

Evaluation Report for Category B, Subcategory 2.1, 2.3, 2.4 Application

Application Number: 2022-6459
Application: New End-Use Product (Product Chemistry) - Guarantee, Identity of Formulants, Proportion of Formulants
Product: Cygon 400 EC Insecticide
Registration Number: 35268
Active ingredient (a.i.): Dimethoate
PMRA Document Number: 3603406

Purpose of Application

The purpose of this application was to register a new end-use product, Cygon 400 EC Insecticide, for use against listed insect pests on terrestrial food and feed crops, and outdoor ornamentals.

Chemistry Assessment

Cygon 400 EC Insecticide is formulated as an emulsifiable concentrate containing dimethoate at a concentration of 400 g/L. This end-use product has a density of 1.06 g/mL and pH of 3.14. The required chemistry data for Cygon 400 EC Insecticide have been provided, reviewed and found to be acceptable.

Health Assessments

Cygon 400 EC Insecticide is highly acutely toxic via the oral route, but is of low acute toxicity via the dermal and inhalation routes. It is mildly irritating to the eye and skin, and is a potential dermal sensitizer.

The registration of Cygon 400 EC Insecticide for use on various crops is not expected to result in greater occupational exposures than those of the registered precedent products containing dimethoate when workers follow label directions and wear personal protective equipment as stated on the label.

No new residue chemistry data for dimethoate in various crops were submitted to support the registration of Cygon 400 EC Insecticide. Previously reviewed residue chemistry data from field trials conducted in/on various crops were reassessed in the framework of this application. Residues of dimethoate are not expected to be greater than those from the currently registered uses and will be covered by the established maximum residue limits (MRLs). No health risks of concern have been identified for any segment of the population including infants, children, adults and seniors.

Environmental Assessment

The use pattern of Cygon 400 EC Insecticide is within the currently registered use pattern for dimethoate. Therefore, the environmental risk is acceptable when Cygon 400 EC Insecticide is used in accordance with the label, which includes statements to mitigate risks to the environment.

Value Assessment

To support a claim to use Cygon 400 EC Insecticide against the listed insect pests on terrestrial food and feed crops, and outdoor ornamentals, a rationale extrapolating from the use pattern of two similar precedent products containing the same active ingredient was submitted. The submitted value information was found to be adequate to support the use of Cygon 400 EC Insecticide against the listed insect pests on terrestrial food and feed crops, and outdoor ornamentals .

Conclusion

The Pest Management Regulatory Agency has completed an assessment of the information provided, and has found the information acceptable to support the registration of Cygon 400 EC Insecticide.

References

PMRA Document Number	Reference
3416918	Rationale to Bridge Efficacy Data for Cygon 480 Insecticide and Cygon 480AG Insecticide to Support the Registration of Cygon 400 Insecticide in Canada, DACO: 10.1,10.2,10.2.3
3416903	2011, Dimethoate 400 g/l EC, Blue, Stabilized - CHA 3621-04 - Manufacturing Process Description, DACO: 3.2,3.2.1,3.2.2,3.2.3 CBI
3416904	2009, Determination of the viscosity and relative density of Dimethoate 400 g/L EC formulation (CHA 3621-04), DACO: 3.5,3.5.6,3.5.9 CBI
3416905	2009, Dimethoate 400 g/L EC (CHA 3621-04) - Determination of physico-chemical properties, DACO: 3.5,3.5.11,3.5.12,3.5.8 CBI
3416906	2009, Determination of storage stability for 14 days at 54 C of Dimethoate 400 g/L EC formulation (CHA 3621-04) in commercial packaging, DACO: 3.5,3.5.10 CBI
3416908	2007, Dimethoate 400 g/L EC: Determination of the Colour, Odour and Physical State, DACO: 3.5,3.5.1,3.5.2,3.5.3 CBI
3416909	2022, Waiver in lieu of Product Chemistry Data, DACO: 3.5,3.5.13,3.5.15 CBI
3416916	2014, Determination of Long Term Storage Stability of Dimethoate 400 g/L EC Formulation (CHA 3621-04) in Commercial Packaging, DACO: 3.5.10,3.5.14,3.5.7 CBI
3589176	2003, Validation of analytical method VAM 010-02 for determination of Dimethoate (CAS No. 60-51-5) in Dimethoate Technical and Dimethoate EC (Emulsifiable Concentrates) Formulations, DACO: 3.4.1
3589177	2007, Validation of analytical method VAM 010-02 for determination of Dimethoate (CAS No. 60-51-5) in Dimethoate Technical and Dimethoate EC (Emulsifiable Concentrates) Formulations - amdt-1, DACO: 3.4.1
3589179	2003, Validation of analytical method VAM 010-02 for determination of Dimethoate (CAS No. 60-51-5) in Dimethoate Technical and Dimethoate EC (Emulsifiable Concentrates) Formulations - amdt-3, DACO: 3.4.1
3471018	2001, Dimethoate 400g/L EC, Stabilized: Acute Oral Toxicity in the Rat - Acute Toxic Class Method, DACO: 4.6.1
3471019	2001, Dimethoate 400g/L EC, Stabilized: Acute Dermal Toxicity (Limit Test) in the Rat, DACO: 4.6.2
3471022	2001, Dimethoate 400g/L EC, Stabilized: Acute Eye Irritation in the Rabbit, DACO: 4.6.4
3471023	2001, Dimethoate 400g/L EC, Stabilized: Acute Dermal Irritation in the Rabbit, DACO: 4.6.5
3471024	2001, Test for Delayed Contact Hypersensitivity Using the Buehler Test, DACO: 4.6.6
3528252	2011, Acute Inhalation toxicity Study in Rats, DACO: 4.6.3

© His Majesty the King in Right of Canada, as represented by the Minister of Health Canada, 2024

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 Health Canada, Ottawa, Ontario K1A 0K9.