludge)
Bis(2,2,6,6-tetramethyl-4-piperidyl) sebacate 52829-07-9	EC50	> 100 mg/l	3 h	activated sludge, domestic	OECD Guideline 209 (Activated Sludge, Respiration Inhibition Test)

12.2. Persistence and degradability

The table below presents the data of the classified substances present in the mixture.

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: CO ₂ Evolution Test)

12.3. Bioaccumulative potential

No data available.

12.4. Mobility in soil

The table below presents the data of the classified substances present in the mixture.

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

The table below presents the data of the classified substances present in the mixture.

Hazardous substances CAS-No.	PBT / vPvB
Quartz (SiO ₂), <1% respirable 14808-60-7	According to Annex XIII to Regulation (EC) No 1907/2006, a PBT and vPvB assessment shall not be conducted for inorganic substances.
Trimethoxyvinylsilane 2768-02-7	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.
Titanium dioxide < 1% particles with diameter ≤ 10 µm 13463-67-7	According to Annex XIII to Regulation (EC) No 1907/2006, a PBT and vPvB assessment shall not be conducted for inorganic substances.
Bis(2,2,6,6-tetramethyl-4-piperidyl) sebacate 52829-07-9	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.

12.6. Endocrine disrupting properties

not applicable

12.7. Other adverse effects

No data available.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Product disposal:

Dispose of waste and residues in accordance with local authority requirements.

Disposal of uncleaned packages:

Use packages for recycling only when totally empty.

Waste code
080409

SECTION 14: Transport information

- 14.1. UN number or ID 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. Maritime transport in bulk according to IMO instruments**
not applicable

SECTION 15: Regulatory information

No information available:

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

Ozone Depleting Substance (ODS) (Regulation (EC) No 2024/590):	Not applicable
Prior Informed Consent (PIC) (Regulation (EU) No 649/2012):	Not applicable
Persistent organic pollutants (Regulation (EU) 2019/1021):	Not applicable

15.2. Chemical safety assessment

A chemical safety assessment has not 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 vapour.
H317 May cause an allergic skin reaction.
H318 Causes serious eye damage.
H332 Harmful if inhaled.
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.

ED:	Substance identified as having endocrine disrupting properties
EU OEL:	Substance with a Union workplace exposure limit
EU EXPLD 1:	Substance listed in Annex I, Reg (EC) No. 2019/1148
EU EXPLD 2	Substance listed in Annex II, Reg (EC) No. 2019/1148
SVHC:	Substance of very high concern (REACH Candidate List)
PBT:	Substance fulfilling persistent, bioaccumulative and toxic criteria
PBT/vPvB:	Substance fulfilling persistent, bioaccumulative and toxic plus very persistent and very bioaccumulative criteria
vPvB:	Substance fulfilling very persistent and very bioaccumulative criteria

Further information:

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