

## Evaluation Report for Category B, Subcategory 1.2 Application

**Application Number:** 2016-0510  
**Application:** New TGAI Prod Chemistry-New Source(Site) NEW Registrant  
**Product:** NewAgco Diquat Technical  
**Registration Number:** 32593  
**Active ingredients (a.i.):** Diquat  
**PMRA Document Number:** 2676423

### Purpose of Application

The purpose of this application was to register a new source of diquat.

### Chemistry Assessment

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

\* International Union of Pure and Applied Chemistry

† Chemical Abstracts Service

NewAgco Diquat Technical has the following properties:

Property	Result
Colour and physical state	Black Brown liquid
Nominal concentration	22.4%
Odour	Odourless
Density	1.079 g/ml at 18°C 1.232 g/ml at 23°C
Vapour pressure	9.74 × 10 <sup>-3</sup> mPa at 23°C 1.95 × 10 <sup>-2</sup> mPa at 30°C 1.19 × 10 <sup>-2</sup> mPa at 25°C (calculation)
pH	5.0 at 20°C
Solubility in water	456g/L (pH=7.42) 641 g/L (pH=3.44)

<b>Property</b>	<b>Result</b>
n-Octanol/water partition coefficient	Log K <sub>ow</sub> = -1.48 (pH 6.4)

The required chemistry data for NewAgco 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 is able to support the registration of this new source of diquat.

## References

### PMRA Doc.

Number	Reference
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2603520	2016, Manufacturing Process of Diquat Dibromide Technical Concentrate, DACO: 2.11.1,2.11.2,2.11.3 CBI
2603521	2016, MANUFACTURE PROCESS OF DIQUAT DIBROMIDE TECHNICAL, DACO: 2.11.1,2.11.2,2.11.3 CBI
2603522	2016, THE JUSTIFICATION OF IMPURITIES OF DIQUAT TECHNICAL, DACO: 2.11.4 CBI
2603523	2014, Qualitative and Quantitative Profile of the test substance Diquat Technical (Five Batch Analysis), DACO: 2.12.1,2.13.1,2.13.2,2.13.3 CBI
2603524	2015, Amendment - Qualitative and Quantitative Profile of the test substance Diquat Technical (Five Batch Analysis), DACO: 2.12.1,2.13.1,2.13.2,2.13.3 CBI
2603525	2010, Diquat Technical; Complete Analysis of Five Batch Samples with amendment, DACO: 2.12.1,2.13.1,2.13.2,2.13.3 CBI
2603526	2016, Physical Properties, DACO: 2.14.1,2.14.2,2.14.3,2.14.4 CBI
2603527	2015, Boiling Point of Diquat Technical, DACO: 2.14.5 CBI
2603528	2010, Boiling Point of Diquat Dibromide Technical, DACO: 2.14.5 CBI
2603529	2010, Solubility in water and organic solvents of Diquat Dibromide Technical, DACO: 2.14.7,2.14.8 CBI
2603530	2015, Solubility in water of DIQUAT TECHNICAL, DACO: 2.14.7 CBI
2603531	2015, Amendment - Solubility in water of DIQUAT TECHNICAL, DACO: 2.14.7 CBI
2603532	2015, Vapor pressure of DIQUAT TECHNICAL, DACO: 2.14.9 CBI
2603533	2015, Partition coefficient (N-octanol/water) of DIQUAT TECHNICAL, DACO: 2.14.11 CBI
2603534	2015, Amendment - Partition coefficient (N-octanol/water) of DIQUAT TECHNICAL, DACO: 2.14.11 CBI
2603535	2015, Amendment - Vapor pressure of DIQUAT TECHNICAL, DACO: 2.14.9 CBI
2603536	2010, Vapour Pressure of Diquat Dibromide Technical, DACO: 2.14.9 CBI
2603537	2010, Partition Coefficient (N-octanol/water) of Diquat Dibromide Technical, DACO: 2.14.11 CBI
2603538	2016, Density of Diquat Dibromide Technical, DACO: 2.14.6 CBI
2603539	2010, Density of Diquat Dibromide Technical, DACO: 2.14.6 CBI

- 2603540 2016, Dissociation Constant in water of Diquat Dibromide Technical, DACO: 2.14.10 CBI
- 2603541 2010, Dissociation Constant in water of Diquat Dibromide Technical, DACO: 2.14.10 CBI
- 2603542 2016, U.V. Identification of Diquat Dibromide Technical, DACO: 2.14.12 CBI
- 2603543 2016, Thermal Stability study/ Explodability of Diquat Dibromide Technical, DACO: 2.14.13,2.14.14 CBI
- 2603544 2016, Thermal Stability study/ Explodability of Diquat Dibromide Technical, DACO: 2.14.15,830.7000 CBI
- 2662997 2016, Physical and Chemical Characterization of Diquat Technical - Stability, Corrosive Characteristic, Oxidation/Reduction and UV/Vis Absorption, DACO: 2.14.12 CBI

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