



Evaluation Report for Category B, Subcategory 1.3 Application

Application Number: 2023-3106
Application: Changes to Technical Grade Active Ingredient (Product Chemistry) - Specifications
Applicant: ADAMA Agricultural Solutions Canada Ltd.
Product: ADAMA Imazamox Technical Herbicide
Registration Number: 32750
Active ingredient (a.i.): Imazamox
PMRA Document Number: 3602365

Purpose of Application

The purpose of this application was to add an alternate source to the technical grade active ingredient, ADAMA Imazamox Technical Herbicide.

Chemistry Assessment

Common Name: imazamox
IUPAC* Chemical Name: 2-[(4*RS*)-4-isopropyl-4-methyl-5-oxo-2-imidazolin-2-yl]-5-(methoxymethyl)pyridine-3-carboxylic acid
CAS† Chemical Name: 2-[4,5-dihydro-4-methyl-4-(1-methylethyl)-5-oxo-1*H*-imidazol-2-yl]-5-(methoxymethyl)-3-pyridinecarboxylic acid

* International Union of Pure and Applied Chemistry

† Chemical Abstracts Service

ADAMA Imazamox Technical Herbicide has the following properties:

Property	Result
Colour and physical state	Off-white solid
Nominal concentration	97.41%
Odour	Slight characteristic odour
Density	1.39 g/mL
Vapour pressure	2.1×10^{-7} mPa at 25 °C
pH	2.7 (1% w/w in de-ionized water)

Property	Result
Solubility in water	<u>pH</u> <u>Solubility (g/L)</u>
	deionized 4.16
	5 116
	7 >626
	9 >628
n-Octanol/water partition coefficient	log K _{ow} = -2.9 (pH 7)
	log K _{ow} = -0.3 (pH 4)

The required chemistry data for ADAMA Imazamox Technical Herbicide 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 addition of the new source to the registration of ADAMA Imazamox Technical Herbicide.

References

PMRA

Document

Number

Reference

3479785	2023, Chemistry requirements for a TGAI or an Integrated System, Manufacturing Methods for the TGAI, Specifications, Preliminary Analysis, Sample(s) of Analytical Standards and ROC and MSDS - Material Safety Data Sheets for ADAMA Imazamox Technical Herbicide, DACO: 2.1,2.11.1, 2.11.2,2.11.3,2.11.4,2.12.1,2.2,2.3,2.5,2.6,2.7 CBI
3479786	2021, Imazamox technical - assay and impurities determination by [CBI REMOVED] - methods validation and 5 batches analysis, DACO: 2.13.1, 2.13.2,2.13.3,2.13.4 CBI
3479787	2021, Imazamox technical - validation of [CBI REMOVED] method and 5 batches analysis, DACO: 2.13.1,2.13.2,2.13.3,2.13.4 CBI
3479788	2021, Method validation and analysis of [CBI REMOVED] in Imazamox Tech., DACO: 2.13.1,2.13.2,2.13.3,2.13.4 CBI

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