**POISON** 

ACTIVE CONSTITUENT: 100 g/L BIFENTHRIN

# GROUP 3A INSECTICIDE

For the protection of structures from subterranean termite damage and for the control of termites and a range of other urban pests as Specified in the Directions for Use Table.

IMPORTANT: READ THIS BOOKLET BEFORE USE

PROTECT-US AUSTRALIA PTY LTD ACN 156 662 216 Unit 3, 2 Duck Street AUBURN NSW 2144 www.protect-us.com.au

CUSTOMER SERVICE 1800 420 144 EMERGENCY RESPONSE (ALL HOURS) 1800 420 144

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## **DIRECTIONS FOR USE**

RESTRAINTS

- 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 for direct treatment of the nest).

PEST	SITUATIONS	STATE	RATE	CRITICAL COMMENTS
Spiders	Internal & external areas & surrounds of Domestic, Commercial, Public and Industrial buildings & structures.	All States	25-50 mL /10 L	Use the higher rate in situations where pest pressure is high, when rapid knockdown and/or maximum residual protection is desired. Pay particular attention to dark areas such as cracks and crevices, under floors, eaves and other known hiding or resting-places.
				For crack and crevice treatments use an appropriate solid stream nozzle. As a surface spray; apply as a coarse, low-pressure spray to areas where spiders hide, frequent and rest. Spray to the point of run-off using around 5 L of spray per 100 m² ensuring thorough coverage of the treated surfaces.
				For maximum spider protection use a two-part treatment.
				1. Treatment of cracks and crevices.
				2. Overall surface spray.
Papernest wasps	Internal & external areas & surrounds of Domestic, Commercial, Public and Industrial buildings & structures.	All States	50 mL/10 L	Apply prepared emulsion to the point of run-off 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.
Ants (excluding Red Imported Fire Ants), Cockroaches, Mosquitoes, Biting midges, Fleas, Flies, Ticks (excluding the paralysis tick Ixodes holocyclus) – (Adults & Nymphs)	Internal & external areas & surrounds of Domestic, Commercial, Public and Industrial buildings & structures	All States	50-100 mL /10 L	To form Residual Surface Treatments, apply prepared emulsion to indoor and outdoor surfaces where insects rest or harbour. Internal harbourage sites include (but are not restricted to) areas such as walls, fly screens, behind and under sinks, under furniture and indoor plants. External harbourage sites include (but are not restricted to) areas such as building exteriors, eaves, walls, fences, also garages, sheds, gazebos, ornamental plants, bushes, shrubs, hedges, shady or damp areas around buildings. Reapply as necessary. When applying to vegetation, ensure that spray penetrates entire plant or hedge and covers both leaf surfaces.
				For perimeter or harbourage treatments, apply the prepared emulsion to a band of soil or vegetation two to three metres 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 m². Higher volumes of water may be needed if organic matter is present or foliage is dense.
				On non-porous surfaces apply as a coarse spray at the rate of 1 L of emulsion per 20 m². 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 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.
				Ants: To control ants apply to trails and nests. Repeat as necessary.
				Fleas and Ticks: 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.
				Flies, Mosquitoes, Biting midges: To control flies, mosquitoes and biting midges apply prepared emulsion to surfaces where insects rest or harbour. Reapply as necessary.
Subterranean Termites	Domestic, Public, Commercial & Industrial	All States, except TAS	Refer to Table A	Refer to Table B

SITUATIONS		AREAS SOUTH F CAPRICORN (EXCEPT TAS)	ALL AREAS NORTH OF THE TROPIC OF CAPRICORN	
	RATE	POTENTIAL PROTECTION*	RATE	POTENTIAL PROTECTION*
Perimeter Barriers	1 L/100 L	At least 10 years	1.5 L/100 L	5 years
For new and existing buildings	500 mL/100 L	10 years	1 L/100 L	4 years
	250 mL/100 L	3 years	750 mL/100 L	3 years
			500 mL/100 L	2 years
Post-Construction Barriers	41/4001	At 1t 40	1.5 L/100 L	5 years
Under slabs and under suspended floors with less than 400 mm crawl space	wl space 1 L/100 L	At least 10 years	1 L/100 L	4 years
	500 mL/100 L	10 years	750 mL/100 L	3 years
			500 mL/100 L	2 years
Protection of Poles & Fence Posts			1.5 L/100 L	5 years
	500 mL/100 L	10 years	1 L/100 L	4 years
			750 mL/100 L	3 years
Nest Eradication	500 mL/100 L	Not Applicable	500 mL/100 L	Not Applicable

<sup>\*</sup> Regular, competent inspections by a licensed pest control operator are recommended as part of an overall termite management program to determine the prevailing termite pressure and environmental conditions and consequent requirement for further termite management options. Inspections should be performed at least on an annual basis, but more frequent inspections are strongly recommended. 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 climate, soil conditions and rate of termiticide used.

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Table B: Critical Comments for the Management of Subterranean Termites					
SITUATIONS	CRITICAL COMMENTS				
Perimeter Barriers - For new and	Perimeter barriers (both horizontal and vertical, external and, where required, internal or subfloor) are an essential part of termite management and must be installed at the completion of the building. Perimeter barriers should be installed around slabs, piers, substructure walls and external penetration points.				
existing buildings.**	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.				
	In some cases the use of wetting agents or foaming agents may be useful in overcoming non-wetting soils or getting a more even application in areas of difficult access or soil subsidence.				
Post- construction Barrier	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.				
Treatment – For the management of termites in existing buildings.	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 apply 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.				
**	For areas beneath suspended floors that have inadequate access (i.e. less than 400 mm clearance), the entire subfloor area should be treated as a continuous horizontal barrier, which completely abuts an internal vertical barrier (if required) around any substructure wall. Otherwise, install perimeter barriers around each individual pier, stump, penetration point and substructure wall.				
Protection of Service Poles	Create a continuous termiticide 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 m³ of soil.				
and Fence Posts	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. Posts and poles may also be drilled and injected with spray solution.				
	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.				
Eradication of Termite Nests	Locate nest and flood with diluted PROTECT-US Professional Water-based Termiticide & Insecticide. Trees, poles, posts and stumps containing nests may require drilling prior to treatment with diluted PROTECT-US Professional Water-based Termiticide & Insecticide. The purpose of drilling is to ensure the termiticide emulsion is distributed throughout the entire nest. Drill holes in live trees should be sealed with an appropriate caulking compound after injection.				

- \*\* Chemical barriers that have been disturbed by construction, excavation and/or landscaping activities will need to be reapplied to restore continuity of the barrier.
- 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, clause B1.3 (j) (ii).





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

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# **GENERAL INSTRUCTIONS**

**Urban Pest Management and Vector Control:** PROTECT-US Professional Water-based Termiticide & Insecticide is a powerful knockdown and residual pesticide. Ants cockroaches, fleas, flies, mosquitoes, spiders, ticks and wasps are controlled by direct contact with the spray and also by the residual action as they come into contact with treated surfaces

#### INSECTICIDE RESISTANCE WARNING

# GROUP # 1/4 INSECTICIDE

For insecticide resistance management PROTECT-US Professional Water-based Termiticide & Insecticide is a Group 3A insecticide. Some naturally occurring insect biotypes resistant to PROTECT-US Professional Waterbased Termiticide & 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 PROTECT-US Professional Water-based Termiticide & Insecticide or other Group 3A insecticides are used repeatedly. The effectiveness of PROTECT-US Professional Water-based Termiticide & Insecticide on resistant individuals could be significantly reduced. Since occurrence of resistant individuals is difficult to detect prior to use, Protect-Us Australia Pty Ltd accepts no liability for any losses that may result from the failure of PROTECT-US Professional Water-based Termiticide & Insecticide to control resistant

PROTECT-US Professional Water-based Termiticide & Insecticide may be subject to specific resistance management strategies. For further information contact your local supplier, Protect-Us Australia Pty Ltd representative

#### APPLICATION

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Termites: The use of PROTECT-US Professional Waterbased Termiticide & Insecticide will help prevent and control subterranean termite infestations in and around buildings and structures when used in accordance with the Australian Standard Series AS 3660 - 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.

Termite Colonies not in contact with the ground -Occasionally subterranean termites establish a colony in a building without having contact with the soil because they have access to a continuous supply of moisture (eg. from a faulty plumbing fixture or leaking roof). Such colonies are not affected by chemical soil barriers and should be treated as recommended for established colonies, as per Australian Standard Series AS 3660. PROTECT-US Professional Waterbased Termiticide & Insecticide may be applied directly to the termite colony in such situations.

## MIXING

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Add the required quantity of PROTECT-US Professional Water-based Termiticide & Insecticide 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 PROTECT-US Professional Water-based Termiticide & 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 diluted PROTECT-US Professional Water-based Termiticide & Insecticide per m<sup>2</sup> of soil. Scarify the soil to a depth of 80 mm and apply the diluted PROTECT-US Professional Water-based Termiticide & Insecticide 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 per 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. The volume of applied concentrate must remain constant per square metre 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 PROTECT-US Professional Waterbased Termiticide & Insecticide application.

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 linear metre.

Vertical Barrier Treatments: To install a vertical barrier use a minimum of 100 L of diluted PROTECT-US Professional Water-based Termiticide & Insecticide per m³ 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 reticulation systems, as described in the Australian Standard AS 3660 Series. 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 mm
Clay loams	200 mm
Loams	250 mm
Sands	300 mm

**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 abut all substructure walls.

To ensure provision of a continuous barrier use a minimum of 100 L of emulsion per  $m^{\scriptscriptstyle 3}$  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

**Post-Construction Treatments under Concrete Slabs:** 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 injection hole, depending on the soil type

Soil type	Rod Spacing (mm)	Litres per hole	
Heavy Clay	150 mm	1.5	
Clay loams	200 mm	2	
Loams	250 mm	2.5	
Sands	300 mm	3	

Application equipment used to inject PROTECT-US Professional Water-based Termiticide & Insecticide 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 to ensure even distribution. Drill holes must be resealed following injection of the PROTECT-US Professional Water-based Termiticide & Insecticide 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. Refer to AS 3660.2.

Treatment In Conjunction with Physical Barriers: In situations where the termite management system is to consist of a combination of both a physical and a PROTECT-US Professional Water-based Termiticide & Insecticide soil barrier, each certified system must be installed according to the relevant and appropriate product specification and the Australian Standard AS 3660 Series.

## 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 are strongly recommended. 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 protection periods provided.

# PRECAUTIONS AND RE-ENTRY PERIOD

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

# Re-entry Period

Post Construction, Vector Control and Urban Pest Management: Allow treated areas to completely dry (normally 3-4 hours) and ventilate buildings before re-occupying. Worker re-entry to treated areas should be restricted until the spray has dried. When prior entry is necessary, wear cotton overalls, over normal clothing, buttoned to the neck and wrist, 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. Do not apply to mud, mangrove or aquatic habitats. Drift from areas may be hazardous to organisms in adjacent aquatic sites. Extreme caution must be used to avoid aquatic contamination. Avoid spraying flowers that attract and

# PROTECTION OF PETS AND LIVESTOCK

Dangerous to bees. DO NOT spray any plants in flower when bees are foraging. Spray in the night or early morning when bees are not actively foraging. Before spraying, remove animals and pets from the areas to be treated. Cover or remove any open food and water containers. Cover or remove fish ponds, aquariums etc before spraying. Do not allow re-entry until spray has dried.

# 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 the Australian Standard AS 2507 -Storage and Handling of Pesticides. Do NOT allow spilled product to enter sewers, drains, creeks or any other waterways.

The method of disposal of the container depends on the container type. Read the "Storage and Disposal" Instructions on the label that is attached to the container.

#### SAFETY DIRECTIONS

Poisonous if swallowed. May irritate the eyes and skin. Repeated exposure may cause allergic disorders. Avoid contact with eyes and skin.

For termite control in buildings and structures: When opening the container, preparing spray, and using prepared spray wear cotton overalls buttoned to the neck and wrist. a washable hat and elbow-length PVC/nitrile gloves. After each day's use, wash gloves and contaminated clothing. For handheld application: When opening the container and preparing spray, wear cotton overalls buttoned to the neck and wrist, a washable hat and elbow-length PVC/ nitrile gloves. When using prepared spray wear protective waterproof clothing, gloves and water resistant footwear. After each day's use, wash gloves and contaminated clothing. Wash hands after use.

#### FIRST AID

If poisoning occurs, contact a doctor or Poisons Information Centre. Phone Australia 131126.

#### MATERIAL SAFETY DATA SHEET

Additional information is listed on the Material Safety Data Sheet which is available from Protect-Us on request. Call Customer Service on 13 35 36 or visit our web site at www.protect-us.com.au

Protect-Us 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 Protect-Us, or under abnormal conditions



