

Evaluation Report for Category B, Subcategory 1.1 Application

Application Number: 2018-5207
Application: Changes to TGAI Product Chemistry-New Source (site) same registrant
Product: Endura d-Allethrin Technical Grade Insecticide
Registration Number: 32663
Active ingredient (a.i.): d-cis, trans-allethrin
PMRA Document Number : 3083410

Purpose of Application

The purpose of this application was to add a new source of d-cis, trans-allethrin by a current registrant.

Chemistry Assessment

Common Name: d-cis, trans-allethrin
IUPAC* Chemical Name: (RS)-3-allyl-2-methyl-4-oxocyclopent-2-enyl (1R)-cis-trans-2,2-dimethyl-3-(2-methylprop-1-enyl)cyclopropanecarboxylate
CAS† Chemical Name: 2-methyl-4-oxo-3-(2-propen-1-yl)-2-cyclopenten-1-yl 2,2-dimethyl-3-(2-methyl-1-propenyl)cyclopropanecarboxylate

* International Union of Pure and Applied Chemistry

† Chemical Abstracts Service

Endura d-Allethrin Technical Grade Insecticide has the following properties:

Property	Result
Colour and physical state	Yellow to brown transparent viscous liquid
Nominal concentration	97.0 %
Odour	Slight aromatic
Density	1.01 g/mL
Vapour pressure	0.014 mPa at 25 °C
pH	4.31
Solubility in water	Insoluble
n-Octanol/water partition coefficient	4.96

The required chemistry data for Endura d-Allethrin Technical Grade Insecticide have been provided, reviewed, and found to be acceptable.

Health, Environmental and Value Assessments

Health, environmental and value assessments were not required for this application.

Conclusion

The Pest Management Regulatory Agency has completed an assessment of the information provided, and has found it sufficient to support the registration of the new source of d-cis, trans-allethrin.

References

PMRA

Document

Number	Reference
2564414	2006, d-Allethrin (Pure Active Substance): Determination of the Physico-Chemical Properties, DACO: 2.14.1, 2.14.11, 2.14.12, 2.14.2, 2.14.3, 2.14.5, 2.14.6, 2.14.7, 2.14.8, 2.14.9
2564415	2006, d-Allethrin (Technical Grade): Determination of the Physico-Chemical Properties, DACO: 2.14.1,2.14.13,2.14.2,2.14.3,2.16
2687226	2016, Product Identity and Composition, Description of the Materials Used, Description of the Production Process, Discussion of the Formation of Impurities, Certified Limits, and Enforcement Analytical Method for Endura d-Allethrin Technical Grade Insecticide - Amended, DACO: 2.13.1 CBI
2925619	2018, Change to Manufacturing Process, DACO: 2.11.1,2.11.2,2.11.3 CBI
2925622	2018, Determination of Assay, Impurities and [CBI Removed] Content in d-Allethrin Technical Grade, DACO: 2.13.1,2.13.2,2.13.3,2.13.4 CBI
2925623	2018, Quantitation Determination of the Eight Allethrin Stereoisomers in d-Allethrin Technical Grade by [CBI Removed], DACO: 2.13.1,2.13.2,2.13.3 CBI
3027313	2016, Validation of an Analytical Method to Determine Impurities in a Sample of d-Allethrin TG, Batch R1603011, DACO: 2.13.1 CBI
3027314	2016, Validation of a Method and Determination of d-Allethrin Assay in d-Allethrin TG, Batch R1603011, DACO: 2.13.1 CBI
3027315	2016, Quantitative determination of the eight Allethrin Stereoisomers in d-Allethrin technical grade by [CBI Removed] (5 batch analysis: R 359/17, R 45/18, R 112/18, R 113/18, R 114/18), DACO: 2.13.2 CBI
3027316	2019, d-Allethrin Clarifications on the manufacturing process, DACO: 2.13.4 CBI
3035349	2019, Additional Chromatograms - Determination of Assay, Impurities and [CBI Removed] Content in d-Allethrin Technical Grade (5 Batch Analysis: R359/17, R 45/18, R 112/18, R 113/18, R 114/18), DACO: 2.13.2 CBI
3068468	2019, Determination of Residual Solvents ([CBI Removed] and [CBI Removed] in d-Allethrin Technial Grade (5 Batch Analysis: R359/17; R114/18; R113/18; R112/18; R45/18), DACO: 2.13.2,2.13.3,2.13.4 CBI
3068469	2019, Validation of Analytical Method to Determine Residual Solvents ([CBI Removed] and [CBI Removed]) in d-Allethrin Technical Grade, batch R359/17, DACO: 2.13.1,2.13.2,2.13.4 CBI
3070984	2019, d-Allethrin - Confirmation of Manufacturing Site, DACO: 2.13.3,2.13.4

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