



Material Safety Data Sheet

MSDS No.	1003	Issue Date : March 2014	Issued by Scotts Australia Pty Ltd
			V 2.0

Product Name: **DEFENDER PYRETHRUM INSECT SPRAY**

1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product Name	DEFENDER PYRETHRUM INSECT SPRAY		
Product Code	190581, 190582		
Manufacturer	SCOTTS AUSTRALIA PTY LTD		
Address	Australia	New Zealand	
	Level 2,	Level 4	
	32, Lexington Drive	152, Fanshawe Street	
	Bella Vista NSW 2153	Auckland 1140	
Emergency Tel.	1800 033 111	0800 734 607	
Telephone/Fax Number	Tel:(02) 8602 9000		
	Fax:(02) 8602 9001		
Recommended Use	Insecticide		

2. HAZARDS IDENTIFICATION

Hazard Classification Australia:
HAZARDOUS SUBSTANCE, NON-DANGEROUS GOODS.
New Zealand:
Classified as hazardous according to the New Zealand Hazardous Substances (Minimum Degrees of Hazard) Regulations 2001.
Classified as Dangerous Goods for transport, according to New Zealand Standard NZS 5433:2007 Transport of Dangerous Goods on Land.
HSNO classification:
9.1B- Substance that is toxic to the aquatic environment
9.4C- Substance that is harmful to terrestrial invertebrates

Hazard statement codes:
H411 Toxic to aquatic life with long lasting effects.
H443 Harmful to terrestrial invertebrates.

Precautionary statement codes- Prevention
P103 Read label before use.
P273 Avoid release to the environment.

Precautionary statement codes- Response
P391 Collect spillage.

Precautionary statement codes- Disposal
P501 In the case of a substance that is in compliance with a HSNO approval other than a Part 6A (Group Standards) approval, a label must provide a description of one or more appropriate and achievable methods for the disposal of a substance in accordance with the Hazardous Substances (Disposal) Regulations 2001. This may also include any method of disposal that must be avoided.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients	Name	CAS	Proportion Ingredients
	Pyrethrins	8003-34-7	0.03%
	Piperonyl butoxide	51-03-6	0.12%
	Alcohol	Not disclosed	<10%



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Surfactants	Not disclosed	<10%
Water	7732-18-15	Balance

4. FIRST AID MEASURES

Inhalation	Remove patient to fresh air. Seek medical attention if irritation occurs and persists.
Ingestion	Do not induce vomiting. If poisoning occurs contact a doctor or poisons information centre, phone 13 11 26 (Australia) 0800 764 766 (New Zealand).
Skin	Remove contaminated clothing and wash the affected area thoroughly with soap and water. Seek medical attention if irritation occurs and persists.
Eye	Flush eyes with clean water. Seek medical attention if irritation occurs and persists.

5. FIRE FIGHTING MEASURES

Suitable Extinguishing Media	Water fog, water spray, foam, dry agent
Hazards from Combustion Products	Could emit toxic fumes on burning.
Special Protective Equipment for fire fighters	Fire fighters or other exposed to products of combustion should wear full protective clothing including self-contained breathing apparatus.

6. ACCIDENTAL RELEASE MEASURES

Emergency Procedures	Ventilate area. Wear rubber or PVC boots, gloves, safety glasses and a respirator during clean up operation. Collect spillage with non-combustible absorbent materials (e.g. sand, vermiculite). Prevent spillage from entering drains or waterways. Consult State Land Waste Management Authority for disposal.
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7. HANDLING AND STORAGE

Precautions for Safe Handling	When using do not eat, drink or smoke. Avoid container breakage.
Conditions for Safe Storage	Store away from seeds, fertilisers, food and animal feed. Store in a cool, dry area away from heat and direct sunlight. Keep containers securely sealed.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

National Exposure Standards	Exposure standard:	TWA	STEL
		ppm	mg/m ³
		ppm	mg/m ³
	Pyrethrum	-	5
	This exposure standard applies to both Australia and New Zealand.		
Biological Limit Values	None allocated		
Engineering Controls	Ensure adequate mechanical or natural ventilation.		
Respiratory Protection	Avoid inhalation of spray mist.		
Eye Protection	Safety glasses recommended.		
Hand and body Protection	Rubber gloves recommended, avoid contact with eyes and skin. Wash hands thoroughly with soap and water after use.		

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Cloudy, white liquid
Odour	Sweet odour.
Melting Point	Not available
Boiling Point	Not available
Solubility in Water	Disperses in water
pH Value	Not available



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Vapour Pressure Not available
Vapour Density (Air=1) Not available
Specific gravity Approximately 1.0
Decomposition temperature Not available
Flashpoint Not available
Flammable Limits Not available

10. STABILITY AND REACTIVITY

Chemical Stability Stable under normal conditions of warehouse storage.
Conditions to Avoid None known.
Incompatible Materials No information available.
Hazardous Decomposition Products None known.

11. TOXICOLOGICAL INFORMATION

Inhalation Direct inhalation of pyrethrins may cause severe allergic attacks in sensitive people. Potential symptoms of over exposure are dermatitis, asthma, vasomotor rhinitis, anaphylactic reactions, numbness of lips and tongue, sneezing, vomiting, diarrhoea, tinnitus, headache, restlessness, incoordination, clonic convulsions, stupor, prostration, death due to respiratory paralysis. This indicates that the product, containing pyrethrins, may cause respiratory allergic symptoms in sensitive people.

Ingestion In animals, acute doses of piperonyl butoxide cause anorexia, vomiting, diarrhoea and a bloody discharge from the nose and eyes. Vomiting and diarrhoea may occur if large amounts of this product are swallowed.

Skin Direct skin contact with pyrethrins may cause severe allergic attacks in sensitive people. Potential symptoms of overexposure are dermatitis, asthma, vasomotor rhinitis, anaphylactic reactions, numbness of lips and tongue, sneezing, vomiting, diarrhoea, tinnitus, headache, restlessness, incoordination, clonic convulsions, stupor, prostration, death due to respiratory paralysis. Rabbits treated with 400mg of ethanol on their skin (open) exhibited mild irritation. On the basis of this information, the finished product can be irritating to the skin and may cause allergic symptoms in sensitive people.

Eye This product may cause mild irritation if the eyes are splashed.

Chronic Effects The International Agency for Research on Cancer has found no adequate evidence for carcinogenicity of piperonyl butoxide to humans or animals. Two mouse studies, at levels of piperonyl butoxide at up to 460 mg/kg/day or at 25000mg/kg in their diet, yielded no significant difference in tumour incidence in treated and control animals. Female rats administered orally with the substance developed an apparent increased incidence of lymphomas. However, the validity of these results has been questioned owing to the high historical incidence of lymphomas and leukaemia in female animals of the rat strain studied. No teratogenic effects were observed in rats administered the substance by the oral route. However, a 3-generation study of rats given 100, 1000, 10000 and 25000mg/kg in their diet, showed reproductive toxicity in the two highest dosage groups. Piperonyl butoxide was negative in a number of in vitro and in vivo genotoxicity assays. According to the International Agency for Research on Cancer, there is inadequate evidence for the carcinogenicity of ethanol in animals. Rats administered ethanol at 400mg/kg on day 13 of gestation gave birth to offspring with teratogenic effects. Ethanol has caused spontaneous miscarriage and pregnancy failure in monkeys. Chronic exposure to low doses of the finished product appear unlikely to lead to systemic toxicity in people, with the exception of the potential for inducing allergic symptoms in sensitive persons.



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12. ECOLOGICAL INFORMATION

Ecotoxicity	Toxic to terrestrial invertebrates and the aquatic environment.
Persistence / Degradability	No information available.
Mobility	No information available
Environ. Protection	Do not allow chemical or container to contaminate streams, ponds, drains and other waterways.

13. DISPOSAL CONSIDERATIONS

Disposal Considerations	Dispose of waste in a landfill approved for pesticide disposal or bury under at least 500mm of soil in a non-crop non-pasture area away from water sources or homes.
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14. TRANSPORT INFORMATION

Transport Information	AUSTRALIA: Not classified as Dangerous Goods according to the Australian Dangerous Goods Code. NEW ZEALAND Classified as Dangerous Goods for transport, according to New Zealand Standard NZS 5433:2007 Transport of Dangerous Goods on Land. Class: 9 UN number: 3082 Proper shipping name: Environmentally hazardous substance, liquid N.O.S (contains pyrethrins & piperonyl butoxide) Packing Group: III
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15. REGULATORY INFORMATION

Regulatory Information	APVMA Approval No. 32669 HSNO Approval no. HSR000085
Poisons Schedule	Not a scheduled poison (Australia).

16. OTHER INFORMATION

Date of preparation or last revision of MSDS	MSDS Created: July 2007 MSDS altered: March 2009. Addition of New Zealand classifications. MSDS altered: March 2014 Addition of new Australia and NZ addresses	
Contact Person/Point	Scotts Australia Pty Ltd Level 2, 32 Lexington Drive Bella Vista NSW 2153 Phone (02) 8602 9000 Fax (02) 8602 9001 Emergency phone 1800 033 111 ...End of MSDS...	New Zealand: Level 4 152, Fanshawe Street Auckland 1140 Emergency phone 0800 734 607