

## Evaluation Report for Category B, Subcategory 1.1 Application

**Application Number:** 2022-6344  
**Application:** Changes to Technical Grade Active Ingredient Product Chemistry – New Source (Site) Same Registrant  
**Product:** Lambda-Cy Technical Insecticide  
**Registration Number:** 29026  
**Active ingredient (a.i.):** Lambda-cyhalothrin  
**PMRA Document Number:** 3533014

### Purpose of Application

The purpose of this application was to add a new manufacturing site for Lambda-Cy Technical Insecticide.

### Chemistry Assessment

Common Name: Lambda-cyhalothrin

IUPAC\* Chemical Name: Reaction product comprising equal quantities of (*R*)- $\alpha$ -cyano-3-phenoxybenzyl (1*S*,3*S*)-3-[(*Z*)-2-chloro-3,3,3-trifluoropropenyl]-2,2-dimethylcyclopropanecarboxylate and (*S*)- $\alpha$ -cyano-3-phenoxybenzyl (1*R*,3*R*)-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-Cy Technical Insecticide has the following properties:

Property	Result
Colour and physical state	White powder
Nominal concentration	97.6%
Odour	No odour
Density	1.31 g/mL at 25°C
Vapour pressure	$2.17 \times 10^{-4}$ mPa at 20°C

<b>Property</b>	<b>Result</b>
pH	6.8
Solubility in water	0.005 mg/L at 20-25°C
n-Octanol/water partition coefficient	log K <sub>ow</sub> = 6.61

The required chemistry data for Lambda-Cy Technical 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 the information acceptable to register the new manufacturing site for Lambda-Cy Technical Insecticide.

## References

<b>PMRA Document Number</b>	<b>Reference</b>
3413426	2022, Chemistry requirements for a TGAI or an Integrated System, Manufacturing Methods for the TGAI, Specifications, Preliminary Analysis, Sample(s) of Analytical Standards and ROC and MSDS (Material Safety Data Sheets) Product for LAMBDA-CY TECHNICAL INSECTICIDE, DACO: 2.1,2.11.2,2.11.3,2.11.4,2.12.1,2.13.3,2.2,2.3,2.3.1,2.5,2.6,2.7,2.8,2.9 CBI
3413427	2020, Chemical Composition of Five Batches of Lambda-cyhalothrin Technical Preliminary Analysis and Enforcement Analytical Methods for Lambda-cyhalothrin TGAI: fulfilling the Requirements of OPPTS Guideline 830.1700 and 830.1800 and EU Commission Regulation No., 283/2013, DACO: 2.13.1,2.13.2,2.13.3,2.13.4 CBI
3413428	2020, Lambda-cyhalothrin Technical: Laboratory Study of Water Solubility, DACO: 2.14.7 CBI
3413429	2020, Lambda-cyhalothrin Technical: Laboratory Study of Solubility in Organic Solvent, DACO: 2.14.8 CBI
3413430	2020, Lambda-cyhalothrin Technical: Laboratory Study of Partition Coefficient, DACO: 2.14.11 CBI
3413431	2020, Lambda-cyhalothrin Technical: Laboratory Study of Appearance (Physical State, Colour and Odour), DACO: 2.14.1,2.14.2,2.14.3 CBI
3413432	2020, Lambda-cyhalothrin Technical: Laboratory Study of Melting Point, DACO: 2.14.4 CBI
3413433	2020, Lambda-cyhalothrin Technical: Laboratory Study of Vapour Pressure, DACO: 2.14.9 CBI

© His Majesty the King in Right of Canada, as represented by the Minister of Health Canada, 2024

All rights reserved. No part of this information (publication or product) may be reproduced or transmitted in any form or by any means, electronic, mechanical, photocopying, recording or otherwise, or stored in a retrieval system, without prior written permission of Health Canada, Ottawa, Ontario K1A 0K9.