

Evaluation Report for Category B, Subcategory 1.2 Application

Application Number: 2008-1397
Application: B.1.2 : New TGAI Product Chemistry – New Source New Registrant
Product: DPA Super Refined Diphenylamine
Registration Number: 29505
Active ingredients (a.i.): Diphenylamine [DPA]
PMRA Document Number: 1834797

Purpose of Application

The purpose of this application was to register a source of technical grade active ingredient for the end-use product Shield DPA 15% Super Refined, Registration Number 18983, as a result of the reevaluation of diphenylamine, Reference Number 2003-1401.

Chemistry Assessment

Common Name: No ISO common name; however, “diphenylamine” has been used in the literature but has no official status
IUPAC Chemical Name: Diphenylamine
CAS Chemical Name: *N*-phenylbenzenamine

DPA Super Refined Diphenylamine has the following properties:

Property	Result	
Colour and physical state	White crystalline solid	
Nominal concentration	99.9%	
Odour	Sweet/musty odour	
Density	1.1875 g/mL (at 20°C)	
Vapour pressure	49 mPa (at 20°C)	
pH	Not applicable	
Solubility in water	<u>pH</u>	<u>Solubility (mg/L) at 20°C</u>
	4	29.1
	7	24.4
	9	25.3
	Milli-RO water	25.8

Property	Result	
n-Octanol/water partition coefficient	<u>pH</u>	<u>log Kow</u>
	4	3.71
	7	3.82
	9	3.81
	Milli-RO water	3.84

The chemistry requirements for DPA Super Refined Diphenylamine have been completed.

Health, Environmental and Value Assessments

Health, environmental and value assessments are not required for this application.

Conclusion

Following the review of the data provided, registration of DPA Super Refined Diphenylamine as a source of technical grade active ingredient for the end-use product Shield DPA 15% Super Refined is supported.

References

Studies/Information Provided by Applicant/Registrant

PMRA Document Number Reference

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1583748	2006, DPA Super Refined Diphenylamine: Alternative Source Refining Process, DACO: 2.11.1,2.11.2,2.11.3,2.11.4,2.13.4,2.15,2.4,2.5,2.6,2.7,2.8,2.9
1583752	2006, Group A - Product Chemistry for Diphenylamine, DACO: 2.12.1,2.13.1,2.13.2,2.13.3
1583754	2008, Product Chemistry of Diphenylamine: Selected Studies to Fulfil The Requirements of OPPTS Guidelines 830.6302, 830.6303, 830.6304, 830.7200, 830.7300, 730.7840/60, 830.8370, 830.7550/70, 830.7050 and Annex 1 Requirements of EEC Directive 94/37/EEC, D
1583755	1999, Diphenylamine (Purified Active Ingredient): Determination of UV-Visible Absorption Spectrum, DACO: 2.14.12 CBI
1583756	2007, Diphenylamine - evaluation of diphenylamine by the Food & Agricultural Organization of the UN, DACO: 2.14.13 CBI
1583757	1998, Analytical Support for the Diphenylamine Repository, DACO: 2.14.14 CBI
1795815	2006, Product Chemistry, DACO: 2.12 CBI
1795816	Chromatogram- question 1, DACO: 2.13.1 CBI
1795817	Question - 2, DACO: 2.13.1 CBI
1795818	Question 2. Calculations to support summary report by [PRIVACY INFORMATION REMOVED], DACO: 2.13.1 CBI
1795819	Data charts - Question 2, DACO: 2.13.1 CBI
1795820	Data - Question 2, DACO: 2.13.1 CBI
1795821	DACO 2.14.13 Waiver, DACO: 2.14.13
1820486	1995, Product Chemistry Review, DACO: 2.14.13 CBI

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