

Evaluation Report for Category B, Subcategory 1.1 Application

Application Number: 2010-2394
Application: B.1.1 New/Changes to the technical grade active ingredient – new source (site) same registrant
Product: Tembotrione Technical Herbicide
Registration Number: 29657
Active ingredients (a.i.): Tembotrione [LAD]
PMRA Document Number English PDF: 1981347

Purpose of Application

The purpose of this application was to register a new manufacturing site, amend the current product specifications and change the product name from AE 0172747 Technical Herbicide to Tembotrione Technical Herbicide.

Chemistry Assessment

Common Name: Tembotrione
Chemical Name: 2-[2-chloro-4-(methylsulfonyl)-3-[(2,2,2-trifluoroethoxy)methyl]benzoyl]-1,3-cyclohexanedione
 or
 2-{2-chloro-4-mesyl-3-[(2,2,2-trifluoroethoxy)methyl]benzoyl}cyclohexane
 –
 1,3-dione

Tembotrione Technical Herbicide has the following properties:

Property	Result								
Colour and physical state	beige powder								
Nominal concentration	tembotrione at 97.1%								
Odour	no characteristic odour								
Density	1.56 g/cm ³ at 20°C								
Vapour pressure	<table border="1"> <thead> <tr> <th>Temperature (°C)</th> <th>Vapour pressure (hPa)</th> </tr> </thead> <tbody> <tr> <td>20</td> <td>1.1 × 10⁻¹⁰</td> </tr> <tr> <td>25</td> <td>2.9 × 10⁻¹⁰</td> </tr> <tr> <td>50</td> <td>2.6 × 10⁻⁸</td> </tr> </tbody> </table>	Temperature (°C)	Vapour pressure (hPa)	20	1.1 × 10 ⁻¹⁰	25	2.9 × 10 ⁻¹⁰	50	2.6 × 10 ⁻⁸
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	20	1.1 × 10 ⁻¹⁰							
	25	2.9 × 10 ⁻¹⁰							
50	2.6 × 10 ⁻⁸								
pH	3.63 (1% solution)								

Property	Result	
Solubility in water	<u>pH</u>	<u>Solubility (g/L)</u>
	4	0.22
	6.2	28.30
n-Octanol/water partition coefficient	<u>pH</u>	<u>log Kow</u>
	2	2.16
	7	-1.09
	9	-1.37

The chemistry requirements for Tembotrione Technical Herbicide have been completed.

Health, Environmental and Value Assessments

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

Conclusion

The PMRA has conducted a review of the subject application and has concluded that the addition of a new manufacturing site and the changes to the specifications of Tembotrione Technical Herbicide, are acceptable.

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