

Evaluation Report for Category B, Subcategory 1.3 Application

Application Number: 2020-3423
Application: Changes to Technical Grade Active Ingredient (Product Chemistry)-Specifications
Product: Diquat Technical
Registration Number: 20218
Active ingredient (a.i.): Diquat
PMRA Document Number: 3276182

Purpose of Application

The purpose of this application was to amend the manufacturing process for the herbicide Diquat Technical.

Chemistry Assessment

Common Name: Diquat
IUPAC* Chemical Name: 9,10-dihydro-8a,10a-diazoniaphenanthrene
CAS† Chemical Name: 6,7-dihydrodipyrido[1,2-*a*:2',1'-*c*]pyrazinediium

* International Union of Pure and Applied Chemistry

† Chemical Abstracts Service

Diquat Technical has the following properties:

Property	Result
Colour and physical state	Yellow liquid
Nominal concentration	22% (present as diquat dibromide)
Odour	None
Density	1.25 g/mL at 20°C
Vapour pressure	< 1 x 10 ⁻⁸ kPa at 25°C
pH	4.5 – 7.5
Solubility in water	718 g/L (pure active ingredient, pH 7.2)
n-Octanol/water partition coefficient	log K _{ow} = - 4.6 (pH 7)

The required chemistry data for Diquat 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 sufficient to amend the manufacturing method for Diquat Technical.

References

PMRA

Document

Number	Reference
3143170	2020, Diquat Concentrate (PP901) - Manufacturing Process Description and Supporting Data (Group A Addendum to MRID 46571501 PMRA Submission Number 2006-0476)
3255729	2020, Diquat Concentrate (PP901) - Manufacturing Process Description and Supporting Data (Group A Addendum to MRID 46571501)

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