

Evaluation Report for Category B, Subcategory 2.1, 2.3, 2.4 Application

Application Number: 2018-3459
Application: New End-use Product (Product Chemistry) – Guarantee, Identity of Formulants, Proportion of Formulants
Product: Decis 100 EC Insecticide
Registration Number: 33700
Active ingredient (a.i.): Deltamethrin
PMRA Document Number: 3022714

Purpose of Application

The purpose of this application was to register the new end-use product Decis 100 EC Insecticide for control of insects on various crops.

Chemistry Assessment

Decis 100 EC Insecticide is formulated as an emulsifiable concentrate containing deltamethrin at a concentration of 100 g/L. This end-use product has a density of 0.953 g/mL and pH of 5.2. The required chemistry data for Decis 100 EC Insecticide have been provided, reviewed and found to be acceptable.

Health Assessments

Decis 100 EC Insecticide is moderately acutely toxic via the oral route, of low acute toxicity via the dermal route, and slightly acutely toxic via the inhalation route based on studies in rats, and corrosive to the eye and mildly irritating to the skin based on studies in rabbits. Decis 100 EC Insecticide is not a dermal sensitizer based on results of the modified Buehler Test in guinea pig.

The use of Decis 100 EC Insecticide is not expected to result in potential occupational or bystander exposure over the registered use of deltamethrin. No risks of concern are expected when workers follow label directions and wear personal protective equipment as stated on the label.

Residue data from field trials conducted in Canada and the United States were submitted for deltamethrin (Applications 2018-3429/3464) to support the use of Decis 100 EC Insecticide on Crop Subgroup 6C (dried shelled pea and bean, except soybean). Deltamethrin was applied to dry beans and dry peas at the proposed rate, and harvested according to label directions. Previously reviewed residue data from field trials conducted in/on various crops were reassessed in the framework of this petition. In addition, processing studies in treated crops were also reassessed to determine the potential for concentration of residues of deltamethrin into processed commodities.

It was confirmed that the use of Decis 100 EC Insecticide is not expected to result in an increase in the magnitude of deltamethrin residues in/on the treated crops. Therefore, the registration of Decis 100 EC Insecticide will not pose an unacceptable risk to any segment of the population, including infants, children, adults and seniors.

Environmental Assessment

The application rates for Decis 100 EC Insecticide are within the currently registered rates and use patterns. The environmental risks associated with Decis 100 EC Insecticide are acceptable when used according to label directions.

Value Assessment

Decis 100 EC Insecticide is a new formulation of deltamethrin. Value information was submitted to extrapolate all registered uses from precedent products, and to add suppression of pea leaf weevil and control of grasshopper, cutworms and lygus bugs on dried shelled peas and beans, except soybeans. Field trials confirmed equivalent efficacy between Decis 100 EC Insecticide and the precedent products. The submitted value information was sufficient to support use of Decis 100 EC Insecticide for uses registered on the labels of the precedent products and for suppression of pea leaf weevil and control of grasshopper, cutworms and lygus bugs on dried shelled peas and beans, except soybeans.

Conclusion

The Pest Management Regulatory Agency has completed an assessment of the information provided, and has found the information sufficient to register Decis 100 EC Insecticide.

References

PMRA Document Number	Reference
2907776	2017, Starting materials for Decis 1.0 EC insecticide, DACO: 3.2.1 CBI
2907777	2017, Formulation process of Decis 1.0 EC insecticide, DACO: 3.2.2 CBI
2907780	2012, Determination of deltamethrin in EC-formulations and Traps; [CBI Removed], DACO: 3.4.1
2907781	2012, Validation [CBI Removed]- Determination of deltamethrin in formulations - deltamethrin EC 100 (100 g/L), DACO: 3.4.1
2907782	2016, Shelf life of deltamethrin EC 100 (100 g/L) - Packaging material: COEX/PA - Final report (2 years), DACO: 3.5.10, 3.5.14
2907783	2013, Safety-relevant data of deltamethrin EC 100 (100 g/L), DACO: 3.5.11, 3.5.12
2907785	2014, Physical, chemical and technical properties of deltamethrin EC 100 (100 g/L) - Final report - Amendment 2, DACO: 3.5.6, 3.5.7, 3.5.9
2907786	2017, Miscibility, DACO: 3.5.13, 3.5.15, 3.5.8 CBI
2907787	1998, Deltamethrin EC 100 g/l, Code: AE F032640 00 EC11 A301 (SVDTE0109701) - Rat acute oral toxicity., DACO: 4.6.1
2907788	1998, Deltamethrin EC 100 g/l (Code: AE F032640 00 EC11 A301 (SVDTE00109701)) - Rat acute dermal toxicity, DACO: 4.6.2
2907789	1996, Deltamethrin EC 101 g/l (Code: Hoe 032640 00 EC11 A201) - Testing for acute aerosol inhalation toxicity in the male and female SPF Wistar rat, 4-hour LC50, DACO: 4.6.3
2907790	1998, Deltamethrin EC 100 g/l - Code: AE F032640 00 EC11 A301(SVDTE00109701) - Rabbit acute eye irritation, DACO: 4.6.4
2907791	1998, Deltamethrin EC 100 g/l - Code: AE F032640 00 EC11 A301 (SVDTE00109701) - Rabbit skin irritation, DACO: 4.6.5
2907792	1998, Deltamethrin EC 100 g/l (Code AE F032640 00 EC11 A301) (SVDTE00109701): Guinea-pig skin sensitization (modified Buehler test: 9 inductions), DACO: 4.6.6
2907488	2018, Value Assessment of Decis 5 EC Insecticide for Control of Pea Leaf Weevil (<i>Sitona lineatus</i>), Grasshoppers, Cutworms and Lygus Bugs in Crop Sub Group 6C - Compilation of Trial Reports, DACO: 10.2
2907489	2018, Efficacy Summary Table EST-1. Pea leaf weevil (<i>Sitona lineatus</i>) control in field pea and fababean with Decis 5 EC Insecticide., DACO: 10.2.3.1
2907490	2018, Value Assessment of Decis 5 EC Insecticide for Control of Pea Leaf Weevil (<i>Sitona lineatus</i>), Grasshoppers, Cutworms and Lygus Bugs in Crop Sub Group 6C, DACO: 10.2, 10.2.1, 10.2.2, 10.2.3.2, 10.3, 10.3.2, 10.4,10.5
2907771	2018, Value Assessment of Decis 100 EC Insecticide - Compilation of Trial Reports, DACO: 10.2
2907772	2018, Value Assessment of Decis 100 EC Insecticide, DACO: 10.2.1,10.2.2,10.2.3,10.2.3.1,10.2.3.2,10.2.3.3,10.3.1,10.3.2(B),10.4,10.5

PMRA Document Number	Reference
2907773	2018, 10.2.3.1 Efficacy Summary Table EST-1. Insect pest control in field and horticultural crops with foliar application of Decis 100EC Insecticide. & 10.3 Non-safety Adverse-effects Summary Table NSAEST-1. Summary of the phytotoxicity symptoms observed in crops treated with Decis 100 EC Insecticide., DACO: 10.2.3.1,10.3

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