

Evaluation Report for Category B, Subcategory 1.3 Application

Application Number: 2019-2459
Application: Changes to TGAI Prod Chemistry-Specifications
Product: Spirodiclofen Technical Miticide
Registration Number: 28050
Active ingredient (a.i.): Spirodiclofen
PMRA Document Number : 3112885

Purpose of Application

The purpose of this application was to amend the manufacturing process of the currently registered source of Spirodiclofen Technical Miticide.

Chemistry Assessment

Common Name: Spirodiclofen
IUPAC* Chemical Name: 3-(2,4-dichlorophenyl)-2-oxo-1-oxaspiro[4.5]dec-3-en-4-yl 2,2-dimethylbutyrate
CAS† Chemical Name: 3-(2,4-dichlorophenyl)-2-oxo-1-oxaspiro[4.5]dec-3-en-4-yl 2,2-dimethylbutanoate

* International Union of Pure and Applied Chemistry

† Chemical Abstracts Service

Spirodiclofen Technical Miticide has the following properties:

Property	Result
Colour and physical state	White solid
Nominal concentration	98.2 %
Odour	No characteristic odour
Density	1.29 g/cm ³ at 20°C
Vapour pressure	3 × 10 ⁻⁴ mPa at 20°C 7 × 10 ⁻⁴ mPa at 25°C
pH	4.2
Solubility in water	50 µg/L at pH 4
n-Octanol/water partition coefficient	log K _{ow} = 5.8 at pH 4

The required chemistry data for Spirodiclofen Technical Miticide 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 amendment of Spirodiclofen Technical Miticide.

References

PMRA Document Number	References
2998565	2019, Spirodiclofen (BAJ 2740) Description of the Manufacturing Process of the Technical Grade Active Substance (Specification No. 102000008942) For Canada, DACO: 2.11.2,2.11.3 CBI
3110577	2020, Spirodiclofen (BAJ 2740) Description of the Manufacturing Process of the Technical Grade Active Substance (Specification No. 102000008942) For Canada, DACO: 2.11.3 CBI

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