

Evaluation Report for Category B, Subcategory 1.2 Application

Application Number: 2016-4581
Application: New Technical Grade Active Ingredient - New Source /
 New Registrant
Product: Zhongshan Mesotrione Technical 98.9%
Registration Number: #####
Active ingredient (a.i.): Mesotrione
PMRA Document Number: 2751776

Purpose of Application

The purpose of this application was to register Zhongshan Mesotrione Technical 98.9%, a new source of the active ingredient mesotrione by a new registrant.

Chemistry Assessment

Common Name: Mesotrione
IUPAC* Chemical Name: 2-[4-(methanesulfonyl)-2-nitrobenzoyl]cyclohexane-1,3-dione
CAS† Chemical Name: 2-[4-(methylsulfonyl)-2-nitrobenzoyl]-1,3-cyclohexanedione

* International Union of Pure and Applied Chemistry

† Chemical Abstracts Service

Zhongshan Mesotrione Technical 98.9% has the following properties:

Property	Result
Colour and physical state	Sand yellow solid
Nominal concentration	98.9%
Odour	No characteristic odour
Density	1.450 g/mL
Vapour pressure	$<5.69 \times 10^{-3}$ mPa (at 20°C)
pH	3.9
Solubility in water at 25°C	<u>Solubility (g/L)</u> <u>pH</u>
	0.8 4
	21.8 7
	55 9

Property	Result	
n-Octanol/water partition coefficient at 25°C	<u>pH</u>	<u>log K_{ow}</u>
	4	-0.24
	7	-1.97
	9	-2.21

The required chemistry data for Zhongshan Mesotrione Technical 98.9% 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 sufficient to support the registration of Zhongshan Mesotrione Technical 98.9%.

References

PMRA Document Number	Reference
2668143	2016, DACO 2.1-2.9, DACO: 2.1,2.2,2.3,2.4,2.5,2.6,2.7,2.8,2.9 CBI
2668144	2016, DACO 2.11 Manufacturing methods for the TGAI, DACO: 2.11, 2.11.1, 2.11.2, 2.11.3 CBI
2668145	2016, DACO 2.11.4 Discussion of Formuation of Impurities [CBI Removed] DACO: 2.11.4 CBI
2668146	2015, DACO 2.13 Five Batches Analysis, DACO: 2.12.1, 2.13, 2.13.1, 2.13.2, 2.13.3, 2.13.4 CBI
2668147	2016, DACO 2.14 Physical and Chemical Reports, DACO: 2.14, 2.14.1, 2.14.10, 2.14.11, 2.14.12, 2.14.13, 2.14.2, 2.14.3, 2.14.4, 2.14.6, 2.14.7, 2.14.8, 2.14.9 CBI

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