

Evaluation Report for Category B, Subcategory 1.1 Application

Application Number: 2018-6353
Application: New/Changes to TGAI (Product Chemistry) - New source (site), same registrant
Product: Lambda-Cyhalothrin Technical 2 Insecticide
Registration Number: 30818
Active ingredient (a.i.): Lambda-cyhalothrin
PMRA Document Number: 3078326

Purpose of Application

The purpose of this application was to add a new manufacturing source for the registered technical product Lambda-Cyhalothrin Technical 2 Insecticide.

Chemistry Assessment

Common Name: Lambda-Cyhalothrin
IUPAC* Chemical Name: (*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

* International Union of Pure and Applied Chemistry

† Chemical Abstracts Service

Lambda-Cyhalothrin Technical 2 Insecticide has the following properties:

Property	Result
Colour and physical state	Amber viscous liquid
Nominal concentration	98%
Odour	Odourless
Density	1.27 g/cm ³
Vapour pressure	2 × 10 ⁻¹⁰ kPa (at 20°C)
pH	5.62 (1% aqueous dispersion)

Property	Result
Solubility in water	5.0×10^{-3} mg/L
n-Octanol/water partition coefficient	Log $K_{ow} = 7.0$ (20°C)

The required chemistry data for Lambda-Cyhalothrin Technical 2 Insecticide have been provided, reviewed, and found to be acceptable.

Value, Health and Environmental Assessments

Value, health and environmental assessments were not required for this application.

Conclusion

The Pest Management Regulatory Agency has completed an assessment of the information provided, and has found the information sufficient to add a new manufacturing source for Lambda-Cyhalothrin Technical 2 Insecticide.

References

PMRA Document No.	Reference
2140994	2010, 2.13.2 - Confirmation of Structures, DACO: 2.12.2,2.13.4,IIA 1.10.2 CBI
2140993	2011, 2.11.1 – Manufacturing Process Description and Supporting Data, DACO: 2.11.1, 2.11.2, 2.11.3, 2.11.4, 2.12.1, 2.13.1, 2.13.2, 2.13.3, 2.4, 2.5, 2.6, 2.7, 2.8, 2.9 CBI
2941372	2018, Lambda-Cyhalothrin Technical 2 (PP321) - Document J - {Supplement to EPA Registration No. 100-1435, EPA MRID Nos. 48601001 & 49650302} - Product Chemistry Volume, DACO: 2.11.1, 2.13.3, 2.2 CBI
3067270	2019, Lambda-Cyhalothrin Technical 2 (PP321) - Document J, DACO: 2.2 CBI
3067271	2019, Lambda-Cyhalothrin Technical 2 (PP321) - Document H, DACO: 2.11.2 CBI
3067272	2019, PMRA Response Lambda-Cyhalothrin Technical 2 [Privacy Information Removed] SPSF impurities, DACO: 2.12.1 CBI

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