



Evaluation Report for Category B, Subcategory 1.3 Application

Application Number: 2021-3322
Application: Changes to TGAI (Product Chemistry) - Specifications
Product: Buprofezin Technical
Registration Number: 32340
Active ingredient (a.i.): Buprofezin
PMRA Document Number :3373011

Purpose of Application

The purpose of this application was to amend the specifications of Buprofezin Technical based on new batch data.

Chemistry Assessment

Common Name: Buprofezin
IUPAC* Chemical Name: (Z)-2-*tert*-butylimino-3-isopropyl-5-phenyl-1,3,5-thiadiazinan-4-one
CAS† Chemical Name: Z)-2-[(1,1-dimethylethyl)imino]tetrahydro-3-(1-methylethyl)-5-phenyl-4H-1,3,5-thiadiazin-4-one

* International Union of Pure and Applied Chemistry

† Chemical Abstracts Service

Buprofezin Technical has the following properties:

Property	Result
Colour and physical state	White to light yellow powder
Nominal concentration	99.28 %
Odour	Pungent sulphurous odour
Density	1.184 g/cm ³
Vapour pressure	4.2 x 10 ⁻⁵ Pa at 20°C 1.7 x 10 ⁻⁴ Pa at 30°C
pH	6.64
Solubility in water	0.382 mg/L at 25°C
n-Octanol/water partition coefficient	4.31

The required chemistry data for Buprofezin Technical 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 amend the specifications for Buprofezin Technical.

References

PMRA

Document

Number

Reference

3251933	2020, Content analysis of Buprofezin technical [PRIVACY INFO REMOVED] and a batch used for toxicological studies, DACO: 2.13.1,2.13.2,2.13.3,2.13.4 CBI
3376454	2021, Validation of analytical methods for active ingredient and impurities in buprofezin technical, DACO: 2.13.1 CBI
3376455	2022, Buprofezin Technical, 2021-3322 / Chemistry Clarification Response, DACO: 2.11.4,2.13.1 CBI

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