

## FIRST AID

If poisoning occurs, contact a doctor or Poisons Information Centre. Phone Australia 13 11 26.

## MATERIAL SAFETY DATA SHEET

Additional information is listed on the Material Safety Data Sheet which is available from PCT Holdings Pty Ltd on request. Call Customer Service Toll Free on 1800 630 877 or visit our web site at <http://pct.au.com>

## NOTICE

PCT Holdings Pty Ltd warrants that this product conforms to its chemical description and is reasonably fit for the purposes stated on the label when used in accordance with Directions for Use under normal conditions of use. No warranty of merchantability or fitness for a particular purpose, express or implied, extends to the use of the product contrary to label instructions or under off-label permits not endorsed by PCT Holdings Pty Ltd, or under abnormal conditions.

**POISON**

**KEEP OUT OF REACH OF CHILDREN  
READ SAFETY DIRECTIONS BEFORE OPENING OR USING**

# AQUASTAR<sup>\*</sup>

## TERMITICIDE AND INSECTICIDE

**ACTIVE CONSTITUENT: 80g/L BIFENTHRIN**

**GROUP 3A INSECTICIDE**

*For the control of a range of urban interior and exterior pests, for the post-construction protection of structures from subterranean termite damage and for the control of termite damage as specified in the Directions for Use Table.*

**THIS LEAFLET IS PART OF THE LABEL**



HOLDINGS PTY LTD

**APVMA Approval No: 58745/0504**

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(PCT Holdings Pty Ltd ABN 11 099 023 962)

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CUSTOMER SERVICE FREECALL 1800 630 877 EMERGENCY RESPONSE (ALL HOURS) FREECALL 1800 630 877

## DIRECTIONS FOR USE

### Restrictions:

- DO NOT use this product at less than indicated label rates.
- DO NOT apply to soils if excessively wet or immediately after heavy rain to avoid run-off of the chemical.
- DO NOT use in cavity walls (except via certified cavity infill reticulation systems or direct treatment of nest).
- DO NOT apply this product in pre-construction situations.

Pest	Situations	State	Rate	Critical Comments
Spiders	External Areas & Surroundings of Domestic, Commercial, Public & Industrial buildings and structures	All states	30 – 65 mL/10L	Use the higher rate in situations where pest pressure is high, when rapid knockdown and/or maximum residual protection is desired. For overall band surface spray, apply as a coarse, low pressure surface spray to areas where spiders hide, frequent and rest. Spray to the point of run-off using around 5 L of spray mixture per 100 m <sup>2</sup> and ensuring thorough coverage of the treated surfaces. In an outdoor situation, pay particular attention to protected dark areas such as cracks and crevices, under floors, eaves and other known hiding or resting places. For indoor use, pay particular attention to dark protected areas such as cracks and crevices, behind and under sinks, stoves, refrigerators, furniture, pipes, cornices, skirting boards and other known hiding or resting places. Do not use as a space spray. For crack and crevice treatment use an appropriate solid stream nozzle. For maximum spider control use a two part treatment. 1. Crack and crevice. 2. Overall band spray of surfaces.
Papernest Wasps	External Areas & Surroundings of Domestic, Commercial, Public & Industrial buildings and structures	All states	65 mL /10L	Apply prepared emulsion to the point of runoff directly to the papernest ensuring thorough and even coverage. When all adult wasps have been knocked-down the nest may be safely removed from the structure.

## STORAGE, SPILLAGE AND DISPOSAL

Store in closed original containers, in a cool, well ventilated area away from children, animals, food and feedstuffs. Do not store for prolonged periods in direct sunlight.

In case of spillage, confine and absorb spilled product with absorbent material such as sand, clay or cat litter. Dispose of waste as indicated below or according to Australian Standard AS 2507 - Storage and Handling of Pesticides. Do NOT allow spilled product to enter sewers, drains, creeks or any other waterways.

Triple or preferably pressure rinse containers before disposal. Add rinsings to spray tank. Do not dispose of undiluted chemicals on site. If recycling, replace cap and return clean containers to recycler or designated collection point.

If not recycling, break, crush or puncture and bury empty containers in a local authority landfill. If no landfill is available, bury the containers below 500 mm in a disposal pit specifically marked and set up for this purpose clear of waterways, desirable vegetation and tree roots. Empty containers and product should not be burnt.

Do not bury waste or surplus product. Dispose of undiluted waste by either dilution and use according to the Directions for Use or returning to the point of purchase in the original container for controlled disposal. Dispose of diluted surplus product by using according to the Directions for Use. Do not re-use empty container.

## SAFETY DIRECTIONS

Poisonous if swallowed. Will irritate the eyes. Avoid contact with eyes and skin. When opening container and preparing spray, wear cotton overalls buttoned to the neck and wrist, a washable hat, elbow-length PVC or nitrile gloves and a half face-piece respirator. When using prepared spray, wear cotton overalls buttoned to the neck and wrist, a washable hat, elbow-length PVC, neoprene or nitrile gloves. Wash hands after use.

After each day's use, wash gloves, contaminated clothing and respirator, and if rubber wash with detergent and warm water.

**Service Requirements:** Service requirements are to be determined as a result of at least an annual inspection by a licensed Pest Control Operator. More frequent inspections may be required in high-risk termite areas.

In determining the need for service, factors such as local termite pressure, breaches of the barrier and termiticide longevity should be considered.

**Subterranean termites are on occasions capable of bridging termite barriers and therefore regular inspections, as detailed in the Australian Standard AS 4349.3, will significantly increase the probability of detection of termite activity before any damage or costly repairs are required.**

Several factors contribute to longevity of the termite treatment and must be considered when evaluating the need for retreatment. The actual protection period will depend on the termite hazard, climate, soil conditions and rate of termiticide used. Refer to Table A for the expected protection periods provided.

### PRECAUTIONS AND RE-ENTRY PERIOD

DO NOT spray into the air or directly on humans, pets or animals. Avoid contact with food, food utensils or preparation surfaces.

#### Re-entry Period

*Post-Construction and General Pest Control:* Allow treated areas to dry completely (normally 3-4 hours) and ventilate buildings before re-occupying. When prior entry is necessary, When prior entry is necessary, wear cotton overalls buttoned to the neck, wrist and elbow-length PVC, neoprene or nitrile gloves and chemical resistant footwear. Clothing must be laundered after each day's use.

### PROTECTION OF WILDLIFE, FISH, CRUSTACEANS AND THE ENVIRONMENT

Dangerous to fish and aquatic organisms. Do not contaminate dams, rivers, streams, waterways or drains with product or the used container.

### PROTECTION OF PETS AND LIVESTOCK

Before spraying, remove animals and pets from the areas to be treated. Cover or remove any open food and water containers. Cover or remove fishponds, aquariums etc before spraying.

Pest	Situations	State	Rate	Critical Comments
Ants (excluding Red Imported Fire Ants), Cockroaches, Mosquitoes, Fleas, Flies, Ticks (excluding the paralysis tick <i>Ixodes holocyclus</i> ) (Adults & Nymphs)	Internal & External Areas & Surroundings of Domestic, Commercial, Public & Industrial buildings and structures	All states	65 - 125 mL/10L	On non-porous surfaces apply as a coarse spray at the rate of 1 L of emulsion per 20 m <sup>2</sup> . When treating non-porous surfaces do not exceed the point of run-off. On porous surfaces or use through power equipment, spray at the rate of 1 L of emulsion per 10 m <sup>2</sup> . When treating porous surfaces do not exceed the point of run-off. Use the higher rate in situations where pest pressure is high, when rapid knockdown and/or maximum residual protection is desired. The lower rate may be used for follow-up treatments. For indoor use, pay particular attention to dark protected areas such as cracks and crevices, behind and under sinks, stoves, refrigerators, furniture, pipes, cornices, skirting boards and other known hiding or resting places. Do not use as a space spray. To control ants apply to trails and nests. Repeat as necessary. To control fleas and ticks apply prepared emulsion to outside surfaces of buildings and surrounds including but not limited to foundations, verandahs, window frames, eaves, patios, garages, pet housing, soil, turf, trunks of woody ornamentals or other areas where pests congregate or have been seen. To control flies and mosquitoes apply prepared emulsion to surfaces where insects rest or harbour. Reapply as necessary.
Subterranean Termites	Domestic, Public, Commercial & Industrial areas	All states, except Tas	Refer to Table A	For perimeter treatments apply the prepared emulsion to a band of soil or vegetation two to three meters wide around and adjacent to the structure. Also treat the foundation of the structure to a height of approximately one metre. Use a spray volume of 5 to 10 L per 100 m <sup>2</sup> . Higher volumes of water may be needed if organic matter is present or foliage is dense. Refer to Table B.

**TABLE A: Aquastar use rates for control of SUBTERRANEAN TERMITES**

Situations	All areas SOUTH of the Tropic of Capricorn (except Tas.)	All areas NORTH of the Tropic of Capricorn
<b>Perimeter Barriers</b> For existing buildings	Rate	Rate
	Expected Protection Period*	Expected Protection Period*
	1.25 L/100L 625 mL/100L 320 mL/100L	1.9 L/100L 1.25 L/100L 950 mL/100L 625 mL/100L
<b>Post-Construction Barriers</b> Under slabs and under suspended floors with less than 400 mm crawl space	Rate	Rate
	Expected Protection Period*	Expected Protection Period*
<b>Protection of Poles &amp; Fence Posts</b>	Rate	Rate
	Expected Protection Period*	Expected Protection Period*
<b>Nest Eradication</b>	Rate	Rate
	Expected Protection Period*	Expected Protection Period*
* The need for retreatment is to be determined as a result of at least an annual inspection, or more frequently in high risk areas, by a qualified Pest Control Operator.		
The actual protection period will depend on the termite hazard, climate, soil conditions and rate of termiticide used.		

**Post-Construction Under Slab Treatments:**

For concrete slabs, the emulsion needs to be injected through pre-drilled holes through the slab, at intervals between 150 mm and 300 mm. The following table shows the recommended hole spacing and recommended volume of spray solution required per hole, depending on the soil type.

Soil Type	Hole spacing (mm)	Litres per hole
Heavy clay	150	1.5
Clay loams	200	2
Loams	250	2.5
Sands	300	3

Application equipment used to inject Aquastar Termite and Pest Controller through pre-drilled holes in an interior situation must be in good working order, free of any leaks and the injector must have tip shut-off to prevent nozzle dripping. Lateral dispersion tips are recommended. Drill holes must be resealed following injection of the Aquastar Termite and Pest Controller emulsion. The decision and/or need for drilling concrete floor slabs should only be made after a thorough inspection of the building. The degree of termite activity should also be taken into consideration.

**Treatment in Conjunction with Physical Barriers:** In situations where the termite protection system is to consist of a combination of both physical and chemical barriers, each certified system must be installed according to the relevant and appropriate product specification and the Australian Standard AS 3660 Series.

**Reticulation Systems:** Aquastar Termite and Insecticide can be used through reticulation systems to form horizontal and vertical barriers under and around structures and all service penetrations. The reticulation system must be certified and be capable of distributing the termiticide emulsion according to the product label and the Australian Standard AS 3660 Series.

In situations using reticulation systems to form barriers around the perimeter and/or service penetrations only, a full pre-construction soil applied Aquastar Termite and Insecticide horizontal barrier is recommended. It is the responsibility of the builder and all relevant sub-contractors to ensure that all termite barrier systems are installed in accordance with the relevant product installation directions and the Australian Standard AS 3660 Series.

It is important to note that when applying a horizontal barrier to the perimeter of a building or structure the chemical barrier is deemed to have a depth of 80 mm. In situations where the emulsion will not readily wet the soil to the required depth, loosen soil to a depth of 80 mm by 150 mm wide and apply 1.5 L of emulsion per lineal metre.

### Vertical Barrier Treatments:

To install a vertical barrier use a minimum of 100 L of emulsion per m<sup>3</sup> of soil. Vertical barriers must be a minimum of 150 mm wide, extend down to 80 mm below the top of the footing and be complete and continuous. Vertical barriers can be installed by trenching and treating the soil as it is backfilled, by soil rodding or by the use of certified reticulation systems, as described in the Australian Standard AS 3660 Series. The preferred method of installing a vertical barrier treatment is either by trenching and treating the soil as it is backfilled or by delivery via a certified reticulation system. When using the soil rodding method to establish a vertical barrier the distance between rod spacings should be as per the following table. To improve soil penetration, the soil should be loosened to a depth of 150 mm.

Soil Type	Rod spacing (mm)
Heavy clay	150
Clay loams	200
Loams	250
Sands	300

### Perimeter Barrier Treatments:

Perimeter barriers consist of horizontal barriers at least 150 mm wide adjoining a vertical barrier of at least 150 mm in width. A perimeter barrier must completely surround all buildings, pipes, piers and service penetrations. In buildings with suspended floors with greater than 400 mm crawl space, perimeter barriers should be installed to surround piers, stumps and service penetrations and completely about all substructure walls.

To ensure provision of a continuous barrier use a minimum of 100 L of emulsion per m<sup>3</sup> of soil. This equates to a delivery volume of 5 L of emulsion per linear metre for a 300 mm vertical barrier, or 10 L of emulsion per linear metre for a 600 mm vertical barrier.

Termites may gain access behind engaged piers against single brick walls unless the soil is treated on both sides of the wall down to the footing.

**TABLE B: CRITICAL COMMENTS for use against SUBTERRANEAN TERMITES**

SITUATIONS	CRITICAL COMMENTS
Perimeter Barriers for existing buildings	<ul style="list-style-type: none"> <li>* Perimeter barriers (both horizontal and vertical, external and where required, internal or sub-floor) are an essential part of termite protection and must be installed at the completion of the building. Perimeter barriers should be installed around slabs, piers, substructure walls and external penetration points.</li> <li>* Apply with suitable application equipment to form a continuous chemical barrier (both vertical and horizontal) around the structure and to a depth reaching to 80 mm below the top of the footings, where appropriate. The formation of the barrier may require a combination of several application techniques, including soil trenching and/or rodding and open wand applications. Chemical barriers that have been disturbed by construction, excavation and/or landscaping activities will need to be reapplied to restore continuity of the barrier.</li> </ul>
Post-Construction Barrier Treatments for the protection of existing buildings	<ul style="list-style-type: none"> <li>* Apply with suitable application equipment to form a continuous chemical barrier (both vertical and horizontal) around and under the structure with particular emphasis on known infestation areas. The formation of the barrier may require a combination of several application techniques, including soil rodding, trenching, open wand applications and sub-slab injections.</li> <li>* Chemical barriers beneath concrete slabs and paths will require concrete drilling. Recommended drill hole spacings are between 150 and 300 mm. To enhance soil distribution use a lateral dispersion tip on the injector and up to 10 L of emulsion per linear metre. To ensure formation of a continuous barrier, holes should be drilled no more than 150 mm from walls or expansion joints.</li> <li>* For areas beneath suspended floors, that have inadequate access (eg. less than 400 mm clearance), the entire sub-floor area should be treated as a continuous horizontal barrier, which completely abuts an internal vertical barrier around any substructure walls. Otherwise, install perimeter barriers around each individual pier, stump, penetration point and substructure walls.</li> <li>* Chemical barriers that have been disturbed by construction, excavation and/or landscaping activities will need to be reapplied to restore continuity of the barrier.</li> </ul>
Protection of Service Poles and Fence Posts	<ul style="list-style-type: none"> <li>* Create a continuous termiteicide barrier 450 mm deep and 150 mm wide around the pole or post by soil injection or rodding. For new poles and posts, treat backfill and the bottom of the hole. Use 100 L of emulsion per m<sup>3</sup> of soil.</li> <li>* Regular inspections should be undertaken to determine when and if retreatment is necessary. If disturbance of the barrier has occurred, retreatment of the area affected will be required.</li> <li>* Posts and poles may also be drilled and injected with spray solution.</li> </ul> <p><b>* Note: For existing poles and posts, it is impractical to treat the full depth and underneath of such poles and posts and therefore the possibility of future termite attack from below the treated area cannot be ruled out.</b></p>
Eradication of Termite Nest	<ul style="list-style-type: none"> <li>* Locate nest and fill with insecticide emulsion. Trees, poles, posts and stumps containing nests may require drilling prior to treatment with termiteicide emulsion. The purpose of drilling is to ensure the termiteicide emulsion is distributed throughout the entire nest. Drill holes in live trees should be sealed with an appropriate caulking compound after injection.</li> </ul>

**Note: The termiticide barrier provided by this product has a finite life. This together with the recommendation to undertake annual inspections must be stated on the durable notice required by the BCA, B1.3(j)(ii).**

**NOT TO BE USED FOR ANY PURPOSE, OR IN ANY MANNER, CONTRARY TO THIS LABEL UNLESS AUTHORISED UNDER APPROPRIATE LEGISLATION.**

## GENERAL INSTRUCTIONS

**General Pest Control** - Aquastar is a powerful knockdown and residual pesticide. Ants, cockroaches, fleas, flies, mosquitoes, spiders, ticks and wasps are controlled by direct contact with spray and also by residual action as they come into contact with treated surfaces.

**Termites** - The use of Aquastar will help prevent and control subterranean termite infestations in and around buildings and structures when used in accordance with the Australian Standard AS 3660 Series, Termite Management. A dilute termiticidal emulsion must be adequately dispersed into the soil to establish a barrier between the building and subterranean termites in the soil. The purpose of a termite barrier is to prevent concealed termite entry into the building.

The biology and behaviour of the termite species involved, should be considered by the Pest Control Operator in determining which control measures are most appropriate to control and prevent termite infestation.

## INSECTICIDE RESISTANCE WARNING

**GROUP 3A INSECTICIDE**

For insecticide resistance management Aquastar is a Group 3A insecticide. Some naturally occurring insect biotypes resistant to Aquastar Termiticide and Insecticide and other Group 3A insecticides may exist through normal genetic variability in any insect population. The resistant individuals can eventually dominate the insect population if Aquastar Termiticide and Insecticide or other Group 3A insecticides are used repeatedly. The effectiveness of Aquastar Termiticide and Insecticide on resistant individuals could be significantly reduced. Since occurrence of resistant individuals is difficult to detect prior to use, PCT Holdings Pty Ltd. accepts no liability for any losses that may result from the failure of Aquastar Termiticide and Insecticide to control resistant insects.

Aquastar Termiticide and Insecticide may be subject to specific resistance

management strategies. For further information contact your local supplier, PCT representative or local agricultural department agronomist.

## MIXING

Add the required quantity of Aquastar to water in the spray tank and mix thoroughly. Maintain agitation during both mixing and application.

To facilitate even application of the termiticide emulsion over the area to be treated, the addition of a marker dye at label rates is recommended. On hard to wet soils, the penetration of the termiticide emulsion may be improved by the addition of a soil surfactant at label rates.

## CRITICAL APPLICATION DETAILS

The application of Aquastar Termiticide and Insecticide to form both horizontal and vertical chemical barriers must be in accordance with the Australian Standard AS 3660 Series.

For treatment of new and existing buildings, both horizontal and vertical barriers may be required around and under the building. External perimeter barriers and where required, internal perimeter barriers, are an essential part of this treatment. The purpose of a chemical termite soil barrier is to provide a continuous, no gap barrier between the building and the termite colony. It is therefore essential that the Pest Control Operator is familiar with the construction details of the building. For further details, refer to the "Horizontal Barrier Treatments" and "Vertical Barrier Treatments" statements in this leaflet and to the Australian Standard AS 3660 Series.

### Horizontal Barrier Treatments:

Use 5 L of emulsion per m<sup>2</sup> of soil. Apply the termiticide emulsion evenly to the soil surface area to ensure the provision of a continuous barrier with no gaps. To minimise drift, use low pressure, high volume spray equipment delivering large coarse droplets. On impervious soils where the application of 5 L/m<sup>2</sup> would cause excessive run-off, the application volume may be reduced provided the concentration of the emulsion is increased by a corresponding amount. For example, the volume of applied concentrate must remain constant at 25, 50 or 75 mL/m<sup>2</sup> depending on the location and the situation. Do not apply emulsion volumes below 2 L/m<sup>2</sup>.

In situations where the soil surface is very dry and conditions are conducive to rapid drying, the area to be treated should be moistened prior to the termiticide application.