Australian Government
Australian Pesticides and Veterinary Medicines Authority

ADVICE SUMMARY

APPLICATION FOR REGISTRATION OF A CHEMICAL PRODUCT

Product name: RAID MAX MULTI INSECT KILLER

Applicant: S.C. JOHNSON & SON PTY LTD

Product number: 69366

Application number: 60600

Purpose of Application and Description of Use: Registration of a 0.5 g/kg imiprothrin, 0.5 g/kg prallethrin, 0.15 g/kg cyfluthrin aerosol product for the control of flying and crawling insects in household situations.

Active Constituent(s): CYFLUTHRIN

IMIPROTHRIN MANUFACTURING CONCENTRATE

PRALLETHRIN

Regulatory Decision:

To grant the application subject to the following conditions:

Standard Conditions of Registration/Approval

1. Containers must meet AgVet Code Regulation 18
2. Agricultural products must meet Active Constituents Quality Assurance Requirements
3. Label must contain a Date of Manufacture and Batch Number

For full conditions, refer to Standard Conditions for Applications on the APVMA website.

ADVICE

Australian Government Department of Health and Ageing, Office of Chemical Safety

S. C. Johnson & Son Pty Ltd submitted an application seeking registration of Raid Max Multi Insect Killer, containing imiprothrin at 0.5 g/kg, prallethrin at 0.5 g/kg and cyfluthrin at 0.15 g/kg in an aerosol formulation.

The ADI for imiprothrin (0.05 mg/kg bw/d) and was established in 1996 based on a NOEL of 5 mg/kg bw/d in a 52 week oral dog study based on increased salivation and liquid faeces and increased microscopic pathology in the liver, at the next highest dose of 50 mg/kg bw/d, using a 100-fold safety factor. Prallethrin has an ADI of 0.02 mg/kg bw/d, established in 1993, based on a NOEL of 2.5 mg/kg bw/d in a 52 week dog study for increased deposition of lipofuscin in the kidney and bladder at the next highest dose of 5 mg/kg bw/d, using a 100-fold safety factor.Cyfluthrin has an ADI of 0.02 mg/kg bw/d, established in 1985, based on a NOEL of 2.5 mg/kg/d in a two-year rat dietary study for decreased bodyweights and increased bone fluoride concentration at the next highest dose of 6 mg/kg bw/d, using a 100-fold safety factor.

Raid Max Multi Insect Killer containing 0.50 g/kg imiprothrin, 0.50 g/kg prallethrin and 0.15 g/kg of cyfluthrin is classified as a Schedule 5 poison (based on the concentration of prallethrin) in the product.

After consideration of the hazards associated with the proposed product, along with the exposure and risks expected with use of the proposed product, the APVMA is satisfied that the proposed use of "Raid Max Multi Insect Killer" will not be an undue health hazard to humans according to the criteria stipulated in Section 14 of the Ag/Vet Code Act of 1994.

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.
78438	S	J Durando	Acute dermal toxicity study in rats	27 April 2011	Toxicology	Acute dermal studies, product	Applicant	
78441	S	J Durando	Primary eye irritation study in rabbits	10 June 2011	Toxicology	Acute eye irritation studies, product	Applicant	
78439	S	J Durando	Acute inhalation toxicity study in rats	27 April 2011	Toxicology	Acute inhalation studies, product	Applicant	
78437	S	J Durando	Acute oral toxicity up and down procedure in rats	27 April 2011	Toxicology	Acute oral studies, product	Applicant	
78440	S	J Durando	Primary skin irritation study in rabbits	10 June 2011	Toxicology	Acute skin irritation studies, product	Applicant	

Data No	Data Source*	Author(s)	Title	Date	Data Type	Data Sub-type	Authorising Party	Inherited Application No.
78442	S	J Durando	Dermal sensitization study in guinea pigs (Buehler method)	27 April 2011	Toxicology	Acute skin sensitisation studies, product	Applicant	

State/External Efficacy Reviewer

Raid Max Multi Insect Killer is an aerosol formulation containing 0.5 glkg imiprothrin, 0.5 glkg prallethrin and 0.15 g.kg cyfluthrin for the control of flying and crawling insects/pests in household situations, specifically against flies-*(Musca domestica)*, mosquitoes-*(Aedes aegypti, Culex quinquefasciatus, Anopheles stephensi, Aedes albopictus)*, moths-*(Plodia interpunctella)*, wasps-*(Polistes sp, Vespula germanica, Dolichovespula maculate)*, cockroaches -(*Blattella germanica, Periplaneta americana, Bratta orientalis*) ants -(*Campotonus sp*), spiders -*(Aranae)*, silverfish *(Lepisma saccharina)*, fleas -*(Ctenocephalides felis)*, bed bugs -*(Cimex lectularius),* millipedes -*(*Diplopoda*)* and centipedes -*(*Chilopoda*)*, Earwigs (Dermaptera), Sow bugs or slaters (Isoptera), Carpet beetles (*Attagenus megatoma*) and crickets (*Achets domesticus*).

The applicant provided ten laboratory trials where the proposed product 'Raid Max Multi Insect Killer' was sprayed directly on pests (in accordance with label directions) and compared to untreated controls. Significant levels of knockdown and/or mortality of a range of flying and crawling insects were recorded. Trials were also undertaken, where the proposed product was applied directly to American cockroach egg cases. When compared to untreated controls, the number of emerging cockroach nymphs was significantly lower.

Three laboratory trials were provided where the proposed product was applied as a space spray in accordance with label directions and compared to untreated replicates. Significant mortality was noted for both flies and mosquitoes.

A further two laboratory trials were provided to demonstrate residual efficacy. The proposed product was applied to flyscreen and plywood surfaces and mosquitoes and cockroaches exposed to those surfaces 24 hours later. Survival following exposure to treated and untreated surfaces, indicated that exposure to the treated surfaces resulted in a significant level of knockdown and/or mortality

The APVMA is satisfied that the use of the product would be effective and safe when used in accordance with the proposed label instructions.

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.
78457	S	CE Jones	Direct spray efficacy of MIK 115 against small moths in the laboratory	April 2011	Efficacy and safety	Efficacy	Applicant	
78456	S	CE Jones	Direct spray efficacy of Raid MIK 115 against paper wasps, hornets and yellow jackets in the	August 2011	Efficacy and safety	Efficacy	Applicant	

Data No	Data Source*	Author(s)	Title	Date	Data Type	Data Sub-type	Authorising Party	Inherited Application No.
			laboratory					
78455	S	CE Jones	Efficacy of MIK 115 against caged flying insects using an indirect space spray application in a large chamber	April 2011	Efficacy and safety	Efficacy	Applicant	
78454	S	CE Jones	Residual efficacy of MIK 115 against mosquitoes in the laboratory	April 2011	Efficacy and safety	Efficacy	Applicant	
78453	S	CE Jones	Efficacy of MIK 115 against mosquitoes in the laboratory	March 2011	Efficacy and safety	Efficacy	Applicant	
78451	S	CE Jones	Direct spray efficacy of MIK 115 against houseflies in the laboratory	April 2011	Efficacy and safety	Efficacy	Applicant	
78443	S	CE Jones	Efficacy of MIK 115 against houseflies in the laboratory	March 2011	Efficacy and safety	Efficacy	Applicant	
78444	S	CE Jones	Surface residual efficacy of MIK 115 against various cockroaches in the laboratory	May 2011	Efficacy and safety	Efficacy	Applicant	
78445	S	CE Jones	Direct spray efficacy of MIK 115 against German cockroach egg capsules in the laboratory	May 2011	Efficacy and safety	Efficacy	Applicant	
78446	S	CE Jones	Direct spray efficacy of MIK 115 against cat fleas in the laboratory	April 2011	Efficacy and safety	Efficacy	Applicant	
78447	S	E Snell et al	Efficacy of Gichigami FP, lab book/ formula / SOF #43027 when applied as direct spray applications to wild strain bed bugs (Cimex lectularius)	April 2011	Efficacy and safety	Efficacy	Applicant	
78448	S	CE Jones	Direct spray efficacy of MIK 115 against various arthropods in the laboratory (WR9*11409E5)	April 2011	Efficacy and safety	Efficacy	Applicant	
78449	S	CE Jones	Direct spray efficacy of MIK 115 against various arthropods in the laboratory (WR9*11409E6)	April 2011	Efficacy and safety	Efficacy	Applicant	
78450	S	CE Jones	Direct spray efficacy of MIK 115 against American Cockroach egg capsules in the laboratory (PLM WR9*11409E17)	May 2011	Efficacy and safety	Efficacy	Applicant	
78458	S	CE Jones	Direct spray efficacy of MIK 115 against various cockroaches in the laboratory	April 2011	Efficacy and safety	Efficacy	Applicant	

** S = Data submitted with the application*

I = Data inherited (that is, referenced) from another application