

# SAFETY DATA SHEET



## PERIGEN 500

Version 1 / NZ  
102000014424

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Revision Date: 17.09.2021  
Print Date: 17.09.2021

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### 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-Nr. HSR000304

#### 1.3 Details of the supplier of the safety data sheet

Supplier Bayer CropScience Pty Ltd  
Level 1, 8 Redfern Road,  
Hawthorn East, Vic 3123  
Australia

Telephone +61 3 9248 6612

Telefax +61 3 9248 6800

Local agent Bayer New Zealand Limited  
CropScience Division  
B:HIVE Building  
74 Taharoto Rd  
Smales Farm  
Takapuna  
Auckland, 0622  
New Zealand  
Telephone: 0800 428 246  
Telefax: (09) 441 8645

#### 1.4 Emergency telephone no.

Emergency Number 0800 734 607 (24hr)  
Global Incident Response Hotline (24h) +1 (760) 476-3964 (Company 3E for Bayer AG, Crop Science Division)

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### SECTION 2: HAZARDS IDENTIFICATION

#### 2.1 Classification of the substance or mixture

Classified as hazardous according to the criteria in the Hazardous Substances (Minimum Degrees of Hazard) Notice 2020 as amended

3.1 D  
H227 Combustible liquid.

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6.1 D	
H302	Harmful if swallowed.
H332	Harmful if inhaled.
6.3 B	
H316	Causes mild skin irritation.
6.4 A	
H319	Causes serious eye irritation.
6.5 A	
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
6.5 B	
H317	May cause an allergic skin reaction.
6.9 B	
H373	May cause damage to organs through prolonged or repeated exposure.
9.1 A	
H410	Very toxic to aquatic life with long lasting effects.
9.3 B	
H432	Toxic to terrestrial vertebrates.
9.4 A	
H441	Very toxic to terrestrial invertebrates.

### 2.2 Label elements

#### Labelling in accordance with the Hazardous Substances (Safety Data Sheets) Notice 2020 as amended

Hazard label for supply/use required.



**Signal word:** Danger

#### Hazard statements

H227	Combustible liquid.
H302 + H332	Harmful if swallowed or if inhaled.
H316	Causes mild skin irritation.
H319	Causes serious eye irritation.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H317	May cause an allergic skin reaction.
H373	May cause damage to organs through prolonged or repeated exposure.
H410	Very toxic to aquatic life with long lasting effects.
H432	Toxic to terrestrial vertebrates.
H441	Very toxic to terrestrial invertebrates.

#### Precautionary statements

P102	Keep out of reach of children.
P103	Read label before use.
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P261	Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.

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P273 Avoid release to the environment.  
P308 + P311 IF exposed or concerned: Call a POISON CENTER/ doctor/ physician.  
P321 Specific treatment (see supplemental first aid instructions on this label).  
P391 Collect spillage.  
P403 + P235 Store in a well-ventilated place. Keep cool.  
P501 Dispose of contents/container in accordance with local regulation.

### 2.3 Other hazards

Cutaneous sensations may occur, such as burning or stinging on the face and mucosae. However, these sensations cause no lesions and are of a transitory nature (max. 24 hours).

## SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

### 3.2 Mixtures

#### Chemical nature

Emulsifiable concentrate (EC)  
Permethrin 500 g/l

#### Hazardous components

Name	CAS-No.	Conc. [%]
Permethrin	52645-53-1	47.17
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** Move out of dangerous area. Place and transport victim in stable position (lying sideways). Remove contaminated clothing immediately and dispose of safely.

**Inhalation** Move to fresh air. Keep patient warm and at rest. Call a physician or poison control center immediately.

**Skin contact** Wash off thoroughly with plenty of soap and water, if available with polyethyleneglycol 400, subsequently rinse with water. Warm water may increase the subjective severity of the irritation/paresthesia. This is not a sign of systemic poisoning. In case of skin irritation, application of oils or lotions containing vitamin E may be considered. If symptoms persist, call a physician.

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<b>Eye contact</b>	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. Warm water may increase the subjective severity of the irritation/paresthesia. This is not a sign of systemic poisoning. Apply soothing eye drops, if needed anaesthetic eye drops. Get medical attention if irritation develops and persists.
<b>Ingestion</b>	Do NOT induce vomiting. Risk of product entering the lungs on vomiting after ingestion. Call a physician or poison control center immediately. Rinse mouth. Keep patient warm and at rest.

### 4.2 Most important symptoms and effects, both acute and delayed

<b>Symptoms</b>	<p>Symptoms and hazards refer to effects observed after intake of significant amounts of the active ingredient(s).</p> <p>Local:, Skin and eye paraesthesia which may be severe, Usually transient with resolution within 24 hours, Skin, eye and mucous membrane irritation, Cough, sneezing</p> <p>Systemic:, discomfort in the chest, tachycardia, hypotension, Nausea, Abdominal pain, Diarrhoea, Vomiting, Blurred vision, Headache, Anorexia, Somnolence, Coma, Convulsions, Tremors, Prostration, Airway hyperreaction, Pulmonary oedema, Palpitation, Muscular fasciculation, Apathy, Dizziness</p> <p>Symptoms and hazards refer to the solvent.</p> <p>If large amounts are ingested, the following symptoms may occur: Headache, Nausea, Dizziness, Somnolence</p> <p>Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhoea.</p> <p>Aspiration may cause pulmonary oedema and pneumonitis.</p> <p>Inhalation may provoke the following symptoms: Cough, Shortness of breath, Cyanosis, Fever</p>
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### 4.3 Indication of any immediate medical attention and special treatment needed

<b>Risks</b>	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.
<b>Treatment</b>	<p>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.</p>

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In case of skin irritation, application of oils or lotions containing vitamin E may be considered.

Contact the National Poisons and Hazardous Chemicals Information center in Dunedin, PO Box 913, Dunedin. Phone 0800 POISON (0800 764 766).

## SECTION 5: FIREFIGHTING MEASURES

### 5.1 Extinguishing media

**Suitable** Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

**Unsuitable** High volume water jet

**5.2 Special hazards arising from the substance or mixture** Dangerous gases are evolved in the event of a fire.

### 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** Contain the spread of the fire-fighting media. Do not allow run-off from fire fighting to enter drains or water courses.

## SECTION 6: ACCIDENTAL RELEASE MEASURES

### 6.1 Personal precautions, protective equipment and emergency procedures

**Precautions** Avoid contact with spilled product or contaminated surfaces. Use personal protective equipment.

**6.2 Environmental precautions** 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. Clean contaminated floors and objects thoroughly, observing environmental regulations.

**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

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<b>Advice on safe handling</b>	Avoid contact with skin, eyes and clothing. Use only in area provided with appropriate exhaust ventilation.
<b>Advice on protection against fire and explosion</b>	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 build up of electrostatic charge.
<b>Hygiene measures</b>	Avoid contact with skin, eyes and clothing. Keep working clothes separately. Wash hands before breaks and immediately after handling the product. Wash hands immediately after work, if necessary take a shower. Remove soiled clothing immediately and clean thoroughly before using again. Garments that cannot be cleaned must be destroyed (burnt).
<b>7.2 Conditions for safe storage, including any incompatibilities</b>	
<b>Requirements for storage areas and containers</b>	Keep containers tightly closed in a cool, well-ventilated place. Store in original container. Store in a place accessible by authorized persons only. Protect from frost. Keep away from direct sunlight.
<b>Advice on common storage</b>	Keep away from food, drink and animal feedingstuffs.
<b>7.3 Specific end use(s)</b>	Refer to the label and/or leaflet.

## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1 Control parameters

Components	CAS-No.	Control parameters	Update	Basis
Permethrin	52645-53-1	5 mg/m <sup>3</sup> (TWA)	02 2013	NZ OEL
Permethrin	52645-53-1	10 mg/m <sup>3</sup> (SK-SEN)		OES BCS*

\*OES BCS: Internal Bayer AG, Crop Science Division "Occupational Exposure Standard"

### 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

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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 EN 374.

**Eye protection** Wear goggles (conforming to EN166, Field of Use = 5 or equivalent) and faceshield (conforming to EN166, Field of Use = 3 or equivalent).

**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 protective measures** If product is handled while not enclosed, and if contact may occur: Complete suit protecting against chemicals

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

### 9.1 Information on basic physical and chemical properties

<b>Form</b>	Liquid, clear
<b>Colour</b>	yellow to brown
<b>Odour</b>	aromatic
<b>Odour Threshold</b>	No data available
<b>pH</b>	No data available
<b>Melting point/range</b>	No data available
<b>Boiling Point</b>	No data available
<b>Flash point</b>	72 °C
<b>Flammability</b>	No data available
<b>Auto-ignition temperature</b>	No data available
<b>Thermal decomposition</b>	No data available
<b>Minimum ignition energy</b>	No data available
<b>Self-accelerating decomposition temperature (SADT)</b>	No data available
<b>Upper explosion limit</b>	No data available
<b>Lower explosion limit</b>	No data available
<b>Vapour pressure</b>	No data available
<b>Evaporation rate</b>	No data available
<b>Relative vapour density</b>	No data available

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<b>Relative density</b>	No data available
<b>Density</b>	ca. 1.06 g/cm <sup>3</sup> (20 °C)
<b>Water solubility</b>	No data available
<b>Partition coefficient: n-octanol/water</b>	Permethrin: log Pow: 5.95
<b>Viscosity, dynamic</b>	No data available
<b>Viscosity, kinematic</b>	No data available
<b>Oxidizing properties</b>	No oxidizing properties
<b>Explosivity</b>	No data available
<b>9.2 Other information</b>	Further safety related physical-chemical data are not known.

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### SECTION 10: STABILITY AND REACTIVITY

<b>10.1 Reactivity</b>	Stable under normal conditions.
<b>10.2 Chemical stability</b>	Stable under recommended storage conditions.
<b>10.3 Possibility of hazardous reactions</b>	No hazardous reactions when stored and handled according to prescribed instructions.
<b>10.4 Conditions to avoid</b>	Extremes of temperature and direct sunlight.
<b>10.5 Incompatible materials</b>	Store only in the original container.
<b>10.6 Hazardous decomposition products</b>	No decomposition products expected under normal conditions of use.

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### SECTION 11: TOXICOLOGICAL INFORMATION

#### 11.1 Information on toxicological effects

<b>Acute oral toxicity</b>	ATE (Mix) > 300 - < 2,000 mg/kg Calculation method
<b>Acute inhalation toxicity</b>	ATE (Mix) > 1 - < 5 mg/l Exposure time: 4 h Calculation method Determined in the form of liquid aerosol.
<b>Acute dermal toxicity</b>	ATE (Mix) (Rabbit) 2,000 mg/kg Calculation method
<b>Skin corrosion/irritation</b>	Slight irritant effect - does not require labelling. (Rabbit) The information is derived from the properties of the individual components.
<b>Serious eye damage/eye irritation</b>	Risk of serious damage to eyes. (Rabbit) The information is derived from the properties of the individual

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components.

**Respiratory or skin sensitisation**Skin: Sensitising (Guinea pig)  
The value mentioned relates to the active ingredient.**Assessment STOT Specific target organ toxicity – single exposure**

Permethrin: Based on available data, the classification criteria are not met.

**Assessment STOT Specific target organ toxicity – repeated exposure**

Permethrin did not cause specific target organ toxicity in experimental animal studies.

**Assessment mutagenicity**

Permethrin was not mutagenic or genotoxic in a battery of in vitro and in vivo tests.

**Assessment carcinogenicity**

Permethrin caused at high dose levels an increased incidence of tumours in mice in the following organ(s): Liver, Lungs. The mechanism that triggers tumours in rodents is not relevant for the low exposures encountered under normal use conditions.

**Assessment toxicity to reproduction**

Permethrin did not cause reproductive toxicity in a two-generation study in rats.

**Assessment developmental toxicity**

Permethrin did not cause developmental toxicity in rats and rabbits.

**Aspiration hazard**

May be fatal if swallowed and enters airways.

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**SECTION 12: ECOLOGICAL INFORMATION****12.1 Toxicity****Toxicity to fish**LC50 (Poecilia reticulata (guppy)) 0.0076 mg/l  
Exposure time: 96 h  
The value mentioned relates to the active ingredient permethrin.**Toxicity to aquatic invertebrates**EC50 (Daphnia magna (Water flea)) 0.00017 mg/l  
Exposure time: 48 h  
The value mentioned relates to the active ingredient permethrin.**Toxicity to aquatic plants**EC50 (Raphidocelis subcapitata (freshwater green alga)) 0.497 mg/l  
Exposure time: 96 h  
The value mentioned relates to the active ingredient permethrin.**12.2 Persistence and degradability****Biodegradability**Permethrin:  
Not rapidly biodegradable**Koc**

Permethrin: Koc: 100000

**12.3 Bioaccumulative potential****Bioaccumulation**Permethrin: Bioconcentration factor (BCF) 300  
Does not bioaccumulate.**12.4 Mobility in soil**

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**Mobility in soil** Permethrin: 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.

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## 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.

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## 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	<b>3082</b>
14.2 Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (PERMETHRIN SOLUTION)
14.3 Transport hazard class(es)	9
14.4 Packaging Group	III
14.5 Environm. Hazardous Mark	YES
Hazchem Code	3Z

### IMDG

14.1 UN number	<b>3082</b>
14.2 Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (PERMETHRIN SOLUTION)
14.3 Transport hazard class(es)	9
14.4 Packaging Group	III
14.5 Marine pollutant	YES

### IATA

14.1 UN number	<b>3082</b>
14.2 Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.

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	(PERMETHRIN SOLUTION )
14.3 Transport hazard class(es)	9
14.4 Packaging Group	III
14.5 Environm. Hazardous Mark	YES

### 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.

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## SECTION 15: REGULATORY INFORMATION

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

#### Further information

HSNO approval-Nr.	HSR000304
HSNO Controls	See <a href="http://www.epa.govt.nz">www.epa.govt.nz</a>
ACVM Condition	See <a href="http://www.foodsafety.govt.nz">www.foodsafety.govt.nz</a>
Other product approvals	Approved Maintenance Compound Type B

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## SECTION 16: OTHER INFORMATION

### Abbreviations and acronyms

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

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TWA	Time weighted average
UN	United Nations
WHO	World health organisation

Changes since the last version are highlighted in the margin. This version replaces all previous versions.