



Evaluation Report for Category L, Subcategory 1.1 Application

Application Number: 2022-6202
Application: Application Subject to Protection of Proprietary Interests in Pesticide Data (PIIP) Policy – Equivalency/Data Compensation Assessment
Product: Yichem Carfentrazone-ethyl Technical
Registration Number: 35029
Active ingredient (a.i.): Carfentrazone-ethyl
PMRA Document Number: 3505863

Purpose of Application

The purpose of this application was to register Yichem Carfentrazone-ethyl Technical, a new source of the technical grade active ingredient carfentrazone-ethyl, based on a registered precedent product.

Chemistry Assessment

Common Name: carfentrazone-ethyl
IUPAC* Chemical Name: ethyl (*RS*)-2-chloro-3-{2-chloro-5-[4-(difluoromethyl)-4,5-dihydro-3-methyl-5-oxo-1*H*-1,2,4-triazol-1-yl]-4-fluorophenyl}propionate
CAS† Chemical Name: ethyl α ,2-dichloro-5-[4-(difluoromethyl)-4,5-dihydro-3-methyl-5-oxo-1*H*-1,2,4-triazol-1-yl]-4-fluorobenzenepropanoate

* International Union of Pure and Applied Chemistry

† Chemical Abstracts Service

Yichem Carfentrazone-ethyl Technical has the following properties:

Property	Result
Colour and physical state	Yellow liquid
Nominal concentration	96.89 %
Odour	Pungent odour
Density	1.42 – 1.46 g/mL at 20°C
Vapour pressure	2.81×10^{-7} kPa (20°C)
pH	5.6 at 20°C
Solubility in water	25.64 mg/L (20°C)

Property	Result
n-Octanol/water partition coefficient	log K _{ow} = 3.477 (20°C, pH 6.52)

The required chemistry data for Yichem Carfentrazone-ethyl 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 acceptable to support the registration of Yichem Carfentrazone-ethyl Technical.

References

PMRA Document Number	Reference
3411177	2015, Technical material CoA, DACO: 2.13.3
3411178	2015, Reference material CoA, DACO: 2.13.3
3411179	2015, Method and validation for carfentrazone-ethyl, DACO: 2.13.1 CBI
3411180	2015, Active substance H-NMR spectra, DACO: 2.13.3 CBI
3411181	2015, Impurities screening, DACO: 2.13.4 CBI
3411182	2015, Impurities screening method and validation, DACO: 2.13.1 CBI
3411183	2015, [CBI removed] method and validation, DACO: 2.13.1
3411184	2015, [CBI removed] method and validation, DACO: 2.13.1
3411185	2015, Impurities screening, DACO: 2.13.4
3411188	2015, Carfentrazone-ethyl Analytical Profile Study, DACO: 2.13.3
3411192	2022, Manufacturing process, DACO: 2.11.1,2.11.3 CBI
3411201	2018, Physical chemical properties, DACO: 2.14.1,2.14.10,2.14.11,2.14.12,2.14.13,2.14.14,2.14.2,2.14.3,2.14.5,2.14.6,2.14.7,2.14.8,2.14.9

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