



Evaluation Report for Category B, Subcategory 1.1 Application

Application Number: 2012-3517
Application: B.1.1 (Product Chemistry – New Source (site) same registrant)
Product: Thiophanate-methyl Technical
Registration Number: 22710
Active ingredients (a.i.): Thiophanate-methyl
PMRA Document Number : 2237070

Purpose of Application

The purpose of this application was to add a new source of thiophanate-methyl to the currently registered product, Thiophanate-methyl Technical. The new source of technical grade active ingredient (TGAI) was found to be chemically equivalent to the registered source of TGAI.

Chemistry Assessment

Common Name: Thiophanate-methyl
IUPAC Chemical Name: Dimethyl 4-4'-(*o*-phenylene)bis(3-thioallophanate)
CAS Chemical Name: Dimethyl *N,N'*-[1,2-phenylenebis(iminocarbonothioyl)]bis[carbamate]

Thiophanate-methyl Technical has the following properties:

Property	Result												
Colour and physical state	White to light tan powder												
Nominal concentration	98.3%												
Odour	Faint sulfur odour												
Density	1.4-1.6 g/cm ³												
Vapour pressure at 25°C	6.6×10^{-8} mmHg (0.009 mPa)												
pH	5.0-8.0												
Solubility in water	<table><tr><th>pH</th><th>Solubility (g/L)</th></tr><tr><td>4</td><td>0.0224</td></tr><tr><td>5</td><td>0.0221</td></tr><tr><td>6</td><td>0.0207</td></tr><tr><td>7</td><td>0.0185</td></tr><tr><td>7.5</td><td>0.0168</td></tr></table>	pH	Solubility (g/L)	4	0.0224	5	0.0221	6	0.0207	7	0.0185	7.5	0.0168
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4	0.0224												
5	0.0221												
6	0.0207												
7	0.0185												
7.5	0.0168												
n-Octanol/water partition coefficient	$K_{ow} = 12.8$												

The chemistry requirements for Thiophanate-methyl Technical have been completed.

Health Assessments

The new source of thiophanate-methyl was considered toxicologically equivalent to the current source. Subsequently, no toxicology data were required or reviewed.

Occupational and residue assessments were not required for this application.

Environmental and Value Assessments

Environmental and value assessments were not required for this application.

Conclusion

The Pest Management Regulatory Agency has completed an assessment of the available information and is able to support the addition of a new source of thiophanate-methyl to the currently registered product, Thiophanate-methyl Technical.

References

Reference No.	Title
2221495	2011, Analysis of representative 5 lots of thiophanate-methyl technical manufactured by [CBI Removed], DACO: 2.13.1,2.13.2,2.13.3,2.13.4 CBI
2221502	2012, Thiophanate-methyl TGAI Product Identity and Composition, DACO: 2.11.1,2.11.2,2.11.3,2.11.4 CBI
2268107	2013, Characterization of reference standard of Thiophanate-methyl TGAI impurities, DACO: 2.13.2 CBI
2268108	2013, Clarification of what intermediate is formed during the second step of the production process of Thiophanate-Methyl entitled [CBI Removed], DACO: 2.11.3 CBI
2268109	2005, Validation of Analytical Method for Active Ingredient and Organic Impurities in Technical Grade Thiophanate-methyl, DACO: 2.13.1 CBI
2275501	2005, Validation of Analytical Method for [CBI Removed] in Technical Grade Thiophanate-methyl, DACO: 2.13.1 CBI

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