

# POISON

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

## DAVID GRAYS Pre-Construction *CHLORPYRIFOS* TERMITICIDE.

ACTIVE CONSTITUENT: 450 g/L CHLORPYRIFOS (an anticholinesterase compound)  
SOLVENT: 326.5 g/L LIQUID HYDROCARBON

**GROUP 1B INSECTICIDE**

For installing chemical soil barriers for new building work in accord with AS 3660.1 as specified in the Directions for Use table.

**IMPORTANT: RESTRICTED CHEMICAL PRODUCT  
ONLY TO BE SUPPLIED TO, OR USED BY, AN AUTHORISED PERSON**

**THIS PRODUCT IS TOO HAZARDOUS FOR USE BY HOUSEHOLDERS.  
HOUSEHOLDERS MUST NOT USE THIS PRODUCT IN OR AROUND THE HOME.**

**IMPORTANT: READ THE ATTACHED BOOKLET BEFORE USE**

Contents: 5L  
20L  
200L

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NRA Approval No: 48146/0601

<b>N.R.A.</b>	
<b>APPROVED LABEL (TEXT)</b>	
Label No:	48146/0601
Date:	07.06.2001
Signature:	<i>M. Gray</i>

## STORAGE AND DISPOSAL

Store in closed, original container in a cool well-ventilated area. Do not store for long periods in direct sunlight. 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 local landfill is available, bury the containers at a depth of 500mm or deeper 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. Rinsate/rinse water should be disposed of in accordance with appropriate State legislation and should preferably be sprayed on to an application site or added as up to 10% of the diluent the next time this product or another similar termiticide is used. Do not put down sewers, gutters or storm water drains. In some States wastes can only be buried at a licensed landfill.

## SAFETY DIRECTIONS

Product is poisonous if absorbed by skin contact, inhaled or swallowed. Repeated exposure may cause allergic disorders. Repeated minor exposure may have a cumulative poisoning effect. Obtain an emergency supply of atropine tablets 0.6 mg. Will irritate the eyes and skin. Avoid contact with eyes and skin. Do not inhale vapour or spray mist.

When opening the container, preparing the spray and using the prepared spray, wear chemical resistant clothing buttoned to the neck and wrist and washable hat, elbow-length PVC gloves, goggles, chemical resistant footwear and half facepiece respirator with combined dust and gas cartridge.

If clothing becomes contaminated with product or wet with spray, remove clothing immediately. If product on the skin, immediately wash area with soap and water. If product is in the 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, goggles, respirator (and if rubber wash with detergent and warm water), and contaminated clothing.

## FIRST AID

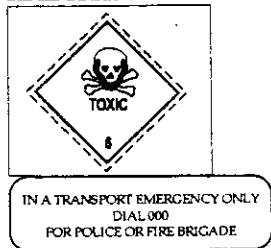
If poisoning occurs, contact a doctor or Poisons Information Centre. (Ph: 13 11 26). If swallowed, give one atropine tablet every 5 minutes until dryness of the mouth occurs - if poisoned by skin absorption or through lungs, remove any contaminated clothing, wash skin thoroughly and give atropine tablets as above. Get to a doctor or hospital quickly. If in eyes, hold eyes open, flood with water for at least 15 minutes and see a doctor.

## MATERIAL SAFETY DATA SHEET

Additional information is listed on the Material Safety Data Sheet for David Grays Pre-Construction Termiticide which is available from David Gray & Co Pty Ltd on request or from their website [www.davidgray.com.au](http://www.davidgray.com.au)

**NOTICE: Seller warrants that the product conforms to its chemical description and is reasonably fit for the purpose stated on the label when used in accordance with directions under normal conditions of use. No warranty of merchantability or fitness for a particular use, express or implied, extends to the use of the product contrary to label instructions or under off-label permits not endorsed by David Gray & Co. Pty. Ltd. Or under abnormal conditions**

UN NO. 3018 ORGANOPHOSPHORUS, PESTICIDE, LIQUID, TOXIC. PKG III  
HAZCHEM 3WE



D.O.M./Batch No.:

DAVID GRAY & CO. PTY. LTD.  
**Pre-Construction** CHLORPYRIFOS TERMITICIDE.

**ACTIVE CONSTITUENT:** 450 g/L CHLORPYRIFOS (an anticholinesterase compound)  
**SOLVENT:** 326.5 g/L LIQUID HYDROCARBON

**DIRECTIONS FOR USE:** (All States, except Tasmania)

**RESTRAINTS**

**DO NOT** apply to soils if excessively wet, immediately after heavy rain or if heavy rains are expected within 48 hours to avoid run-off of chemical.

**DO NOT** use at less than indicated label rates.

**DO NOT** use in cavity walls, except for direct treatment of nest.

**DO NOT** use on alkaline soils in SA (use on neutral or acid soils only) or on dolomite based sub-slab bedding material.

**RATES OF APPLICATION**

**IMPORTANT:** David Grays Pre-Construction Termiticide 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.

**NOTE: THE SOIL 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 B.C.A. at B.1.3.(j)(ii).**

SITUATION	PEST	RATE	CRITICAL COMMENTS
Installation of chemical soil barriers prior to completion construction of houses, factories, industrial and commercial buildings, public premises, and farm buildings.	Subterranean termites, south of the Tropic of Capricorn	<b>Horizontal Barriers:</b> Use 110 mL/m <sup>2</sup>  <b>Vertical Barriers:</b> Use 2.2L/m <sup>3</sup>	<b>Horizontal Barriers:</b> Use 110 mL of David Grays Termiticide and Insecticide/5L of water and apply mixture (the emulsion) at 5L/m <sup>2</sup> . See <b>APPLICATION VOLUME</b> in <b>GENERAL INSTRUCTIONS</b> section for other recommended dilution rates.  <b>Vertical Barriers:</b> Use 2.2 L of David Grays Termiticide and Insecticide/100L of water and apply at 100L mixture per m <sup>3</sup> soil. Dilution rate: 220 mL/10L. <b>2.2L/100L is equivalent to a 1% active ingredient emulsion.</b> See <b>Service requirement</b> in <b>GENERAL INSTRUCTIONS</b> for expected barrier life.
	Subterranean termites north of the Tropic of Capricorn or where <i>Mastotermes darwiniensis</i> is of concern.	<b>Horizontal Barriers:</b> Use 110 mL/m <sup>2</sup>  <b>Vertical Barriers:</b> 2.2L/m <sup>3</sup>	<b>Horizontal Barriers:</b> (See above) <b>Vertical Barriers:</b> (See above) At this use rate, the expected life of the under-slab treatment is up to 4 years or more. The expected life of the external barrier is up to 2 years or more. This rate must be used in conjunction with a reticulation system which is able to apply David Grays Pre-Construction Termiticide at the required application rates to the required area (ie as per the label directions for horizontal and vertical barriers and AS 3660 Series), such as Slabset™, Altis® or Termguard®.
		<b>Horizontal Barriers:</b> Use 220 mL/m <sup>2</sup>  <b>Vertical Barriers:</b> Use 4.4L/m <sup>3</sup>	<b>Horizontal Barriers:</b> Use 220 mL of David Grays Termiticide and Insecticide/5L of water and apply mixture (the emulsion) at 5L/m <sup>2</sup> . See <b>APPLICATION VOLUME</b> in <b>GENERAL INSTRUCTIONS</b> section for other recommended dilution rates. <b>Vertical Barriers:</b> Use 4.4L of David Grays Termiticide and Insecticide/100L of water and apply at 100L mixture per m <sup>3</sup> soil. Dilution rate: 440 mL/10L. <b>4.4L/100L is equivalent to a 2% active ingredient emulsion.</b> See <b>Service requirement</b> in <b>GENERAL INSTRUCTIONS</b> for expected barrier life.

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

## APPLICATION INSTRUCTIONS

### CONCRETE SLAB:

**a) Hand Spray Treatment Before Laying the Slab:** The site should be prepared in accordance with Australian Standard AS 2870, or Australian Standard AS 3660.1, as appropriate. Where loose or porous sands occur the site should be moistened with water immediately prior to treatment with David Grays Pre-Construction Termiticide and Insecticide, as this will help prevent loss of emulsion through 'piping' or excessive percolation. It will also assist with lateral dispersion. Use a shrouded rose head shower nozzle operated at 170 kPa to apply the required rate of David Grays Pre-Construction Termiticide in a volume of 5L of emulsion/m<sup>2</sup>. To obtain better coverage in difficult soil types, it may be necessary to adjust the volume being applied (see **APPLICATION VOLUME Section under GENERAL INSTRUCTIONS**). Ensure application is made under conditions which prevent off-target drift. Immediately following treatment (i.e. on the same day) the moisture membrane should be placed over the treated soil to prevent disturbance of the termiticidal barrier.

**b) External Barrier:** On completion of the building, an external barrier should be installed around the perimeter. The external barrier 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.**

An external horizontal barrier only, is required when prevention of concealed vertical access by termites is necessary at the perimeter (eg, 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 (eg, where ground level is higher than building material vulnerable to concealed horizontal entry by termites).

i) **Horizontal Barrier:** Use a rose head shower nozzle operated at 170 kPa to apply the required rate of 1.5L of the correctly diluted David Grays Pre-Construction Termiticide per lineal metre (150mm wide) to soil loosened to a depth of at least 80mm (see **APPLICATION VOLUME Section**).

ii) **Vertical Barrier:** The vertical barrier should be at least 150mm wide and should reach down to 50mm 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 300mm deep) and rodding into the base of the trench may be necessary.

Apply David Grays Pre-Construction Termiticide emulsion at 100L per cubic metre of backfill soil, this equates to 1.5L of emulsion/linear metre of a trench 150mm wide and 100mm deep. Where the required vertical barrier is deeper than 100mm, 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	Clay Loams	Sands
150 mm	200 mm	300 mm

Use a soil injector with a B&G or similar multi-directional tip operated at 170 kPa and insert the rod to the foundation foot as close as possible to the foundation wall ensuring the chemical is applied during insertion and withdrawal. The 4 way tip needs to be rotated during the application through 90 degrees and the 3 way tip through 120 degrees.

## SUSPENDED FLOORS

Install horizontal and vertical barriers as specified in AS 3660.1 to abut all substructure walls, stumps, piers, pipes and wastes using the techniques described above for **external barriers around concrete slabs**. Apply the required rate of David Grays Pre-Construction Termiticide in a total volume of 5L of emulsion/m<sup>2</sup> (See **APPLICATION VOLUME** Section). If the barrier is disturbed by any means, retreat to restore continuity. Where the subfloor crawl space is less than 400mm the soil barrier must cover all areas of the subfloor soil.

**Note:** It is unnecessary to treat the entire subfloor soil where there is access for maintenance and inspection.

## APPLICATION VOLUME

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

**Note:** Use of emulsion volumes other than the recommended 5L/m<sup>2</sup> is only permitted when installing barriers in exposed soil. It is not permitted when injecting through the slab or into sealed areas.

## GENERAL INSTRUCTIONS

### CONDITIONS FOR USE BY AUTHORISED PERSONS

The applicator (Pest Manager) must be licensed under State legislation. The Pest Manager must supervise the installation of the moisture membrane and the building workers must wear appropriate protective equipment while laying the moisture membrane.

### TERMITE MANAGEMENT

To minimise the risk of termite infestation, the subfloor area of 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 adequate ventilation in the subfloor area also helps eliminate undue dampness. Pest managers using this product for termite management should advise either the builder, contractor or home owner, etc, 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.

### 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. David Grays Pre-Construction Termiticide may be applied directly to the termite colony in such situations.

### SERVICE REQUIREMENT

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, David Grays Pre-Construction Termiticide can provide an effective chemical soil barrier in subfloor regions for 4 years or more north of the Tropic of Capricorn, and for 10 years or more south of the Tropic of Capricorn. At the 1% application rate, David Grays Pre-Construction Termiticide 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, David Grays Pre-Construction Termiticide 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 many factors such as termite hazard, climatic conditions, soil types and soil disturbance and gardening/landscaping practices.

### **MIXING**

Half fill the spray tank with water (or creosote where applicable) and add the required amount of David Grays Termiticide and Insecticide, then add the remaining water (or creosote) with an agitator running. If using a knapsack sprayer gently shake before using. Only mix sufficient chemical for each specific application.

### **CLEANING SPRAY EQUIPMENT**

After using David Grays Termiticide and Insecticide, empty the spray equipment completely and drain the whole system. Thoroughly wash inside the tank using a pressure hose, and drain. To wash the system, quarter fill the tank with clean water and circulate through the pump, lines, hoses and nozzles (for knapsack sprayers spray to waste through the nozzle). Drain and repeat the washing procedure twice.

Disposal of rinsate/rinse water in accordance with Storage and Disposal instructions below.

<b>GROUP 1B</b>	<b>INSECTICIDE</b>
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### **INSECTICIDE RESISTANCE WARNING**

For insecticide resistance management David Grays Pre-Construction Termiticide is a Group 1B insecticide. Some naturally occurring insect biotypes resistant to David Grays Pre-Construction Termiticide and other Group 1B insecticides may exist through normal genetic variability in any insect population. The resistant individuals can eventually dominate the insect population if David Grays Pre-Construction Termiticide or other Group 1B insecticides are used repeatedly. The effectiveness of David Grays Pre-Construction Termiticide on resistant individuals could be significantly reduced. Since occurrence of resistant individuals is difficult to detect prior to use, David Gray & Co. Pty. Ltd. accepts no liability for any losses that may result from the failure of David Grays Pre-Construction Termiticide to control resistant insects.

David Grays Pre-Construction Termiticide may be subject to specific resistance management strategies. For further information contact your local supplier or David Gray & Co, Pty Ltd. representative.

### **PRECAUTIONS**

#### **RE-ENTRY TO TREATED AREAS**

Suspended Floors: DO NOT allow entry until treated areas are completely dry (normally 3-4 hours).

Concrete Slabs: Cover treated areas immediately with a moisture membrane. Re-entry permitted after laying of the moisture membrane.

#### **PROTECTION OF PETS AND LIVESTOCK**

Before spraying remove animals and pets from buildings and other areas to be treated. Cover or remove any open food and water containers. Cover or remove fish tanks before spraying. DO NOT allow animals and pets to contact treated areas for at least 24 hours.

Dangerous to bees. DO NOT spray any plants in flower while bees are actively foraging.

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

VERY HIGHLY TOXIC TO FISH AND AQUATIC INVERTEBRATES. Rinse waters and run-off from treated areas MUST NOT enter drains or waterways. For under-slab treatments the moisture membrane MUST be installed immediately after treatment. DO NOT apply to waterlogged soils. DO NOT apply if heavy rains are expected to occur within 48 hours of application.

HIGHLY TOXIC TO BIRDS. Do NOT treat fill unless it has been placed back in the trench to form the chemical soil barrier.

DO NOT spray directly on to the foliage of plants as damage to some species is possible.

## **SMALL SPILL MANAGEMENT**

Wear appropriate clothing and protective equipment whilst cleaning up small spills (see **SAFETY DIRECTIONS**). Apply absorbent material such as earth, sand, cat litter or clay granules to the spill. Sweep up material and contain in a refuse vessel for disposal. If spilled inside a building, wash contaminated surfaces to deactivate the chlorpyrifos with a dilute solution of bleach (sodium hypochlorite), prepared according to the bleach label instructions. Dispose of the contaminated material in accordance with **STORAGE AND DISPOSAL** instructions below.

## **STORAGE AND DISPOSAL**

Store in closed, original container in a cool well-ventilated area. Do not store for long periods in direct sunlight. 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 local landfill is available, bury the containers at a depth of 500mm or more 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. Rinsate/rinse water should be disposed of in accordance with appropriate State legislation and should preferably be sprayed on to an application site or added as up to 10% of the diluent the next time this product or another similar termiticide is used. Do not put down sewers, gutters or storm water drains. In some States wastes can only be buried at a licensed landfill.

## **SAFETY DIRECTIONS**

Product is poisonous if absorbed by skin contact, inhaled or swallowed. Repeated exposure may cause allergic disorders. Repeated minor exposure may have a cumulative poisoning effect. Obtain an emergency supply of atropine tablets 0.6 mg. Will irritate the eyes and skin. Avoid contact with eyes and skin. Do not inhale vapour or spray mist.

When opening the container, preparing the spray and using the prepared spray, wear chemical resistant clothing buttoned to the neck and wrist and washable hat, elbow-length PVC gloves, goggles, chemical resistant footwear and half facepiece respirator with combined dust and gas cartridge.

If clothing becomes contaminated with product or wet with spray, remove clothing immediately. If product on the skin, immediately wash area with soap and water. If product is in the 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, goggles, respirator (and if rubber wash with detergent and warm water), and contaminated clothing.

## **FIRST AID**

If poisoning occurs, contact a doctor or Poisons Information Centre. (Ph.: 13 11 26). If swallowed, give one atropine tablet every 5 minutes until dryness of the mouth occurs - if poisoned by skin absorption or through lungs, remove any contaminated clothing, wash skin thoroughly and give atropine tablets as above. Get to a doctor or hospital quickly. If in eyes, hold eyes open, flood with water for at least 15 minutes and see a doctor.

## **MATERIAL SAFETY DATA SHEET**

Additional information is listed on the Material Safety Data Sheet for David Grays Pre-Construction Termiticide which is available from David Gray & Co. Pty. Ltd. on request or from their web site [www.davidgray.com.au](http://www.davidgray.com.au)

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