



Evaluation Report for Category B, Subcategory 1.2 Application

Application Number: 2015-3463
Application: B.1.2 – New TGAI Product Chemistry – New Source (site) New Registrant
Product: Nufarm Clethodim Technical
Registration Number: 32469
Active ingredients (a.i.): Clethodim
PMRA Document Number: 2664862

Purpose of Application

The purpose of this application was to register a new source of technical active ingredient, Nufarm Clethodim Technical based on the precedent product.

Chemistry Assessment

Common Name: Clethodim
IUPAC* Chemical Name: (5*E*)-2-[(1*E*)-*N*-{[(2*E*)-3-chloroprop-2-en-1-yl]oxy}propanimidoyl]-5-[(2*E*)-2-(ethylsulfanyl)propyl]-3-hydroxycyclohex-2-en-1-one
CAS† Chemical Name: 2-[1-[[[(2*E*)-3-chloro-2-propen-1-yl]oxy]imino]propyl]-5-[2-(ethylthio)propyl]-3-hydroxy-2-cyclohexen-1-one

* International Union of Pure and Applied Chemistry

† Chemical Abstracts Service

Nufarm Clethodim Technical has the following properties:

Property	Result
Colour and physical state	Amber liquid
Nominal concentration	97.6%
Odour	No characteristic odour
Specific gravity	1.14 at 20°C
Vapour pressure	<0.01 mPa (at 20°C)
Solubility in water	0.54 g/100 mL (pH 7)
n-Octanol/water partition coefficient	Log K _{ow} = 4.18

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

Health Assessments

The proposed technical product is considered toxicologically equivalent to the precedent product. Consequently no toxicological data were submitted or are required.

The new source of technical product is not expected to alter the residues in crops treated with end-use products containing clethodim. Therefore, the dietary exposure to clethodim is not expected to increase and will not pose an unacceptable risk to any segment of the population, including infants, children, adults and seniors.

An occupational exposure assessment was not required for this application.

Environmental and Value Assessment

An environmental and value assessment was not required for this application.

Conclusion

PMRA has conducted a review of the information provided in support of this product. Based on the results of this review, the product is acceptable for full registration.

References

PMRA Document Number	Reference
2555145	2015, Technical Grade Active Ingredient Chemistry Summary and Physical and Chemical Properties, DACO: 2.1,2.13.4,2.14.1,2.14.10,2.14.11,2.14.2,2.14.3, 2.14.4, 2.14.5,2.14.7,2.14.8,2.14.9,2.2,2.3,2.3.1,2.4,2.5,2.6,2.7,2.8,2.9 CBI
2555147	2014, Determination of Active Content and Impurity Profile of Clethodim, DACO: 2.13.1,2.13.2,2.13.3,2.13.4 CBI
2555148	2015, Part 2 Summary, DACO: 2.11.1,2.11.2,2.11.3,2.11.4,2.2,2.3.1,2.5, 2.6,2.7,2.8,2.9 CBI

ISSN: 1911-8082

8 Her Majesty the Queen in Right of Canada, represented by the Minister of Public Works and Government Services Canada 2016

All rights reserved. No part of this information (publication or product) may be reproduced or transmitted in any form or by any means, electronic, mechanical photocopying, recording or otherwise, or stored in a retrieval system, without prior written permission of the Minister of Public Works and Government Services Canada, Ottawa, Ontario K1A 0S5.