



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, DC 20460

OFFICE OF CHEMICAL SAFETY
AND POLLUTION PREVENTION

April 30, 2021

Elizabeth Hill
USDA Honey Bee and Pollinator Research Coordinator
USDA ARS, Bee Research Laboratory
10300 Baltimore Ave., Bldg. 306, BARC-East
Beltsville, MD 20705

Subject: PRIA Label Amendment – IR-4 submitted on behalf of the USDA a petition for exemption from the requirement of a tolerance when honey supers are on the hive and label amendment
Product Name: Oxalic Acid Dihydrate
EPA Registration Number: 91266-1
Application Date: February 9, 2020
Decision Number: 560132

Dear Ms. Hill:

The application referred to above, submitted under the Federal Insecticide, Fungicide and Rodenticide Act, as amended is acceptable under FIFRA sec 3 (c)(5). You must submit and/or cite all data required for registration/reregistration/registration review of your product when the Agency requires all registrants of similar products to submit such data.

A stamped copy of your labeling is enclosed for your records. This labeling supersedes all previously accepted labeling. You must submit one (1) copy of the final printed labeling before you release the product for shipment with the new labeling. In accordance with 40 CFR 152.130(c), you may distribute or sell this product under the previously approved labeling for 18 months from the date of this letter. After 18 months, you may only distribute or sell this product if it bears this new revised labeling or subsequently approved labeling. "To distribute or sell" is defined under FIFRA section 2(gg) and its implementing regulation at 40 CFR 152.3.

Should you wish to add/retain a reference to the company's website on your label, then please be aware that the website becomes labeling under the Federal Insecticide Fungicide and Rodenticide Act and is subject to review by the Agency. If the website is false or misleading, the product would be misbranded and unlawful to sell or distribute under FIFRA section 12(a)(1)(E). 40 CFR 156.10(a)(5) list examples of statements EPA may consider false or misleading. In addition, regardless of whether a website is referenced on your product's label, claims made on the website may not substantially differ from those claims approved through the registration process. Therefore, should the Agency find or if it is brought to our attention that a website contains false or misleading statements or claims substantially differing from the EPA approved registration, the website will be referred to the EPA's Office of Enforcement and Compliance.

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Your release for shipment of the product constitutes acceptance of these conditions. If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA section 6. If you have any questions, please contact Dee Colby by phone at 703-341-8657, or via email at colby.deanna@epa.gov.

Sincerely,



Deanna (Dee) Colby, Ph.D., Acting Chief
Invertebrate & Vertebrate Branch 3
Registration Division (7505P)
Office of Pesticide Programs

Enclosure: stamped label and supplemental label

ACCEPTED
 04/30/2021
 Under the Federal Insecticide, Fungicide
 and Rodenticide Act as amended, for the
 pesticide registered under
 EPA Reg. No. 91266-1

Oxalic Acid Dihydrate

For Varroa mite control on bees

Active Ingredient:
 Oxalic Acid Dihydrate:..... 97.0%
 Inert Ingredients 3.0%
 TOTAL:..... 100.0%

EPA Reg. No. 91266-1
EPA Est. No.
Net Contents:
Batch Code No.:

KEEP OUT OF REACH OF CHILDREN

DANGER-PELIGRO POISON



FIRST AID	
If swallowed	<ul style="list-style-type: none"> - Call a poison control center or doctor immediately for treatment advice. - Have person sip a glass of water if able to swallow. - DO NOT INDUCE VOMITING unless told to by the poison control center or doctor. - Do not give anything by mouth to an unconscious person.
If in eyes	<ul style="list-style-type: none"> - Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. - Call a poison control center or doctor for advice.
If on skin or clothing	<ul style="list-style-type: none"> - Take off contaminated clothing. - Rinse skin immediately with plenty of water for 15-20 minutes. - Call a poison control center or doctor for advice.
If inhaled	<ul style="list-style-type: none"> - Move person to fresh air. - If person is not breathing, call 911 or an ambulance, then give artificial respiration, if possible. DO NOT use mouth-to-mouth method if victim ingested or inhaled the substance, use respiratory medical device. - Call a poison control center or doctor for advice.
HOT LINE NUMBER Varroacide	

Have the product container or label with you when calling a poison control center, doctor, or going for treatment.

For non-emergency information concerning this product, call the National Pesticides Information Center (NPIC) at 1-800-858-7378 seven days a week, 6:30 am to 4:30 pm Pacific Time (NPIC Website: www.npic.orst.edu).

NOTE TO PHYSICIAN

Probable mucosal damage may contraindicate the use of gastric lavage. Provide general supportive measures and treat symptomatically. Treatment should be rapidly instituted by giving a dilute solution of calcium lactate, limewater, finely pulverized chalk, plaster, and/or milk to supply large amounts of calcium to inactivate oxalate by forming an insoluble calcium salt in the stomach. Gastric lavage is controversial, since this may compound an already severe corrosive lesion in the esophagus or stomach. However, if used, gastric lavage should be done with limewater (calcium hydroxide). Intravenous gluconate or calcium chloride solutions should be given to prevent hypocalcemic tetany; in severe cases parathyroid extract also has been given. Additionally, acute renal failure should be anticipated, and careful fluid management is necessary. Metabolically its toxicity is believed to be due to the capacity of oxalic acid to immobilize calcium and thus upset the calcium-potassium ratio in critical tissues. Effective therapy against burns from oxalic acid involves replacement of calcium.

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

DANGER POISON



Fatal if swallowed. Corrosive. Causes irreversible eye damage. Causes skin burns. May be fatal if absorbed through the skin. May be fatal if inhaled. Do not get on skin, in eyes, or on clothing. Do not breathe vapor or spray mist. Wear protective clothing, eyewear, and respiratory protection as listed under "Personal Protective Equipment."

PERSONAL PROTECTIVE EQUIPMENT:

Handlers and Applicators who apply product by the Solution Method must wear:

- Long-sleeved shirt and long pants
- Socks and shoes
- Chemical resistant gloves (barrier laminate, butyl rubber ≥ 14 mils., nitrile rubber ≥ 14 mils., neoprene rubber ≥ 14 mils., natural rubber ≥ 14 mils., polyethylene, polyvinyl chloride ≥ 14 mils., or viton ≥ 14 mils.)
- Protective eyewear such as goggles
- Wear a minimum of a NIOSH-approved particulate filtering facepiece respirator with any N, R, or P filter

Handlers and Applicators who apply product by the Vaporizer Method must wear:

- Long-sleeved shirt and long pants
- Socks and shoes
- Chemical resistant gloves (barrier laminate, butyl rubber ≥ 14 mils., nitrile rubber ≥ 14 mils., neoprene rubber ≥ 14 mils., natural rubber ≥ 14 mils., polyethylene, polyvinyl chloride ≥ 14 mils., or viton ≥ 14 mils.)
- Protective eyewear (goggles or face shield)
- Wear a minimum of a NIOSH-approved elastomeric half mask respirator with acid gas cartridges and combination N, R, or P filters

User Safety Requirements:

Follow manufacturer's instructions for cleaning/ maintaining PPE. If no such instructions are provided for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet. Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.

Remove PPE immediately after handling this product. As soon as possible, wash thoroughly and change into clean clothing.

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

READ THIS LABEL: Read the entire label. This product must be used strictly in accordance with this label's precautionary statements and use directions, as well as with all applicable State and Federal laws and regulations.

USE RESTRICTIONS:

Oxalic Acid Dihydrate applications are for in-hive use only.

DO NOT use in enclosed overwintering areas.

Apply only when monitoring indicates treatment is required. Consult state guidelines and local extension experts for monitoring protocols and thresholds for treatment.

APPLICATION DIRECTIONS:

Use Oxalic Acid Dihydrate when little or no brood is present as Oxalic Acid Dihydrate will not control Varroa mites in capped brood and may damage bee brood. Consult state guidelines and local extension experts about best application practices when applying Oxalic Acid Dihydrate when capped brood is present because multiple treatments several days apart will be needed to reduce successive cohorts of adult mites.

Oxalic acid can be used when honey supers are on the hive.

Oxalic acid is used to treat colonies during low brood periods, packages, or swarms. This product can also be used as a "clean up" Varroa treatment following the application of a different acaricide where Varroa infestations continue to be problematic.

SOLUTION METHOD:

Only apply Oxalic Acid Dihydrate as a solution when mixed with sugar-water.

IMPORTANT: To completely dissolve Oxalic Acid Dihydrate, use warm syrup.

Dissolve 1.23 oz (35 g) of Oxalic Acid Dihydrate in 0.26 gal (1 L) of 1:1 sugar: water (weight:volume). Smoke bees down from the top bars. With a syringe or an applicator, trickle 0.03 fl oz (5 ml) of this solution directly onto the bees in each occupied bee space in each brood box. The maximum dose is 1.7 fl oz (50 ml) per colony whether bees are in nucs, single, or multiple brood chambers. Under certain unfavorable conditions (e.g., weak colonies, unfavorable overwintering conditions), this application method may cause some bee mortality or overwintering bee loss.

SPRAYING PACKAGE BEES:

Ensure bees are clustered before applying oxalic acid (for example store in cool dark location 24 hours before application).

Spray broodless package bees with a 1:1 sugar:water solution at least 2 hours before spraying with oxalic acid. This allows bees to fill honey stomachs with sugar water reducing ingestion of oxalic acid. Mix a 2.8% oxalic acid solution by dissolving 1.23 oz (35 g) of Oxalic Acid Dihydrate in 0.26 gal (1 L) of 1:1 sugar: water (weight:volume). Evenly apply 0.1 fl oz (3.0 mL) of 2.8% oxalic acid solution per 1,000 bees using a pump sprayer or battery powered sprayer (for

example, a typical 2 lb package contains approximately 7,000 bees which requires 0.71 fl oz. (21 mL) of solution). Apply solution evenly on both sides of the package.

Store bees in a cool darkened room for 72 hours before hiving.

VAPORIZER METHOD:

Apply only to outdoor colonies with a restricted lower hive entrance. Seal all upper hive entrances and cracks with tape to avoid escape of Oxalic Acid vapor. Smoke bees up from the bottom board, Place 0.4 oz (1.0 g) per brood chamber of Oxalic Acid Dihydrate powder into vaporizer. Follow the vaporizer manufacturer's directions for use. Insert the vaporizer apparatus through the bottom entrance. Apply heat until all Oxalic Acid has sublimated.

RESISTANCE MANAGEMENT: Oxalic acid's mechanism of action is unknown at this time. Any Varroa mite population has the potential to become resistant to acaricides. Resistance development is affected by both the frequency of application and rate/dose of application. Continued reliance on a single class of miticide or single miticide with the same mode of action will select for resistant individuals which may dominate the mite population in subsequent generations. In order to prevent resistance development and to maintain the usefulness of individual insecticides it is important to adopt appropriate resistant management strategies.

To delay resistance:

- When possible, rotate the use of miticides to reduce selection pressure as compared to repeatedly using the same product, mode or action or chemical class. If multiple applications are required, use a different mode of action each time before returning to a previously used one.
- Base miticide use on Integrated Pest Management (IPM). This includes proper pest identification, monitoring for locality specific economic threshold and economic injury levels, record keeping, and utilizing all available control practices (cultural, biological and chemical).
- Maximize efficacy by following all label instructions including dosage and timing of application.

STORAGE AND DISPOSAL

Do not contaminate water, food, or feed by storage or disposal.

PESTICIDE STORAGE: Store only in original container, in a dry place inaccessible to children, pets, and domestic animals.

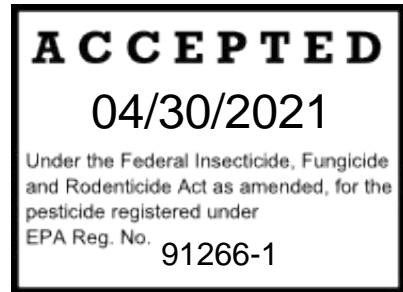
PESTICIDE DISPOSAL: Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

CONTAINER HANDLING: Nonrefillable container. Do not reuse or refill this container.

PLASTIC CONTAINER DISPOSAL: Triple rinse container (or equivalent) promptly after emptying. Offer for recycling, if available. Otherwise, puncture and dispose of in a sanitary landfill, or, by incineration.

**UNITED STATES DEPARTMENT OF AGRICULTURE
AGRICULTURAL RESEARCH SERVICE, Bee
Research Laboratory
10300 Baltimore Avenue, Bldg. 306, Rm. 315 BARC-EAST
Beltsville, MD 20705**

Rev. 12/17/20



SUPPLEMENTAL LABELLING

Oxalic Acid Dihydrate

For Varroa mite control on bees

EPA Reg. No. 91266-1

Supplemental Label to Update Personal Protective Equipment and Directions For Use.

“Label” as used in this supplemental labeling refers to the label booklet for oxalic acid dihydrate and this supplement.

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

Use of oxalic acid dihydrate according to this labeling is subject to the use precautions and limitations imposed by the label affixed to the container for oxalic acid dihydrate (EPA Reg. No. 91266-1).

This labeling must be in possession of the user at the time of application.

READ THE LABEL AFFIXED TO THE CONTAINER FOR OXALIC ACID DIHYDRATE BEFORE APPLYING.

Both the Oxalic Acid Dihydrate container label and this supplemental labeling must be in the possession on the user when using the product.

This label expires on November 3, 2022 and must not be distributed or used after that date.

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Inert Ingredients 3.0%
TOTAL:100.0%

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DANGER-PELIGRO POISON



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- Wear a minimum of a NIOSH-approved particulate filtering facepiece respirator with any N, R, or P filter

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- Socks and shoes
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