



For use in beehives to control Varroa mites (Varroa destructor) on honey bees



KEEP OUT OF REACH OF CHILDREN

## DANGER

### FIRST AID

**IF IN EYES:** Hold eyelids open and flush with a steady, gentle stream of 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:** Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for further treatment advice.

**IF SWALLOWED:** 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 do so by poison control center or doctor. Do not give anything by mouth to an unconscious person.

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-800-858-7378 for emergency medical treatment


For general information on product use, etc., call the National Pesticides Information Center at 800-858-7378. For emergencies, call the poison control center 1-800-222-1222.

Note to Physician: {"Probable mucosal damage may contraindicate the use of gastric lavage". See label back panel for additional precautionary statements.

"efficient by nature"™

### NET CONTENTS

Mann Lake Ltd.  
800-880-7694

Each  HOPGUARD<sup>3</sup> kit contains 24 cardboard strips. Each strip is folded in half and contains 0.14 ounces (4.0 grams) of potassium salts of hop beta acids. Therefore, each kit contains 3.4 ounces (96.0 grams) of potassium salts of hop beta acids.

Label 25-311 Rev:6/9/20

DC-311



HOPGUARD 3 - 12 CNT TREATMENT  
(24 STRIPS)

**ACTIVE INGREDIENTS:** BY WEIGHT  
Potassium Salt of Hop Beta Acids..... 16.0%  
**INERT INGREDIENTS:**..... 84.0%  
TOTAL 100.0%

## PRECAUTIONARY STATEMENTS

### Hazards to Humans and Domestic Animals

Danger: Corrosive. Causes irreversible eye damage. Do not get in eyes or on clothing. Wear appropriate eyewear such as goggles, face shield, or safety glasses. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Remove and wash contaminated clothing before reuse.


**PERSONAL PROTECTION EQUIPMENT (PPE):** Applicators and other handlers must wear appropriate protective eyewear, such as face shield or goggles long sleeved shirt and long pants, waterproof gloves and shoes plus socks.



**USER SAFETY RECOMMENDATIONS:** Users must:

- Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.
- Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

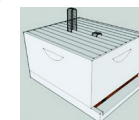
### DIRECTIONS FOR USE

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

**Colony-** Strips are to be placed only in the brood chamber (not in the honey super). Apply one strip per five frames covered with bees or two strips per ten frames covered with bees. Unfold the strips and hang over one of the center brood frames within the colony cluster with one-half of the strip on each side of the frame. If using a second strip, space it within 2 frames between strips. Do not lay the strips on top of the frames.  HOPGUARD<sup>3</sup> is safe to use during honey flow without any risk of disrupting nectar foraging or tainting the honey.

Application timing: Treatment should be based on levels of Varroa mites observed in the colony. Spring-Summer: treat colonies, nucs and newly installed packages to reduce mite levels and boost colony growth. When treating colonies under high temperature and humidity conditions, open hive entrance fully; remove inner covers (if present), open screened bottom boards (if present) and insert a rim or spacer. This will help the hive regulate temperature and humidity during treatment. Fall: treat colonies to eliminate phoretic mites at a time when the colony is most vulnerable.  HOPGUARD<sup>3</sup> effectively reduces phoretic mite levels. To increase its efficacy, apply consecutive treatments 2 weeks apart (back to back). If mite levels remain high, apply another treatment before overwintering. Efficacy also increases when low brood is present. Users must not take honey and wax from the brood chambers, only from the honey supers. Leave strips in the hive for 14 days and no later than 30 days. Use  HOPGUARD<sup>3</sup> up to 4 times per year. The daytime temperature should be above 50° F (10° C).

<b>Frames of Bees</b>	1-5	6-10	11-15	16-20
<b># of Strips</b>	1	2	3	4



**Packaged Bees:** For bee package treatment, attach two half-strips to the top of the package per 2 or 3 lb of adult worker bees. For treatment of newly installed bee packages, insert one strip after 7-9 days of installation for a clean start. As the colony grows, mite levels will increase and late summer and fall treatments will be necessary for colony health.


## RESISTANCE MANAGEMENT

Varroa mite populations can become resistant to pesticides. Resistance development is affected by both the frequency of application and rate/dose of application. After an application, the more susceptible pests die and the less susceptible ones survive, mate with other survivors, and reproduce. Most of the ensuing offspring inherit the parental resistance. Additional applications continue to kill only the remaining susceptible individuals. Continued reliance on a single class of miticide or miticide with the same mode of action will select for resistant individuals which will dominate the mite population in subsequent generations. In order to prevent resistance development and to maintain the usefulness of individual pesticides, the adoption of an appropriate resistance management strategy is vital. The Mode of Action (MOA) for hop beta acids is undefined at this time; however, it may cause death by asphyxiation by penetration of the pest's thin exoskeleton.



To delay resistance:

- When possible, rotate the use of miticides to reduce selection pressure as compared to repeatedly using the same product, mode of 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.
- Continually monitor treated populations for development of miticide resistance and report suspected resistance to local extension specialists.
- Contact your local extension specialist for additional pesticide resistance/management recommendations and/or IPM recommendations for your specific location.
- For further information or to report suspected resistance contact your local extension specialist.
- Remove strips if still in the hive after 30 days.

## RESTRICTIONS

- For in-hive use only.
- Maximum rate = 2 strips per brood chamber per application (i.e., one strip per five frames covered with bees).
- Leave the strips in the hive for 14 days and no later 30 days.
- Use  HOPGUARD<sup>3</sup> up to 4 times per year.

## STORAGE AND DISPOSAL

Opened packages can be stored up to two months in a tightly sealed container, kept in a cool-dark area and used within this time. Unused product must either be returned to the manufacturer or distributor in unopened containers or disposed of in accordance with the Resource Conservation Recovery Act. Unused  HOPGUARD<sup>3</sup> strips, packaging material and residual liquid in the package, and used  HOPGUARD<sup>3</sup> strips are non-hazardous waste per EPA definition and should be disposed of as non-hazardous solid waste per RCRA (i.e. place in garbage bag and dispose in landfill).

EPA Registration Number 83623-2

**Manufactured for** BetaTec Hop Products Inc., A Division of John I. Haas, Inc., 1600 River Road, Yakima, WA 98902  
Packaged by Mann Lake Ltd., 501 1st Street South, Hackensack, MN 56452 USA (EPA Establishment Number 61671-MN-001).  
(Phone Mann Lake at 800-880-7694 for product assistance)