

Evaluation Report for Category B, Subcategory 2.6 and 3.12 Application

Application Number: 2010-5882
Application: New end-use product – New combination of technical grade active ingredients and new site or host
Product: Endigo Insecticide
Registration Number: 30404
Active ingredients (a.i.): Lambda-cyhalothrin and thiamethoxam
PMRA Document Number: 2056760

Purpose of Application

The purpose of this application was to register a commercial class end-use product, Endigo Insecticide (guarantee: 141 g/L thiamethoxam and 106 g/L lambda-cyhalothrin) for use on soybean and dried shelled beans via ground and aerial application.

Chemistry Assessment

Endigo Insecticide is formulated as a suspension containing lambda-cyhalothrin at a nominal concentration of 106 g/L and thiamethoxam at a nominal concentration of 141 g/L. This end-use product has a density of 1.12 g/mL and pH of 6.4 (in water) and is stable for at least one year at ambient temperature for fluorinated-HDPE packing. The chemical requirements for Endigo Insecticide are complete.

Health Assessments

Endigo Insecticide is of high acute toxicity via the oral route, and is of low acute toxicity via the dermal and inhalation routes of exposure. It is mildly irritating to the eyes and skin of rabbits, and is not a dermal sensitizer in guinea pigs.

A health assessment has been conducted for the registration of the commercial class end-use product, Endigo Insecticide. Exposure to mixers, loaders, applicators and post-application workers is considered acceptable if users follow the personal protective equipment requirements, precautions, directions and use restrictions listed on the label.

Residue data for Endigo Insecticide, a product containing thiamethoxam and lambda-cyhalothrin, for use in soybeans and dry edible beans were submitted. Based on the residues observed in dry shelled beans and soybean seeds treated according to label directions, the currently established maximum residue limits (MRLs) for thiamethoxam and lambda-cyhalothrin in/on both dry edible beans and soybeans will cover this use. Residues in dry shelled beans and soybean seeds at the established MRLs will not pose an unacceptable risk to any segment of the population, including infants, children, adults and seniors.

Environmental Assessment

The approved application rates for the subject product are within rates for the registered ground application but exceeded those for the registered aerial application of these two actives. Consequently, the exposure and risk to non-target organisms from spray drift will increase. Environmental label statements and buffer zones are required for the uses of the subject product. The risk of lambda-cyhalothrin to marine/estuarine organisms will be updated during the re-evaluation of lambda-cyhalothrin.

For the technical grade active ingredient, thiamethoxam, environmental data to assess risk to pollinators is a current outstanding requirement for the thiamethoxam technical as well as all thiamethoxam containing end-use products formulated for foliar application. As such, the data requirements for thiamethoxam are also applicable to Endigo Insecticide.

Value Assessment

A rationale was submitted, based on an extrapolation of the efficacy of Endigo Insecticide to the registered products Matador 120 EC (Registration number 24984, lambda-cyhalothrin), Cruiser 5FS Seed Treatment (Registration number 27045, thiamethoxam), Cruiser Maxx Beans (Registration number 28821, thiamethoxam), Actara 240 SC (Registration number 28407, thiamethoxam), and Actara 25 WG (Registration number 28408, thiamethoxam). Based on the submitted rationale and cited registered precedent products (Matador 120 EC, Cruiser 5 FS, and Actara 25 WG), the uses for Endigo Insecticide for bean leaf beetle and soybean aphids are acceptable from an efficacy and value perspective.

Conclusion

The PMRA has completed an assessment of available information for Endigo Insecticide. As the technical grade active ingredient thiamethoxam and its associated end-use products with foliar applications are conditionally registered pending outstanding data requirements, Endigo Insecticide will also be granted conditional registration pending the same data requirements for thiamethoxam.

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