

Evaluation Report for Category B, Subcategory 1.2 Application

Application Number: 2014-6294
Application: New TGAI Product Chemistry – New Source (Site) New Registrant
Product: Sharda Glufosinate Ammonium Technical Herbicide
Registration Number: 31957
Active ingredients (a.i.): glufosinate-ammonium
PMRA Document Number : 2552417

Purpose of Application

The purpose of this application was to register a new technical grade active ingredient, with a new source of glufosinate-ammonium by a new registrant.

Chemistry Assessment

Common Name: glufosinate-ammonium
IUPAC Chemical Name: ammonium (2RS)-2-amino-4-(methylphosphinato)butyric acid

CAS Chemical Name: 2-amino-4-(hydroxymethylphosphinyl)butanoic acid monoammonium salt

Sharda Glufosinate Ammonium Technical Herbicide has the following properties:

Property	Result
Colour and physical state	Off –white crystalline powder
Nominal concentration	99.4 %
Odour	Odourless
Specific gravity	1.4
Vapour pressure	7.8×10^{-6} Pa (at 30 °C)
pH	4.61 (1% aqueous solution)
Solubility in water	726 g/L at 20°C
n-Octanol/water partition coefficient	$\log K_{ow} < 0.1$ at 25 °C

The chemistry requirements for glufosinate-ammonium are complete.

Health, Environmental and Value Assessments

Health, environmental and value assessments were not required with this application.

Conclusion

The Pest Management Regulatory Agency has completed an assessment of the available information and has found the information sufficient to register a new technical grade active ingredient, with a new source of glufosinate-ammonium by a new registrant.

References

PMRA Document Number	References
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2487600	2013, Glufosinate Ammonium Technical: Validation of the Analytical Method for the Determination of the Active Ingredient Content, DACO: 2.13.1 CBI
2487601	2013, Glufosinate Ammonium Technical: Validation of the Analytical Method for the Determination of the Significant Impurities Content, DACO: 2.13.1 CBI
2487599	2014, Glufosinate-Ammonium: Validation of the Analytical Method for the Determination of [CBI removed], DACO: 2.13.1 CBI
2487598	2013, Glufosinate Ammonium Technical: Spectroscopic Characterisation of Five Batch Samples, DACO: 2.13.3 CBI
2487597	2013, Glufosinate Ammonium Technical: Complete Analysis of Five Batch Samples, DACO: 2.12.1,2.13.2,2.13.3,2.13.4 CBI
2487604	2014, Determination of Color, Odor and Physical State of Glufosinate Ammonium Technical, DACO: 2.14.1,2.14.2,2.14.3
2487607	2014, Determination of Melting Point of Glufosinate Ammonium Technical, DACO: 2.14.4
2487610	2014, Determination of Water Solubility of Glufosinate Ammonium Technical, DACO: 2.14.7
2487613	2014, Determination of Solubility of Glufosinate Ammonium Technical in Organic Solvents, DACO: 2.14.8
2487615	2014, Determination of Partition Coefficient (n-Octanol/Water) of Glufosinate Ammonium Technical, DACO: 2.14.11
2487630	2014, Determination of Density, Relative Density and Specific Gravity of Glufosinate Ammonium Technical, DACO: 2.14.6
2487616	2014, Determination of Vapour Pressure of Glufosinate Ammonium Technical, DACO: 2.14.9
2487619	2014, IR, NMR and UV-VIS Absorption Spectra of Glufosinate Ammonium Technical, DACO: 2.14.12
2487628	2014, Determination of pH of 1 % (w/v) Aqueous Solution / Suspension of Glufosinate Ammonium Technical, DACO: 2.14.15, 830.7000

2487618 2014, Accelerated Storage Stability Test by Heating of Glufosinate Ammonium
Technical at $54 \pm 2^{\circ}\text{C}$ for 14 Days, DACO: 2.14.14

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