

Evaluation Report for Category B, Subcategory 1.1 Application

Application Number: 2016-4456

Application: Changes to Technical Grade Active Ingredient-Product Chemistry-

New Source/Same Registrant

Product: Sevin Brand Technical Carbaryl Insecticide

Registration Number: 18463 **Active ingredient (a.i.):** Carbaryl **PMRA Document Number:** 2746873

Purpose of Application

The purpose of this submission was to add a new manufacturing site for Sevin Brand Technical Carbaryl Insecticide, and to update the two registered formulations for this technical grade active ingredient.

Chemistry Assessment

Common Name: Carbaryl

IUPAC* Chemical Name: 1-naphthyl methylcarbamate

CAS† Chemical Name: 1-naphthalenyl N-methylcarbamate

† Chemical Abstracts Service

Sevin Brand Technical Carbaryl Insecticide:

Property	Result	
Colour and physical state	White solid	
Nominal concentration	99.5%	
Odour	Odourless	
Density	0.7842 g/mL	
Vapour pressure	4.16 x 10 ⁻⁵ Pa (23.5°C)	
рН	4-7	
Solubility in water	pH Solubility (mg/L)	
	4 9.4	
	7 9.1	
	9 7.2	
n-Octanol/water partition coefficient	$\log \text{Kow} = 2.36 \ (23E \ C)$	

The required chemistry data for Sevin Brand Technical Carbaryl Insecticide have been provided, reviewed, and found to be acceptable.



^{*} International Union of Pure and Applied Chemistry

Health Assessments

The proposed change is not expected to significantly impact the toxicological profile of the product.

Occupational and dietary exposure assessments were not required for this application.

Environmental Assessment

The proposed change is not of environmental concern.

Value Assessment

A value assessment was 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 support the addition of a new manufacturing site for Sevin Brand Technical Carbaryl Insecticide, and the amendments to the two registered formulations for this technical grade active ingredient.

References

DMD A D

PMRA Document	Reference
Number	
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2667095	2016, DACO 2.11.1_Manufacturing Summary, DACO: 2.11.1 CBI
2667096	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 Sevin
	Brand Technical Carbaryl Insecticide, DACO: 2.11.2,2.11.3,2.11.4,2.12.1
	CBI
2667097	2001, AE F054158 Physical Characteristics Color, Appearance and Odor,
	DACO: 2.14.1,2.14.2,2.14.3 CBI
2667098	1993, Carbaryl Product Chemistry, DACO: 2.14.10 CBI
2667099	1987, Octanol/Water Partition Coefficient Determination of Carbaryl,
	DACO: 2.14.11 CBI
2667100	2007, Carbaryl Spectral Data (UV/VIS, IR, 1H-NMR, 13C-NMR, MS),
	DACO: 2.14.12 CBI
2667101	2002, Determination of the Storage Stability of Carbaryl AE F054158,
	DACO: 2.14.13 CBI
2667102	2006, 2.14.13-2_Stability of SEVIN Technical, DACO: 2.14.13,2.14.14 CBI
2667103	2002, Determination of the Melting Point of Carbaryl AE F054158 in
	accordance with OECD-Guideline 102 Report No. B 006/2001 [CBI
	Removed], DACO: 2.14.4 CBI

2667104	2002, Determination of the Boiling Point of Carbaryl AE F054158 in
	accordance with OECD-Guideline 103 Report No. B 007/2001 [CBI
	Removed], DACO: 2.14.5 CBI
2667105	2002, Determination of the Relative Density of Carbaryl AE F054158 in
	accordance with OECD-Guideline 103 Report No. B 007/2001 [CBI
	Removed], DACO: 2.14.6 CBI
2667106	2002, Determination of Water Solubility of Carbaryl AE F054158 in
	accordance with OECD-Guideline 105 Report No. B 079/2001 [CBI
	Removed], DACO: 2.14.7 CBI
2667107	2002, Determination of the Solubility in organic Solvents of Carbaryl AE
	F054158 Report No. B 010/2001 [CBI Removed], DACO: 2.14.8 CBI
2667108	1987, Vapor Pressure Determination of Carbaryl, DACO: 2.14.9 CBI
2667109	2016, Method Validation and Product Chemistry Analysis of Carbaryl,
	DACO: 2.13.1,2.13.2,2.13.3 CBI
2667110	2016, Method Validation and Product Chemistry Analysis of Carbaryl
	Product Properties Test Guidelines, Series 830 Preliminary Analysis
	Enforcement Analytical Method, DACO: 2.13.1,2.13.2,2.13.3 CBI
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ISSN: 1911-8082

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