



Evaluation Report for Category B, Subcategory B.5.0 Application

Application Number: 2011-2019
Application: Import Maximum Residue Limits (MRLs)
Product: Fludioxonil Technical
Registration Number: 28399
Active ingredients (a.i.): Fludioxonil
PMRA Document Number: 2361091

Purpose of Application

The purpose of this application was to establish import maximum residue limits (MRLs) and to re-examine previously established MRLs for fludioxonil in/on pineapple, tomato and citrus fruits (crop group 10 revised).

Chemistry Environmental and Value Assessments

Chemistry, Environmental and value assessments were not required for this application.

Health Assessment

Residue data for fludioxonil in tomato, grapefruit, orange and pineapple were submitted to support the importation of tomato, citrus fruits and pineapple to Canada. Previously reviewed residue data in/on citrus fruits (i.e. orange, lemon, grapefruit) were reassessed in the framework of this petition. In addition, a processing study in treated pineapple was assessed and processing studies in treated tomato, orange, lemon were also re-assessed to determine the potential for concentration of residues of fludioxonil in processed commodities.

Maximum Residue Limit(s)

Based on the maximum residues observed in crops, maximum residue limits (MRLs) to cover residues of fludioxonil in/on crops and processed commodities will be proposed as shown in Table 1. The currently established MRL of 10 ppm for fludioxonil in/on citrus fruits (CG 10) will be extended to the citrus fruits (CG 10 revised). The currently established MRL of 500 ppm for citrus oil will remain following this review. Residues of fludioxonil in processed commodities not listed in Table 1 are covered under the recommended MRLs for the raw agricultural commodities (RACs).

TABLE 1. Summary of Field Trial and Processing Data Used to Recommend Maximum Residue Limits (MRLs).

Commodity	Application Method ¹ (Total Application Rate)	DAA ² (day)	Residues (ppm)		Experimental Processing Factor	MRL	
			Min	Max		Currently Established	Recommended
Pineapple without crowns	Dip (30.4 g a.i./50L) + spray (434 g a.i./50L)	0	4.41	6.50	0.96 (juice)	None	20
	Drench (30.4 g a.i./50L) + spray (434 g a.i./50L)	0	4.57	7.18			
Tomatoes	Dip (54.4-57.6 g a.i./100 L)	0	0.275	1.19	0.3 (purée) 1.1 (paste)	0.5 ³	5.0 ³
	Drench (57.4-57.5 g a.i./100 L)	0	0.237	1.16			
	Packing-line spray; (217.7-218.6 g a.i./50 tons of fruit)	0	0.170	1.97			
Orange	Dip (60 g a.i./100 L)	0	0.70	1.10	0.03 (juice) 69 (oil) 1.9 (peel)	10 (CG 10) ⁴ 500 (citrus oil) ⁵	10 (CG 10 revised) ⁴ 500 (citrus oil) ⁵
	LV (0.45 kg a.i./250 tons fruit)	0	0.37	0.74			
	Drench (30 g a.i./100 L) + LV (0.23 kg a.i./250 tons fruit)	0	0.32	0.53			
	Drench (60 g a.i./100 L) + LV (0.45 kg a.i./250 tons fruit)	0	0.75	0.86			
	LV (0.45 kg a.i./250 tons fruit)	0	0.62	0.85			

Commodity	Application Method ¹ (Total Application Rate)	DAA ² (day)	Residues (ppm)		Experimental Processing Factor	MRL	
			Min	Max		Currently Established	Recommended
	LV (0.91 kg a.i./250 tons fruit)	0	0.90	1.00			
	Dip/storage wax + dip (240 g a.i./100 L)	0	1.40	2.96			
	Spray/storage wax + spray/storage wax (1.8 kg a.i./250 tons fruit)	0	0.41	0.70			
Grapefruit	Dip (60 g a.i./100 L)	0	0.60	0.95	0.03 (juice) 69 (oil) 1.9 (peel)	10 (CG 10) ⁴ 500 (citrus oil) ⁵	10 (CG 10 revised) ⁴ 500 (citrus oil) ⁵
	LV (0.45 kg a.i./250 tons fruit)	0	0.07	0.67			
	Drench (30 g a.i./100 L) + LV (0.23 kg a.i./250 tons fruit)	0	0.14	0.34			
	Drench (60 g a.i./100 L) + LV (0.45 kg a.i./250 tons fruit)	0	0.17	0.59			
	LV (0.45 kg a.i./250 tons fruit)	0	0.05	0.92			
	LV (0.91 kg a.i./250 tons fruit)	0	1.50	1.50			
	Dip/storage wax + dip (240 g a.i./100 L)	0	4.25	6.85			

Commodity	Application Method ¹ (Total Application Rate)	DAA ² (day)	Residues (ppm)		Experimental Processing Factor	MRL	
			Min	Max		Currently Established	Recommended
	Spray/storage wax + spray/storage wax (1.8 kg a.i./250 tons fruit)	0	0.49	0.55			
Lemon	Dip/storage wax + dip (240 g a.i./100 L)	0	2.01	4.28	0.03 (juice) 69 (oil) 1.9 (peel)	10 (CG 10) ⁴ 500 (citrus oil) ⁵	10 (CG 10 revised) ⁴ 500 (citrus oil) ⁵
	Spray/storage wax + spray/storage wax (1.8 kg a.i./250 tons fruit)	0	0.65	1.01			

¹ LV = Low volume. ² DAA = Days after (last) application. ³ The recommended MRL of 5.0 ppm will replace the currently established MRL of 0.5 ppm in/on tomatoes. ⁴ The currently established MRL of 10 ppm in/on citrus fruits (CG 10) will be extended to cover the revised citrus fruits crop group (CG 10 revised). ⁵ The currently established MRL of 500 ppm for citrus oil will not change as a result of this review.

Conclusions

Following the review of available data, MRLs for pineapple, tomato and citrus fruits (CG 10 revised) are recommended to cover residues of fludioxonil. Residues of fludioxonil in these crop commodities at the proposed MRLs will not pose an unacceptable risk to any segment of the population, including infants, children, adults and seniors.

References

PMRA

Document

Number	Reference
1036430	2003, Fludioxonil: Magnitude of the Residues on Citrus (Post Harvest), DACO: 7.4.1
1036431	2003, Fludioxonil: Magnitude of the Residues on Citrus (Post Harvest), DACO: 7.4.1
1036434	2003, Fludioxonil: Magnitude of the Residues on Citrus (Post Harvest), MRID: 1036435
1672338	2005, Cyprodinil + Fludioxonil: Magnitude of Residues on Tomato (IR-4 PR No. 08124), DACO: 7.4.1,7.4.2,7.4.5
2052238	2011, 7.4.1-3 Propiconazole + Fludioxonil: Magnitude of the Residue on tomato following post-harvest application., DACO: 7.4.1
2052396	2004, Fludioxonil: Magnitude of the Residue in or on Oranges and Grapefruit Following Post-Harvest Applications, DACO: 7.4.1
2052401	2011, Fludioxonil: Magnitude of the Residue on Pineapple Following Post-Harvest treatment, IR-4 Project Number 10203, DACO: 7.4.1
2118570	2005, Fludioxonil: Magnitude of the Residue in or on Oranges and Grapefruit Following Post-Harvest Applications, DACO: 7.4.1, DACO: 7.4.1

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