



Health  
Canada Santé  
Canada

*Your health and  
safety... our priority.*

*Votre santé et votre  
sécurité... notre priorité.*

Re-evaluation Decision

RVD2023-09

# Verbenone and Its Associated End-use Products

*Final Decision*

*(publié aussi en français)*

**23 March 2023**

This document is published by the Health Canada Pest Management Regulatory Agency. For further information, please contact:

Publications  
Pest Management Regulatory Agency  
Health Canada  
2 Constellation Drive  
8<sup>th</sup> floor, A.L. 2608 A  
Ottawa, Ontario K1A 0K9

Internet: [canada.ca/pesticides](https://canada.ca/pesticides)  
[pmra.publications-arla@hc-sc.gc.ca](mailto:pmra.publications-arla@hc-sc.gc.ca)

Information Service:  
1-800-267-6315  
[pmra.info-arla@hc-sc.gc.ca](mailto:pmra.info-arla@hc-sc.gc.ca)

Canada 

ISSN: 1925-1017 (print)  
1925-1025 (online)

Catalogue number: H113-28/2023-9E (print version)  
H113-28/2023-9E-PDF (PDF version)

© His Majesty the King in Right of Canada, as represented by the Minister of Health Canada, 2023

All rights reserved. No part of this information (publication or product) may be reproduced or transmitted in any form or by any means, electronic, mechanical, photocopying, recording or otherwise, or stored in a retrieval system, without prior written permission of Health Canada, Ottawa, Ontario K1A 0K9.

## Re-evaluation decision for verbenone and its associated end use products

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 health and environmental standards and continue to have value. The re-evaluation considers information from various sources such as data and information from pesticide manufacturers and other regulatory agencies, as well as comments received during public consultations. Health Canada applies internationally accepted risk assessment methods as well as risk management approaches and policies.

Verbenone is an anti-aggregation pheromone registered as an outdoor insect repellent. Verbenone is a naturally occurring semiochemical produced by yeast in the gut of the mountain pine beetle, *Dendroctonus ponderosae*. When used in pest control products, verbenone can protect pine stands and individual pine trees by repelling adult mountain pine beetle, preventing the laying of eggs on the protected trees. Two commercial-class products and one domestic-class product containing verbenone are formulated as slow-release generators packaged in pouches. Verbenone end-use products are nailed or stapled to pine tree trunks and slowly release verbenone into the atmosphere through evaporation. Currently registered products containing verbenone can be found in the Pesticide Product Information Database and in Appendix I.

The Proposed Re-evaluation Decision PRVD2022-19, *Verbenone and its Associated End-use Products*<sup>1</sup> containing the evaluation of verbenone and proposed decision, underwent a 90-day consultation period ending on 5 December 2022. PRVD2022-19 proposed continued registration of verbenone products in Canada, with label updates to meet current labelling standards (Appendix II).

No comments were received during the consultation period. Therefore, this decision is consistent with the proposed re-evaluation decision stated in PRVD2022-19, which lists all information used as the basis for the re-evaluation decision.

This document presents the final re-evaluation decision<sup>2</sup> for the re-evaluation of verbenone, including the label updates required to meet the current labelling standards. All products containing verbenone that are registered in Canada are subject to this re-evaluation decision.

### Re-evaluation decision for verbenone

Health Canada has completed the re-evaluation of verbenone. Under the authority of the *Pest Control Products Act*, Health Canada has determined that continued registration of products containing verbenone is acceptable with label updates (Appendix II). An evaluation of available scientific information found that uses of verbenone products meet current standards for protection of human health and the environment and have acceptable value with the label updates in Appendix II

---

<sup>1</sup> "Consultation statement" as required by subsection 28(2) of the *Pest Control Products Act*.

<sup>2</sup> "Decision statement" as required by subsection 28(5) of the *Pest Control Products Act*.

## **Risk mitigation measures**

Registered pesticide product labels include specific directions for use. Directions include risk mitigation measures to protect human health and the environment and must be followed by law. The required updated label statements as a result of the re-evaluation of verbenone, are summarized below. Refer to Appendix II for details.

### **Label updates to meet current standards:**

#### **Human health**

- Update to standard label statements (wording related to personal protective equipment and health precautions).

#### **Environment**

- Updates to standard label statements (wording related to precautions, directions for use and disposal).

## **Next steps**

To comply with this decision, the required label amendments must be implemented on all product labels no later than 24 months after the publication date of this decision document. Accordingly, both registrants and retailers will have up to 24 months from the date of this decision document to transition to selling the product with the newly amended labels. Similarly, users will also have the same 24-month period from the date of this decision document to transition to using the newly amended labels, which will be available on the Public Registry.

Refer to Appendix I for details on specific products impacted by this decision.

## **Other information**

Any person may file a notice of objection<sup>3</sup> regarding this decision on verbenone and its associated end-use products within 60 days from the date of publication of this Re-evaluation Decision. For more information regarding the basis for objecting (which must be based on scientific grounds), please refer to the Pesticides section of the Canada.ca website (Request a Reconsideration of Decision) or contact the Pest Management Information Service.

The relevant confidential test data on which the decision is based (as referenced in PRVD2022-19) are available for public inspection, upon application, in PMRA's Reading Room. For more information, please contact the [Pest Management Information Service](#).

---

<sup>3</sup> As per subsection 35(1) of the *Pest Control Products Act*.

## Appendix I Registered products containing verbenone in Canada

**Table 1 Products containing verbenone requiring (label) amendments<sup>1</sup>**

Registration number	Marketing class	Registrant	Product name	Formulation type	Guarantee (% , grams)
28259	T	ISCA Technologies, Inc.	Verbenone Technical	Liquid	97%
29675	T	Chemtica Internacional	Chemtica Verbenone Technical	Liquid	96.1%
28645	C	ISCA Technologies, Inc.	Verbenone Pouch (7G load)	Slow-Release Generator	Verbenone 7g/pouch
29674	C	Chemtica Internacional	Beetle Block - Verbenone	Slow-Release Generator	Verbenone 6.75g/pouch
28919	D	ISCA Technologies, Inc.	Verbenone Pouch Mountain Pine Beetle Repellent	Slow-Release Generator	Verbenone 7g/pouch

<sup>1</sup> as of 10 February 2023, excluding discontinued products or products with a submission for discontinuation.  
T = Technical grade; C = Commercial class; D = Domestic class

---

## Appendix II Label amendments for products containing verbenone

Information on labels of currently registered products should not be removed unless it contradicts the label statements provided below.

I. For all products containing verbenone:

i. General statements:

Change “GUARANTEE”  
to “ACTIVE INGREDIENT”

ii. General statements:

Amend NOTICE TO USER section to include the following statement:  
“This pest control product is to be used in accordance with the directions on the label. It is an offence under the Pest Control Products Act to use this product in a way that is inconsistent with the directions on the label.”

iii. Under the PRECAUTIONS section:

Remove:

“Only protected handlers may be in the area during application.”

II. For all commercial-class products containing verbenone:

i. On the Principal Display Panel:

Remove:

“EYE AND SKIN IRRITANT”

Replace with:

“CAUTION - EYE IRRITANT  
POTENTIAL SKIN SENSITIZER”

ii. Under the PRECAUTIONS section:

Remove:

“Users must wear suitable protective clothing including chemical resistant gloves and eye protection when handling the dispensers.”

And Replace with:

“Wear a long-sleeved shirt, long pants, chemical-resistant gloves, protective eyewear (goggles or face shield), and socks and shoes when handling the dispensers.”

---

iii. Under the PRECAUTIONS section:

Add:

“As this product is not registered for the control of pests in aquatic systems, DO NOT use to control aquatic pests.”

III. For the domestic-class product containing verbenone:

i. On the Principal Display Panel:

Remove:

“EYE AND SKIN IRRITANT”

Replace with:

“CAUTION - EYE IRRITANT  
POTENTIAL SKIN SENSITIZER”

ii. Under the PRECAUTIONS section:

Remove:

“Harmful if swallowed or absorbed through skin. Causes moderate eye irritation.”

And Replace with:

“Harmful if swallowed. May irritate eyes. Avoid contact with eyes. Potential skin sensitizer.”

iii. Under the PRECAUTIONS section:

Remove:

“Users must wear suitable protective clothing including chemical resistant gloves and eye protection when handling the dispensers.”

And Replace with:

“Users must wear eye protection, protective clothing and waterproof gloves when handling dispensers.”

iv. Under the DIRECTIONS FOR USE section:

Add

“DO NOT apply to any body of water.”

“DO NOT use punctured pouches.”

v. Under the DIRECTIONS FOR USE section:

Remove:

“Dispose in household garbage.”

And Replace with:

“Dispose of empty container with household garbage.”