Health Canada Santé Canada

Evaluation Report for Category L, Subcategory 1.1 Application

Application Number: 2023-0829
Application: Application Subject to Protection of Proprietary Interests in Pesticide Data (PPIP) Policy – Equivalency/Data Compensation Assessment
Product: Zhongshan Glufosinate-ammonium Technical
Registration Number: 35313
Active ingredient (a.i.): Glufosinate-ammonium
PMRA Document Number: 3622025

Purpose of Application

The purpose of this application was to register Zhongshan Glufosinate-ammonium Technical, a new source of glufosinate-ammonium, based on a registered precedent product.

Chemistry Assessment

Common Name: glufosinate-ammonium
IUPAC* Chemical Name: ammonium [(3*RS*)-3-amino-3-carboxypropyl]methylphosphinate
CAS† Chemical Name: 2-amino-4-(hydroxymethylphosphinyl)butanoic acid monoammonium salt

* International Union of Pure and Applied Chemistry
† Chemical Abstracts Service

Zhongshan Glufosinate-ammonium Technical has the following properties:

Property	Result
Colour and physical state	White, solid
Nominal concentration	97.7%
Odour	Characteristic odour
Density	1.3 – 1.4 g/mL at 20°C
Vapour pressure	1.51×10^{-6} mPa at 25°C
pH	4 - 7
Solubility in water	8.32×10^{5} mg/L (pH 5.52)
n-Octanol/water partition coefficient	log $K_{ow} < 2.108$

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The required chemistry data for Zhongshan Glufosinate-ammonium 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 Zhongshan Glufosinate-ammonium Technical.

References

PMRA Document Number	Reference
3441298	2022, Manufacturing Process of Glufosinate-ammonium Technical Grade Active Substance, DACO: 2.11,2.11.1,2.11.2,2.11.3,2.11.4 CBI
3441299	2019, Qualitative and Quantitative Profile of Glufosinate-ammonium Technical (Five Batch Analysis), DACO: 2.13,2.13.1,2.13.2,2.13.3,2.13.4 CBI
3441300	2019, Qualitative and Quantitative Profile of Glufosinate-ammonium Technical (Five Batch Analysis), DACO: 2.13,2.13.1,2.13.2,2.13.3,2.13.4 CBI
3441303	2019, Physical State, Appearance, Color, and Odor of Glufosinate-ammonium Technical, DACO: 2.14.1,2.14.2,2.14.3
3441304	2019, Melting point or range of Glufosinate-ammonium Technical, DACO: 2.14.4
3441305	2023, ZS Glufosinate-ammonium Technical Physical and Chemical Property Waiver Requests, DACO: 2.14.16,2.14.5
3441306	2019, Determination of the Relative Density of Glufosinate-ammonium Technical, DACO: 2.14.6
3441307	2018, Solubility in water and organic solvents (Acetone and N-hexane) of Glufosinate-ammonium Technical, DACO: 2.14.7,2.14.8
3441308	2019, Vapor Pressure of Glufosinate-ammonium Technical, DACO: 2.14.9
3441309	2019, Dissociation constant in water of Glufosinate-ammonium Technical, DACO: 2.14.10
3441310	2018, Partition coefficient (N-octanol / water) of Glufosinate-ammonium Technical, DACO: 2.14.11
3441311	2019, UV-VIS Absorption Spectra of Glufosinate-ammonium Technical, DACO: 2.14.12
3441312	2019, Stability of Glufosinate-ammonium Technical to Normal and Elevated Temperatures, Metals and Metal Ions, DACO: 2.14.13
3441313	2019, Stability of Glufosinate-ammonium Technical to Normal and Elevated Temperatures, Metals and Metal Ions, DACO: 2.14.13
3441314	2019, Accelerated Storage Stability and Corrosion Characteristics of Glufosinate-ammonium Technical, DACO: 2.14.14
3441315	2019, Accelerated Storage Stability and Corrosion Characteristics of Glufosinate-ammonium Technical, DACO: 2.14.14
3441317	2019, Determination of the pH value of an aqueous solution of Glufosinate-ammonium Technical, DACO: 2.14.15,830.7000
3488919	2023, Quality Control data of Glufosinate-ammonium Technical, DACO: 2.13.3 CBI
3537340	2023, Analytical method validation and content of impurities [CBI REMOVED] in Glufosinate-ammonium Technical, DACO: 2.13.4 CBI
3609439	2024, DACO 2.13 Detailed Production Process Description, DACO: 2.11.3 CBI

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