

Evaluation Report for Category B, Subcategory 1.1, 1.3 Application

Application Number: 2011-6066
Application: B.1.1 – New Source (site) Same Registrant
 B.1.3 – Change Chemistry Specifications
Product: Lambda-Cyhalothrin Technical 2 Insecticide
Registration Number: 30818
Active ingredients (a.i.): Lambda-Cyhalothrin
PMRA Document Number: 2270344

Purpose of Application

The purpose of this application was to register a new source of the TGAI by the same registrant.

Chemistry Assessment

Common Name: Lambda-cyhalothrin
IUPAC Chemical Name: Reaction product comprising equal quantities of (*R*)- α -cyano-3-phenoxybenzyl (1*S*,3*S*)-3-[(*Z*)-2-chloro-3,3,3-trifluoropropenyl]-2,2-dimethylcyclopropanecarboxylate and (*S*)- α -cyano-3-phenoxybenzyl (1*R*,3*R*)-3-[(*Z*)-2-chloro-3,3,3-trifluoropropenyl]-2,2-dimethylcyclopropanecarboxylate
 or of
 (*R*)- α -cyano-3-phenoxybenzyl (1*S*)-*cis*-3-[(*Z*)-2-chloro-3,3,3-trifluoropropenyl]-2,2-dimethylcyclopropanecarboxylate and (*S*)- α -cyano-3-phenoxybenzyl (1*R*)-*cis*-3-[(*Z*)-2-chloro-3,3,3-trifluoropropenyl]-2,2-dimethylcyclopropanecarboxylate
CAS Chemical Name: (*R*)-cyano(3-phenoxyphenyl)methyl (1*S*,3*S*)-*rel*-3-[(1*Z*)-2-chloro-3,3,3-trifluoro-1-propen-1-yl]-2,2-dimethylcyclopropanecarboxylate

Lambda-Cyhalothrin Technical 2 Insecticide has the following properties:

Property	Result
Colour and physical state	Colourless solid
Nominal concentration	98%
Odour	Odourless
Density at 20°C	1.33 g/mL
Vapour pressure	2×10^{-4} mPa at 20°C
pH	5.6

Property	Result
Solubility in water	5.0×10^{-3} mg/L
n-Octanol/water partition coefficient	Log K_{ow} = 7.0

The chemistry requirements for Lambda-Cyhalothrin Technical 2 Insecticide have been completed.

Health Assessments

Lambda Cyhalothrin Technical 2 is of moderate acute toxicity via the oral and inhalation routes of exposure, and is of low acute toxicity via the dermal route of exposure. It is mildly irritating to the eyes of rabbits and is slightly irritating to the skin of rabbits. It is not a dermal sensitizer in guinea pigs.

Environmental and Value Assessment

Environmental and value assessments were not required for this application.

Conclusion

The PMRA has reviewed the information provided and has determined the new source of Lambda-Cyhalothrin is acceptable for registration.

References

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- 2140995 2002, 2.14 - Physical and Chemical Properties of Lambda-Cyhalothrin Technical Product Chemistry, DACO: 2.14, 2.14.1, 2.14.10, 2.14.11, 2.14.12, 2.14.13, 2.14.14, 2.14.2, 2.14.3, 2.14.4, 2.14.5, 2.14.6, 2.14.7, 2.14.8, 2.14.9 CBI
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