Health Canada Santé Canada

Evaluation Report for Category L, Subcategory 1.1 Application

Application Number: 2021-0302
Application: Application subject to the Protection of Proprietary Interests in Pesticide Data Policy
Product: NCI Technical Metribuzin Herbicide
Registration Number: 34401
Active ingredient (a.i.): Metribuzin
PMRA Document Number: 3300411

Purpose of Application

The purpose of this application was to register a new source of technical grade metribuzin based on a precedent product.

Chemistry Assessment

Common Name: Metribuzin
IUPAC* Chemical Name: 4-amino-6-tert-butyl-3-(methylthio)-1,2,4-triazin-5(4H)-one or 4-amino-6-tert-butyl-4,5-dihydro-3-(methylthio)-1,2,4-triazin-5-one
CAS† Chemical Name: 4-amino-6-tert-butyl-3-(methylsulfanyl)-1,2,4-triazin-5(4H)-one

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

NCI Technical Metribuzin Herbicide has the following properties:

Property	Result
Colour and physical state	White powder
Nominal concentration	98.9%
Odour	Characteristic
Density	1.2692 – 1.2710 g/mL at 20.3 °C
Vapour pressure	0.0436 mPa at 20°C; 0.103 mPa at 32°C; and 0.177 mPa at 40°C
pH	5.9 (1% solution)
Solubility in water	1.20 g/L
n-Octanol/water partition coefficient	log K_{ow} = 1.67

Canada

The required chemistry data for NCI Technical Metribuzin 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 sufficient to register NCI Technical Metribuzin Herbicide.

References

PMRA Document Number	Reference
3193710	2015, Metribuzin Technical: Determination of the Colour, Odour and Physical State, DACO: 2.14.1,2.14.2,2.14.3
3193711	2015, Metribuzin Technical: Determination of the pH value and Acidity or Alkalinity, DACO: 2.14.15,830.7000
3193712	2015, Metribuzin Technical: Determination of the Relative Density, DACO: 2.14.6
3193713	2015, Metribuzin Technical: Determination of the Melting Point, DACO: 2.14.4
3193715	2015, Metribuzin Technical: Determination of the Water Solubility, DACO: 2.14.7
3193716	2015, Metribuzin Technical: Determination of the Partition Coeficient (n-octanol/water), DACO: 2.14.11
3193717	2015, Metribuzin Technical: Determination of the Vapour Pressure, DACO: 2.14.9
3193718	2015, Metribuzin Technical: UV/VIS Sprectra, DACO: 2.14.12
3193720	2015, Metribuzin Technical: Validation of the Analytical Method for the Determination of the Active Ingredient Content, DACO: 2.13.1,2.13.2
3193721	2015, Metribuzin Technical: Validation of the Analytical Method for the Determination of the Significant Impuriities, DACO: 2.13.1,2.13.2,2.13.4 CBI
3193722	2015, Metribuzin Technical: HPLC/MS/DAD Screening for Impurities Content in Five Batch Samples, DACO: 2.13.3,2.13.4 CBI
3193723	2015, Metribuzin Technical: Complete Analysis of Five Batch Samples, DACO: 2.12.1,2.13.1,2.13.2,2.13.3,2.13.4,2.4,2.5,2.6,2.7,2.8,2.9 CBI
3193724	2015, Metribuzin Technical: Spectroscopic Characterization of Five Batch Samples, DACO: 2.13.2,2.13.3 CBI
3193725	2015, Metribuzin Technical: Determination of the Solubility in Organic Solvents, DACO: 2.14.8
3193726	2015, Metribuzin Technical: Determination of the Dissociation Constant in Water, DACO: 2.14.10
3193727	2016, Metribuzin Technical: Determination of the Chemical Compatibility (Corrosivity Test), DACO: 2.14.13
3193736	2021, Synthesis of metribuzin, DACO: 2.11.1,2.11.2,2.11.3,2.11.4,2.12.1 CBI
3295007	2021, Synthesis of metribuzin, DACO: 2.11.1,2.11.2,2.11.3,2.11.4 CBI