

Evaluation Report for Category B, Subcategory 5.0 Application

Application Number: 2022-6469
Application: New Maximum Residue Limits for a Previously Assessed Technical Grade Active Ingredient
Product: Spiromesifen Technical Insecticide-Miticide
Registration Number: 28589
Active ingredient (a.i.): Spiromesifen
PMRA Document Number: 3629372

Purpose of Application

The purpose of this application was to establish maximum residue limits (MRLs) for residues of spiromesifen in/on imported oranges and citrus oil.

Health Assessment

Residue data for spiromesifen in oranges were submitted to support the MRLs on imported oranges and citrus oil from Brazil. Spiromesifen was applied to oranges at registered rates and harvested according to label directions. In addition, a processing study in treated orange was reviewed to determine the potential for concentration of residues of spiromesifen in processed commodities.

Maximum Residue Limits

The recommendation for proposed MRLs for spiromesifen was based upon the submitted field trial data, and the guidance provided in the [OECD MRL Calculator](#). The MRLs to cover residues of spiromesifen and spiromesifen-enol in/on oranges and citrus oil are proposed as shown in Table 1. Residues in processed commodities not listed in Table 1 are covered under the proposed MRL for the raw agricultural commodity (RAC).

Table 1 Summary of Field Trial and Processing Data Used to Support Maximum Residue Limits (MRLs)

Commodity	Application Method/ Total Application Rate (g a.i./ha)	PHI (days)	Residues (ppm) ¹		Experimental Processing Factor	Currently Established MRL (ppm)	Proposed MRL (ppm)
			LAFT	HAFT			
Oranges	Foliar / 137 – 149	21	<0.020	0.103	Citrus Oil Spiromesifen: 210x Spiromesifen-enol: 9.2x	--	30 (citrus oil) 0.15 (oranges)

g a.i./ha = grams of active ingredient per hectare; ppm = parts per million; LAFT = Lowest Average Field Trial; HAFT = Highest Average Field Trial

¹Residues = spiromesifen and spiromesifen-enol, expressed as parent equivalents.

Following the review of all available data, the MRLs proposed in Table 1 are recommended to cover total residues of spiromesifen. Dietary risks from exposure to total residues of spiromesifen in oranges and citrus oil at the proposed MRLs were shown to be acceptable for the general population and all subpopulations, including infants, children, adults and seniors. Thus the foods that contain residues as listed in Table 1 are considered safe to eat.

Toxicology and occupational exposure assessments were not required for this application.

Chemistry, Environmental and Value Assessments

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

Conclusion

The Pest Management Regulatory Agency has completed an assessment of the information provided, and has found the information acceptable to establish MRLs for residues of spiromesifen in/on imported oranges and citrus oil.

References

PMRA Document Number	Reference
3417237	2016, Amendment n° 01 to the final report - Determination of the residues of spiromesifen and its metabolite spiromesifen-enol in/on citrus (fruits) after spraying of Oberon in the field in Brazil, DACO: 7.4.1,7.4.2
3417238	2018, Oberon 240 SC - Magnitude of the residues in/on citrus; import tolerances, DACO: 7.4.1,7.4.2
3417239	2020, Determination of the residues of spiromesifen in/on orange (fruit and juice) after spraying of FTB: 102000026994 in the field in Brazil, DACO: 7.4.1,7.4.2
3417240	2020, Determination of the residues of abamectin and spiromesifen in/on orange (fruit) after spraying of FTB:102000031748 in the field in Brazil, DACO: 7.4.1,7.4.2
3417241	2018, Oberon 240 SC (Spiromesifen) - Magnitude of the residue in/on citrus processed commodities, DACO: 7.4.5

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