

SAFETY DATA SHEET

PERIGEN 500

1/11

Revision Date: 25.09.2023

Version 2 / NZ

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product identifier

Trade name PERIGEN 500
Product code (UVP) 06069142

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

Use Insecticide
EPA Approval HSR000304

1.3 Details of the supplier of the safety data sheet

Importer/distributor Garrards (NZ) Ltd
Unit 4/27B Cain Road
Penrose
Auckland 0627
New Zealand
Telephone: 09 526 5232
www.garrards.co.nz

1.4 Emergency telephone numbers

Emergency Number **For specialist advice in an emergency call +64 9801 0034 or 0800 425 459 toll free.**
The toll free phone number is possibly accessible, but not guaranteed from payphones within New Zealand and is not accessible from outside of New Zealand.

National Poisons Centre 0800 764 766 [0800 POISON]

SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Classified as hazardous according to the criteria in the Hazardous Substances (Hazard Classification) Notice 2020

Flammable liquid Category 4
Acute oral toxicity Category 4
Acute inhalation toxicity Category 4
Eye irritation Category 2
Respiratory sensitisation Category 1
Skin sensitisation Category 1
Specific target organ toxicity repeated exposure Category 2
Hazardous to the aquatic environment acute Category 1
Hazardous to the aquatic environment chronic Category 1
Hazardous to terrestrial vertebrates
Hazardous to terrestrial invertebrates

2.2 Label elements

Labelling in accordance with Hazardous Substances (Labelling) Notice 2017

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Specific labelling information is required. Refer Section 15.

Pictograms:



Signal word: DANGER

Hazard statements

H227	Combustible liquid
H302	Harmful if swallowed
H317	May cause an allergic skin reaction
H319	Causes serious eye irritation
H332	Harmful if inhaled
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled
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
	Hazardous to terrestrial vertebrates
	Hazardous to terrestrial invertebrates

Precautionary statements

Prevention

P102	Keep out of reach of children
P103	Read label before use
P210	Keep away from heat/sparks/open flames/hot surfaces. No smoking.
P260	Do not breathe mist/vapours/spray.
P264	Wash hands and exposed skin thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P271	Use only outdoors or in well-ventilated area.
P272	Contaminated work clothing should not be allowed out of the workplace.
P273	Avoid release to the environment
P280	Wear protective gloves/protective clothing, and eye or face protection
P285	In case of inadequate ventilation, wear respiratory protection (particle filter mask)

Response

P101	If medical advice is needed, have product container or label at hand.
P314	Get medical advice/attention if you feel unwell.
P301 + P312	IF SWALLOWED: Call a POISON CENTRE or doctor if you feel unwell.
P330	Rinse mouth.
P302 + P352	IF ON SKIN: Wash with plenty of soap and water.
P333 + P313	If skin irritation or rash occurs: Get medical advice/attention.
P363	Wash contaminated clothing before re-use.
P304 + P340/	IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing.
P342 + P311	If experiencing respiratory symptoms: Call a POISON CENTRE or doctor/physician.
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.
P391	Collect spillage.
P370 + P378	In case of fire: Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide to extinguish.

Storage

P403 +P235 Store in a well-ventilated area. Keep cool.

Disposal

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

2.3 Other hazards

No specific information.

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SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.2 Mixtures

Chemical nature

Emulsifiable concentrate (EC) containing permethrin 500 g/L

Hazardous components

Name	CAS-No.	Conc. [%]
Permethrin	52645-53-1	47.0 – 47.5
Calcium dodecylbenzene sulphonate	26264-06-2	>3 -<6
2-Ethylhexanol	104-76-7	≥0.1 - <4
Nonylphenol ethoxylate	9016-45-9	≥1 - ≤3
Oxirane, 2-methyl-, polymer with oxirane, mono(nonylphenyl) ether	37251-69-7	≥1 - ≤25
Solvent naphtha (petroleum), heavy aromatic	64742-94-5	>25

SECTION 4: FIRST AID MEASURES

4.1 Description of first aid measures

General advice	If medical advice is needed, have product container or label at hand. Contact the National Poisons Centre 0800 764 766 (0800 POISON).
Inhalation	Move to fresh air. Keep at rest in position comfortable for breathing. Get medical advice if person is experiencing respiratory symptoms or feels unwell.
Skin contact	Immediately wash with plenty of soap and water. If available use polyethyleneglycol 400 then rinse with water. If irritation or rash occurs, get medical advice. Warm water may increase the subjective severity of irritation/paresthesia. This is not a sign of systemic poisoning. Application of oils or lotions containing vitamin E can be considered if irritation occurs.
Eye contact	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Get medical attention if irritation persists. Warm water may increase the subjective severity of irritation/paresthesia. This is not a sign of systemic poisoning. Consider using soothing eye drops, or if necessary anesthetic eye drops.
Ingestion	Rinse mouth. Do NOT induce vomiting. Call a doctor or National Poisons Centre for advice if person feels unwell. If vomiting occurs spontaneously, keep head below hips to avoid aspiration into lungs, and get medical advice.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms	Local: Skin and eye paresthesia which may be severe. Usually transient with resolution within 24 hours. Skin, eye and mucous membrane irritation. Cough. Systemic: Discomfort in chest, tachycardia, hypotension, nausea, abdominal pain,
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diarrhea, vomiting, blurred vision, headache, anorexia, somnolence, coma, convulsions, tremors, prostration, airway hyperreaction, pulmonary oedema, palpitation, muscular fasciculation, apathy, dizziness.

If large amounts are ingested, the following symptoms refer to the solvent ingredient: headache, nausea, dizziness, somnolence.

Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.

Aspiration may cause pulmonary oedema and pneumonitis.

Inhalation may cause the following symptoms: cough, shortness of breath, cyanosis, fever.

4.3 Indication of any immediate medical attention and special treatment needed

Risks This product contains a pyrethroid. Pyrethroid poisoning should not be confused with carbamate or organophosphate poisoning. Contains hydrocarbon solvents. May pose an aspiration pneumonia hazard.

Treatment Systemic treatment: Initial treatment: symptomatic.
Monitor: respiratory and cardiac functions.
In case of ingestion gastric lavage should be considered in cases of significant ingestions only within the first 2 hours. However, the application of activated charcoal and sodium sulphate is always advisable. Keep respiratory tract clear. Oxygen or artificial respiration if needed.
In case of convulsions, a benzodiazepine (e.g. diazepam) should be given according to standard regimens. If not effective, phenobarbital may be used.
In case of aspiration intubation and bronchial lavage should be considered.
Monitor: kidney, liver and pancreas function.
Contraindication: atropine.
Contraindication: derivatives of adrenaline.
There is no specific antidote. Recovery is spontaneous and without sequelae.
In case of skin irritation, application of oils or lotions containing vitamin E may be considered.

SECTION 5: FIREFIGHTING MEASURES

5.1 Extinguishing media

Suitable Use water spray, alcohol-resistant foam, dry chemical, carbon dioxide (CO₂)

Unsuitable High volume water jet

5.2 Special hazards arising from the substance or mixture In the event of a fire, hazardous compounds/gases are released.

5.3 Advice for firefighters

Special protective equipment for firefighters In the event of fire and/or explosion do not breathe fumes. In the event of fire, wear self-contained breathing apparatus.

Further information Remove product from areas of fire, or otherwise cool containers with water in order to avoid pressure being built up due to heat. Whenever possible, contain fire-fighting water by diking area with sand or earth to prevent run-off from entering drains or water-courses.

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SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Precautions Keep unauthorized people away. Avoid contact with spilled product or contaminated surfaces. When dealing with a spillage do not eat, drink, or smoke. Use personal protective equipment.

6.2 Environmental precautions Contain and collect spillage. Do not allow to get into surface water, drains and ground water.

6.3 Methods and materials for containment and cleaning up

Methods for cleaning up Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Collect and transfer the product into a properly labelled and tightly closed container for disposal. Clean contaminated floors and objects thoroughly, observing environmental regulations.

Additional advice Comply with any local regulations. Use personal protective equipment.

6.4 Reference to other sections Information regarding safe handling, see section 7.
Information regarding personal protective equipment, see section 8.
Information regarding waste disposal, see section 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling

Advice on safe handling Read label before use. Handle and open carefully to prevent spillage. Handle and use in well-ventilated area.

Advice on protection against fire and explosion Keep away from heat and sources of ignition. Do not use this product in or on electrical equipment due to the possibility of shock hazard. Take measures to prevent the buildup of electrostatic charge.

Hygiene measures Avoid contact with skin, eyes and clothing. Keep working clothes separate. Wash hands before rest or eating breaks and immediately after handling the product. Remove contaminated clothing immediately and wash before reuse. Items that cannot be cleaned must be destroyed (burnt).

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers Keep out of reach of children. Store in closed original container. Keep containers tightly closed in a dry, cool and well-ventilated place. Keep away from direct sunlight, sources of heat and flame. Protect from frost.

Advice on common storage Keep away from food, drink and animal feeding stuffs and prevent cross-contamination with other products.

Suitable materials No specific information. Store only in original container.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Components	CAS-No.	Control parameters	Exposure	Basis

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NZ Workplace exposure standards and biological exposure indices, WORKSAFE, ed. 13, April 2022

8.2 Exposure controls

Personal protective equipment

In normal use and handling conditions please refer to the label and/or leaflet. In all other cases the following recommendations would apply.

Respiratory protection

Wear respirator with a particle filter mask (protection factor 20) conforming to European Norm EN149FFP3 or EN140P3 or equivalent.

Respiratory protection should only be used to control residual risk of short duration activities, when all reasonably practicable steps have been taken to reduce exposure at source e.g. containment and/or local extract ventilation. Always follow respirator manufacturer's instructions regarding wearing and maintenance.

Hand protection

Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, and the contact time.

Wash gloves when contaminated. Dispose of when contaminated inside, when perforated or when contamination on the outside cannot be removed. Wash hands frequently and always before eating, drinking, smoking or using the toilet.

Material	Nitrile rubber
Rate of permeability	> 480 min
Glove thickness	> 0.4 mm
Protective index	Class 6
Directive	Protective gloves complying with relevant standard

Eye protection

Wear chemical goggles.

Skin and body protection

Wear standard coveralls and Category 3 Type 3 suit. If there is a risk of significant exposure, consider a higher protective type suit.

Wear two layers of clothing wherever possible. Polyester/cotton or cotton overalls should be worn under chemical protection suit and should be professionally laundered frequently.

General information

The following Standards provide general advice regarding safety clothing and equipment:

Respiratory equipment: **AS/NZS 1715**, Protective Gloves: **AS 2161**, Occupational Protective Clothing: **AS/NZS 4501**, Industrial Eye Protection: **AS1336** and **AS/NZS 1337**, Occupational Protective Footwear: **AS/NZS2210**

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Appearance	Clear yellow brown liquid
Odour	Characteristic, aromatic
Odour threshold	No information
pH	No data available
Freezing point	No information

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Initial boiling point and boiling range	No information
Flash point	72 °C
Flammability (solid, gas)	Not applicable
Upper/lower flammability or explosive limits	No information
Vapour pressure	No information
Vapour density	No information
Relative density	ca. 1.16 g/cm ³ at 20 °C
Solubility	No data available
Partition coefficient: n-octanol/water	Permethrin: log P _{ow} 5.95
Auto-ignition temperature	Non-flammable
Decomposition temperature	No information
Viscosity, dynamic	No information
Particle characteristics	No information
9.2 Other information	Further safety related physical-chemical data are not known.

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity

Thermal decomposition Stable under normal conditions.

10.2 Chemical stability Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions No hazardous reactions when stored and handled according to prescribed instructions.

10.4 Conditions to avoid Extremes of temperature and direct sunlight.

10.5 Incompatible materials No incompatible material known.

10.6 Hazardous decomposition products No decomposition products expected under normal conditions of use.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute oral toxicity Harmful if swallowed.

Acute inhalation toxicity Harmful if inhaled.

Acute dermal toxicity Not classified.

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Skin irritation	Slightly irritating (rabbit).
Eye irritation	Risk of serious damage to eyes (rabbit).
Respiratory sensitisation	Permethrin is classified as respiratory sensitizer.
Skin sensitisation	Permethrin is classified as contact sensitizer.
Aspiration hazard	No classified but product does contain a hydrocarbon (petroleum) solvent which if aspirated into lungs may be fatal.

Assessment mutagenicity

Not classified.

Assessment carcinogenicity

Not classified.

Assessment toxicity to reproduction

Not classified.

Assessment developmental toxicity

Not classified.

Assessment of toxicity by lactation

Not classified.

Assessment STOT Specific target organ toxicity – single exposure

Not classified.

Assessment STOT Specific target organ toxicity – repeated exposure

Product is classified. Permethrin affects primarily affects the blood and hematopoietic system. Secondary organs/systems are the liver and nervous system.

Toxicological data

Oral ATE (Mix) LD50 > 300 -<2,000 mg/kg

Dermal ATE (Mix) LD50 2,000 mg/kg (rabbit)

Inhalation ATE (Mix) LC50 >1 - <5 mg/L (4hr) (liquid aerosol)

Further information

Not available.

SECTION 12: ECOLOGICAL INFORMATION

12.1 Toxicity

Hazard classification Hazardous to aquatic life and with long lasting effects. Toxic to terrestrial vertebrates. Very toxic to terrestrial invertebrates.

Toxicity to fish Permethrin:
LC₅₀ guppy (*Poecilia reticulata*) 0.0076 mg/L
Exposure time: 96 h

Toxicity to aquatic invertebrates Permethrin:
EC₅₀ *Daphnia magna* (Water flea) 0.00017 mg/L
Exposure time: 48 h

Toxicity to algae Permethrin:
EC₅₀ *Raphidocelis subcapitata* (freshwater green alga) >7.4 mg active /L
Exposure time: 96 h

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Toxicity to aquatic plants	No information.
Toxicity to earthworms	LC50 <i>Eisenia fetida</i> 1440 mg permethrin /kg dry soil Exposure time: 14 d
Toxicity to bees	LD50 oral <i>Apis mellifera</i> 0.13 µg active/bee Exposure time: 48 h LD50 contact <i>Apis mellifera</i> 0.024 µg active/bee Exposure time: 48 h

12.2 Persistence and degradability

Biodegradability Permethrin is not rapidly biodegradable.

Koc Permethrin 100,000

12.3 Bioaccumulative potential

Bioaccumulation Permethrin does not bioaccumulate. BCF 300.

12.4 Mobility in soil

Mobility in soil Permethrin is immobile in soil.

12.5 Results of PBT and vPvB assessment

PBT and vPvB assessment Permethrin: This substance is not considered to be persistent, bioaccumulative and toxic (PBT). This substance is not considered to be very persistent and very bioaccumulative (vPvB).

12.6 Other adverse effects

Additional ecological information No further ecological information is available.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Product Dispose of this product only by using according to the label, or at an approved landfill or other approved facility.

Contaminated packaging Triple rinse containers. Recycle if possible. If allowed under local authority, burn if circumstances, especially wind direction permit, otherwise crush and bury in an approved local authority facility. Do not use container for any other purpose.

SECTION 14: TRANSPORT INFORMATION

This transportation information is not intended to convey all specific regulatory information relating to this product. It does not address regulatory variations due to package size or special transportation requirements.

ADR/RID/ADN
14.1 UN number

3082

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14.2 Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (PERMETHRIN SOLUTION)
14.3 Transport hazard class(es)	9
14.4 Packing group	III
14.5 Environm. Hazardous Mark	YES
Hazchem Code	3Z

IMDG

14.1 UN number	3082
14.2 Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (PERMETHRIN SOLUTION)
14.3 Transport hazard class(es)	9
14.4 Packing group	III
14.5 Marine pollutant	YES
	3Z

IATA

14.1 UN number	3082
14.2 Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (PERMETHRIN SOLUTION)
14.3 Transport hazard class(es)	9
14.4 Packing group	III
14.5 Environ. Hazardous Mark	

14.6 Special precautions for user

See sections 6 to 8 of this Safety Data Sheet.

14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code

No transport in bulk according to the IBC Code.

SECTION 15: REGULATORY INFORMATION

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

HSNO Act 1996

HSNO substance No.	HSR000304
HSNO Controls	See www.epa.govt.nz
Specific Hazardous	-
Property Controls	.

ACVM Act 1996

ACVM registration No.	Exempt
ACVM conditions	See www.foodsafety.govt.nz

Other product approvals -

SECTION 16: OTHER INFORMATION

Date issued:	25 th September 2023
Reason for issue:	Review of SDS and update supplier information
Replaces:	SDS dated 17.09.2021, version 1

Abbreviations and acronyms

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ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
ATE	Acute toxicity estimate
CAS-Nr.	Chemical Abstracts Service number
Conc.	Concentration
ECx	Effective concentration to x %
EINECS	European inventory of existing commercial substances
ELINCS	European list of notified chemical substances
EN	European Standard
EU	European Union
IATA	International Air Transport Association
IBC	International Code for the Construction and Equipment of Ships Carrying Dangerous Chemicals in Bulk (IBC Code)
ICx	Inhibition concentration to x %
IMDG	International Maritime Dangerous Goods
LCx	Lethal concentration to x %
LDx	Lethal dose to x %
LOEC/LOEL	Lowest observed effect concentration/level
MARPOL	MARPOL: International Convention for the prevention of marine pollution from ships
N.O.S.	Not otherwise specified
NOEC/NOEL	No observed effect concentration/level
OECD	Organization for Economic Co-operation and Development
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
TWA	Time weighted average
UN	United Nations
WHO	World Health organisation

The data given here is based on current knowledge and experience. The purpose of this Safety Data Sheet is to describe products in terms of their safety requirements. The above details do not imply any guarantee concerning composition, properties or performance of the product.