Proposed Maximum Residue Limit PMRL2015-18

Fluensulfone

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Publications
Pest Management Regulatory Agency
Health Canada
2720 Riverside Drive
A.L. 6607 D
Ottawa, Ontario K1A 0K9

Internet: pmra.publications@hc-sc.gc.ca
healthcanada.gc.ca/pmra
Facsimile: 613-736-3758
Information Service:
1-800-267-6315 or 613-736-3799
pmra.infoserv@hc-sc.gc.ca

Canada

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Under the authority of the *Pest Control Products Act*, Health Canada's Pest Management Regulatory Agency (PMRA) is proposing to establish maximum residue limits (MRLs) for fluensulfone on fruiting vegetables (crop group 8-09; except small tomatoes) and cucurbit vegetables (crop group 9) to permit the import and sale of foods containing such residues.

Fluensulfone is a nematicide not currently registered for use in Canada.

The PMRA must determine the quantity of residues that are likely to remain in or on the imported food commodities when fluensulfone is used according to label directions in the exporting country, and that such residues will not be a concern to human health. This quantity is then legally established as an MRL on the corresponding imported commodity. An MRL applies to the identified raw agricultural food commodity as well as to any processed food product that contains it, except where separate MRLs are specified for the raw agricultural commodity and a processed product made from it.

Consultation on the proposed MRLs for fluensulfone is being conducted via this document (see Next Steps, the last section of this document). A summary of the field trial data used to support the proposed MRLs can be found in Appendix I.

To comply with Canada's international trade obligations, consultation on the proposed MRLs is also being conducted internationally by notifying the World Trade Organization, as coordinated by Canada's Notification Authority and Enquiry Point.

The proposed MRLs for fluensulfone are as follows.

Table 1 Proposed Maximum Residue Limits for Fluensulfone

Common Name	Residue Definition	MRL (ppm)[1]	Food Commodity
Fluensulfone	5-chloro-2-[(3,4,4-trifluoro-3-buten-1-yl)sulfonyl]thiazole and the metabolite 5-fluoro-3,4-bis(fluoromethyl)-3-pentene-1-sulfonic acid (expressed in parent equivalents)	1.0	Tomato paste
		0.6	Cucurbit vegetables (crop group 9)
		0.5	Fruiting vegetables (crop group 8-09; except small tomatoes)

[1] ppm = parts per million.

MRLs are proposed for each commodity included in the listed crop groupings in accordance with the Residue Chemistry Crop Groups webpage in the Pesticides and Pest Management section of Health Canada's website.

MRLs established in Canada may be found using the Maximum Residue Limit Database on the Maximum Residue Limits for Pesticides webpage. The database allows users to search for established MRLs, regulated under the *Pest Control Products Act*, both for pesticides or for food commodities.

International Situation and Trade Implications

Table 2 compares the MRLs proposed for fluensulfone in Canada with corresponding American tolerances as listed in the Electronic Code of Federal Regulations, 40 CFR Part 180, by pesticide. Currently there are no Codex MRLs[1] listed for fluensulfone in or on any commodity on the Codex Alimentarius Pesticide Residues in Food website.

Table 2 Comparison of Canadian MRLs and American Tolerances (Where Different)

Food Commodity	Canadian MRL (ppm)	American Tolerance (ppm)
Tomato paste	1	None
Cucurbit vegetables (crop group 9)	0.6	0.5
Fruiting vegetables (crop group 8-09; except small tomatoes)	0.5	0.5 (fruiting vegetables [crop group 8-10])

Next Steps

The PMRA invites the public to submit written comments on the proposed MRLs for fluensulfone up to 75 days from the date of publication of this document. Please forward your comments to Publications (see the contact information on the cover page of this document). The PMRA will consider all comments received before making a final decision on the proposed MRLs. Comments received will be addressed in a separate document linked to this PMRL. The established MRLs will be legally in effect as of the date that they are entered into the Maximum Residue Limit Database.

[1] The Codex Alimentarius Commission is an international organization under the auspices of the United Nations that develops international food standards, including MRLs.

Appendix I

Summary of Field Trial Data Used to Support the Proposed Maximum Residue Limits

Residue data for fluensulfone in tomatoes, peppers (bell and non-bell), cucumbers, summer squashes and cantaloupes (melons) were submitted to support the maximum residue limits (MRLs) on imported fruiting vegetables (crop group 8-09) and cucurbit vegetables (crop group 9). In addition, a processing study in treated tomatoes was reviewed to determine the potential for concentration of residues of fluensulfone into processed commodities.

Maximum Residue Limits

The recommendation for MRLs for fluensulfone was based upon the submitted field trial data, and the guidance provided in the OECD MRL Calculator. Table A1 summarizes the residue data used to calculate the proposed MRLs for imported tomatoes, bell and non-bell peppers, cucumbers, summer squashes and cantaloupes (melons).

Table A1 Summary of Field Trial and Processing Data Used to Support MRLs

Commodity	Application Method/Total Application Rate (kg a.i./ha)[1]	Preharvest Interval (days)	Maximum Residues (ppm)	Minimum Residues (ppm)	Experimental Processing Factor
Tomato	Broadcast spray, 7 days pre-planting/2.80	78-150	0.301	< 0.02	3.5-fold (paste)
	Drip irrigation, 7 days pre-planting/2.80	85-146	0.100	0.033	
Bell Pepper	Broadcast spray, 7 days pre-planting/2.80	50-108	0.266	0.038	N/A
	Drip irrigation, 7 days pre-planting/2.80	76-104	0.090	0.073	
Non-Bell Pepper	Broadcast spray, 7 days pre-planting/2.80	50-102	0.229	0.041	N/A
Cucumber	Broadcast spray, 7 days pre-planting/2.80	41-73	0.232	< 0.02	N/A
	Drip irrigation, 7 days pre-planting/2.80	41-70	0.386	< 0.02	

Commodity	Application Method/Total Application Rate (kg a.i./ha)[1]	Preharvest Interval (days)	Maximum Residues (ppm)	Minimum Residues (ppm)	Experimental Processing Factor
Summer Squash	Broadcast spray, 7 days pre-planting/2.80	36-71	0.273	< 0.02	N/A
	Drip irrigation, 7 days pre-planting/2.80	45-49	0.076	0.038	
Cantaloupe (Melon)	Broadcast spray, 7 days pre-planting/2.80	66-133	0.077	< 0.02	N/A

[1] kg a.i./ha = kilograms of active ingredient per hectare.

Following the review of all available data, MRLs as proposed in Table 1 are recommended to cover total residues of fluensulfone and metabolite M-3627, expressed as fluensulfone equivalents. Total residues of fluensulfone in these imported crop commodities at the proposed MRLs will not pose an unacceptable risk to any segment of the population, including infants, children, adults and seniors.