

Evaluation Report for Category B, Subcategory 1.2 Application

Application Number: 2014-1083
Application: New Source of Technical Grade Active Ingredient by a New Registrant
Product: UPI Glufosinate Ammonium Technical
Registration Number: 32106
Active ingredients (a.i.): glufosinate-ammonium
PMRA Document Number : 2585238

Purpose of Application

The purpose of this application was to register a new source of the active ingredient, glufosinate-ammonium, by a different Registrant.

Chemistry Assessment

Common Name: Glufosinate Ammonium
IUPAC Chemical Name: ammonium (2*RS*)-2 -amino-4-(methylphosphinato) butyric acid
CAS Chemical Name: 2-amino-4-(hydroxymethylphosphinyl) butanoic acid monoammonium salt

UPI Glufosinate Ammonium Technical has the following properties:

Property	Result
Colour and physical state	White solid
Nominal concentration	97.1 %
Odour	Non-characteristic odour at 20°C
Density at 20°C	1.34 g/mL
pH	5.76 ± 0.01 at 20.5°C in 1.0 % (w/v)
Water solubility between 20 ± 1°C	1000 g/L
Octanol/water partition coefficient (K_{ow})	$\log K_{ow} = - 3.65$
Vapour pressure at 20°C	8.51×10^{-5} Pa

The chemistry requirements for UPI Glufosinate Ammonium Technical have been fulfilled.

Health Assessments

The new source of UPI Glufosinate Ammonium Technical is chemically equivalent to the original source. Subsequently, no toxicological data were provided or are required.

Environmental Assessment

As the new source of glufosinate-ammonium is chemically equivalent to the registered source, the environmental risk profile is expected to be similar to that of the product used to determine chemical equivalence. No additional assessments were required.

Value Assessment

A value assessment is not required for technical grade active ingredient products.

Conclusion

The PMRA has completed an evaluation of the subject application and has determined that it can support the registration of UPI Glufosinate Ammonium Technical.

References

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- 2407628. 2013, Appearance (Colour, physical state and odour) of Glufosinate- ammonium Technical, DACO 2.14.1, 2.14.2,2.14.3,2.4,2.5,2.6
- 2407630. 2013, Partition Coefficient (n-octanol/water) of glufosinate-ammonium purified, DACO 2.14.11
- 2407631. 2013, Spectra analysis (IR, UV, MASS and NMR) of Glufosinate-Ammonium Technical, DACO 2.14.12
- 2407632. 2013, Determination of Stability of Glufosinate-Ammonium Technical with
and without metals and metal ions at normal and elevated temperature, DACO 2.14.13
- 2407633. 2014, Accelerated Storage Stability and Corrosion Characteristics of Glufosinate – Ammonium Technical, DACO 2.14.14
- 2407635. 2013, pH of Glufosinate-Ammonium Technical, DACO 2.14.15
- 2407636. 2013, Melting Point and Melting Range of Glufosinate-Ammonium Purified, DACO 2.14.4
- 2407637. 2013, Specific Gravity of Glufosinate-Ammonium Technical, DACO 2.14.6
- 2407638. 2013, Water Solubility of Glufosinate-Ammonium Purified, DACO 2.14.7
- 2407639. 2013, Solubility of Glufosinate-Ammonium Technical in organic solvents, DACO 2.14.8
- 2407640. 2013, Vapour Pressure of Glufosinate-Ammonium Purified, DACO 2.14.9

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