



Evaluation Report for Category B, Subcategory 4.1 Application

Application Number: 2008-0622
Application: Conversion from conditional to full registration.
Product: Actara 240SC Insecticide
Registration Number: 28407
Active ingredients (a.i.): Thiamethoxam
PMRA Document Number : 1877650

Background

Actara 240SC Insecticide (Registration Number 28407) was first temporarily registered in 2006. Actara 240SC Insecticide contains the technical grade active ingredient Thiamethoxam Technical Insecticide (Registration Number 26665) which was granted temporary registration in 2000. Actara 240SC Insecticide and Thiamethoxam Technical Insecticide were converted from temporary to conditional registration in accordance with Subsection 73(4) of the *Pest Control Products Regulations* in order to fulfill the requirements of the new *Pest Control Products Act (PCPA)* in 2007. A detailed review of the foliar use can be found in Evaluation Report ERC2007-01, *Thiamethoxam*. Additional information on the technical thiamethoxam can be found in Regulatory Note REG2001-03, *Thiamethoxam – Helix, Helix XTra*.

At the time of initial registration in 2006, conditions of registration included the requirement for the registration status of Thiamethoxam Technical Insecticide to convert to full registration. Subsequent to 2006, additional confirmatory residue data was requested for crop field trials under the application number 2007-0267. At the time of the current application, the remaining conditions of registration are the status of the conditionally registered Thiamethoxam Technical Insecticide and the outstanding residue data.

Purpose of Application

The current application is to convert Actara 240SC Insecticide from conditional registration to full registration. A similar application has been made for Thiamethoxam Technical Insecticide (application number 2008-0617).

Chemistry Assessment

The product chemistry data for Actara 240SC Insecticide were submitted under the original application and assessed to be complete. No additional data were submitted in support of the conversion from conditional to full registration.

Health Assessments

A toxicology assessment was not required as there was no change to the product formulation.

As no residue data was submitted with this application, previously reviewed data as well as ERC2007-01 and REG2001-03 were referenced to support the application for full registration of Actara 240SC Insecticide. The conditional registration of Actara 240SC Insecticide must be maintained until the confirmatory crop field trials requested under submission 2007-0267 have been submitted and reviewed.

The application for full registration of Actara 240SC Insecticide can be supported based on the current occupational exposure risk assessments. Worker exposures from potato seed piece treatment, in-furrow and foliar treatments of potatoes, and post-application workers, and handlers/planters of treated potato seed are acceptable when wearing the personal protective equipment and following the precautions and directions on the label.

Environmental Assessment

During the environmental review of the application for conversion of the technical thiamethoxam and its associated end-use products, new data were reviewed which confirmed that thiamethoxam and its transformation product clothianidin are persistent in the environment. Clothianidin, an insecticide in its own right, is also expected to leach to groundwater. At the proposed application rate and use pattern, there are concerns with the use of Actara 240SC Insecticide in regards to bees and other non-target arthropods for both thiamethoxam and clothianidin. Due to these concerns, further studies have been requested to establish potential exposure to bees and non-target arthropods.

Value Assessment

Additional data were not required to support Actara 240SC Insecticide. This product controls chewing and sucking insects through both contact and ingestion activity on a variety of crops. At the time of initial registration, Actara 240SC Insecticide was for in furrow treatment on potato. Since the time of the original applications, foliar and seed treatment applications on potato have been added to the Actara 240SC Insecticide label.

Conclusion

The PMRA has completed an assessment of available information for Actara 240SC Insecticide. Based on the requirement for additional environmental and residue data, Actara 240SC Insecticide is to continue with a conditional registration.

References

List of Studies/Information Submitted by Registrant

PMRA Document Number	Reference
1610615	2008, Thiamethoxam 25 WG Formulation (A9584C): Herbicide Profiling Test to Evaluate the Phytotoxicity to Terrestrial (non-target) Higher Plants, A51197, DACO: 9.8.4
1529809	1998, Assessment of the Side Effects of ACTARA 25WG on the Honey Bee (<i>Apis mellifera</i> L.) After Application on Broad Beans, 982553, DACO: 9.2.4.3,9.2.9
1529851	2007, CGA-355190 - Acute Toxicity to <i>Chironomus riparius</i> Under Static Conditions, T007450-06, DACO: 9.3.4
1529852	2003, Effects of CGA 353042 (Metabolite of CGA 293343) on the Development of Sediment Dwelling Larvae of <i>Chironomus riparius</i> in a Water-Sediment System, 848311, DACO: 9.3.4
1529853	2007, NOA404617 - Acute Toxicity to <i>Chironomus riparius</i> Under Static Conditions, T007454-06, DACO: 9.3.4
1529854	2000, Toxicity Test of NOA-407475 (Metabolite of CGA 293343) on Sediment Dwelling <i>Chironomus riparius</i> (syn. <i>Chironomus thummi</i>) Under Static Conditions, 982580, DACO: 9.3.4
1610615	2008, Thiamethoxam 25 WG Formulation (A9584C): Herbicide Profiling Test to Evaluate the Phytotoxicity to Terrestrial (non-target) Higher Plants, A51197, DACO: 9.8.4

860957	Note to Reviewer
860958	Use Description Scenario Survey Data - Note to Reviewer
860960	Occupational Risk Assessment for Workers Mixing/Loading and Applying ACTARA 25WG and ACTARA 240SC in Canada
860961	Determination of Dislodgeable Foliar Residues on Apple Trees Treated with ACTARA Insecticide (Thiamethoxam)
860962	Determination of Dislodgeable Foliar Residues on Apple Trees Treated with ACTARA Insecticide (Thiamethoxam)

Additional Information Considered

i) Published Information

U.S. EPA, 2003. EFED Risk Assessment for the Seed Treatment of Clothianidin 600FS on Corn and Canola. United States Environmental Protection Agency. DP Barcode 278110. <http://epa.gov/pesticides/foia/reviews/044309/index.htm>

U.S. EPA, 2004. EFED Registration Chapter for Clothianidin for use on Tobacco, Turf, Applies, Pears and Ornamentals. United States Environmental Protection Agency. DP Barcode 296177 and D287186. <http://epa.gov/pesticides/foia/reviews/044309/index.htm>

ISSN: 1911-8082

© Her Majesty the Queen in Right of Canada, represented by the Minister of Public Works and Government Services Canada 2010

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.