

Evaluation Report for Category B, Subcategory 1.1, 1.3 Application

Application Number: 2015-2190
Application: Changes to TGAI or ISP Chemistry – new source (site) same registrant and specifications
Product: Diquat Technical Herbicide
Registration Number: 29698
Active ingredients (a.i.): Diquat
PMRA Document Number : **2601690**

Purpose of Application

The purpose of this application was to register an additional source of Diquat Technical Herbicide by the same registrant, with some updates to the specifications.

Chemistry Assessment

Common Name: Diquat
IUPAC* Chemical Name: 6,7-dihydrodipyrido[1,2-a:2',1'-c]pyrazine-5,8-diiium dibromide
CAS† Chemical Name: 6,7-dihydrodipyrido[1,2-a:2',1'-c]pyrazinediium dibromide

* International Union of Pure and Applied Chemistry

† Chemical Abstracts Service

Diquat Technical Herbicide has the following properties:

Property	Result
Colour and physical state	Brown liquid
Nominal concentration	diquat ion, present as diquat dibromide ... 22.24%
Odour	No characteristic odour
Specific gravity at 20°C	1.221
Vapour pressure	<4 x 10 ⁻⁶ Pa (at 25°C)
pH	4.16

Property	Result
Solubility in water at 25°C	<u>pH</u>
	deionized water (5.7)
	5
	7
	9
Solubility (g/L)	702
	709
	703
	695
n-Octanol/water partition coefficient	Log K _{ow} = -3.45 (pH 6.8)

The required chemistry data for Diquat Technical Herbicide have been provided, reviewed, and found to be acceptable.

Health Assessments

Occupational and dietary exposure assessments were not required for this application.

The source of Diquat Technical Herbicide results in a product that is chemically equivalent to that of the previous source. Subsequently, no toxicological data were reviewed or are required.

Environmental and Value Assessments

Environmental and value assessments were not required for this application.

Conclusion

The Pest Management Regulatory Agency has completed an assessment of the available information and supports the registration of an additional source of Diquat Technical Herbicide by the same registrant, with some updates to the specifications.

References

PMRA Document Number	References
2537091	2007, Preliminary Analyses of Five Representative Production Batches of Diquat Dibromide Tech 41% Grade Active Ingredient (TGAI) to Determine % Diquat Dibromide and to Quantify Its Associated Impurities, DACO: 2.13.3,2.13.4 CBI
2537092	2007, Validation of Analytical Method for The Determination of Diquat Dibromide Tech 41% Active Ingredient and Its Associated Impurities by [CBI removed], DACO: 2.13.1 CBI
2537093	2007, Amended Page 13 - Validation of Analytical Method for The Determination of Diquat Dibromide Tech 41% Active Ingredient and Its Associated Impurities by [CBI removed], DACO: 2.13.3 CBI
2537094	2015, Diquat Technical Manufacturing Dates, DACO: 2.13.3 CBI

2537096 2015, Diquat Technical Company Name Change, DACO: 2.2 CBI
2537097 2015, Diquat Technical Company Address Change, DACO: 2.2 CBI
2537098 2015, New Source Diquat Technical Herbicide, Registration Number 29698,
DACO: 2.1,2.11.1,2.2 CBI

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