

Evaluation Report for Category B, Subcategory 1.1, 1.3 Application

Application Number: 2021-1116
Application: New TGAI Product Chemistry, New Source Same Registrant
Product: Chlorfenapyr Technical Insecticide
Registration Number: 30664
Active ingredient (a.i.): Chlorfenapyr
PMRA Document Number: 3356131

Purpose of Application

The purpose of this application was to revise the specifications for the currently registered site and to add a new manufacturing site for the technical product, Chlorfenapyr Technical Insecticide.

Chemistry Assessment

Common Name: Chlorfenapyr
IUPAC* Chemical Name: 4-bromo-2-(4-chlorophenyl)-1-(ethoxymethyl)-5-(trifluoromethyl)-1*H*-pyrrole-3-carbonitrile
CAS† Chemical Name: 4-bromo-2-(4-chlorophenyl)-1-(ethoxymethyl)-5-(trifluoromethyl)-1*H*-pyrrole-3-carbonitrile

* International Union of Pure and Applied Chemistry

† Chemical Abstracts Service

Chlorfenapyr Technical Insecticide has the following properties:

Property	Result
Colour and physical state	pale yellow powder
Nominal concentration	98.6 %
Odour	odourless
Density	1.648 g/cm ³
Vapour pressure	5.40 x 10 ⁻⁶ Pa (estimated at 25°C)
pH	7.16 (1% in water)
Solubility in water	0.14 mg/L at 20°C

Property	Result
n-Octanol/water partition coefficient	log K _{ow} = 5.24

The required chemistry data for Chlorfenapyr Technical Insecticide 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 it sufficient to support the revisions of the specifications for the currently registered site and the addition of the new manufacturing site Chlorfenapyr Technical Insecticide.

Additional Information Being Requested

Since this technical product is manufactured only at pilot scale before registration, five-batch data representing commercial-scale production at the approved manufacturing site will be required as post-market information after registration.

References

PMRA Document Number	Reference
3210659	2020, Product Identity and Composition of Chlorfenapyr, DACO: 2.11.1,2.11.2,2.11.3,2.11.4 CBI
3210660	2017, Characterization of five batches of Technical Grade Active Ingredient Chlorfenapyr (BAS 306 I, Reg.No.: 4084563), DACO: 2.13.2,2.13.3 CBI
3210661	2017, Characterization of five batches of technical grade active ingredient Chlorfenapyr (BAS 306 I, Reg.No.: 4084563) (Including Amendment No. 1 and Amendment No. 2), DACO: 2.13.2,2.13.3 CBI
3210662	2020, Quali-quantitative analysis of five batches of Technical Chlorfenapyr (BAS 306 I), DACO: 2.13.2,2.13.3 CBI
3210663	2020, Quali-quantitative analysis of five batches of Technical Chlorfenapyr (BAS 306 I), DACO: 2.13.2,2.13.3 CBI
3210664	2021, DACO 2.16- Details of Submission, DACO: 2.16 CBI
3351764	2015, Crossvalidation (system suitability) of the analytical method CIPAC 570 (APS0661/01) - determination of Chlorfenapyr by HPLC (TC/SC), DACO: 2.13.1 CBI
3351765	2016, Report Amendment 1: Crossvalidation (system suitability) of the analytical method CIPAC 570 (APS0661/01) - determination of Chlorfenapyr by HPLC (TC/SC), DACO: 2.13.1 CBI
3351766	2016, Analytical method APL0707/02 - Determination of [CBI Removed] in Chlorfenapyr (BAS 306 I, TGAI), DACO: 2.13.1 CBI
3351767	2016, Validation of the analytical method APL0707/01 - Determination of [CBI Removed] in Chlorfenapyr (BAS 306 I, TGAI), DACO: 2.13.1 CBI
3351768	2016, Report Amendment No. 1: Validation of the analytical method APL0707/01 - Determination of [CBI Removed] in Chlorfenapyr (BAS 306 I, TGAI), DACO: 2.13.1 CBI
3351769	2017, Additional validation of the analytical method APL0707/02 - Determination of [CBI Removed] in Chlorfenapyr (BAS 306 I, TGAI), DACO: 2.13.1 CBI
3351770	2014, Determination of [CBI Removed] in Chlorfenapyr (BAS 306 I, TGAI), DACO: 2.13.1 CBI
3351771	2015, Validation of the analytical method APL0708/01 - Determination of [CBI Removed] in Chlorfenapyr (BAS 306 I, TGAI), DACO: 2.13.1 CBI
3351772	2014, Determination of [CBI Removed] in Chlorfenapyr (BAS 306 I, TGAI), DACO: 2.13.1 CBI
3351773	2015, Validation of the analytical method APL0709/01 - determination of [CBI Removed] in Chlorfenapyr (BAS 306 I, TGAI), DACO: 2.13.1 CBI
3351774	2015, Analytical method APL0714/01 - Determination of [CBI Removed] in technical grade active ingredient BAS 306 I (TGAI) by means of ion chromatography, DACO: 2.13.1 CBI

- 3351776 2015, Validation of the analytical method APL0714/01: Determination of [CBI Removed] in technical grade active ingredient BAS 306 I (TGAI) by means of ion chromatography, DACO: 2.13.1 CBI
- 3351777 2016, Test procedure PFL0108 - Determination of the [CBI Removed], DACO: 2.13.1 CBI

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