Safety Data Sheet

TEROSON MS 939 BK

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V001.0
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Section 1. Identification of the substance/preparation and of the company/undertaking

Product name: TEROSON MS 939 BK

Intended use: MS Adhesive

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

Phone: +61 (3) 9724 6444

Emergency information: 24 HOUR EMERGENCY CONTACT NUMBER: 1800 032 379

Section 2. Hazards identification

Classification of the substance or mixture
Not hazardous according to the criteria of Safe Work Australia.

No classification required.

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 %
Octadecanoic acid	57-11-4	< 10 %
Carbon black - Nano	1333-86-4	< 10 %
methanol	67-56-1	< 1 %
Bis(2,2,6,6-tetramethyl-4-piperidyl) sebacate	52829-07-9	< 1 %
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. Apply replenishing cream. Change all contaminated clothing.
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:	Eye wash and safety shower Normal washroom facilities
Medical attention and special treatment:	Treat symptomatically and supportively.

Section 5. Fire fighting measures

Suitable extinguishing media:	All common extinguishing agents are suitable.
Improper extinguishing media:	High pressure waterjet
Particular danger in case of fire:	In case of fire toxic gases can be released.
Special protective equipment for fire-fighters:	Wear self-contained breathing apparatus. Wear protective equipment.

Section 6. Accidental release measures

Personal precautions:	Wear protective equipment.
Environmental precautions:	Do not empty into drains / surface water / ground water.
Clean-up methods:	Remove mechanically. Dispose of contaminated material as waste according to Section 13.

Section 7. Handling and storage

Precautions for safe handling:	Avoid skin and eye contact. Use only in well-ventilated areas.
Conditions for safe storage:	Ensure good ventilation/extraction. Temperatures between + 10 °C and + 25 °C

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				
STEARATES 57-11-4	Inhalable dust.		10				
CARBON BLACK 1333-86-4			3				
METHYL ALCOHOL 67-56-1		200	262				
METHYL ALCOHOL 67-56-1						250	328

Eye protection: Protective goggles

Skin protection: Wear suitable protective clothing.
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.

Respiratory protection: If inhalation risk exists, wear a respirator or air supplied mask complying with the requirements of AS/NZS 1715 and AS/NZS 1716.

Section 9. Physical and chemical properties

Appearance: black
solid materialblack
paste
Odor: alcohol-likecharacteristic
pH: Not applicable, Product reacts with water.
Melting point / freezing point: Not applicable, Determination technically not possible
Boiling point: > 250 °C (> 482 °F)
Flash point: Not applicable
Flammability (solid, gas): The product is not flammable.
Vapor pressure: < 0.1 hPa
(; 20 °C (68 °F))
Vapor density: Not applicable, Product is a solid.
Density: 1.42 g/cm3

Section 10. Stability and reactivity

Stability: Stable under recommended storage conditions.

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 mild skin irritation.
Eyes: May cause mild irritation
Inhalation: Inhalation of mist or spray may cause irritation of the respiratory tract and nasal passages.
Chronic effects:
methanol 67-56-1: Neurological symptoms; irritation to the nasal mucous membranes through exposure to higher vapor concentrations; headaches, blurred vision and nausea; damage to the skin due to repeated contact; prenatal toxic effects were seen in rats and mice.

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)
Octadecanoic acid 57-11-4	LD50 LD50	> 5,000 mg/kg > 2,000 mg/kg	oral dermal		rat rabbit	OECD Guideline 401 (Acute Oral Toxicity) equivalent or similar to OECD Guideline 434 (Acute Dermal Toxicity)
Carbon black - Nano 1333-86-4	LD50 LC50	> 8,000 mg/kg	oral inhalation	4 h	rat rat	OECD Guideline 401 (Acute Oral Toxicity) not specified
methanol 67-56-1	Acute toxicity estimate (ATE)	300 mg/kg	oral			Expert judgement
Bis(2,2,6,6-tetramethyl-4-piperidyl) sebacate 52829-07-9	LD50 LD50	3,700 mg/kg > 3,170 mg/kg	oral dermal		rat rat	OECD Guideline 423 (Acute Oral 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)
Octadecanoic acid 57-11-4	not irritating		rabbit	Patch Test
Carbon black - Nano 1333-86-4	not irritating	4 h	rabbit	OECD Guideline 404 (Acute Dermal Irritation / Corrosion)
methanol 67-56-1	not irritating	20 h	rabbit	BASF Test
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:

Hazardous components CAS-No.	Result	Exposure time	Species	Method
Calcium carbonate 471-34-1	not irritating		rabbit	OECD Guideline 405 (Acute Eye Irritation / Corrosion)
Octadecanoic acid 57-11-4	not irritating		rabbit	Draize Test
Carbon black - Nano 1333-86-4	not irritating		rabbit	OECD Guideline 405 (Acute Eye Irritation / Corrosion)
methanol 67-56-1	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:

Hazardous components CAS-No.	Result	Test type	Species	Method
Calcium carbonate 471-34-1	not sensitising	Mouse local lymphnode assay (LLNA)	mouse	OECD Guideline 429 (Skin Sensitisation: Local Lymph Node Assay)
Octadecanoic acid 57-11-4	not sensitising	Guinea pig maximisation test		Magnusson and Kligman Method
Carbon black - Nano 1333-86-4	not sensitising	Mouse local lymphnode assay (LLNA)	mouse	OECD Guideline 429 (Skin Sensitisation: Local Lymph Node Assay)
methanol 67-56-1	not sensitising	Guinea pig maximisation test	guinea pig	equivalent or similar to OECD Guideline 406 (Skin Sensitisation)
Bis(2,2,6,6-tetramethyl-4-piperidyl) sebacate 52829-07-9	not sensitising	Guinea pig maximisation test	guinea pig	OECD Guideline 406 (Skin Sensitisation)

Germ cell mutagenicity:

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)
Octadecanoic acid 57-11-4	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		not specified OECD Guideline 473 (In vitro Mammalian Chromosome Aberration Test) OECD Guideline 476 (In vitro Mammalian Cell Gene Mutation Test)
Carbon black - Nano 1333-86-4	negative negative negative negative negative	bacterial reverse mutation assay (e.g Ames test) mammalian cell gene mutation assay sister chromatid exchange assay in mammalian cells in vitro mammalian cell micronucleus test mammalian cell gene mutation assay	with and without with and without with and without with and without with and without		OECD Guideline 471 (Bacterial Reverse Mutation Assay) OECD Guideline 476 (In vitro Mammalian Cell Gene Mutation Test) OECD Guideline 479 (Genetic Toxicology: In Vitro Sister Chromatid Exchange Assay in Mammalian Cells) OECD Guideline 487 (In vitro Mammalian Cell Micronucleus Test) OECD Guideline 490 (In Vitro Mammalian Cell Gene Mutation Tests Using the Thymidine Kinase Gene)
Carbon black - Nano 1333-86-4	negative	inhalation		rat	OECD Guideline 489 (In Vivo Mammalian Alkaline Comet Assay)
methanol 67-56-1	negative negative negative	bacterial reverse mutation assay (e.g Ames test) in vitro mammalian cell micronucleus test mammalian cell gene mutation assay	with and without without with and without		OECD Guideline 471 (Bacterial Reverse Mutation Assay) not specified equivalent or similar to OECD Guideline 476 (In vitro Mammalian Cell Gene Mutation Test)
methanol 67-56-1	negative	intraperitoneal		mouse	equivalent or similar to OECD Guideline 474 (Mammalian Erythrocyte Micronucleus Test)
Bis(2,2,6,6-tetramethyl-4-piperidyl) sebacate 52829-07-9	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)

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)
Octadecanoic acid 57-11-4	NOAEL=1,000 mg/kg	oral: gavage	42 ddaily	rat	OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test)
Carbon black - Nano 1333-86-4	NOAEL=> 1,000 mg/kg	oral: gavage	90 ddaily	rat	OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity in Rodents)
Carbon black - Nano 1333-86-4	NOAEL=1 mg/m3	inhalation	13 w6 h/d, 5 d/w	rat	not specified
methanol 67-56-1	NOAEL=6.63 mg/l	inhalation: vapour	4 weeks6 h/d, 5 d/w	rat	equivalent or similar to OECD Guideline 412 (Repeated Dose Inhalation Toxicity: 28/14-Day)
methanol 67-56-1	NOAEL=0.13 mg/l	inhalation: vapour	12 m20 h/d	rat	equivalent or similar to OECD Guideline 453 (Combined Chronic Toxicity / Carcinogenicity Studies)
Bis(2,2,6,6-tetramethyl-4-piperidyl) sebacate 52829-07-9	NOAEL=36 mg/kg	oral: feed	daily	rat	other guideline:

Section 12. Ecological information

General ecological information: Do not empty into drains, soil or bodies of 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)
Octadecanoic acid 57-11-4	LC50	Toxicity > Water solubility	Fish	48 h	Leuciscus idus	DIN 38412-15
Octadecanoic acid 57-11-4	IC50	Toxicity > Water solubility	Algae	96 h	Selenastrum capricornutum (new name: Pseudokirchneriella subcapitata)	other guideline:
Octadecanoic acid 57-11-4	EC10	Toxicity > Water solubility	Bacteria	16 h	Pseudomonas putida	ISO 10712: Determination of the inhibitory effect of water constituents on bacteria (Pseudomonas cell inhibition test)
Carbon black - Nano 1333-86-4	LC50	Toxicity > Water solubility	Fish	96 h	Danio rerio	OECD Guideline 203 (Fish, Acute Toxicity Test)
Carbon black - Nano 1333-86-4	EC50	Toxicity > Water solubility	Daphnia	24 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
Carbon black - Nano 1333-86-4	EC50	Toxicity > Water solubility	Algae	72 h	Desmodesmus subspicatus	OECD Guideline 201 (Alga, Growth Inhibition Test)
Carbon black - Nano 1333-86-4	EC10	Toxicity > Water solubility	Algae	72 h	Desmodesmus subspicatus	OECD Guideline 201 (Alga, Growth Inhibition Test)
Carbon black - Nano 1333-86-4	EC0	Toxicity > Water solubility	Bacteria	3 h	activated sludge, domestic	OECD Guideline 209 (Activated Sludge, Respiration Inhibition Test)
methanol 67-56-1	LC50	15,400 mg/l	Fish	96 h	Lepomis macrochirus	EPA-660 (Methods for Acute Toxicity Tests with Fish, Macroinvertebrates and Amphibians)
methanol 67-56-1	NOEC	7,900 mg/l	Fish	200 h	Oryzias latipes	OECD Guideline 210 (fish early lite stage toxicity test)
methanol 67-56-1	EC50	18,260 mg/l	Daphnia	96 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
methanol 67-56-1	EC50	22,000 mg/l	Algae	96 h	Selenastrum capricornutum (new name: Pseudokirchneriella subcapitata)	OECD Guideline 201 (Alga, Growth Inhibition Test)
methanol 67-56-1	IC50	> 1,000 mg/l	Bacteria	3 h	activated sludge of a predominantly domestic sewage	OECD Guideline 209 (Activated

						Sludge, Respiration Inhibition Test)
Bis(2,2,6,6-tetramethyl-4-piperidyl) sebacate 52829-07-9	LC50	4.4 mg/l	Fish	96 h	Lepomis macrochirus	OECD Guideline 203 (Fish, Acute Toxicity Test)
Bis(2,2,6,6-tetramethyl-4-piperidyl) sebacate 52829-07-9	EC50	8.58 mg/l	Daphnia	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	0.705 mg/l	Algae	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	Algae	72 h	Pseudokirchneriella subcapitata	OECD Guideline 201 (Alga, Growth Inhibition Test)
Bis(2,2,6,6-tetramethyl-4-piperidyl) sebacate 52829-07-9	EC50	> 100 mg/l	Bacteria	3 h	activated sludge, domestic	OECD Guideline 209 (Activated Sludge, Respiration Inhibition Test)

Persistence and degradability:

Hazardous components CAS-No.	**Result**	**Route of application**	**Degradability**	**Method**
Octadecanoic acid 57-11-4	readily biodegradable	aerobic	95 %	OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test)
methanol 67-56-1	readily biodegradable	aerobic	82 - 92 %	EU Method C.4-E (Determination of the "Ready" BiodegradabilityClosed Bottle Test)
Bis(2,2,6,6-tetramethyl-4-piperidyl) sebacate 52829-07-9	not readily biodegradable.	aerobic	24 %	OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution 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					not specified
Octadecanoic acid 57-11-4		> 234 - 288		Danio rerio		OECD Guideline 305 E (Bioaccumulation: Flow-through Fish Test)
Octadecanoic acid 57-11-4	8.23					EU Method A.8 (Partition Coefficient)
methanol 67-56-1		< 10	72 h	Leuciscus idus melanotus		not specified
methanol 67-56-1	-0.77					other guideline:
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)

Section 13. Disposal considerations

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

Disposal for uncleaned package: Packaging that cannot be cleaned are to be disposed of in the same manner as the product.

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
AIIC:	All components are listed or are exempt from listing on the Australian Inventory of Industrial Chemicals or Introduced under AICIS.

Section 16. Other information

Abbreviations/acronyms:

ADGC - Australian Dangerous Goods Code
SUSMP - Standard for the Uniform Medicines of Medicines and Poisons
GHS: Globally Harmonized System
CAS: Chemical Abstracts Service
IMDG: International Maritime Dangerous Goods code
IATA-DGR: International Air Transport Association – Dangerous Goods Regulations
AIIC - Australian Inventory of Industrial Chemicals (AIIC)
AICIS - Australian Industrial Chemicals Introduction Scheme

Disclaimer:

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