

Evaluation Report for Category B, Subcategory 2.3 & 2.4 Application

Application Number: 2007-0145
Application: Category B, subcategory 2.3 (Identity of formulants), 2.4 (Proportion of formulants)
Product: Grapple Insecticide
Registration Number: 29048
Active ingredients (a.i.): Imidacloprid
PMRA Document Number: 1610616

Purpose of Application

The purpose of this application is to register Grapple Insecticide, containing the active ingredient imidacloprid. This product is for use on potatoes, tomatoes, field lettuce, apples, cherries, highbush blueberries, Brussels sprouts, and eggplant. The use parameters, including the rate of active ingredient and the insects controlled for Grapple Insecticide are similar to those for Admire 240 Flowable Systemic Insecticide (Reg. No. 24094), containing 240 g a.i./L of imidacloprid.

Chemistry Assessment

Grapple Insecticide is a liquid suspension containing the active ingredient imidacloprid at a nominal concentration of 240 g/L. This product has a density of 1.12 g/mL and pH of 7-9 (1% in water). The chemistry requirements for Grapple Insecticide have been completed.

Health Assessments

This product is similar to an already registered product, Admire 240 Flowable Systemic Insecticide (Reg. No. 24094) and a toxicological evaluation of Admire 240Flowable Systemic Insecticide was conducted in 1995. No toxicological data are required.

The uses of Grapple Insecticide fit within the existing use pattern for imidacloprid . The changes in formulants are not expected to result in an increase in occupational or bystander exposure. The application rates, timings and methods of application are all similar to currently registered products containing imidacloprid.

The application method, timing, seasonal rate and PHIs for all crops and the restrictions (crop rotation and livestock feeding) on the Grapple Insecticide label are identical to those on the Admire 240 Flowable Systemic Insecticide label. Exposure to residues of imidacloprid will therefore not increase when crops are treated according to the use directions on the Grapple Insecticide label.

Environmental Assessment

No environmental risk assessment was necessary as the use pattern for Grapple Insecticide is the same as Admire 240 Flowable Systemic Insecticide and none of the formulants are of environmental concern. The Toxic Substance Management Policy (TSMP) was considered in this review and this product does not meet TSMP criteria.

Toxic Substances Management Policy Considerations:

The management of toxic substances is guided by the federal government's Toxic Substances Management Policy, which puts forward a preventive and precautionary approach to deal with substances that enter the environment and could harm the environment or human health. The policy provides decision makers with direction and sets out a science-based management framework to ensure that federal programs are consistent with its objectives. One of the key management objectives is virtual elimination from the environment of toxic substances that result predominantly from human activity and that are persistent and bioaccumulative. These substances are referred to in the policy as Track 1 substances.

During the review process, imidacloprid was assessed in accordance with the PMRA Regulatory Directive [DIR99-03](#), *The Pest Management Regulatory Agency's Strategy for Implementing the Toxic Substances Management Policy*. Substances associated with the use of imidacloprid were also considered, including major transformation products formed in the environment, microcontaminants in the technical product and formulants in the end-use product, Grapple Insecticide. The PMRA has reached the following conclusions:

- Imidacloprid does not bioaccumulate, therefore, it does not meet the TSMP criteria.
- The two major transformation products do not bioaccumulate, therefore, they do not meet TSMP criteria.
- Technical grade imidacloprid does not contain any contaminants of health or environmental concern identified in the *Canada Gazette*, Part II, Volume 139, Number 24, pages 2641–2643: *List of Pest Control Product Formulants and Contaminants of Health or Environmental Concern*.
- The end-use product Grapple Insecticide does not contain any formulants of health or environmental concern identified in the *Canada Gazette*, Part II, Volume 139, Number 24, pages 2641–2643: *List of Pest Control Product Formulants and Contaminants of Health or Environmental Concern*.

Therefore, the use of Grapple Insecticide is not expected to result in the entry of Track 1 substances into the environment.

Value Assessment

No efficacy or bridging trials were provided. The formulation of Grapple Insecticide is similar to a currently registered product; therefore, uses can be extrapolated to Grapple Insecticide with no anticipated reduction in the level of control.

Conclusion

The PMRA has completed an evaluation of the subject application and has found the information sufficient to approve the registration of Grapple Insecticide.

References

Studies/Information Provided by Applicant/Registrant

Chemistry

- 1357342 2006, Imidacloprid Part 3 Chemistry Requirements Chemical and Physical Properties, DACO:
3.5,3.5.1,3.5.10,3.5.11,3.5.12,3.5.13,3.5.14,3.5.15,3.5.2,3.5.3,3.5.4,3.5.5,3.5.6,3.5.7,3.5.8,3.5.9,3.6
- 1548521 2007, Determination of Storage Stability for 1 year Imidacloprid 240 g/l SC formulation in commercial packaging, PYC-231, DACO: 3.5.10

ISSN: 1911-8082

© Her Majesty the Queen in Right of Canada, represented by the Minister of Public Works and Government Services Canada 2008

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.