



Safety Data Sheet

TEROSON MS 939 WH

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SDS No. : 694121

V001.0

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Section 1. Identification of the substance/preparation and of the company/undertaking

Product name: TEROSON MS 939 WH

Intended use: MS Sealant

Supplier:
Henkel Australia Pty Ltd
135-141 Canterbury Road
Kilsyth, Victoria, 3137
Australia

Phone: +61 (3) 9724 6444

Section 2. Hazards identification

Classification of the substance or mixture

Hazardous according to the criteria of Safe Work Australia.

GHS Classification:

<u>Hazard Class</u>	<u>Hazard Category</u>
Serious eye irritation	Category 2A
Skin sensitizer	Category 1
Acute hazards to the aquatic environment	Category 3

Hazard pictogram:



Signal word:

Warning

Hazard statement(s):	H317 May cause an allergic skin reaction. H319 Causes serious eye irritation. H402 Harmful to aquatic life.
Precautionary Statement(s):	
Prevention:	P261 Avoid breathing dust/fume/gas/mist/vapours/spray. P264 Wash hands thoroughly after handling. P272 Contaminated work clothing should not be allowed out of the workplace. P273 Avoid release to the environment. P280 Wear protective gloves, eye protection, and face protection.
Response:	P302+P352 IF ON SKIN: Wash with plenty of water. P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P333+P313 If skin irritation or rash occurs: Get medical advice/attention. P337+P313 If eye irritation persists: Get medical advice/attention. P363 Wash contaminated clothing before reuse.
Disposal:	P501 Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations.

Dangerous Goods information:

Not classified as Dangerous Goods according to the criteria of the Australian Code for the Transport of Dangerous Goods by Road and Rail (ADG Code).

Section 3. Composition / information on ingredients

General chemical description: Mixture

Identity of ingredients:

Chemical ingredients	CAS-No.	Proportion
Calcium carbonate	471-34-1	30- < 60 %
Titanium dioxide	13463-67-7	< 10 %
3-(Trimethoxysilyl)propylamine	13822-56-5	1- < 3 %
Trimethoxyvinylsilane	2768-02-7	< 10 %
non hazardous ingredients~		30- <= 60 %

Section 4. First aid measures

Ingestion:	Rinse mouth, drink 1-2 glasses of water, do not induce vomiting, consult a doctor.
Skin:	Rinse with running water and soap.
Eyes:	Rinse immediately with plenty of running water (for 10 minutes). Seek medical attention if necessary.
Inhalation:	Move to fresh air, consult doctor if complaint persists.
First Aid facilities:	Normal washroom facilities Eye wash
Medical attention and special treatment:	Treat symptomatically.

Section 5. Fire fighting measures

Suitable extinguishing media: All common extinguishing agents are suitable.

Decomposition products in case of fire: Oxides of carbon.

Special protective equipment for fire-fighters: Wear protective equipment.
Wear self-contained breathing apparatus and full protective clothing, such as turn-out gear.

Additional fire fighting advice: In case of fire, keep containers cool with water spray.

Section 6. Accidental release measures

Personal precautions: Wear protective equipment.

Environmental precautions: Do not allow product to enter sewer or waterways.

Clean-up methods: Remove mechanically.
Dispose of contaminated material as waste according to Section 13.

Section 7. Handling and storage

Precautions for safe handling: Do not handle contact lenses until all sealant has been removed from hands. Residual sealant may transfer to lenses and cause eye irritation.
Prevent contact with eyes, skin and clothing. Do not breathe vapor and mist. Wash thoroughly after handling.

Conditions for safe storage: Storage at 5 to 25°C is recommended.

Section 8. Exposure controls / personal protection

National exposure standards:

Ingredient [Regulated substance]	form of exposure	TWA (ppm)	TWA (mg/m3)	Peak Limit. (ppm)	Peak Limit. (mg/m3)	STEL (ppm)	STEL (mg/m3)
CALCIUM CARBONATE 471-34-1	Inhalable dust.		10				
TITANIUM DIOXIDE 13463-67-7	Inhalable dust.		10				

Eye protection: Protective goggles

Skin protection: Wear protective equipment.
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):
nitrile rubber (NBR; ≥ 0.4 mm thickness)
Suitable materials for longer, direct contact (recommended: protection index 6, corresponding to > 480 minutes permeation time as per EN 374):
nitrile rubber (NBR; ≥ 0.4 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.

Respiratory protection: Suitable breathing mask when there is inadequate ventilation.

Section 9. Physical and chemical properties

Appearance:	white solid
Odor:	characteristic
Flash point:	> 93 °C (> 199.4 °F)
Density:	1.47 - 1.53 g/ml
Viscosity (dynamic):	180,000 - 310,000 mPa.s (; 23 °C (73.4 °F); speed of rotation: 10 s-1; Spindle No: 25; Method: ;; LCT STM 738; Rheological Data from flow curves)

Section 10. Stability and reactivity

Conditions to avoid:	None if used for intended purpose.
Incompatible materials:	None if used for intended purpose.
Hazardous decomposition products:	No decomposition if used according to specifications.

Section 11. Toxicological information

Health Effects:	
Ingestion:	May cause irritation of the stomach
Skin:	May cause skin sensitization.
Eyes:	Causes serious eye irritation.
Inhalation:	Inhalation of mist or spray may cause irritation of the respiratory tract and nasal passages.

Acute toxicity:

Hazardous components CAS-No.	Value type	Value	Route of application	Exposure time	Species	Method
Calcium carbonate 471-34-1	LD50 LC50 LD50	> 2,000 mg/kg > 3 mg/l > 2,000 mg/kg	oral inhalation dermal	4 h	rat rat rat	OECD Guideline 420 (Acute Oral Toxicity) OECD Guideline 403 (Acute Inhalation Toxicity) OECD Guideline 402 (Acute Dermal Toxicity)
Titanium dioxide 13463-67-7	LD50 LC50 LD50	> 5,000 mg/kg > 6.82 mg/l ≥ 10,000 mg/kg	oral inhalation dermal	4 h	rat rat hamster	OECD Guideline 425 (Acute Oral Toxicity: Up-and-Down Procedure) not specified not specified
3-(Trimethoxysilyl)propylamine 13822-56-5	LD50 LD50	3,030 mg/kg 11,300 mg/kg	oral dermal		rat rabbit	equivalent or similar to OECD Guideline 401 (Acute Oral Toxicity) equivalent or similar to OECD Guideline 402 (Acute Dermal Toxicity)
Trimethoxyvinylsilane 2768-02-7	LD50 LC50 LD50	7,120 mg/kg 16.8 mg/l 3,200 mg/kg	oral inhalation dermal	4 h	rat rat rabbit	OECD Guideline 401 (Acute Oral Toxicity) OECD Guideline 403 (Acute Inhalation Toxicity) OECD Guideline 402 (Acute Dermal Toxicity)

Skin corrosion/irritation:

Hazardous components CAS-No.	Result	Exposure time	Species	Method
Calcium carbonate 471-34-1	not irritating	4 h	rabbit	OECD Guideline 404 (Acute Dermal Irritation / Corrosion)
Titanium dioxide 13463-67-7	not irritating	4 h	rabbit	equivalent or similar to OECD Guideline 404 (Acute Dermal Irritation / Corrosion)
3- (Trimethoxysilyl)propyla mine 13822-56-5	irritating	4 h	rabbit	OECD Guideline 404 (Acute Dermal Irritation / Corrosion)
Trimethoxyvinylsilane 2768-02-7	not irritating		rabbit	other guideline:

Serious eye damage/irritation:

Hazardous components CAS-No.	Result	Exposure time	Species	Method
Calcium carbonate 471-34-1	not irritating		rabbit	OECD Guideline 405 (Acute Eye Irritation / Corrosion)
Titanium dioxide 13463-67-7	not irritating		rabbit	OECD Guideline 405 (Acute Eye Irritation / Corrosion)
3- (Trimethoxysilyl)propyla mine 13822-56-5	corrosive		rabbit	equivalent or similar to OECD Guideline 405 (Acute Eye Irritation / Corrosion)
Trimethoxyvinylsilane 2768-02-7	not irritating		rabbit	OECD Guideline 405 (Acute Eye Irritation / Corrosion)

Respiratory or skin sensitization:

Hazardous components CAS-No.	Result	Test type	Species	Method
Calcium carbonate 471-34-1	not sensitising	Mouse local lymphnod e assay (LLNA)	mouse	OECD Guideline 429 (Skin Sensitisation: Local Lymph Node Assay)
Titanium dioxide 13463-67-7	not sensitising	Mouse local lymphnod e assay (LLNA)	mouse	equivalent or similar to OECD Guideline 429 (Skin Sensitisation: Local Lymph Node Assay)
3- (Trimethoxysilyl)propyla mine 13822-56-5	not sensitising	Guinea pig maximisat ion test	guinea pig	OECD Guideline 406 (Skin Sensitisation)
Trimethoxyvinylsilane 2768-02-7	sensitising	Buehler test	guinea pig	OECD Guideline 406 (Skin Sensitisation)

Germ cell mutagenicity:

Hazardous components CAS-No.	Result	Type of study / Route of administration	Metabolic activation / Exposure time	Species	Method
Calcium carbonate 471-34-1	negative negative negative	bacterial reverse mutation assay (e.g Ames test) in vitro mammalian chromosome aberration test mammalian cell gene mutation assay	with and without with and without with and without		OECD Guideline 471 (Bacterial Reverse Mutation Assay) OECD Guideline 473 (In vitro Mammalian Chromosome Aberration Test) OECD Guideline 476 (In vitro Mammalian Cell Gene Mutation Test)
Titanium dioxide 13463-67-7	negative negative negative	bacterial reverse mutation assay (e.g Ames test) in vitro mammalian chromosome aberration test mammalian cell gene mutation assay	with and without with and without with and without		OECD Guideline 471 (Bacterial Reverse Mutation Assay) OECD Guideline 473 (In vitro Mammalian Chromosome Aberration Test) 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 positive negative	bacterial reverse mutation assay (e.g Ames test) in vitro mammalian chromosome aberration test mammalian cell gene mutation assay	with and without with and without with and without		OECD Guideline 471 (Bacterial Reverse Mutation Assay) OECD Guideline 473 (In vitro Mammalian Chromosome Aberration Test) OECD Guideline 476 (In vitro Mammalian Cell Gene Mutation Test)
Trimethoxyvinylsilane 2768-02-7	negative	intraperitoneal		mouse	other guideline:

Repeated dose toxicity:

Hazardous components CAS-No.	Result	Route of application	Exposure time / Frequency of treatment	Species	Method
Calcium carbonate 471-34-1	NOAEL=1,000 mg/kg	oral: gavage	48 ddaily	rat	OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test)
Titanium dioxide 13463-67-7	NOAEL=1,000 mg/kg	oral: gavage	90 ddaily	rat	OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity in Rodents)
Trimethoxyvinylsilane 2768-02-7	NOAEL=< 62.5 mg/kg	oral: gavage	42ddaily	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 weeks6 hours/day	rat	not specified

Section 12. Ecological information

General ecological information:

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

Toxicity:

Hazardous components CAS-No.	Value type	Value	Acute Toxicity Study	Exposure time	Species	Method
Calcium carbonate 471-34-1	LC50	Toxicity > Water solubility	Fish	96 h	Oncorhynchus mykiss	OECD Guideline 203 (Fish, Acute Toxicity Test)
Calcium carbonate 471-34-1	EC50	Toxicity > Water solubility	Daphnia	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
Calcium carbonate 471-34-1	EC50	Toxicity > Water solubility	Algae	72 h	Desmodesmus subspicatus	OECD Guideline 201 (Alga, Growth Inhibition Test)
Calcium carbonate 471-34-1	NOEC	14 mg/l	Algae	72 h	Desmodesmus subspicatus	OECD Guideline 201 (Alga, Growth Inhibition Test)
Calcium carbonate 471-34-1	EC50	Toxicity > Water solubility	Bacteria	3 h	activated sludge of a predominantly domestic sewage	OECD Guideline 209 (Activated Sludge, Respiration Inhibition Test)
Titanium dioxide 13463-67-7	LC50	Toxicity > Water solubility	Fish	48 h	Leuciscus idus	OECD Guideline 203 (Fish, Acute Toxicity Test)
Titanium dioxide 13463-67-7	EC50	Toxicity > Water solubility	Daphnia	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
Titanium dioxide 13463-67-7	EC50	Toxicity > Water solubility	Algae	72 h	Pseudokirchneriella subcapitata	OECD Guideline 201 (Alga, Growth Inhibition Test)
Titanium dioxide 13463-67-7	EC0	Toxicity > Water solubility	Bacteria	24 h	Pseudomonas fluorescens	DIN 38412, part 8 (Pseudomonas Zellvermehrungshe- mm-Test)
3- (Trimethoxysilyl)propylamine 13822-56-5	LC50	> 934 mg/l	Fish	96 h	Brachydanio rerio (new name: Danio rerio)	OECD Guideline 203 (Fish, Acute Toxicity Test)
3- (Trimethoxysilyl)propylamine 13822-56-5	EC50	331 mg/l	Daphnia	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
3- (Trimethoxysilyl)propylamine 13822-56-5	EC50	> 1,000 mg/l	Algae	72 h	Desmodesmus subspicatus	EU Method C.3 (Algal Inhibition test)
3- (Trimethoxysilyl)propylamine 13822-56-5	NOEC	1.3 mg/l	Algae	72 h	Desmodesmus subspicatus	EU Method C.3 (Algal Inhibition test)
Trimethoxyvinylsilane 2768-02-7	LC50	191 mg/l	Fish	96 h	Oncorhynchus mykiss	OECD Guideline 203 (Fish, Acute Toxicity Test)
Trimethoxyvinylsilane 2768-02-7	EC50	168.7 mg/l	Daphnia	48 h	Daphnia magna	EU Method C.2 (Acute Toxicity for Daphnia)
Trimethoxyvinylsilane 2768-02-7	EC50	> 957 mg/l	Algae	72 h	Desmodesmus subspicatus	EU Method C.3 (Algal Inhibition test)
Trimethoxyvinylsilane 2768-02-7	NOEC	957 mg/l	Algae	72 h	Desmodesmus subspicatus	EU Method C.3 (Algal Inhibition test)
Trimethoxyvinylsilane 2768-02-7	EC50	> 100 mg/l	Bacteria	3 h	activated sludge of a predominantly domestic sewage	OECD Guideline 209 (Activated Sludge, Respiration Inhibition Test)

Persistence and degradability:

Hazardous components CAS-No.	Result	Route of application	Degradability	Method
3- (Trimethoxysilyl)propylamine 13822-56-5	readily biodegradable	aerobic	80.2 %	OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test)
Trimethoxyvinylsilane 2768-02-7	not readily biodegradable.	aerobic	51 %	OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test)

Bioaccumulative potential / Mobility in soil:

Hazardous components CAS-No.	LogPow	Bioconcentration factor (BCF)	Exposure time	Species	Temperature	Method
Calcium carbonate 471-34-1	-2.12					QSAR (Quantitative Structure Activity Relationship)
3- (Trimethoxysilyl)propylamine 13822-56-5	-1.3				20 °C	QSAR (Quantitative Structure Activity Relationship)

Section 13. Disposal considerations

Waste disposal of product: Dispose of in accordance with local and national regulations.

Disposal for uncleaned package: Collection and delivery to recycling enterprise or other registered elimination institution.

Section 14. Transport information**Road and Rail Transport:**

Dangerous Goods information: Not classified as Dangerous Goods according to the criteria of the Australian Code for the Transport of Dangerous Goods by Road and Rail (ADG Code).

Marine transport IMDG:

Not dangerous goods

Air transport IATA:

Not dangerous goods

Section 15. Regulatory information

SUSMP Poisons Schedule None

AHC: All components are listed or are exempt from listing on the Australian Inventory of Chemical Substances (AICIS).

Section 16. Other information

Abbreviations/acronyms: AHC - Australian Inventory of Industrial Chemicals (AHC)
AICIS - Australian Industrial Chemicals Introduction Scheme

Reason for issue: First issue. involved chapters: 1-16

Disclaimer:

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