

Evaluation Report for Category A, Subcategory 1.3 Application

Application Number: 2004-1926
Application: Category A, Subcategory 1.3 (New Active Ingredient - Maximum Residue Limits Only)
Product: Acequinocyl Technical
Registration Number: 28639
Active Ingredient (a.i.): Acequinocyl
PMRA Document Number: 1552440

Purpose of Application

The purpose of this application is to specify maximum residue limits (MRLs) to cover residues of acequinocyl and the metabolite acequinocyl-OH in/on imported citrus fruit, almonds, pistachios and strawberries following the application of acequinocyl.

Chemistry Assessment

Details of the chemistry assessment for acequinocyl and the end-use Kanemite 15 SC miticide are found in Evaluation Report ERC2007-10 (Sections 1.1, 1.2, 2.1 and 2.2).

Health Assessment

Toxicology and occupational/bystander assessments are not required for applications to establish import MRLs of active ingredients registered in Canada.

Food Residue Exposure Assessment

To support the specification of MRL in/on citrus fruit, almonds, pistachios and strawberries, residue data from field trials conducted in the major growing regions of the US were reviewed for lemons, grapefruits, oranges, almonds and strawberries.

Recommendations for MRL for acequinocyl in/on citrus fruit, almonds, pistachios and strawberries were based on guidance provided in PRO 2005-04 (Guidance for Setting Pesticide Maximum Residues Limits Based on Field Trial Data).

Based on maximum residues observed in treated commodities, maximum residues limits (MRL) to cover residues of acequinocyl in/on imported crops and processed commodities will be specified as shown in Table 1. Residues of acequinocyl in processed commodities not listed in Table 1 are covered under established MRLs for the raw agricultural commodities (RACs)

Table 1 Summary of Field Trial Data Used to Establish Maximum Residue Limit(s) (MRL) for Acequinocyl						
Commodity	Application Method/Total Application Rate (g a.i./ha)	Preharvest Interval (PHI) in days	Combined residues* (ppm)		Experimental Processing Factor	Recommended MRL (ppm)
			Min	Max		
Citrus Fruit						
Lemon	Broadcast foliar/ 672	7	0.01	0.095	NA	0.35
Grapefruit			0.026	0.076		
Orange			0.018	0.29		
Citrus oil	Broadcast foliar/ 2940	7	NA	NA	165	30
Almonds and Pistachios						
Almond nutmeat	Broadcast foliar/ 672	7	<0.02	<0.02	NA	0.02
Strawberry	Broadcast foliar/ 672	1	0.145	0.35	NA	0.5

* combined residues of acequinocyl and acequinocyl-OH as per the residue definition

NA: Not applicable

Environmental and Value Assessment

Environment and value assessments are not required for applications to establish import MRLs.

Conclusions

Following the review of all available data, MRL of 0.35 ppm for citrus fruit, 30 ppm for citrus oil, 0.02 ppm for almonds and pistachios and 0.5 ppm for strawberries for acequinocyl are recommended. Residues of acequinocyl and acequinocyl-OH in/on imported crops at the recommended MRL will not pose an unacceptable risk to any segment of the population, including infants, children, adults and seniors.

List of Studies Submitted by Registrant

PMRA Document Number	Reference
861238	2004, U.S. EPA, First Food Use of Acequinocyl on Pome Fruits, Citrus, Almonds, Pistachios and Strawberries., DACO: 12.5.5,5.3
861243	2001, Determination of Acequinocyl and Acequinocyl-OH in Fruit Crops. Analytical Method, Meth-133, Revision #3, DACO: 7.2.1,7.2.2
861244	2001, Determination of Acequinocyl and Acequinocyl-OH in Almond Nutmeats and Almond Hulls Analytical Method, Meth-135, Original, DACO: 7.2.1,7.2.2
861246	2002, Independent Laboratory Validation (ILV) of Analytical Method #, Entitled, Determination of Acequinocyl and Acequinocyl-OH in Fruit Crops, METH-133, Revision 3/#01-0036, DACO: 7.2.3
861247	2002, Independent Laboratory Validation (ILV) of Analytical Method #, Entitled, ; Determination of Acequinocyl and Acequinocyl-OH in Almond Nutmeats and Almond Hulls, METH-135,Original/01-0044, DACO: 7.2.3
861248	2001, Evaluation of TM-413 and Hydroxy-TM-413 Through the FDA Multiresidue Methods, A055.001, DACO: 7.2.4
861254	2001, Magnitude of the Residue of Acequinocyl and its Metabolite in Lemon Raw Agricultural Commodities., TCI-01-002, DACO: 7.4.1,7.4.2
861255	2002, Magnitude of the Residue of Acequinocyl and its Metabolite in Orange Raw Agricultural and Processed Commodities. TCI-01-003, DACO: 7.3,7.4.1,7.4.2,7.4.5
861256	2001, Magnitude of the Residue of Acequinocyl and its Metabolite in Grapefruit Raw Agricultural Commodities., TCI-01-004, DACO: 7.4.1,7.4.2
861257	2002, Magnitude of the Residue of Acequinocyl and its Metabolite in Almond Raw Agricultural Commodities., TCI-01-005, DACO: 7.3,7.4.1,7.4.2
861258	2002, Magnitude of the Residue of Acequinocyl and its Metabolite in Strawberry Raw Agricultural Commodities., TCI-02-059, DACO: 7.3,7.4.1,7.4.2
861259	2002, Magnitude of the Residues of TM-413 (Acequinocyl) and OH-TM-413 (OH-Acequinocyl) in Dairy Cow Milk and Tissues., 47474, DACO: 7.5
861260	2004, U.S. EPA, First Food Use of Acequinocyl on Pome Fruits, Citrus, Almonds, Pistachios and Strawberries., PC Code: 006329, DP#284757, DACO: 12.5.7
861263	2004, U.S. EPA, Section 3 Request for Uses of Acequinocyl (P.C. Code: 006329) on Pome Fruits, Citrus, Almonds, Pistachios, Strawberries and Outdoor Ornamentals Submitted Under Barcodes:D285811, D286428, D289153, D290010, D287269, D290009, D29114, DACO: 12

861274	2004, U.S. EPA, Section 3 Request for Uses of Acequinocyl on Pome Fruits, Citrus, Almonds, Pistachios, Strawberries and Outdoor Ornamentals, MRID: 006329, DACO: 12.5.9
861432	1999, [14C-Phenyl] AKD-2023 Metabolism in the Lactating Goat., AGK/049, DACO: 6.2
861433	1997, 14C-AKD-2023 Metabolism in Apples., AGK 20/950695, DACO: 6.3
861434	1999, 14C-AKD-2023 Metabolism in Oranges., AGK 40/971376, DACO: 6.3
861435	1997, 14C-AKD-2023 Metabolism in Egg Plants., AGK 20/950490, DACO: 6.3
861500	Summary, DACO: 6.1
861501	1997, 14C AKD 2023 Metabolism in Egg Plants., AGK 20/950490, DACO: 6.3
862070	Summary - Food, Feed and Tobacco Residue Studies, DACO: 7.1
862071	2001, Magnitude of the Residue of Acequinocyl and its Metabolite in Apple Raw Agricultural and Processed Commodities., TCI-00-001, DACO: 7.2.5,7.3,7.4.1,7.4.2,7.4.5
1050873	[14C-Phenyl] AKD-2023 Metabolism in the Lactating Goat. Refer to Acequinocyl Technical Submission., AGK/049, DACO: 6.2
1050875	14C-AKD-2023 Metabolism in Apples. Refer to Acequinocyl Technical Submission., AGK 20/950695, DACO: 6.3
1050878	14C-AKD-2023 Metabolism in Oranges. Refer to Acequinocyl Technical Submission., AGK 40/971376, DACO: 6.3
1050882	14C-AKD-2023 Metabolism in Egg Plants. Refer to Acequinocyl Technical Submission., AGK 20/950490, DACO: 6.3
1097518	2005, Clarification of the Storage Stability of the Polar Compounds, DACO: 6.3
1097519	2005, Response to PMRA on Sample Collection, Analysis and Storage Stability, DACO: 6.3
1097546	2005, Acequinocyl Registration in Canada Waiver Request, WD00613.000 F0T0 1105 0001, DACO: 7.0

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