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

SDS No. : 823274
V001.0

Unibond NMN Stick & Peel

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Replaces version from: -

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

1.1. Product identifier
Unibond NMN Stick & Peel

1.2. Relevant identified uses of the substance or mixture and uses advised against
Intended use:
Assembly adhesives

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 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):

Skin sensitizer	Category 1
H317 May cause an allergic skin reaction.	
Chronic hazards to the aquatic environment	Category 3
H412 Harmful to aquatic life with long lasting effects.	

2.2. Label elements

Label elements (CLP):

Hazard pictogram:

Contains Trimethoxyvinylsilane

N,N-Dimethyl-3-(trimethoxysilyl)propylamine

dioctylbis(pentane-2,4-dionato-O,O`)tin

Signal word:	Warning
Hazard statement:	H317 May cause an allergic skin reaction. H412 Harmful to aquatic life with long lasting effects.
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	P261 Avoid breathing mist/vapours. P273 Avoid release to the environment. P280 Wear protective gloves/eye protection.
Precautionary statement: Response	P302+P352 IF ON SKIN: Wash with plenty of soap and water.
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 ≥ 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 ≥ 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
Trimethoxyvinylsilane 2768-02-7 220-449-8 01-2119513215-52	1- < 5 %	Flam. Liq. 3, H226 Acute Tox. 4, Inhalation, H332 STOT RE 2, H373 Skin Sens. 1B, H317		
Poly(oxy-1,2-ethanediyl), α-hydro-ω-hydroxy-, mono-C13-15-alkyl ethers, succinates 162627-31-8	0,25- < 2,5 %	Aquatic Acute 1, H400 Aquatic Chronic 1, H410 Eye Irrit. 2, H319	M acute = 1 M chronic = 1	
N,N-Dimethyl-3-(trimethoxysilyl)propylamine 2530-86-1 219-786-3 01-2120753783-46	0,1- < 1 %	Eye Dam. 1, H318 Skin Sens. 1B, H317	oral:ATE = 2.500 mg/kg	
dioctylbis(pentane-2,4-dionato-O,O`)tin 54068-28-9 483-270-6 01-0000020199-67	0,1- < 1 %	Skin Sens. 1, H317 STOT SE 1, H370 STOT RE 1, H372		

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. Apply replenishing cream. Change all contaminated clothing. If necessary, see a dermatologist.

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.

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
Storage at 5 to 25°C is recommended.
Do not store together with food or other consumables (coffee, tea, tobacco, etc.).

7.3. Specific end use(s)
Assembly adhesives

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
Silane, dichlorodimethyl-, reaction products with silica 7631-86-9 [SILICA, AMORPHOUS, RESPIRABLE DUST]		2,4	Time Weighted Average (TWA):		EH40 WEL
Silane, dichlorodimethyl-, reaction products with silica 7631-86-9 [SILICA, AMORPHOUS, INHALABLE DUST]		6	Time Weighted Average (TWA):		EH40 WEL
Silane, dichlorodimethyl-, reaction products with silica 7631-86-9 [Dust, inhalable dust]		10	Time Weighted Average (TWA):		EH40 WEL
Silane, dichlorodimethyl-, reaction products with silica 7631-86-9 [Dust, respirable dust]		4	Time Weighted Average (TWA):		EH40 WEL
Silicon dioxide 112945-52-5 [SILICA, AMORPHOUS, INHALABLE DUST]		6	Time Weighted Average (TWA):		EH40 WEL
Silicon dioxide 112945-52-5 [SILICA, AMORPHOUS, RESPIRABLE DUST]		2,4	Time Weighted Average (TWA):		EH40 WEL
Silicon dioxide 112945-52-5 [Dust, respirable dust]		4	Time Weighted Average (TWA):		EH40 WEL
Silicon dioxide 112945-52-5 [Dust, inhalable dust]		10	Time Weighted Average (TWA):		EH40 WEL
Silicon dioxide 112945-52-5 [SILICA, AMORPHOUS, INHALABLE DUST]		6	Time Weighted Average (TWA):		EH40 WEL
Silicon dioxide 112945-52-5 [SILICA, AMORPHOUS, RESPIRABLE DUST]		2,4	Time Weighted Average (TWA):		EH40 WEL
Silicon dioxide 112945-52-5 [Dust, respirable dust]		4	Time Weighted Average (TWA):		EH40 WEL
Silicon dioxide 112945-52-5 [Dust, inhalable dust]		10	Time Weighted Average (TWA):		EH40 WEL
methanol 67-56-1 [METHANOL]			Skin designation:	Can be absorbed through the skin.	EH40 WEL
methanol 67-56-1 [METHANOL]	200	266	Time Weighted Average (TWA):		EH40 WEL
methanol 67-56-1 [METHANOL]	250	333	Short Term Exposure Limit (STEL):	15 minutes	EH40 WEL
methanol 67-56-1 [Methanol]	200	260	Time Weighted Average (TWA):	Indicative	ECTLV
methanol 67-56-1			Skin designation:	Can be absorbed through the skin.	ECTLV

[Methanol]					

Occupational Exposure Limits

Valid for
Ireland

Ingredient [Regulated substance]	ppm	mg/m³	Value type	Short term exposure limit category / Remarks	Regulatory list
Silane, dichlorodimethyl-, reaction products with silica 7631-86-9 [DUSTS NON-SPECIFIC]		10	Time Weighted Average (TWA):		IR_OEL
Silane, dichlorodimethyl-, reaction products with silica 7631-86-9 [SILICA, AMORPHOUS]		2,4	Time Weighted Average (TWA):		IR_OEL
Silane, dichlorodimethyl-, reaction products with silica 7631-86-9 [SILICA, AMORPHOUS]		6	Time Weighted Average (TWA):		IR_OEL
Silane, dichlorodimethyl-, reaction products with silica 7631-86-9 [DUSTS NON-SPECIFIC]		4	Time Weighted Average (TWA):		IR_OEL
Silicon dioxide 112945-52-5 [SILICA, AMORPHOUS]		6	Time Weighted Average (TWA):		IR_OEL
Silicon dioxide 112945-52-5 [SILICA, AMORPHOUS]		2,4	Time Weighted Average (TWA):		IR_OEL
Silicon dioxide 112945-52-5 [DUSTS NON-SPECIFIC]		10	Time Weighted Average (TWA):		IR_OEL
Silicon dioxide 112945-52-5 [DUSTS NON-SPECIFIC]		4	Time Weighted Average (TWA):		IR_OEL
Silicon dioxide 112945-52-5 [SILICA, AMORPHOUS]		6	Time Weighted Average (TWA):		IR_OEL
Silicon dioxide 112945-52-5 [SILICA, AMORPHOUS]		2,4	Time Weighted Average (TWA):		IR_OEL
Silicon dioxide 112945-52-5 [DUSTS NON-SPECIFIC]		10	Time Weighted Average (TWA):		IR_OEL
Silicon dioxide 112945-52-5 [DUSTS NON-SPECIFIC]		4	Time Weighted Average (TWA):		IR_OEL
methanol 67-56-1 [Methanol]	200	260	Time Weighted Average (TWA):	Indicative OELV	IR_OEL
methanol 67-56-1 [Methanol]	200	260	Time Weighted Average (TWA):	Indicative	ECTLV
methanol 67-56-1 [Methanol]			Skin designation:	Can be absorbed through the skin.	IR_OEL
methanol 67-56-1 [Methanol]			Skin designation:	Can be absorbed through the skin.	ECTLV
dioctylbis(pentane-2,4-dionato-O,O`)tin 54068-28-9 [TIN, ORGANIC COMPOUNDS]		0,2	Short Term Exposure Limit (STEL):	15 minutes Indicative OELV	IR_OEL
dioctylbis(pentane-2,4-dionato-O,O`)tin 54068-28-9 [TIN, ORGANIC COMPOUNDS]		0,1	Time Weighted Average (TWA):	Indicative OELV	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		
dioctylbis(pentane-2,4-dionato-O,O`)tin 54068-28-9	aqua (freshwater)		0,026 mg/l				
dioctylbis(pentane-2,4-dionato-O,O`)tin 54068-28-9	sediment (freshwater)				0,155 mg/kg		
dioctylbis(pentane-2,4-dionato-O,O`)tin 54068-28-9	aqua (intermittent releases)		0,26 mg/l				
dioctylbis(pentane-2,4-dionato-O,O`)tin 54068-28-9	sediment (marine water)				0,0155 mg/kg		
dioctylbis(pentane-2,4-dionato-O,O`)tin 54068-28-9	aqua (marine water)		0,0026 mg/l				
dioctylbis(pentane-2,4-dionato-O,O`)tin 54068-28-9	sewage treatment plant (STP)		1 mg/l				
dioctylbis(pentane-2,4-dionato-O,O`)tin 54068-28-9	Soil				0,0158 mg/kg		

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/m3	
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/m3	
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/m3	
Trimethoxyvinylsilane 2768-02-7	General population	inhalation	Acute/short term exposure - systemic effects		54,4 mg/m3	
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			
dioctylbis(pentane-2,4-dionato-O,O`)tin 54068-28-9	Workers	dermal	Long term exposure - systemic effects		0,07 mg/kg	
dioctylbis(pentane-2,4-dionato-O,O`)tin 54068-28-9	Workers	inhalation	Long term exposure - local effects		0,091 mg/m3	
dioctylbis(pentane-2,4-dionato-O,O`)tin 54068-28-9	Workers	inhalation	Long term exposure - systemic effects		84 mg/m3	
dioctylbis(pentane-2,4-dionato-O,O`)tin 54068-28-9	Workers	inhalation	Acute/short term exposure - local effects		0,091 mg/m3	
dioctylbis(pentane-2,4-dionato-O,O`)tin 54068-28-9	Workers	inhalation	Acute/short term exposure - systemic effects		84 mg/m3	

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	Translucent
Odor	specific
Physical state	solid
Melting point	105 - 115 °C (221 - 239 °F)no method / method unknown
Solidification temperature	Not applicable, Product is a solid.
Initial boiling point	290 - 330 °C (554 - 626 °F)no method / method unknown
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 is non-soluble (in water).
Viscosity (kinematic)	Not applicable, Product is a solid.
Solubility (qualitative) (20 °C (68 °F); Solvent: Water)	Polymerises in presence of water.
Partition coefficient: n-octanol/water	Not applicable Mixture
Vapour pressure (20 °C (68 °F))	< 0,005 hPa
Density (20 °C (68 °F))	1,1 g/cm3
Relative vapour density:	Not applicable, Product is a solid.
Particle characteristics	Not applicable, mixture is a paste.

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
Trimethoxyvinylsilane 2768-02-7	LD50	7.120 mg/kg	rat	OECD Guideline 401 (Acute Oral Toxicity)
Poly(oxy-1,2-ethanediyl), α-hydro-ω-hydroxy-, mono-C13-15-alkyl ethers, succinates 162627-31-8	LD50	> 4.000 mg/kg	rat	OECD Guideline 401 (Acute Oral Toxicity)
N,N-Dimethyl-3-(trimethoxysilyl)propylamine 2530-86-1	LD50	> 2.000 mg/kg	rat	OECD Guideline 423 (Acute Oral toxicity)
N,N-Dimethyl-3-(trimethoxysilyl)propylamine 2530-86-1	Acute toxicity estimate (ATE)	2.500 mg/kg		Expert judgement
dioctylbis(pentane-2,4-dionato-O,O`)tin 54068-28-9	LD50	2.500 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
Trimethoxyvinylsilane 2768-02-7	LD50	3.200 mg/kg	rabbit	OECD Guideline 402 (Acute Dermal Toxicity)
dioctylbis(pentane-2,4-dionato-O,O`)tin 54068-28-9	LD50	> 2.000 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	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 CAS-No.	Result	Exposure time	Species	Method
Trimethoxyvinylsilane 2768-02-7	not irritating		rabbit	other guideline:
Poly(oxy-1,2-ethanediyl), α-hydro-ω-hydroxy-, mono-C13-15-alkyl ethers, succinates 162627-31-8	not irritating		rabbit	OECD Guideline 404 (Acute Dermal Irritation / Corrosion)
N,N-Dimethyl-3-(trimethoxysilyl)propylamine 2530-86-1	not corrosive	4 h	Human, EpiSkinTM (SM), Reconstructed Human Epidermis (RHE)	OECD Guideline 431 (In Vitro Skin Corrosion: Reconstructed Human Epidermis (RHE) Test Method)
N,N-Dimethyl-3-(trimethoxysilyl)propylamine 2530-86-1	not irritating	15 min	Human, EpiSkinTM (SM), Reconstructed Human Epidermis (RHE)	OECD Guideline 439 (In Vitro Skin Irritation: Reconstructed Human Epidermis (RHE) Test Method)

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)
Poly(oxy-1,2-ethanediyl), α-hydro-ω-hydroxy-, mono-C13-15-alkyl ethers, succinates 162627-31-8	irritating		rabbit	OECD Guideline 405 (Acute Eye Irritation / Corrosion)
N,N-Dimethyl-3-(trimethoxysilyl)propylamine 2530-86-1	not irritating		Chicken, eye, in vitro test	OECD Guideline 438 (Isolated Chicken Eye Test Method)

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	sensitising	Buehler test	guinea pig	OECD Guideline 406 (Skin Sensitisation)
N,N-Dimethyl-3-(trimethoxysilyl)propylamine 2530-86-1	sensitising	Mouse local lymphnode assay (LLNA)	mouse	OECD Guideline 429 (Skin Sensitisation: Local Lymph Node Assay)

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)
N,N-Dimethyl-3-(trimethoxysilyl)propylamine 2530-86-1	negative	bacterial reverse mutation assay (e.g Ames test)	with and without		OECD Guideline 471 (Bacterial Reverse Mutation Assay)

Carcinogenicity

No data available.

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)

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

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
Trimethoxyvinylsilane 2768-02-7	LC50	191 mg/l	96 h	Oncorhynchus mykiss	OECD Guideline 203 (Fish, Acute Toxicity Test)
Poly(oxy-1,2-ethanediyl), α-hydro-ω-hydroxy-, mono-C13-15-alkyl ethers, succinates 162627-31-8	LC50	3,5 mg/l	96 h	Oncorhynchus mykiss	OECD Guideline 203 (Fish, Acute Toxicity Test)
dioctylbis(pentane-2,4-dionato-O,O`)tin 54068-28-9	LC50	104 mg/l	96 h	Pimephales promelas	OECD Guideline 203 (Fish, Acute Toxicity Test)
dioctylbis(pentane-2,4-dionato-O,O`)tin 54068-28-9	NOEC	10 mg/l	34 d	Pimephales promelas	OECD Guideline 210 (fish early lite stage 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
Trimethoxyvinylsilane 2768-02-7	EC50	168,7 mg/l	48 h	Daphnia magna	EU Method C.2 (Acute Toxicity for Daphnia)
N,N-Dimethyl-3-(trimethoxysilyl)propylamine 2530-86-1	EC50	> 100,1 mg/l	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
dioctylbis(pentane-2,4-dionato-O,O`)tin 54068-28-9	EC50	25,9 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)
dioctylbis(pentane-2,4-dionato-O,O`)tin 54068-28-9	NOEC	18 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
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)
Poly(oxy-1,2-ethanediyl), α-hydro-ω-hydroxy-, mono-C13-15-alkyl ethers, succinates 162627-31-8	EC50	0,78 mg/l	72 h	Selenastrum capricornutum (new name: Pseudokirchneriella subcapitata)	OECD Guideline 201 (Alga, Growth Inhibition Test)
N,N-Dimethyl-3-(trimethoxysilyl)propylamine 2530-86-1	EC50	> 311 mg/l	72 h	Pseudokirchneriella subcapitata	OECD Guideline 201 (Alga, Growth Inhibition Test)
N,N-Dimethyl-3-(trimethoxysilyl)propylamine 2530-86-1	NOEC	32,4 mg/l	72 h	Pseudokirchneriella subcapitata	OECD Guideline 201 (Alga, Growth Inhibition Test)
dioctylbis(pentane-2,4-dionato-O,O`)tin 54068-28-9	EC50	83,22 mg/l	72 h	Raphidocelis subcapitata (new name: Pseudokirchneriella subcapitata)	OECD Guideline 201 (Alga, Growth Inhibition Test)
dioctylbis(pentane-2,4-dionato-O,O`)tin 54068-28-9	NOEC	3,2 mg/l	72 h	Raphidocelis subcapitata (new name: 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
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)

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)
N,N-Dimethyl-3-(trimethoxysilyl)propylamine 2530-86-1	not readily biodegradable.	aerobic	24 %	28 d	OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test)
dioctylbis(pentane-2,4-dionato-O,O`)tin 54068-28-9	not readily biodegradable.	aerobic	9 %	28 day	OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry 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
Poly(oxy-1,2-ethanediyl), α-hydro-ω-hydroxy-, mono-C13-15-alkyl ethers, succinates 162627-31-8	0,6	25 °C	OECD Guideline 107 (Partition Coefficient (n-octanol / water), Shake Flask Method)
N,N-Dimethyl-3-(trimethoxysilyl)propylamine 2530-86-1	0,51	25 °C	QSAR (Quantitative Structure Activity Relationship)
dioctylbis(pentane-2,4-dionato-O,O`)tin 54068-28-9	0,68	40 °C	EU Method A.8 (Partition Coefficient)

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
Trimethoxyvinylsilane 2768-02-7	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.
N,N-Dimethyl-3-(trimethoxysilyl)propylamine 2530-86-1	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 1005/2009):	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.
H319 Causes serious eye irritation.
H332 Harmful if inhaled.
H370 Causes damage to organs.
H372 Causes damage to organs through prolonged or repeated exposure.
H373 May cause damage to organs through prolonged or repeated exposure.
H400 Very toxic to aquatic life.
H410 Very 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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