Australian Government
Australian Pesticides and Veterinary Medicines Authority

ADVICE SUMMARY

APPLICATION FOR REGISTRATION OF A CHEMICAL PRODUCT

Product name: KORDON TERMITE BARRIER
Applicant: BAYER CROPSCIENCE PTY LTD
Product number: 60759
Application number: 38834

Purpose of Application and Description of Use: Registration of a 2 g/square metre deltamethrin impregnated ready to use sheet material for use as a termite barrier in buildings.

Active Constituent(s): DELTAMETHRIN

Regulatory Decision:
To grant the application subject to the following conditions:

Standard Conditions of Registration/Approval

1. Containers must meet AgVet Code Regulation 18 (Condition of Registration - All products)
2. Agricultural products must meet Active Constituents Quality Assurance Requirements(Condition of Registration - Ag products) (Condition of Registration - Vet products)(Condition of Registration - Ag products)
3. Label must contain a Date of Manufacture and Batch Number(Ag only)(Ag only) (Vet only)

For full conditions, refer to http://www.apvma.gov.au/advice_summaries/adv_summaries.shtml.

Add in full, any additional non-standard conditions that **will** appear on the Notice.

ADVICE

Australian Government Department Of Health And Ageing, Office Of Chemical Safety

The existing database and submitted studies demonstrate that the laminated blanket containing deltamethrin is of low acute toxicity, is a slight skin and eye irritant, and is not a sensitizer. Deltamethrin can cause temporary (reversible) paresthesia (tingling) of the skin. The current ADI for deltamethrin is 0.01mg/kg bw/d, based on NOEL of 1mg/kg bw/d and remains acceptable.

Safety directions are in place and the existing and supplied data confirm that these adequately address the risks that could arise from the proposed use pattern of Kordon Termite Barrier. No re-entry or re-handling statement or general safety precaution statements are considered necessary for this product label.

Data relied on to provide the advice

Data No	Data Source*	Author(s)	Title	Date	Data Type	Data Sub-type	Authorising Party	Inherited Application No.
6078	S	E. G. Kokoschko	Report of monitoring and analysis study (AGAL)	27/05/97	OH and S	Other information	Applicant	
6079	S	Prof. Frank Murray	Determination of volatile organic compounds and potential dust emissions from Kordon Termite Barrier	01/08/99	OH and S	Other information	Applicant	

External Efficacy Reviewer

Data from 3 separate trials were provided in 24 progress reports. Trials were conducted in areas with a high termite hazard in the Northern Territory (NT) and south western NSW. The first trial started in 1990 and reports include product performance data up to an including 2005. Naked deltamethrin impregnated blanket (DIB) was attached to concrete pavers to stimulate the intended use of the product under a concrete slab. Half of the slabs established in the Northern Territory had a sheet of polyethylene (PE) placed between the DIB and the soil, while on the other half only DIB was attached. In south western NSW only DIB was attached to slabs. Application rates of chemical in DIB were untreated control, 0.25g deltamethrin/m^2, 0.5 g/m^2, 1.0 g/m^2 and 2.5 g/m^2. Bait wood was placed between the DIB and the pavers. Experimental units were examined annually for termite attack. Damage to the bait wood signified treatment failure. Trial duration was 15 years. Data demonstrated that Kordon Termite Blanket containing a rate of 1.0g deltamethrin/m^2, provides an effective barrier to termites for up to 15 years in northern Australia and for at least 15 years in southern Australia.

The second trial was conducted in south western NSW in 1996 and product performance data was provided up to and including 2005. The blanket material was sewn to form a bag and was placed over a billet. A PE cover was placed over the blanket material. The units were buried with additional bait wood. Application

rates tested were untreated control, 0.01g deltamethrin/m^2, 0.1 g/m^2, 0.25 g/m^2, 0.5 g/m^2 and 1.0 g/m^2. There were 5 replicates in each of 3 different sets, giving a total of 15 replicates for each treatment. Experimental units were examined annually for termite attack.

The third trial was conducted in the NT against *Mastotermes darwiniensis* and in south western NSW against *Coptotermes acinaciformis* in 2002 and product performance data was provided up to and including 2008. Application rates tested were untreated control, 1.0 g/m^2 and 2.0 g/m^2 with 10 replicates per rate at each site. The experimental units included an overlapping joint connected by duct tape. Bait wood was placed between the DIB and the cement slab and the blanket was taped onto the slab. Further bait wood was placed in a shallow trench and the experimental unit was buried. Experimental units were examined annually for termite attack and bait wood subjected to termite attack was examined and scored. Any bait wood lost to termite damage was replaced. Trial is continuing and reports up to 6 years included. Data show that after 6 years none of the treatments had failed.

Data was provided describing the performance of different webbing materials on deltamethrin retention and stability. Rates of decay were found to be lower in the current version of Kordon Termite Barrier when compared to other webbing materials that were used in trials. Data was also provided which describes the stability of deltamethrin in product exposed to the environment for up to 3 months. The data demonstrated that weathering during building construction would not cause reductions in deltamethrin level below minimum specifications.

The APVMA has considered the advice of the reviewer and the comments from the States and it is satisfied that Kordon Termite Barrier when used according to the proposed label will be effective for a period of 15 years.

Data relied on to provide the advice

Data No	Data Source*	Author(s)	Title	Date	Data Type	Data Sub-type	Authorising Party	Inherited Application No.
6091	S	S. Runko	Assessment of deltamethrin treated Kordon Blanket as a barrier against Coptotermes acinaciformis with a below ground exposure method - report after two years	14 April 1998	Efficacy and Safety	Efficacy	Applicant	
6090	S	S. Runko	Assessment of deltamethrin treated Kordon Blanket as a barrier against Coptotermes acinaciformis with a below ground exposure method - report after one year	26 August 1997	Efficacy and Safety	Efficacy	Applicant	
6102	S	R. Varley	Insecticide Controlled Release in Kordon TMB - Analysis of unknown compound in Geofabric	1 October 1998	Efficacy and Safety	Efficacy	Applicant	
6101	S	R. Varley	Insecticide Controlled Release in Kordon TMB; Phase 4 - Part 3) Aging of webbing alternative candidates. Report #4	21/7/98	Efficacy and Safety	Efficacy	Applicant	
6081	S	S.Runko	The first report on field tests with deltamethrin-impregnated blanket as a barrier against termites.	April 1991	Efficacy and Safety	Efficacy	Prev Sub, Not Protected	

6092	S	S. Runko	Assessment of deltamethrin treated Kordon Blanket as a barrier against Coptotermes acinaciformis with a below ground exposure method - report after four years	28 August 2000	Efficacy and Safety	Efficacy	Applicant	
6083	S	S. Runko	The third report on field tests with deltamethrin-impregnated blanket as a barrier against termites.	February 1993	Efficacy and Safety	Efficacy	Prev Sub, Not Protected	
6093	S	S. Runko	Assessment of deltamethrin treated Kordon Blanket as a barrier against Coptotermes acinaciformis with a below ground exposure method - report after six years	16 May 2002	Efficacy and Safety	Efficacy	Applicant	
6085	S	S.Runko	Report on field tests after seven years with the deltamethrin impregnated Kordon blanket as a barrier against Australian subterranean termites	10 October 1997	Efficacy and Safety	Efficacy	Prev Sub, Not Protected	
6094	S	S. Runko	Assessment of deltamethrin treated Kordon blanket as a barrier against Coptotermes acinaciformis (at Conapaira State Forest) with a below ground exposure method. Report after eight years	29 March 2004	Efficacy and Safety	Efficacy	Applicant	
6087	S	S. Runko	Report on field tests after eleven years with the deltamethrin impregnated Kordon blanket as a barrier against Australian subterranean termites	23 July 2001	Efficacy and Safety	Efficacy	Applicant	
6095	S	W. Whitby	Assessment of deltamethrin treated Kordon blanket as a barrier against Coptotermes acinaciformis (at Conapaira State Forest) with a below ground exposure method. Report after nine years	5 September 2005	Efficacy and Safety	Efficacy	Applicant	
6089	S	W. Whitby	Report on field tests after fifteen years with deltamethrin impregnated Kordon blanket as a barrier against Australian subterranean termites at sites near Griffith, NSW and Darwin NT	5 September 2005	Efficacy and Safety	Efficacy	Applicant	
6096	S	S. Runko & M. Lenz	Report on the first year of field trials with Kordon TMB as a barrier against subterranean termites	16 February 2004	Efficacy and Safety	Efficacy	Applicant	
6082	S	S. Runko	The second report on field tests with deltamethrin-impregnated blanket as a barrier against termites.	March 1992	Efficacy and Safety	Efficacy	Prev Sub, Not Protected	
6097	S	P. Gleeson	Evaluation of Kordon TMB as barrier against field colonies of the Australian subterranean termites Mastotermes darwiniensis and the tree-	March 2005	Efficacy and Safety	Efficacy	Applicant	

			nesting form of Coptotermes acinaciformis. second year report					
6086	S	S. Runko	Report on field tests after ten years with the deltamethrin impregnated Kordon blanket as a barrier against Australian subterranean termites	12 September 2000	Efficacy and Safety	Efficacy	Applicant	
6098	S	R. Varley	Insecticide controlled Release in Kordon TMB Phase 1.	2/2/98	Efficacy and Safety	Efficacy	Applicant	
6084	S	S. Runko	Report on field tests after five years the with deltamethrin impregnated Kordon blanket as a barrier against Australian subterranean termites	September 1995	Efficacy and Safety	Efficacy	Prev Sub, Not Protected	
6088	S	S. Runko	Report on field tests after thirteen years with the deltamethrin impregnated Kordon blanket as a barrier against Australian subterranean termites	24 October 2003	Efficacy and Safety	Efficacy	Applicant	
29159	S	P.V. Gleeson	Evaluation of Kordon TMB as barrier against field colonies of the Australian subterranean termites Mastotermes darwiniensis and the tree-nesting form of Coptotermes acinaciformis. Sixth year report	Oct 2008	Efficacy and Safety	Efficacy	Applicant	
6099	S	R. Varley	Insecticide Controlled Release in Kordon TMB; Phase 4 - Part 1. Initial deltamethrin concentrations	27/2/98	Efficacy and Safety	Efficacy	Applicant	
6100	S	R. Varley	Insecticide Controlled Release in Kordon TMB; Phase 4 - Part 2) Aging of Webbing Alternative candidates. Report #3	20/3/98	Efficacy and Safety	Efficacy	Applicant	
6080	S	Jeffrey Einam	Retention analysis of Kordon Termite Barrier exposed to the environment following installation on a concrete slab	24/08/01	Efficacy and Safety	Other Information	Applicant	

** S = Data submitted with the application*
I = Data inherited (that is, referenced) from another application