2024-4809
2026-02-06

OXALIC ACID DIHYDRATE

ACARICIDE
Varroa Mite Control Product
Solid
COMMERCIAL (AGRICULTURAL)

READ THE LABEL BEFORE USING

ACTIVE INGREDIENT: Oxalic Acid Dihydrate 99.65%

Net Contents: 1 -25 kg

REGISTRATION NO. 29575 PEST CONTROL PRODUCTS ACT

DANGER – POISON

DANGER - CORROSIVE TO EYES

DANGER - SKIN IRRITANT

Canadian Honey Council (CHC Office)
#218, 51519 RR 220
Sherwood Park, AB T8E 1H1
1-877-356-8935
chc-ccm@honeycouncil.ca

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PRECAUTIONS
KEEP OUT OF REACH OF CHILDREN
Fatal or Poisonous if swallowed.
Harmful if inhaled.
Avoid inhaling/breathing dust or fumes.
CORROSIVE to the eyes.
DO NOT get in eyes
Corrosive to skin.
DO NOT get on skin or clothing.

Activity	Personal Protective Equipment
When applying Oxalic Acid Dihydrate with a vaporizer or heating Oxalic Acid Dihydrate with glycerin	Wear long-sleeved shirt, long pants, chemical-resistant gloves, socks, shoes, protective eyewear (goggles or face-shield), and a respirator with a NIOSH-approved organic-vapour-removing cartridge (with a prefilter) approved for pesticides OR a NIOSH-approved canister approved for pesticides.
When applying Oxalic Acid Dihydrate by the solution method or the glycerin strip method	Wear long-sleeved shirt, long pants, chemical-resistant gloves, socks, shoes and protective eyewear (goggles or face-shield),
When handling, mixing, and loading Oxalic Acid Dihydrate and when performing clean-up and maintenance activities	Wear long-sleeved shirt, long pants, chemical-resistant gloves, socks, shoes, protective eyewear (goggles or face-shield), and a NIOSH-approved N95 (minimum) filtering facepiece respirator (dust mask) that is properly fit tested.
All activities must be performed in well-ventilated areas or outdoors. DO NOT use in enclosed overwintering areas.	

Keep away from food and drink.
Wash skin thoroughly with soap and water after handling.
Remove clothing immediately if contaminated by splash or spill.
Store and wash contaminated clothing separately from household laundry.

FIRST AID
If swallowed: Call a poison control centre or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by a poison control centre or doctor. Do not give anything by mouth to an unconscious person.

If on skin or clothing: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control centre or doctor for treatment advice.

If inhaled: Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. Call a poison control centre or doctor for further treatment advice.

If in eyes: 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 centre or doctor for treatment advice.

Take container, label or product name and Pest Control Product Registration Number with you when seeking medical attention.

TOXICOLOGICAL INFORMATION
Treat symptomatically.

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DISPOSAL
DO NOT contaminate irrigation/ drinking water supplies or aquatic habitats by disposal of unused product. Dispose of any unused oxalic acid dihydrate-sugar-water, oxalic-glycerin solution, and oxalic glycerin strips after application in accordance with provincial or territorial requirements. Rinse out preparation vessels after use in accordance with provincial or territorial requirements.

Dispose of the container in accordance with provincial or territorial requirements.

For information on disposal of unused, unwanted product, contact the registrant or the provincial or territorial regulatory agency. Contact the provincial or territorial regulatory agency in case of a spill, and for clean-up of spills.

NOTICE TO USER
This pest control product is to be used only 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.

DIRECTIONS FOR USE
CAUTION: Oxalic Acid Dihydrate might damage bee brood. Oxalic Acid Dihydrate will not control Varroa mites in capped brood.

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

To prevent contamination of marketable honey, follow label application instructions when applying Oxalic Acid Dihydrate in spring or fall (solution, vaporization, or glycerin strip methods) or in midseason in the presence of honey supers (glycerin strip method).

SOLUTION METHOD:
Spring and Fall Application (no or minimal brood, no honey supers present)

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

Dissolve 35 g of Oxalic Acid Dihydrate in 1 litre of 1:1 sugar:water (weight:volume). Smoke bees down from top bars. With a syringe or an applicator, trickle 5 mL of this solution directly onto the bees in each occupied bee space in each brood box. The maximum dose is 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.

VAPORIZER METHOD:
Spring and Fall Application (no or minimal brood, no honey supers present)

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. When possible, treat while hives are wrapped to ensure they are properly sealed. Smoke bees up from the bottom board. Place 2.0 g Oxalic Acid Dihydrate powder or tablets into vaporizer. Follow the vaporizer manufacturer's for use. Insert the vaporizer apparatus through the bottom entrance. Apply heat until all Oxalic Acid has sublimated.

GLYCERIN STRIP METHOD (for suppression of Varroa mites)
Spring, Summer or Fall Application (brood and/or honey supers may be present)

Glycerin Strip Preparation Directions:

In a well-ventilated area, slowly heat 99.7% food-grade vegetable glycerin and Oxalic Acid Dihydrate at a 1:1 (weight: weight) ratio (e.g. 500 g oxalic acid with 500 g glycerin) in a covered stainless steel vessel, removing lid to stir frequently with a stainless steel spoon and monitor temperature until the solution is dissolved and mixture becomes translucent. Monitor temperature with a stainless steel temperature probe; oxalic acid crystals may dissolve as low as 45°C, but DO NOT allow solution temperature to exceed 70°C. Once dissolved, saturate absorbent strips (e.g. cellulose, natural fibre) placed in an open plastic container with the warm solution; allow strips to cool and then pour off excess solution. Store the prepared strips at room temperature with a lid on the container until ready to apply to hives. DO NOT prepare more solution than needed. Use solution right away and do not reuse excess solution. Apply strips within one month of preparation.

To determine how many absorbent strips to apply, determine how much solution one strip holds and scale up to the required strips to reach a dosage of 40g per hive with the following method:

1) Place a container with one strip on a scale, 2) tare it, 3) add prepared solution until it is saturated, 4) drain

off excess solution, 5) record the weight on the scale.

For example, if one strip absorbs 20g of solution, then half of that would be oxalic acid (10g) and therefore, 4 strips would be needed to achieve the 40g of oxalic acid per hive dosage. If the strips prepared contain more than the 40g per hive dosage, then trim the final strip with scissors and weigh it to ensure the 40g per hive dosage is adhered to.

This calculation can also be used to determine how much solution needs to be prepared. For example, if 100 strips are needed and each strip holds 10g of solution, then 1000g of solution (500g glycerin and 500g oxalic) needs to be prepared.

Glycerin Strip Application Directions:

Remove all honey supers. Evenly distribute glycerin strips into the brood chambers to achieve a dosage of 40g of oxalic acid per single or double brood chamber colony. Strips may be placed over the top bars of the brood chamber or allowed to hang down between frames. Strips must be placed near the brood area so that bees walk on the strips and contact the oxalic acid. In double brood chamber colonies, strips may be evenly distributed between the brood chambers. Replace honey supers on the colony. Bees must contact the strips to control Varroa mites. Oxalic acid glycerin strips will not control Varroa mites in capped brood. Leave the strips inside the hives for 42 days. After 42 days, remove any remaining strips from colonies. DO NOT re-use the strips.