



Evaluation Report for Category B, Subcategory 1.1 Application

Application Number: 2022-4207
Application: Changes to a Technical Grade Active Ingredient (Product Chemistry) – New Source (Site) Same Registrant
Product: Nufarm Prothioconazole Technical Fungicide
Registration Number: 34486
Active ingredient (a.i.): Prothioconazole
PMRA Document Number: 3535437

Purpose of Application

The purpose of this application was to amend the registration of Nufarm Prothioconazole Technical Fungicide to include an additional manufacturing site.

Chemistry Assessment

Common Name: Prothioconazole
IUPAC* Chemical Name: (RS)-2-[2-(1-chlorocyclopropyl)-3-(2-chlorophenyl)-2-hydroxypropyl]-2,4-dihydro-1,2,4-triazole-3-thione
CAS† Chemical Name: 2-[2-(1-chlorocyclopropyl)-3-(2-chlorophenyl)-2-hydroxypropyl]-2,4-dihydro-3H-1,2,4-triazole-3-thione

* International Union of Pure and Applied Chemistry

† Chemical Abstracts Service

Nufarm Prothioconazole Technical Fungicide has the following properties:

Property	Result
Colour and physical state	White powder
Nominal concentration	98.0%
Odour	Odourless
Density	1.1546 g/cm ³
Vapour pressure	7.4 × 10 ⁻⁷ mPa (20°C) 1.8 × 10 ⁻⁶ mPa (25°C)
pH	6.06

Property	Result	
Solubility in water	<u>pH</u>	<u>Solubility (mg/L)</u>
	4	22.0
	7	22.5
	9	1240.0
n-Octanol/water partition coefficient	<u>pH</u>	<u>log K_{ow}</u>
	4	3.4
	7	2.0
	9	0.2

The required chemistry data for Nufarm Prothioconazole Technical Fungicide 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 acceptable to amend the registration of Nufarm Prothioconazole Technical Fungicide to include an additional manufacturing site.

References

PMRA

Document

Number	Reference
3385223	2021, The Synthesis and Impurities of Prothioconazole, DACO: 2.11.1,2.11.2,2.11.3,2.11.4 CBI
3385225	2017, Preliminary Analysis and Enforcement Analytical Method of Prothioconazole TGAI, DACO: 2.13,2.13.1,2.13.2,2.13.3,2.13.4,2.4,2.5,2.6,2.7,2.8,2.9 CBI
3385226	2017, Preliminary Analysis and Enforcement Analytical Method of Prothioconazole TGAI_Confidential Att., DACO: 2.13,2.13.1,2.13.2,2.13.3,2.13.4 CBI
3385227	2017, Chemical and Physical Characterization of Prothioconazole TGAI: Melting Point, Partition Coefficient, Solubility and Vapor Pressure, DACO: 2.14.11,2.14.4,2.14.7,2.14.8,2.14.9 CBI
3385228	2020, Determination of Density of Prothioconazole Technical, DACO: 2.14.6 CBI
3385229	2020, Determination of Dissociation Constant of Prothioconazole Technical, DACO: 2.14.10 CBI
3385231	2020, Stability of Prothioconazole Technical in the Presence of Metal and Metal Ions, DACO: 2.14.13 CBI
3385233	2020, Determination of pH of Prothioconazole Technical, DACO: 2.14.15,830.7000 CBI
3385234	2020, Determination of Physical State, Color and Odor of Prothioconazole Technical, DACO: 2.14.1,2.14.2,2.14.3 CBI
3385235	2020, Determination of UV- Vis Absorption Spectra of Prothioconazole Technical, DACO: 2.14.12 CBI

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