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Proposed Maximum Residue Limit

PMRL2019-30

# Malathion

*(publié aussi en français)*

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Under the authority of the *Pest Control Products Act*, Health Canada's Pest Management Regulatory Agency (PMRA) has concluded that the addition of new uses on various commodities to the product label of Malathion 85E, containing technical grade malathion, is acceptable. The specific uses approved in Canada are detailed on the label of Malathion 85E, *Pest Control Products Act* Registration Number 8372.

The evaluation of this malathion application indicated that the end-use product has value and the human health and environmental risks associated with the new uses are acceptable.

Before registering a pesticide for food use in Canada, the PMRA must determine the quantity of residues that are likely to remain in or on the food when the pesticide is used according to label directions and that such residues will not be a concern to human health. This quantity is then legally established as a maximum residue limit (MRL). 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 malathion is being conducted via this document (see Next Steps). 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 the Canada's Notification Authority and Enquiry Point.

The proposed MRLs, to replace or be added to the MRLs already established for malathion, are as follows.

**Table 1 Proposed Maximum Residue Limits for Malathion**

Common Name	Residue Definition	MRL (ppm) <sup>1</sup>	Food Commodity
Malathion	diethyl 2- [(dimethoxyphosphinothioyl)thio]butanedioate	8.0	Bushberries (crop subgroup 13-07B, except currants and gooseberries) <sup>2</sup> ; small fruits vine climbing, except fuzzy kiwifruit (crop subgroup 13-07F, except gooseberries and grapes) <sup>3</sup> ; low growing berries (crop subgroup 13-07G, except lowbush blueberries and strawberries) <sup>4</sup> ; wild raspberries

Common Name	Residue Definition	MRL (ppm) <sup>1</sup>	Food Commodity
		6.0	Cherries (crop subgroup 12-09A) <sup>5</sup>

<sup>1</sup> ppm = parts per million

<sup>2</sup> The established MRL of 8.0 ppm for blueberries is proposed to be revised to “highbush blueberries” and “lowbush blueberries” to reflect current terminology. Currants and gooseberries are excluded from this MRL action as an 8.0 ppm MRL is already established for these commodities.

<sup>3</sup> Gooseberries and grapes are excluded from this MRL action as an 8.0 ppm MRL is already established for these commodities.

<sup>4</sup> Lowbush blueberries are included under Bushberries (crop subgroup 13-07B) in this MRL action and strawberries are excluded from this MRL action as an 8.0 ppm MRL is already established for this commodity.

<sup>5</sup> The established MRL 6.0 ppm for cherries is proposed to be revised to “sweet cherries” and “tart cherries” to reflect current terminology.

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 the Canada.ca 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

Currently, there are no American tolerances for malathion on the petitioned commodities listed in the Electronic Code of Federal Regulations, 40 CFR Part 180, by pesticide, nor are there Codex MRLs<sup>1</sup> listed for malathion in or on the petitioned commodities on the Codex Alimentarius Pesticide Index webpage.

## Next Steps

The PMRA invites the public to submit written comments on the proposed MRLs for malathion 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.

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<sup>1</sup> 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

Previously submitted residue data from field trials conducted in/on blackberries, raspberries, blueberries, grapes, strawberries, sweet and tart cherries, apricots and peaches were reviewed in the framework of this petition. In addition, a processing study in treated grapes was reviewed to determine the potential for concentration of residues of malathion into processed commodities.

### Maximum Residue Limits

The recommendation for maximum residue limits (MRLs) for malathion 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 bushberries (crop subgroup 13-07B, except currants and gooseberries), small fruits vine climbing, except fuzzy kiwifruit (crop subgroup 13-07F, except gooseberries and grapes), low growing berries (crop subgroup 13-07G, except lowbush blueberries and strawberries), cherries (crop subgroup 12-09A), and wild raspberries.

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

Commodity	Application Method/ Total Application Rate (kg a.i./ha) <sup>1</sup>	Preharvest Interval (days)	Lowest Average Field Trial Residues (ppm)	Highest Average Field Trial Residues (ppm)	Experimental Processing Factor
Blackberry	Foliar / 8.4-9.1	1	1.81	3.10	Not required
Raspberry	Foliar / 9.0	1	2	4.15	Not required
Highbush blueberries	Foliar / 5.6-5.7	1	0.23	1.4	Not required
Grapes	Foliar / 4.1-4.4	3	0.33	2.15	Juice: 0.07x Raisins: 0.3x
Strawberries	Foliar / 12.5-13.2	3	0.09	0.36	Not required
Sweet cherries	Foliar / 25.4-40.5	3	0.26	1.15	Not required
Tart cherries	Foliar / 25.5-40.2	3	1.10	2.6	Not required
Peaches	Foliar / 16.8-21.0	7-8	<0.09	1.33	Not required
Apricots	Foliar / 16.8	6	0.42	0.42	Not required

<sup>1</sup> 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 residues of malathion. Residues of malathion 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.