

Evaluation Report for Category B, Subcategory 2.1, 2.3, 2.4, 3.10, 3.12, 3.13 Application

Application Number: 2013-5526
Application: New End-use Product Chemistry - Guarantee, identity and proportion of formulants, tank mixes, new site or host, precautions
Product: AGRI-MEK SC
Registration Number: 31607
Active ingredients (a.i.): Abamectin
PMRA Document Number : 2491658

Purpose of Application

The purpose of this application was to register a new commercial end-use product, AGRI-MEK SC (guarantee 84 g/L abamectin), for control of various insects and mites on apples, pears, caneberries, grapes, strawberries, celery, potatoes and Crop Group 3-07a (bulb onion sub-group).

The application was based on a precedent product, AGRI-MEK 1.9% EC Insecticide/Miticide (Registration Number 24551; guarantee 19 g/L abamectin).

Chemistry Assessment

AGRI-MEK SC is formulated as a suspension containing abamectin at a nominal concentration of 84 g/L. This end-use product has a density of 1.04 g/mL and pH of 6.3. The chemistry requirements for this product have been fulfilled.

Health Assessments

AGRI-MEK SC is highly acutely toxic in rats via the oral route of exposure, of low acute toxicity via the dermal route, and moderately acutely toxic via the inhalation route. AGRI-MEK SC is not irritating to the eyes or skin of rabbits, and is not a dermal sensitizer in guinea pigs when tested using the Buehler method.

The use of AGRI-MEK SC on apples, pears, caneberries, grapes, strawberries, celery, potatoes and crop group 3-07a (bulb-onion sub group) is not expected to result in potential occupational or bystander exposure over the currently registered use of abamectin. No risks of concern are expected when workers follow label directions and wear personal protective equipment as stated on the label.

Residue data from field trials conducted in the United States were submitted to support the use of AGRI-MEK SC on strawberries. Abamectin was applied to strawberries at exaggerated rates, and harvested according to label directions. In addition, previously reviewed residue data from field trials conducted in/on celery, pear, apple, potatoes, caneberries, bulb onion (CSG 3-07A),

and grapes were reassessed in the framework of this petition.

The recommendation for maximum residue limits (MRLs) for abamectin was based upon the submitted field trial data, and the guidance provided in the [OECD MRL Calculator](#). MRLs to cover residues of abamectin in/on crops and processed commodities are proposed as shown in Table 1. Residues in processed commodities not listed in Table 1 are covered under the proposed MRLs for the raw agricultural commodities (RACs).

Commodity	Application Method/ Total Application Rate (g a.i./ha)	PHI (days)	Residues (ppm)		Experimental Processing Factor	Currently Established MRL (ppm)	Recommended MRL (ppm)
			Min	Max			
Strawberries	88	3	0.006	0.032	-	0.02	0.05

Following the review of all available data, current MRLs or the MRL as proposed in Table 1 are acceptable to cover residues of abamectin in all petitioned crops. Residues in this crop commodity at the proposed MRL will not pose an unacceptable risk to any segment of the population, including infants, children, adults and seniors.

Environmental Assessment

The use of AGRI-MEK SC will not significantly increase environmental exposure to abamectin relative to currently registered abamectin products with a similar use pattern. EAD does not anticipate any increased risk to the environment from the use of AGRI-MEK SC. Environmental label statements have been modified to reflect current PMRA labelling standards.

Value Assessment

Data from three field trials showed comparable control of pear psylla in pear at 15.8, 21.1 and 42.2 g a.i./ha between AGRI-MEK SC and AGRI-MEK 1.9% EC Insecticide/Miticide. Data from three field trials showed comparable control of two-spotted mite in strawberry at 10.5, 21, and 42 g a.i./ha of AGRI-MEK SC and AGRI-MEK 1.9% EC Insecticide/Miticide. Since value information was assessed for two different pests, a mite and an insect, on two different crops, it is expected that the performance of AGRI-MEK SC would be equivalent to AGRI-MEK 1.9% EC Insecticide/Miticide. Therefore, AGRI-MEK 1.9% EC Insecticide/Miticide label claims were extrapolated to AGRI-MEK SC.

Conclusion

The PMRA has completed a review of all information provided for AGRI-MEK SC and has determined that the information is sufficient to support full registration. Current MRLs or the MRL as proposed in Table 1 are acceptable to cover residues of abamectin in all petitioned crops.

References

PMRA Document Number	Reference
2352069	2013, AGRI-MEK SC Starting Materials and Certification of Limits, DACO: 3.2.1, 3.3.1 CBI
2352072	2013, AGRI-MEK SC Manufacturing Process, DACO: 3.2.2 CBI
2352073	2007, Analytical Method SF-222/1, DACO: 3.4.1 CBI
2352074	2013, AGRI-MEK SC Identification - Formulating Plant Name and Address, 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 CBI
2352067	2013, AGRI-MEK SC Identification, DACO: 3.1.1, 3.1.3, 3.1.4 CBI
2352068	2013, AGRI-MEK SC Identification - Formulating Plant Name and Address, DACO: 3.1.2 CBI
2352214	2013, Value Summary Agri-mek SC, DACO: 10.1, 10.2.3.1, 10.2.3.3, 10.3, 10.3.2, 10.4
2352215	2013, Efficacy Summary Table - Excel, DACO: 10.2.3.1, 10.2.3.3, 10.3
2352216	PEA06-01 - Evaluate Efficacy & Phytotoxicity of ABA/TMX Premixture on Pome Fruit, DACO: 10.2.3.3
2352218	PEA07-01 - A15368D: Evaluate Efficacy and Phyto on Pears, DACO: 10.2.3.3
2352219	PEA07-02 - A15368D: Evaluate Efficacy and Phyto on Pears, DACO: 10.2.3.3
2352220	STR06-01 - Evaluate Efficacy and Phytotoxicity of ABA/THX Pre-mixture on Strawberry, DACO: 10.2.3.3
2352221	STR07-01 - Evaluate Efficacy & Phytotoxicity of A15368D on Strawberry for Control of Spider Mites, DACO: 10.2.3.3
2352222	STR07-02 - Evaluate Efficacy & Phytotoxicity of A15368D on Strawberry for Control of Spider Mites, DACO: 10.2.3.3
2352075	2013, AGRI-MEK SC Insecticide - Summary - Toxicology Profile, DACO: 4.1
2352080	2006, Abamectin SC (084) (A15368D) - Acute Oral Toxicity Up-and-Down Procedure in Rats, DACO: 4.6.1
2352081	2007, Abamectin SC (084) (A15368D) - Acute Dermal Toxicity in Rats, DACO: 4.6.2
2352083	2006, Abamectin SC (084) (A15368D) - Acute Inhalation Toxicity in Rats, DACO: 4.6.3
2352084	2006, Abamectin SC (084) (A15368D) - Primary Eye Irritation in Rabbits, DACO: 4.6.4
2352085	2006, Abamectin SC (084) (A15368D) - Primary Skin Irritation in Rabbits, DACO: 4.6.5
2352087	2007, Abamectin SC (084) (A15368D) - Dermal Sensitization Test - Buehler Method, DACO: 4.6.6
2352169	2010, Abamectin - Magnitude of the Residues in or on Strawberries (A15368D), DACO: 7.4.1,7.4.2

ISSN: 1911-8082

© Her Majesty the Queen in Right of Canada, represented by the Minister of Public Works and Government Services Canada 2015

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.