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Re-evaluation Decision RVD2018-11, Chlorothalonil and Its Associated End-use Products for Agricultural and Turf Uses

Pest Management Regulatory Agency

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This page is a summary of the decision document.

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Should you require further information please contact the [Pest Management Information Service](#).

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Re-evaluation Decision

Under the authority of the Pest Control Products Act, all registered pesticides must be regularly re-evaluated by Health Canada's Pest Management Regulatory Agency (PMRA) to ensure that they continue to meet current health and environmental safety standards and continue to have value. The re-evaluation considers data and information from pesticide manufacturers, published scientific reports, and other regulatory agencies. The PMRA applies internationally accepted risk assessment methods as well as current risk management approaches and policies.

Chlorothalonil is a contact and protectant fungicide with a multi-site mode of action. It controls a broad range of fungal diseases on a large number of field and orchard crops, conifers, greenhouse vegetables, greenhouse and outdoor ornamentals and turf. In agriculture, chlorothalonil is applied by both aerial and ground application equipment. This document (Re-evaluation Decision RVD2018-11, Chlorothalonil and Its Associated End-use Products for Agricultural and Turf Uses) will focus on agricultural and turf uses. Currently registered products containing chlorothalonil are listed in Appendix I.

Chlorothalonil is also used as a material preservative in paint; however, the PMRA plans to publish a separate document in the future examining the material preservative use of chlorothalonil. Further details may be found in the published document: (Re-evaluation Note REV2018-02, Approach for the Re-evaluation of Pesticides Used as Preservatives in Paints, Coatings and Related Uses).

The regulatory approach for the re-evaluation of chlorothalonil was first presented in Proposed Re-evaluation Decision PRVD2011-14, Chlorothalonil. The amended proposed re-evaluation decision was presented in Re-evaluation Note, REV2016-06, Chlorothalonil Amendment to the Proposed Re-evaluation Decision.¹

Comments received during the consultation process were taken into consideration. These comments and new data/information resulted in revisions to some parts of the risk assessments (see the Science Evaluation Update of RVD2018-11) and subsequently in some changes to the proposed regulatory decision as described in PRVD2011-14 and REV2016-06. Appendix II of RVD2018-11 summarizes comments received during consultation periods and provides the PMRA's response.

RVD2018-11 presents the re-evaluation decision² describing this stage of the PMRA's regulatory process for the re-evaluation of chlorothalonil and summarizes the Agency's decision and the reasons for it. A reference list for all data used as the basis for the re-evaluation decision is included in RVD2018-11, as well as in PRVD2011-14 and REV2016-06.

Regulatory Decision for Chlorothalonil

The PMRA has completed the re-evaluation of chlorothalonil. Under the authority of the Pest Control Products Act, the PMRA has determined that continued registration of products containing chlorothalonil is acceptable. An evaluation of available scientific information found that most uses of chlorothalonil products meet current standards for protection of human health or the environment when used according to the conditions of registration, which include required amendments to label

directions. Certain uses of chlorothalonil will be cancelled to address potential risks of concern for human health. Risk mitigation measures, as summarized below as well as outlined in Appendix III of RVD2018-11, are required for all end-use products.

Risk Mitigation Measures

Registered pesticide product labels include specific instructions for use. Directions include risk reduction measures to protect human health and the environment. These directions must be followed by law. The key risk-reduction measures required are summarized below. Refer to Appendix III of RVD2018-11 for details.

Human Health

- Cancellation of uses on greenhouse cut flowers, greenhouse pachysandra, and field grown roses (for cut flowers)
- All chlorothalonil products currently registered as dry flowable or water dispersible granules must be packaged in water soluble packaging.
- Additional measures to mitigate exposure of mixers/loaders/applicators, including personal protection equipment and/or engineering controls.
- Additional measures to mitigate exposure of postapplication workers, including reduced number of applications and restricted-entry intervals
- Additional label statements to clarify use directions.
- Standard precautionary label statement to mitigate a potential drift into residential areas

Environment

- Revised buffer zones
- Requirement for a vegetative filter strip

International Context

Chlorothalonil is currently acceptable for use in member countries from the Organisation for Economic Co-operation and Development (OECD), including the United States, Australia and member states of the European Union. No decision by an OECD member country to prohibit all uses of chlorothalonil for health or environmental reasons has been identified at this time.

Chlorothalonil is under registration review at the United States Environmental Protection Agency (USEPA).

Next Steps

To comply with this decision, the required mitigation measures must be implemented on all product labels sold by registrants no later than 24 months after the publication date of this decision document. [Appendix I](#) lists the products containing chlorothalonil that are registered under the authority of the Pest Control Products Act.

Please note that water soluble packaging is required for all chlorothalonil products registered as dry flowable or water dispersible granules. Should registrants of these specific products wish to keep their chlorothalonil registration, an application to register a new product in water soluble packaging is required as soon as possible so that the new formulation will be approved and available for sale no later than 24 months after the publication date of RVD2018-11. Additional label requirements are outlined in Appendix III of RVD2018-11.

Other Information

Any person may file a notice of objection ³ regarding this decision on chlorothalonil within 60 days from the date of publication of this re-evaluation decision (RVD2018-11). For more information regarding the basis for objecting (which must be based on scientific grounds), please refer to the [Pesticides and Pest Management](#) section of Canada.ca ([Request a Reconsideration of Decision](#)) or contact the PMRA's [Pest Management Information Service](#).

Appendix I Registered Chlorothalonil Products for Use in Agriculture and Turf as of January 2018

Registered Chlorothalonil Products for Use in Agriculture and Turf as of January 2018 *

Registration Number	Registrant Name	Product Name	Formulation Type	Active Guarantee (% unless otherwise stated)
Technical Active				
25574	GB BIOSCIENCES CORP.	Technical Chlorothalonil Fungicide	Solid	Chlorothalonil - 98%
27059	Sipcam Agro USA, Inc.	Chlorothalonil Technical Fungicide	Dust or Powder	Chlorothalonil - 98%

Registration Number	Registrant Name	Product Name	Formulation Type	Active Guarantee (% unless otherwise stated)
29354	Sipcam Agro USA, Inc.	Chlorothalonil Technical AG	Powder	Chlorothalonil - 99.3%
31763	ADAMA Agriculture Solutions Canada Ltd.	ADAMA chlorothalonil Technical	Solid	Chlorothalonil - 98.6%
Manufacturing Concentrate				
24915	BAYER CROPSCIENCE INC.	Tattoo Manufacturing Use Product	Suspension	Chlorothalonil - 375 g/L; Propamocarb Hydrochloride - 375 g/L
End-use Products with Agricultural and Turf Uses				
15723	Syngenta Canada, Inc.	Bravo 500 Agricultural Fungicide	Suspension	Chlorothalonil - 500 g/L
15724	Syngenta Canada, Inc.	Daconil 2787 Flowable Fungicide	Dry flowable	Chlorothalonil - 500 g/L
24544	BAYER CROPSCIENCE INC.	Tattoo C Suspension Concentrate Fungicide	Suspension	Chlorothalonil - 375 g/L; Propamocarb Hydrochloride - 375 g/L
26443	SYNGENTA CROP PROTECTION CANADA INC.	Ridomil Gold Bravo Fungicide	Suspension	Chlorothalonil - 500 g/L; Metalaxyl-M (Mefenoxam) - 480 g/L
28354	Syngenta Canada, Inc.	Daconil Ultrex Fungicide	Water dispersible granules	Chlorothalonil - 82.5%
28861	Syngenta Canada, Inc.	Instrata Fungicide	Suspension	Chlorothalonil - 362 g/L; Propiconazole - 57 g/L; Fludioxonil - 14.5 g/L

Registration Number	Registrant Name	Product Name	Formulation Type	Active Guarantee (% unless otherwise stated)
28900	Syngenta Canada, Inc.	Bravo ZN Agricultural Fungicide	Suspension	Chlorothalonil - 500 g/L
29225	Syngenta Canada, Inc.	Bravo 720 Agricultural Fungicide	Suspension	Chlorothalonil - 720 g/L
29237	Syngenta Canada, Inc.	Ridomil Gold SL/Bravo 720 Twin-Pack	Suspension	Chlorothalonil - 720 g/L; Metalaxyl-M and S-isomer - 480 g/L
29238	Syngenta Canada, Inc.	Ridomil Gold/Bravo 720 Twin-Pak	Emulsifiable concentrate	Chlorothalonil - 720 g/L; Metalaxyl-M and S-isomer - 480 g/L
29239	Syngenta Canada, Inc.	Ridomil Gold SL/Bravo Twin-Pak	Suspension	Chlorothalonil - 500 g/L; Metalaxyl-M and S-isomer - 480 g/L
29306	Syngenta Canada, Inc.	Bravo Ultrex	Water dispersible granules	Chlorothalonil - 82.5%
29355	Sipcam Agro USA, Inc.	Echo 720 Agricultural Fungicide	Suspension	Chlorothalonil - 720 g/L
29356	Sipcam Agro USA, Inc.	Echo 90DF Agricultural Fungicide	Dry flowable	Chlorothalonil - 90%
29642	Syngenta Canada Inc.	Concert Fungicide	Suspension	Chlorothalonil - 473 g/L; propiconazole - 35.7 g/L
30165	Syngenta Canada Inc.	Daconil 720 Fungicide	Suspension	Chlorothalonil - 720 g/L
30333	E.I. Du Pont Canada Company	Treoris Fungicide	Suspension	Chlorothalonil - 250 g/L; Penthiopyrad -100 g/L

Registration Number	Registrant Name	Product Name	Formulation Type	Active Guarantee (% unless otherwise stated)
31537	Syngenta Canada Inc.	Bravo Top Fungicide	Suspension concentrate	Chlorothalonil - 500 g/L; Difenoconazole - 50 g/L
31552	Syngenta Canada Inc.	Ridomil Gold SL/Bravo ZN Twin-Pak	Suspension	Chlorothalonil - 500 g/L; Metalaxyl-M and S-isomer - 480 g/L
32029	ADAMA Agricultural Solutions Canada Ltd.	Equus 82.5	Dry flowable	Chlorothalonil - 82.5%
32030	ADAMA Agricultural Solutions Canada Ltd.	Chlorothalonil 720F	Suspension	Chlorothalonil - 720 g/L
32271	United Phosphorus, Inc.	Elixir Fungicide	Water dispersible granule	Chlorothalonil - 12.5%; Mancozeb - 62.5%
32363	Gowan Canada	Zing! Fungicide	Suspension	Chlorothalonil - 500 g/L; Zoxamide - 85 g/L
32765	ADAMA Agricultural Solutions Canada Ltd.	Quali-Pro Intaglio Fungicide	Suspension	Chlorothalonil - 360 g/L Iprodione - 55 g/L Fludioxonil - 17.4 g/L
<hr/> <p>* _ Excluding discontinued products or products with a submission for discontinuation</p> <hr/>				

1 "Consultation statement" as required by subsection 28(2) of the Pest Control Products Act.

2 "Decision statement" as required by subsection 28(5) of the Pest Control Products Act.

3 As per subsection 35(1) of the Pest Control Products Act

Date modified:

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