



Material Safety Data Sheet

MSDS No.	1003	Issue Date : July 2007	ISSUED by SCOTTSAU
Product Name :	DEFENDER PYRETHRUM INSECT SPRAY		

1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product Name DEFENDER PYRETHRUM INSECT SPRAY
Product Code 190581
Manufacturer SCOTTS AUSTRALIA PTY LTD
Address 11 Columbia Way Baulkham Hills
NSW 2153 Australia
Emergency Tel. 1800 033 111
Telephone/Fax Tel:(02) 8853 7300
Number Fax:(02) 8853 7310
Recommended Use Insecticide

2. HAZARDS IDENTIFICATION

Hazard Classification Not classified as hazardous according to NOHSC. Not classified as dangerous goods according to the ADG Code.

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%	
	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 effected 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.

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 Exposure standard:



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Standards	TWA	STEL
	ppm	mg/m ³
	-	5
	ppm	mg/m ³
	-	-
	Pyrethrum	
	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
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



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Eye people.
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.

12. ECOLOGICAL INFORMATION

Ecotoxicity	Toxic to terrestrial invertebrates.
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	Not classified as dangerous goods according to the Australian Dangerous Goods Code.
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15. REGULATORY INFORMATION

Regulatory Information	APVMA No. 32669
Poisons Schedule	Not a scheduled poison.

16. OTHER INFORMATION

Date of preparation or last revision of MSDS	MSDS Created: July 2007
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Contact Person/Point	Scotts Australia Pty Ltd 11 Columbia Way Baulkham Hills NSW 2153 Phone (02) 8853 7300 Fax (02) 8853 7310 Emergency phone 1800 033 111 ...End Of MSDS...	New Zealand: 180c Great South Rd Takanini, Auckland Phone (09) 299 6558 Fax (09) 296 0186 Emergency phone 0800 734 607
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