

# STRIKE-OUT® 500 INSECTICIDE

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**General Pest and Termite Control.** 

### ADAMA Simply. Grow. Together.



## **Product Overview**

- STRIKE-OUT<sup>®</sup> 500 is registered for use on subterranean termites in various situations and general pests in domestic and public places, commercial and industrial areas.
- STRIKE-OUT<sup>®</sup> 500 g/L contains 500 g/L chlorpyrifos.

## Mode of Action

#### GROUP INSECTICIDE

Chlorpyrifos is a non-systemic insecticide designed to be effective by direct contact, ingestion, and inhalation. Chlorpyrifos is a broad-spectrum insecticide which kills insects upon contact by affecting the normal function of the nervous system. Chlorpyrifos affects the nervous system by inhibiting the breakdown of acetylcholine, a neurotransmitter. When insects are exposed to chlorpyrifos, it causes overstimulation of the neuronal cells, which leads to neurotoxicity and eventually death.

## **Use Rates: Termites**

## Installing a chemical soil barrier around and under buildings.

Horizontal Barriers: Rate:  $100 \text{ mL/m}^2$  - Use 100 mL of STRIKE-OUT® 500 per 5 L of water and apply the mixture (emulsion) at a rate of 5 L/m<sup>2</sup>.

**Vertical Barriers:** Rate: 2 L/m<sup>3</sup> - Use 2 L of STRIKE-OUT<sup>®</sup> 500 per 100 L of water and apply the mixture at a rate of 100 L/m<sup>3</sup>. (200 mL/10 L is equivalent to a 1 % active ingredient emulsion).

#### Installing a chemical soil barrier around and under buildings north of the Tropic of Capricorn or where Mastotermes darwiniensis is a concern.

Horizontal Barriers: Rate: 200 mL/m<sup>2</sup> -Use 200 mL of STRIKE-OUT® 500 per 5 L of water and apply the mixture (emulsion) at a rate of 5 L/m<sup>2</sup>. **Vertical Barriers:** Rate: 4 L/m<sup>3</sup> - Use 4 L of STRIKE-OUT<sup>®</sup> 500 per 100 L of water and apply the mixture at a rate of 100 L/m<sup>3</sup>.

This is an optional high rate for use north of the Tropic of Capricorn, or where M. darwiniensis is a concern. (4 L/100 L is equivalent to a 2 % active ingredient emulsion).

**Treatment beneath concrete slabs or sealed areas where it is not possible or practical to remove the slab to allow direct application to the soil** - Use a sub-slab injector fitted with multidirectional tip (e.g. a B&G or similar system) with a 5 degree upward angle (e.g. 3 way or 4 way) operated at 170 kPa. Ensure a strong seal with the top of the drill hole to avoid leakage. For the best distribution, the injector needs to be held vertically, at right angles to the slab, and rotated during the application through 90 degrees (if using a 4 way dispersion tip), or through 120 degrees (for a 3 way dispersion tip).  $\mathbf{T}$ 

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Where there are existing structures and termites are entering the building through the slab, and reticulation systems do not exist, slab drilling and injection will be required. In most cases, unless there is a known severe termite hazard, grid drilling of the slab is not required. Any such need is to be determined by a licensed Pest Manager. Treatment needs to be made around the inside of all exterior walls to complete a termite barrier, along both sides of interior wall partitions, around plumbing/electrical or piping entry points and along major cracks or expansion joints. When treating along major cracks or expansion joints it is recommended that holes are drilled alternately on either side of the crack at the recommended drill hole spacings.

For a sand base or sandy soil, apply through a row of holes drilled no more than 300 mm apart and 100-200 mm out from the wall, crack or pipe. For a clay base, apply through a row of holes drilled 150 mm apart and 100 mm from the wall, crack or pipe. Apply 10 L of emulsion per linear metre and ensure the holes are securely plugged after treatment.

**External Barriers:** An external barrier should be installed around the perimeter of the building and should circumference all pipes and service facilities. External barriers should be created by using either a vertical or horizontal barrier, as determined by the building construction type and adjoining ground level. An external barrier is an essential part of the treatment when relying on a chemical soil barrier to provide the full termite management system as per AS 3660.

An injection directly into soil where it is not possible or practicable to trench the soil: Use a soil rod with a 3 or 4 way multi-directional tip (B&G, or similar) operated at 170 kPa. The 4 way tip needs to be rotated during the application through 90 degrees and the 3 way tip through 120 degrees.

To compensate for impervious soils such as heavy clay where application of 5  $L/m^2$  would cause run-off, it may be necessary to apply a volume of emulsion less than 5  $L/m^2$ . When reducing the total volume of emulsion used, increase the concentration accordingly to match the label rate by mixing the required amount of STRIKE-OUT® 500 per/m<sup>2</sup> in a lesser volume of water. DO NOT use emulsion volumes less than 2 L for every square metre to be treated.

An external horizontal barrier is only required when prevention of concealed vertical access by termites is necessary at the perimeter. (e.g. when ground level is equal to the top of a slab, where the slab is also a barrier to concealed termite movement into the building). A vertical barrier is required when prevention of concealed horizontal access is necessary (e.g. where ground level is higher than building material vulnerable to concealed horizontal entry by termites).

Horizontal Barrier: Use a rose head shower nozzle operated at 170 kPa to apply the required rate of 1.5 L of the correctly diluted STRIKE-OUT® 500 per lineal metre (150 mm wide) to soil loosened to a depth of approximately 80 mm (see APPLICATION VOLUME Section).

Vertical Barrier: The vertical barrier should be at least 150 mm wide and should reach down to 50 mm below the top of the footings. To achieve this, trench to the top of the footings, and where this is not possible, a combination of trenching (preferably at least 300 mm deep) and rodding into the base of the trench may be necessary. Apply STRIKE-OUT®500 emulsion at 100 L per cubic metre of backfill soil, this equates to 1.5 L of emulsion/linear metre of a trench 150 mm wide and 100 mm deep. Where the required vertical barrier is deeper than 100 mm, ensure the same rate of application for the extra volume of soil. Use a rose head shower nozzle operated at 170 kPa to flood the base of the open trench and also to treat the backfill soil as it is replaced into the trench to ensure even distribution.





Where rodding is necessary, rod before the trench is treated using the spacings in the following table.

Rod Spacings				
Heavy Clay	Loams Loams	Sands		
150 mm	200 mm	300 mm		

Insert the rod to the foundation foot as close as possible to the house wall ensuring the chemical is applied during insertion and withdrawal.

#### Installing a Chemical Soil Barrier around new and existing poles, e.g. transmission and building poles, fence posts and palings.

#### Rate: 200 mL/10 L of water or creosote

Trench (preferred) or rod and puddle-treat backfill, ensuring a complete and continuous treated soil barrier is provided around the pole or post, to a minimum depth of 300 mm and minimum width of 150 mm. Use 100 L of emulsion per/m<sup>3</sup> of soil. In addition, infested poles may be drilled near ground level and the cavity flooded with the emulsion. This allows seepage to form a treated soil barrier. Note: A 50 mm gap between fence palings and soil will reduce termite attack and fungal decay. Only soil in contact with palings should be treated. Replenishment is recommended within 2 years north of the Tropic of Capricorn and 5 years in other areas. If the barrier is disturbed, or rain falls immediately after application, retreat to restore continuity and completeness of the barrier. Refer to Australian Standard Series AS 3660.

#### Treatment of termite nest or colony.

#### Rate: 100 mL/10 L of water

Once the nest or colony has been located it should be broken open and flooded with emulsion. This includes nests located in trees. When treating trees, the addition of a wetting agent is suggested. Refer to Australian Standard Series AS 3660.

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 (e.g. 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. STRIKE-OUT<sup>®</sup> 500 may be applied directly to the termite colony in such situations

# Maximising Performance with Strike-Out® 500 Insecticide

To minimise the risk of termite infestation, areas around and under buildings should be kept free of stored or waste timber and all other building materials that attract termites. Appropriate action should also be taken to eliminate any undue dampness caused by leaking water or sewerage pipes, or inadequate drainage. Subterranean termites need a constant source of moisture to survive. Provision of adeauate ventilation in the subfloor area also helps to eliminate undue dampness. You should always advise the home owner that disturbing the treated soil barrier with subsequent construction of additions or alterations, paths, steps, landscaping etc., may render the termite management system in place ineffective unless further management options are considered.

STRIKE-OUT<sup>®</sup> 500 should be used as part of an overall termite management program as detailed in Australian Standard Series AS 3660. A great deal of care is required to understand construction details of the building and to apply the product in a manner which ensures a complete chemical soil barrier. Where necessary, the barrier may need to be re-applied under the building. Application equipment must be fitted with a flow meter and pressure regulator on the application device. The purpose of a chemical soil barrier is to impede and discourage concealed termite entry into a structure. Barriers may still be bridged by termites, but their entry can then be more easily detected during routine inspections. If a barrier is not complete or breached, then concealed termite entry may occur. It is often not possible to form a complete barrier around existing structures in which case other termite management options and/or more frequent inspections will also need to be considered.

Regular, competent inspections by a licensed Pest Manager 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. At the 1% application rate, STRIKE-OUT<sup>®</sup> 500 can provide an effective chemical soil barrier in subfloor regions for 4 years or more north of the Tropic of Capricorn, and 10 years or more south of the Tropic of Capricorn. At the 1% application rate, STRIKE-OUT® 500 can provide an effective chemical soil barrier in exposed situations for 2 years or more north of the Tropic of Capricorn, and up to 5 years or more south of the Tropic of Capricorn. At the 2 % application rate north of the Tropic of Capricorn,

STRIKE-OUT<sup>®</sup> 500 can provide an effective chemical soil barrier in subfloor regions for 6 years or more and in exposed situations for up to 3 years or more. The actual period of efficacy will depend on factors such as termite hazard, climatic conditions, soil types and soil disturbance and gardening/landscaping practices.

STRIKE-OUT<sup>®</sup> 500 is a professional product and not allowed for use by householders.



## **Use Rates: General Pest**

STRIKE-OUT® 500 can be used to control cockroaches, Ants, spiders, fleas, silverfish, beetles and mosquitoes. Apply as a coarse, low pressure spray to the point of run-off, to cracks, crevices, harbourages, eaves, downpipes and other places where the pests may occur. For optimum control of webbing spiders, use a 2-part treatment.

After applying as a coarse, low pressure spray to harbourages where spiders may occur, apply a light spray over surfaces of the building.

SITUATION	PEST	RATE	CRITICAL COMMENTS
Domestic and public places, commercial and industrial areas	Cockroaches (residual control and/or heavy infestations)	95 mL/10 L of water	Apply as a coarse, low pressure spray to the point of run-off, to cracks, crevices, harbourages, eaves, downpipes and other places where the pests may occur. For optimum control of webbing spiders, use a 2-part treatment. After applying as a coarse, low pressure spray to harbourages where spiders may occur, apply a light spray over surfaces of the building.
	Spiders		
	Silverfish	50 mL/10 L of water	
	Cockroaches (light infestations)		
	Ants including Argentine Ants	95 mL/10 L of water	Use at least 1 L spray/10 m <sup>2</sup> infested area. Locate ant nests and treat appropriately. Spray ant tracks or where ant activity is noticed.
			Apply to paths in continuous 300 mm bands. Apply to base of buildings, walls, fences, rock-works, trunks of shrubs and trees, and other hard surfaces to a height of 300 mm.
			<b>Note:</b> All occurrences of Argentine Ants are to be reported to WA Department of Agriculture.
Domestic and public places, commercial and industrial areas	Fleas (outdoor use only)	90 mL/10 L of water	Apply as a fine droplet spray. Outdoors only: Treat areas where animals frequent. Remove animals during treatment and until spray deposit is dry. Do not treat pets with this product. Pets should be treated with a product registered for application to animals.
Light vegetation	Mosquito Larvae	30 mL/ha	Dilute with water and apply as a spray to areas infested with mosquitoes.
Medium vegetation		60 mL/ha	
Heavy vegetation		105 mL/ha	
Light to medium vegetation	Mosquito Adults	60 mL/ha	
Medium to heavy vegetation		105 mL/ha	
Polluted water impoundments	Mosquitoes (larvae and adults)	2 mL/10,000 L of water or 20 mL/100 m <sup>3</sup> of water	

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## More Information

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For Technical Assistance: **1800 327 669** 

For more information visit **adama.com** 

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