

Evaluation Report for Category B, Subcategories 1.1, 1.3 Application

Application Number: 2023-0106
Application: Changes to Technical Grade Active Ingredient (Product Chemistry) – New Source (Site), Same Registrant, and Specifications
Product: ADAMA Imazethapyr Technical Herbicide
Registration Number: 30016
Active ingredient (a.i.): Imazethapyr
PMRA Document Number: 3551665

Purpose of Application

The purpose of this application was to add new manufacturing sites for the technical grade active ingredient, ADAMA Imazethapyr Technical Herbicide.

Chemistry Assessment

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

* International Union of Pure and Applied Chemistry

† Chemical Abstracts Service

ADAMA Imazethapyr Technical Herbicide has the following properties:

Property	Result
Colour and physical state	Off-white tan powder
Nominal concentration	97.0%
Odour	Fruity
Density	0.62 g/mL
Vapour pressure	8.5×10^{-8} Pa
pH	N/A
Solubility in water	1.19 g/L

Property	Result	
n-Octanol/water partition coefficient	<u>pH</u>	<u>log K_{ow}</u>
	5	1.04
	7	1.49
	9	1.20

The required chemistry data for ADAMA Imazethapyr 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 manufacturing sites for ADAMA Imazethapyr Technical Herbicide.

References

PMRA

Document

Number	Reference
1566868	2007, Physical and Chemical Characteristics: Color, Physical State, Odor, Melting Point, Bulk Density, and Partition Coefficient, DACO: 2.14.1,2.14.11,2.14.2,2.14.3,2.14.4,2.14.6 CBI
1566869	2007, Imazethapyr - Dissociation Constant, DACO: 2.14.10 CBI
1566870	2007, Imazethapyr - UV/Visible Spectrum, DACO: 2.14.12 CBI
1566871	2007, Imazethapyr Technical - Storage Stability and Corrosion Characteristics of Imazethapyr Technical Storage at 54 C for 14 days, DACO: 2.14.13,2.14.14 CBI
3423840	2022, 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 Imazethapyr Technical Herbicide, DACO: 2.1,2.11.1,2.11.2,2.11.3,2.11.4,2.12.1,2.13.3,2.2,2.3,2.3.1,2.5,2.6,2.7, 2.8,2.9 CBI
3423841	2022, 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 Imazethapyr Technical Herbicide, DACO: 2.1,2.11.1,2.11.2,2.11.3,2.11.4,2.12.1,2.13.3,2.2,2.3,2.3.1,2.5,2.6,2.7, 2.8,2.9 CBI
3423842	2021, Five Batch Analysis for Imazethapyr Technical, DACO: 2.13.1,2.13.2, 2.13.3,2.13.4 CBI
3423843	2022, Preliminary Analysis and Enforcement Analytical Method of Imazethapyr TGAI - Validation of Analytical Methodology for the Assay of Active Ingredient, Impurities and Subsequent 5-Batch Analysis of Imazethapyr TGAI, DACO: 2.13.1,2.13.2,2.13.3,2.13.4 CBI
3430527	2023, G23112_Justification Letter_24 Jan 2023, DACO: 2.13.3
3549014	2024, Declaration_[Privacy Removed]_Imazethapyr_24Jan2024, DACO: 2.13.3 CBI
3549015	2024, Declaration_[Privacy Removed]_19Jan2024, DACO: 2.13.3 CBI

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