



Product Name: BIFLEX ULTRA-LO-ODOUR TERMITICIDE & INSECTICIDE  
APVMA Approval No: 59269/108187



Label Name:	BIFLEX ULTRA-LO-ODOUR TERMITICIDE & INSECTICIDE
Signal Headings:	POISON KEEP OUT OF REACH OF CHILDREN READ SAFETY DIRECTIONS BEFORE OPENING OR USING
Constituent Statements:	ACTIVE CONSTITUENT: 100 g/L BIFENTHRIN SOLVENT: 533 g/L HYDROCARBON LIQUID
Mode of Action:	GROUP 3A INSECTICIDE
Statement of Claims:	For external and internal control of a range of urban pests and for the protection of structures from subterranean termite damage, as specified in the Directions for Use Table.  IMPORTANT: RESTRICTED CHEMICAL PRODUCT ONLY TO BE SUPPLIED TO, OR USED BY AN AUTHORISED PERSON.
Net Contents:	Contents: 5 - 1000 L
Restrains:	Restrains: 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).
Directions for Use:	

Other Limitations:	<p><b>CONDITIONS OF USE BY AUTHORISED PERSONS</b></p> <p>The Pest Control Operator must be licensed under state legislation.</p> <p>The Pest Control Operator must notify site supervisor, if any, and workers who come into contact with uncovered treated soil prior to laying the moisture membrane, to wear appropriate personal protective equipment and to observe re-entry requirements. (For personal protective equipment, refer to "SAFETY DIRECTIONS", and for re-entry, refer to "PRECAUTION: RE-ENTRY PERIODS", below.)</p>
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Withholding Periods:	
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Trade Advice:	
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General Instructions:	
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Resistance Warning:	<p><b>INSECTICIDE RESISTANCE WARNING</b> <b>GROUP 3A INSECTICIDE</b></p> <p>For insecticide resistance management Biflex Ultra-Lo-Odour Termiticide &amp; Insecticide is a Group 3A insecticide. Some naturally occurring insect biotypes resistant to Biflex Ultra-Lo-Odour 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 Biflex Ultra-Lo-Odour or other 3A insecticides are used repeatedly. The effectiveness of Biflex Ultra-Lo-Odour on resistant individuals could be significantly reduced. Since occurrence of resistant individuals is difficult to detect prior to use, FMC Australasia Pty Ltd accepts no liability for any losses that may result from the failure of Biflex Ultra-Lo-Odour Termiticide &amp; Insecticide to control resistant insects.</p> <p>Biflex Ultra-Lo-Odour may be subject to specific resistance management strategies. For further information contact your local supplier or FMC Australasia Pty Ltd.</p>
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Precautions:	<p><b>PRECAUTIONS AND RE-ENTRY PERIOD</b></p> <p>DO NOT use as a space spray, or spray into the air in a manner that allows the product to drift off target to settle onto sensitive species and/or non-target areas. DO NOT spray directly onto humans, pets or animals. Avoid contact with food, food utensils or preparation surfaces.</p> <p>Re-entry Period Post-Construction and Pre-Construction and Urban Pest Control: Do not allow entry into treated areas until the spray has dried, unless wearing cotton overalls buttoned to the neck and wrist (or equivalent), and elbow-length chemical resistant gloves. Clothing must be laundered after each day's use.</p>
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Protections:	<p><b>PROTECTION OF WILDLIFE, FISH, CRUSTACEANS AND ENVIRONMENT</b></p> <p>Dangerous to fish and aquatic organisms. DO NOT contaminate streams, rivers or waterways with the chemical or used containers.</p> <p><b>PROTECTION OF PETS AND LIVESTOCK</b></p>
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	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.
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Storage and Disposal:	<p><b>STORAGE, SPILLAGE AND DISPOSAL</b></p> <p>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.</p> <p>Triple-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.</p> <p>If not recycling, break, crush, or puncture and deliver empty packaging to an approved waste management facility. If an approved waste management facility is not available, bury the empty packaging 500 mm below the surface in a disposal pit specifically marked and set up for this purpose, clear of waterways, desirable vegetation and tree roots, in compliance with relevant local, state or territory government regulations. Do not burn empty containers or product.</p> <p>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.</p> <p>Refillable containers: Empty contents fully into application equipment. Close all valves and return to point of supply or designated collection point for refill or storage.</p>
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Safety Directions:	<p><b>SAFETY DIRECTIONS</b></p> <p>Poisonous if swallowed. Will damage eyes and will irritate the skin. Avoid contact with eyes and skin. Do not inhale vapour or spray mist. When opening container and preparing spray, wear cotton overalls buttoned to the neck and wrist, a washable hat, elbow-length chemical resistant gloves, face shield or goggles and chemical resistant footwear. When using the prepared spray, wear cotton overalls buttoned to the neck and wrist, a washable hat, elbow-length chemical resistant gloves, chemical resistant footwear. When using in enclosed areas, wear cotton overalls buttoned to the neck and wrist, a washable hat, elbow length chemical resistant gloves, chemical resistant footwear and half- face respirator with the combined dust and gas cartridge. If clothing becomes contaminated with product or wet with spray, remove clothing immediately. If product or spray on skin, immediately wash area with soap and water. If product in eyes, wash it out immediately with water. After use and before eating, drinking or smoking, wash hands, arms and face thoroughly with soap and water. After each day's use, wash gloves, face shield or goggles, respirator (if rubber wash with detergent and warm water) and contaminated clothing.</p>
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First Aid Instructions:	<p><b>FIRST AID</b></p> <p>If poisoning occurs, contact a doctor or Poisons Information Centre. Phone Australia 131 126. If swallowed do not induce vomiting. Give a glass of water.</p>
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First Aid Warnings:	
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## Biflex® Ultra-Lo-Odour Termiticide & Insecticide: DIRECTIONS FOR USE

Pest	Situations	State	Rate	Critical Comments
Spiders	Internal & external Areas & Surrounds of Domestic, Commercial, Public & Industrial buildings and structures	All states	25 - 50 mL/10L	<p>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 protected dark areas such as cracks and crevices, under floors, eaves and other known hiding or resting places. 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.</p> <p>For crack and crevice treatment use an appropriate solid stream nozzle. For maximum spider control use a two part treatment.</p> <ol style="list-style-type: none"> <li>1. Crack and crevice.</li> <li>2. Overall band spray of surfaces.</li> </ol>
Papernest Wasps	Internal & external Areas & Surrounds of Domestic, Commercial, Public & Industrial buildings and structures	All states	50 mL/10L	<p>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.</p>

<b>Pest</b>	<b>Situations</b>	<b>State</b>	<b>Rate</b>	<b>Critical Comments</b>
Ants, Cockroaches, Mosquitoes, Fleas, Flies, Ticks (excluding the paralysis tick <i>Ixodes holocyclus</i> ) (Adults & Nymphs)	Internal & external Areas & Surrounds of Domestic, Commercial, Public & Industrial buildings and structures	All states	50 – 100 mL/10L	<p>Common surfaces encountered around structures vary in their ability to soak up liquid. When treating any surfaces do not exceed the point of run-off.</p> <p>As a guide, apply as a coarse spray to non-absorbent surfaces at the rate of 1 L of emulsion per 20 m<sup>2</sup> and to absorbent surfaces at the rate of 1 L of emulsion per 10 m<sup>2</sup>.</p> <p>Use the higher mixing 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.</p> <p>To control ants apply to trails and nests. Repeat as necessary.</p> <p>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.</p> <p>To control flies and mosquitoes apply prepared emulsion to surfaces where insects rest or harbour. Reapply as necessary.</p> <p>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.</p>
Subterranean Termites	Domestic, Public, Commercial & Industrial areas	All states, except Tas	Refer to Table A	Refer to Table B.

**TABLE A: Biflex Ultra-Lo-Odour Termiticide & Insecticide use rates for control of SUBTERRANEAN TERMITES**

Situations	All areas <b>SOUTH</b> of the Tropic of Capricorn (except Tas.)		All areas <b>NORTH</b> of the Tropic of Capricorn	
	Rate	Expected Protection Period *	Rate	Expected Protection Period *
<b>Pre-Construction Barriers</b> Under slabs and under suspended floors with less than 400 mm crawl space	1 L/100L	At least 10 years	1.5 L/100L	5 years
			1 L/100L (Note 1)	4 years
	500 mL/100L	10 years	750 mL/100L (Note 1)	3 years
			500 mL/100L (Note 1)	2 years
<b>Perimeter Barriers</b> For new and existing buildings	1 L/100L	At least 10 years	1.5 L/100L	5 years
	500 mL/100L	10 years	1 L/100L	4 years
	250 mL/100L	3 years	750 mL/100L	3 years
			500 mL/100L	2 years
<b>Post-Construction Barriers</b> Under slabs and under suspended floors with less than 400 mm crawl space	1 L/100L	At least 10 years	1.5 L/100L	5 years
			1 L/100L	4 years
	500 mL/100L	10 years	750 mL/100L	3 years
			500 mL/100L	2 years
<b>Reticulation systems</b> Perimeter and/or service penetration treatment only	1 L/100L	At least 10 years	1.5 L/100L	5 years
	500 mL/100L	10 years	1 L/100L	4 years
	250 mL/100L	3 years	750 mL/100L	3 years
			500 mL/100L	2 years
<b>Reticulation Systems</b> Cavity infill & footing barriers	500 mL/100L	5 years	1 L/100L	2 years
<b>Protection of Poles, Fence Posts and establishing trees including fruit trees (non fruit bearing).</b>	500mL /100L	10 years	1.5 L/100L	5 years
			1 L/100L	4 years
			750 mL/100L	3 years
<b>Nest Eradication</b>	500 mL/100L	Not applicable	500 mL/100L	Not applicable
<b>Note 1: This rate must be used in conjunction with a certified reticulation system that is capable of distributing the Termiticide &amp; Insecticide emulsion according to the product label and the Australian Standard AS 3660 Series.</b>				
<b>* 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.</b>				
<b>The actual protection period will depend on the termite hazard, climate, soil conditions and rate of termiticide used.</b>				

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

Situations	Critical Comments
<p><b>Pre-Construction Barriers</b> Under Slabs for protection of new buildings</p>	<ul style="list-style-type: none"> <li>◆ Apply with suitable application equipment to form a complete and continuous chemical barrier (both vertical and horizontal) under the slab. The formation of the barrier may require a combination of conventional open wand application and soil trenching and/or rodding applications. Recommended rod spacing should be between 150 and 300 mm, as per soil type. For additional information refer to “CRITICAL APPLICATION DETAILS” on this label and the Australian Standard AS 3660 Series.</li> <li>◆ An external perimeter barrier (both horizontal and vertical) is an essential part of termite protection and must be installed at the completion of the building. Refer to “Perimeter Barriers” below, for further details.</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>
<p><b>Pre-Construction Barriers</b> Under suspended floors</p>	<ul style="list-style-type: none"> <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. Ideally, this operation should be done during construction of the building while access is more readily available.</li> <li>◆ For areas beneath suspended floors which have adequate access (eg. more than 400 mm clearance), install perimeter barriers around each individual pier, stump, service penetration and substructure walls.</li> <li>◆ An external perimeter barrier (both horizontal and vertical) is an essential part of termite protection and must be installed at the completion of the building. Refer to “Perimeter Barriers” in this leaflet, for further details.</li> </ul>
<p><b>Perimeter Barriers</b> for new and existing buildings</p>	<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.</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>

**Table B Continued**

Situations	Critical Comments
<p><b>Post-Construction Barrier Treatments</b> for the protection of existing buildings</p>	<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>
<p><b>Reticulation Systems</b> Perimeter and/or service penetration treatment only</p>	<ul style="list-style-type: none"> <li>◆ Biflex Ultra-Lo-Odour Termiticide &amp; Insecticide must be used through a certified reticulation system to form and replenish perimeter barriers around buildings and service penetrations. The system must be installed according to the manufacturer's specifications and be capable of distributing the termiticide emulsion according to the product label and the Australian Standard AS 3660 Series.</li> <li>◆ Perimeter barriers consist of a horizontal barrier abutting a vertical barrier, which must reach down to the top of the footings.</li> <li>◆ Delivery pipes must be placed in such a position to ensure that the requirements for both horizontal and vertical barriers as specified in the Australian Standard AS 3660 Series are met. Special attention must also be afforded to the positioning of the delivery pipes to ensure that the resultant termiticidal barriers are continuous and complete.</li> <li>◆ Apply the prepared termiticide emulsion by pumping through the system according to the manufacturer's specifications. Use a minimum delivery volume 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 vertical barrier 300 mm x 150 mm in dimension.</li> <li>◆ <b>Pre-Construction – For use in conjunction with full soil treatment horizontal barriers only:</b> apply the diluted emulsion through the perimeter reticulation system as specified above. Follow instructions for Pre-Construction horizontal barrier formation.</li> </ul>



**Table B Continued**

<p><b>Reticulation Systems</b> Cavity infill &amp; footing barriers</p>	<ul style="list-style-type: none"> <li>◆ Biflex Ultra-Lo-Odour Termiticide &amp; Insecticide must be used through a certified reticulation system to form and replenish cavity infill and footing barriers. The system must be installed according to the manufacturer's specifications and be capable of distributing the termiticide emulsion according to the product label and the Australian Standard AS 3660 Series.</li> <li>◆ Delivery pipes must be placed in such a position to ensure that the requirements for both horizontal and vertical barriers as specified in the Australian Standard AS 3660 Series are met. Special attention must also be afforded to the positioning of the delivery pipes to ensure that the resultant termiticidal barriers are continuous and complete.</li> <li>◆ Apply the prepared termiticide emulsion by pumping through the system according to the manufacturer's specifications with a delivery volume of 2 L of emulsion per linear meter of delivery pipe.</li> <li>◆ <b>Note: Where this system is to be installed at the pre-construction stage, a full under slab pre-construction barrier, applied by either open wand application or suitably certified reticulation system, is also recommended.</b></li> <li>◆ The recommended rate of application is 2 L of emulsion per linear metre which equates to 2 L of emulsion per 0.0068 m<sup>3</sup> or approximately 7 L of sand. Should the volume of fill in the wall cavity deviate from 7 L (0.17 m x 0.04 m x 1 m = 0.0068 m<sup>3</sup>) per linear metre of wall cavity, then the amount of Biflex Ultra-Lo-Odour emulsion applied per linear metre of wall cavity should be adjusted accordingly. As a guide, the target bifenthrin loading of treated sand/soil in a cavity infill situation is 110 mg/kg South of the Tropic of Capricorn and 220 mg/kg North of the Tropic of Capricorn.</li> <li>◆ To facilitate more even distribution of the Biflex Ultra emulsion in the wall cavity, ensure that the fill is evenly compacted at the time of installation. To further enhance distribution saturation of the sand/soil in the infill is recommended at the time of treatment.</li> </ul>
<p><b>Protection of Service Poles, Fence Posts, and establishing trees including fruit trees (not to be used on fruit bearing trees)</b></p>	<ul style="list-style-type: none"> <li>◆ 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 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> <li>◆ <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></li> <li>◆ For establishing trees create a continuous barrier totally encompassing the root ball of the establishing tree. Application may be made prior to planting by applying emulsion to pre-dug hole or after planting via soil rodding. Roots projecting out of the treated zone may be susceptible to termite attack and may provide entry into the tree without termites contacting treated soil.</li> <li>◆ Biflex is non-systemic insecticide. Do not treat mature trees as it is impossible to provide a complete and continuous barrier under and around all tree roots.</li> </ul>
<p><b>Eradication of Termite Nest</b></p>	<ul style="list-style-type: none"> <li>◆ Locate nest and flood with insecticide emulsion. Trees, poles, posts and stumps containing nests may require drilling prior to treatment with termiticide emulsion. 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.</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

**Urban Pest Control** - Biflex Ultra-Lo-Odour Termiticide & Insecticide 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 Biflex Ultra-Lo-Odour Termiticide & Insecticide 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.

Where active subterranean termites are present inside the structure they must be eradicated by one or more of the methods described in AS3660.2 Section 5, prior to installing a Biflex barrier.

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.

### MIXING

Add the required quantity of Biflex Ultra-Lo-Odour 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 Biflex Ultra-Lo-Odour 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 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.

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. If the soil type is unknown, it should be assumed to be a clay soil and hole spacing should be no greater than 200mm.

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 abut 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.

**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. If the soil type is unknown, it should be assumed to be a clay soil and hole spacing should be no greater than 200 mm.

Application equipment used to inject Biflex Ultra-Lo-Odour 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. Drill holes must be resealed following injection of the Biflex Ultra 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.

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

**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:** Biflex Ultra-Lo-Odour Termiticide & 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 Biflex Ultra-Lo-Odour Termiticide & 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.

**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.