

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

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TEROSON MS 9220 BK

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

1.1. Product identifier

TEROSON MS 9220 BK

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 Wood Lane End

HP2 4RQ Hemel Hempstead

Great Britain

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

ua-productsafety.uk@henkel.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 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
Trimethoxyvinylsilane	220-449-8	0,1-< 1 %	Flam. Liq. 3
2768-02-7	01-2119513215-52		H226
			Acute Tox. 4; Inhalation
			H332
			STOT RE 2
			H373
			Skin Sens. 1B
			H317

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.

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

No data available.

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/m ³	Value type	Short term exposure limit category / Remarks	Regulatory list
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
Carbon black 1333-86-4 [CARBON BLACK]		3,5	Time Weighted Average (TWA):		EH40 WEL
Carbon black 1333-86-4 [CARBON BLACK]		7	Short Term Exposure Limit (STEL):	15 minutes	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
Calcium carbonate 471-34-1 [CALCIUM CARBONATE]		4	Time Weighted Average (TWA):		IR_OEL
Calcium carbonate 471-34-1 [CALCIUM CARBONATE]		10	Time Weighted Average (TWA):		IR_OEL
Carbon black 1333-86-4 [CARBON BLACK]		3	Time Weighted Average (TWA):		IR_OEL

Predicted No-Effect Concentration (PNEC):

Name on list	Environmental Compartment	Exposure period	Value	Value			Remarks
	Compartment	periou	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	aqua (intermittent releases)		2,4 mg/l				
Trimethoxyvinylsilane 2768-02-7	sewage treatment plant (STP)		6,6 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		

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	

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

black

Odor characteristic

Odour threshold No data available / Not applicable

pH No data available / Not applicable
Melting point No data available / Not applicable
Solidification temperature No data available / Not applicable
Initial boiling point No data available / Not applicable

Flash point > 93 °C (> 199.4 °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 1,4 g/cm³

(20 °C (68 °F))

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

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:

To the best of our knowledge no harmful effects are to be expected if the product is handled and used properly.

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 CAS-No.	Value type	Value	Species	Method
Trimethoxyvinylsilane	LD50	7.120 mg/kg	rat	OECD Guideline 401 (Acute Oral Toxicity)
2768-02-7				

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)

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	not irritating		rabbit	other guideline:
2768-02-7				

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		
Trimethoxyvinylsilane	not irritating		rabbit	OECD Guideline 405 (Acute Eye Irritation / Corrosion)
2768-02-7				

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)

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)
Trimethoxyvinylsilane 2768-02-7	negative	intraperitoneal		mouse	other guideline:

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	Result / Value	Route of	Exposure time /	Species	Method
CAS-No.		application	Frequency of		
			treatment		
Trimethoxyvinylsilane	NOAEL < 62,5 mg/kg	oral: gavage	42d	rat	OECD Guideline 422
2768-02-7			daily		(Combined Repeated
					Dose Toxicity Study with
					the Reproduction /
					Developmental Toxicity
					Screening Test)
Trimethoxyvinylsilane	NOAEL 0,605 mg/l	inhalation:	5 days/week for 14	rat	not specified
2768-02-7		vapour	weeks		
			6 hours/day		

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 CAS-No.	Value type	Value	Exposure time	Species	Method
Trimethoxyvinylsilane 2768-02-7	LC50	191 mg/l	96 h		OECD Guideline 203 (Fish, Acute Toxicity Test)

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				
Trimethoxyvinylsilane	EC50	168,7 mg/l	48 h	Daphnia magna	EU Method C.2 (Acute
2768-02-7					Toxicity for Daphnia)

Chronic toxicity to aquatic invertebrates

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				
Trimethoxyvinylsilane	NOEC	28,1 mg/l	21 d	Daphnia magna	OECD 211 (Daphnia
2768-02-7					magna, Reproduction Test)

Toxicity (Algae):

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		_		
Trimethoxyvinylsilane	EC50	> 957 mg/l	72 h	Desmodesmus subspicatus	EU Method C.3 (Algal
2768-02-7				_	Inhibition test)
Trimethoxyvinylsilane	NOEC	957 mg/l	72 h	Desmodesmus subspicatus	EU Method C.3 (Algal
2768-02-7		_		_	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				
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)

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)

12.3. Bioaccumulative potential

No data available.

12.4. Mobility in soil

No data available.

12.5. Results of PBT and vPvB assessment

Hazardous substances	PBT / vPvB
CAS-No.	
Trimethoxyvinylsilane	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very
2768-02-7	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

VOC content 0 %
(VOCV 814.018 VOC regulation
CH)
VOC content 0,2 %
(2010/75/EU)

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 vapor.

H317 May cause an allergic skin reaction.

H332 Harmful if inhaled.

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

Further information:

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