

10/12/2011



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

OFFICE OF CHEMICAL, SAFETY
AND POLLUTION PREVENTION

Carolyn Brinkley
Syngenta Crop Protection, LLC
P.O. Box 18300
Greensboro, NC 27419

OCT 12 2011

Subject: Labeling Amendment to add statement about causing birth defects required by the state of California
EPA Registration No. 100-1408
Submission Date: September 6, 2011
Decision #: D454942

Dear Mrs. Brinkley:

The labeling referred to above, submitted under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), as amended, is acceptable. A stamped copy is enclosed for your records. Please submit one (1) final printed copy for the above mentioned label before releasing the product for shipment. If you have any questions, please contact Jessica Rogala at (703) 347-0263 or via email at rogala.jessica@epa.gov.

Sincerely,

A handwritten signature in black ink, appearing to read "John Hebert".

John Hebert
Product Manager 07
Insecticide-Rodenticide Branch
Registration Division (7505P)

FIRST AID	
If swallowed	<ul style="list-style-type: none"> • Call poison control center or doctor immediately for treatment advice. • Have a person sip a glass of water if able to swallow. • Do not induce vomiting unless told to do so by the poison control center or doctor. • Do not give anything by mouth to an unconscious person.
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, preferably by mouth-to-mouth, if possible. • Call a poison control center or doctor for further treatment 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 treatment advice.
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 treatment advice.
NOTE TO PHYSICIAN	
<p>Early signs of intoxication include dilation of pupils, muscular incoordination, and muscular tremors. Toxicity following accidental ingestion of this product can be minimized by early administration of chemical adsorbents (e.g., activated charcoal).</p> <p>If toxicity from exposure has progressed to cause severe vomiting, the extent of resultant fluid and electrolyte imbalance should be gauged. Appropriate supportive parenteral fluid replacement therapy should be given, along with other required supportive measures (such as maintenance of blood pressure levels and proper respiratory functionality) as indicated by clinical signs, symptoms, and measurements.</p> <p>In severe cases, observations should continue for at least several days until clinical condition is stable and normal. Since abamectin is believed to enhance GABA activity in animals, it is probably wise to avoid drugs that enhance GABA activity (barbiturates, benzodiazepines, valproic acid) in patients with potentially toxic abamectin exposure.</p>	
<p>Have the product container or label with you when calling a poison control center or doctor, or going for treatment.</p>	
HOT LINE NUMBER	
<p>For 24-Hour Medical Emergency Assistance (Human or Animal) Or Chemical Emergency Assistance (Spill, Leak, Fire or Accident), Call 1-800-888-8372</p>	

PRECAUTIONARY STATEMENTS

Hazards to Humans and Domestic Animals**WARNING/AVISO**

May be fatal if swallowed or inhaled. Do not breathe vapor or spray mist. Harmful if absorbed through the skin. Causes moderate eye irritation. Avoid contact with skin, eyes, or clothing. 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 Protective Equipment (PPE)

Some materials that are chemical-resistant to this product are listed below. If you want more options, follow the instructions for Category A on an EPA chemical-resistance category selection chart.

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Chemical-resistant gloves made of any waterproof material – Category A (e.g., natural rubber ≥ 14mils)
- Shoes plus socks

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. DO NOT reuse them. Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

Engineering Controls

When handlers use closed systems, enclosed cabs, or aircraft in a manner that meets the requirements listed in the worker Protection Standard (WPS) for agricultural pesticides (40 CFR 170.240(d)(4-6), the handler PPE requirements may be reduced or modified as specified in the WPS.

IMPORTANT: When reduced PPE is worn because a closed system is being used, handlers must be provided all PPE specified above for "applicators and other handlers" and have such PPE immediately available for use in an emergency, such as a spill or equipment break-down.

User Safety Recommendations

Users should:

- 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.

Environmental Hazards

This pesticide is toxic to fish and wildlife.

Do not apply directly to water, to areas where surface water is present, or to intertidal areas below the mean high water mark. Do not apply when weather conditions favor drift from target areas. Do not contaminate water when disposing of equipment wash water or rinsate. This product is highly toxic to bees exposed to direct treatment on blooming crops or weeds. Do not apply this product or allow it to drift to blooming crops or weeds while bees are foraging in/or adjacent to the treatment area. Use of this product may pose a risk to threatened and endangered species of fish, amphibians, crustaceans (including fresh water shrimp), and insects. All use of this product in the state of California should comply with the recommendations of the California Endangered Species Project. Before using this product in California, consult with your county agriculture commissioner to determine use limitations that apply in your area.

Attention: This product contains a chemical known to the State of California to cause birth defects or other reproductive harm.

CONDITIONS OF SALE AND LIMITATION OF WARRANTY AND LIABILITY

NOTICE: Read the entire Directions for Use and Conditions of Sale and Limitation of Warranty and Liability before buying or using this product. If the terms are not acceptable, return the product at once, unopened, and the purchase price will be refunded.

The Directions for Use of this product must be followed carefully. It is impossible to eliminate all risks inherently associated with the use of this product. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as manner of use or application, weather or crop conditions, presence of other materials or other influencing factors in the use of the product, which are beyond the control of SYNGENTA CROP PROTECTION, LLC or Seller. To the extent permitted by applicable law, Buyer and User agree to hold SYNGENTA and Seller harmless for any claims relating to such factors.

SYNGENTA warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated in the Directions for Use, subject to the inherent risks referred to above, when used in accordance with directions under normal use conditions. To the extent permitted by applicable law: (1) this warranty does not extend to the use of the product contrary to label instructions, or under conditions not reasonably foreseeable to or beyond the control of Seller or SYNGENTA, and (2) Buyer and User assume the risk of any such use. **TO THE EXTENT PERMITTED BY APPLICABLE LAW, SYNGENTA MAKES NO WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE NOR ANY OTHER EXPRESS OR IMPLIED WARRANTY EXCEPT AS WARRANTED BY THIS LABEL.**

To the extent permitted by applicable law, in no event shall SYNGENTA be liable for any incidental, consequential or special damages resulting from the use or handling of this product. **TO THE EXTENT PERMITTED BY APPLICABLE LAW, THE EXCLUSIVE REMEDY OF THE USER OR BUYER, AND THE EXCLUSIVE LIABILITY OF SYNGENTA AND SELLER FOR ANY AND ALL CLAIMS, LOSSES, INJURIES OR DAMAGES (INCLUDING CLAIMS BASED ON BREACH OF WARRANTY, CONTRACT, NEGLIGENCE, TORT, STRICT LIABILITY OR OTHERWISE) RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, SHALL BE THE RETURN OF THE PURCHASE PRICE OF THE PRODUCT OR, AT THE ELECTION OF SYNGENTA OR SELLER, THE REPLACEMENT OF THE PRODUCT.**

SYNGENTA and Seller offer this product, and Buyer and User accept it, subject to the foregoing Conditions of Sale and Limitation of Warranty and Liability, which may not be modified except by written agreement signed by a duly authorized representative of SYNGENTA.

DIRECTIONS FOR USE

RESTRICTED USE PESTICIDE

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

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers are allowed in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE) and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas during the restricted-entry interval (REI) of 12 hours. Exception: For grape girdling, cane turning, and tying in grapes, do not enter or allow worker entry into treated areas during the restricted-entry interval (REI) of 4-days.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water is:

- Coveralls over short pants and short-sleeved shirt
- Chemical-resistant gloves made of any waterproof material – Category A (e.g., natural rubber ≥ 14mils)
- Shoes plus socks

FAILURE TO FOLLOW DIRECTIONS AND PRECAUTIONS ON THIS LABEL MAY RESULT IN CROP INJURY, POOR PEST CONTROL, AND/OR ILLEGAL RESIDUES.

USE INFORMATION

Epi-Mek SC is an aqueous based soluble concentrate that will control specified pests on the crops listed on this label when the product is applied according to the **Directions for Use**. Thorough coverage of foliage is essential for good mite and insect control.

NOTE:

- **Adjuvant Requirement:** To avoid illegal crop residues, Epi-Mek SC **must always** be mixed with a non-phytotoxic non-ionic activator type wetting, spreading and/or penetrating adjuvant or horticultural spray oil (not a dormant oil) adjuvant as specified in the **Directions for Use** for each crop on this label. Non-ionic activator type wetting, spreading and/or penetrating adjuvants include non-ionic surfactants (NIS) with at least 75% surface active agent and crop oil concentrates (COC), vegetable oil concentrates (VOC), methylated seed/vegetable oils (MSO) and organosilicones (OS) with at least 15% emulsifiers/surfactants and include blends of these non-ionic activator type adjuvants. Adjuvants must be compatible with Epi-Mek SC and must be used at concentrations specified on the adjuvant label directions for use unless more specific directions are provided in the **Directions for Use** for individual crops on this label. **Do not use binder or sticker type adjuvants.** SYNGENTA recommends the use of a Chemical Producers and Distributors Association-certified adjuvant.
- **Phytotoxicity:** Epi-Mek SC has been tested for phytotoxicity and has a wide margin of safety on a variety of crops. Epi-Mek SC has also been shown to be compatible with many commonly used pesticides, crop oils, adjuvants and nutritional sprays. However, since it is not possible to test all possible mixtures, pre-test any proposed mixtures with Epi-Mek SC to ensure physical compatibility and lack of phytotoxic effects.
- **New York State Restriction:** Do not apply Epi-Mek SC with aircraft in New York State.
- **Chemigation:** Do not apply this product through any type of irrigation system.

SPRAY DRIFT

Responsibility

Avoiding spray drift at the application site is the responsibility of the applicator. The interaction of many equipment and weather related factors determines the potential for spray drift. The applicator is responsible for considering all of these factors when making application decisions.

NOTE: When states have more stringent regulations, they must be observed.

Spray Drift Precautions for Application with Aircraft or Ground Application Equipment

- Apply Epi-Mek SC only when wind velocity favors on target product deposition (approximately 3 to 10 mph).
- Do not apply with ground application equipment within 25 ft. of or with aircraft within 150 ft. of lakes, reservoirs, rivers, permanent streams, marshes, pot holes, natural ponds, estuaries, or commercial fish farm ponds.
- Do not cultivate within 25 ft. of the aquatic area to allow growth of a vegetative filter strip.
- Do not allow this product to drift onto non-target areas. Drift may result in illegal residues or injury to nontarget species. Risk of exposure to sensitive areas can be reduced by applying this product when the wind direction is away from the sensitive area.
- Do not apply when the weather conditions may cause drift.
- Avoid application when the temperature is high and/or the humidity is low. These conditions increase the evaporation of spray droplets and the likelihood of drift to aquatic areas.
- Do not apply when wind speed or wind gusts are greater than 15 mph.
- Do not apply when wind speed is below 2 mph because wind direction will vary and there is a high potential for inversion.
- Observe the following precautions when using ground application to spray tree crops or hops in the vicinity of aquatic areas such as lakes, reservoirs, permanent streams, marshes, potholes, natural ponds, estuaries, or commercial fish ponds:
 - Do not apply Epi-Mek SC when weather conditions favor drift to aquatic areas
 - Do not apply within 110 ft. upwind of aquatic areas or when wind speed is above 8 mph.
 - Spray last 3 rows windward of aquatic areas using nozzles on one side only, with spray directed away from the aquatic areas.
 - Avoid spray going over tops of trees by adjusting or turning off top nozzles. Shut off nozzles on the side away from the grove/orchard when spraying the outside row. Shut off nozzles when turning at ends of row and passing tree gaps in rows.

Spray Drift Precautions for Aerial Application

Drift Management Requirements

The following drift management requirements must be followed to avoid off-target movement from aerial applications to agricultural field crops.

- **Outermost Nozzle Distance**

The distance of the outermost nozzles on the boom must not exceed 3/4 the length of the wingspan or rotor.

- **Nozzle Direction**

Nozzles must always point backward parallel with the air stream and never be pointed downwards more than 45 degrees.

- **Maximum Wind Speed**

Do not apply when wind speed is greater than 15 mph.

- **Droplet Size**

The most effective way to reduce drift potential is to apply large droplets. The best drift management strategy is to apply the largest droplets that provide sufficient coverage and control. Applying larger droplets reduces drift potential but will not prevent drift if applications are made improperly, or under unfavorable environmental conditions. (See **Wind, Temperature and Humidity, and Temperature Inversions.**)

- **Controlling Droplet Size**

Volume

Use high flow-rate nozzles to apply the highest practical spray volume. Nozzles with higher rated flows produce larger droplets.

Pressure

Do not exceed the nozzle manufacturer's recommended pressures. For many nozzle types, lower pressure produces larger droplets. When higher flow rates are needed, use higher flow rate nozzles instead of increasing pressure.

Number of Nozzles

Use the minimum number of nozzles that provide uniform coverage.

Nozzle Orientation

Orienting nozzles so that the spray is released parallel to the air stream produces larger droplets than other orientations and is the recommended practice.

Significant deflection from horizontal will reduce droplet size and increase drift potential.

Nozzle Type

Use a nozzle type that is designed for the intended application. With most nozzle types, narrower spray angles produce larger droplets. Consider using low-drift nozzles. Solid stream nozzles oriented straight back produce the largest droplets and the lowest drift.

• Boom Length

For some use patterns, reducing the effective boom length to less than 3/4 of the wingspan or rotor length may further reduce drift without reducing swath width.

• Application Height

Applications should not be made at a height greater than 10 ft. above the top of the target plants unless a greater height is required for aircraft safety. Making applications at the lowest height that is safe reduces exposure of droplets to evaporation and wind.

• Swath Adjustment

When applications are made with a cross wind, the swath will be displaced downwind. Therefore, on the up- and downwind edges of the field, the applicator must compensate for this displacement by adjusting the path of the aircraft upwind.

• Wind

Drift potential is lowest between wind speeds of 2-10 mph. However, many factors, including droplet size and equipment type determine drift potential at any given speed. Application must be avoided below 2 mph due to variable wind direction and high inversion potential.

NOTE: Local terrain can influence wind patterns. Every applicator should be familiar with local wind patterns and how they affect spray drift.

• Temperature and Humidity

To compensate for evaporation when applying Epi-Mek SC in low relative humidity, set up equipment to produce larger droplets. Evaporation of droplets is most severe when conditions are both hot and dry.

• Temperature Inversions

Epi-Mek SC must not be applied during a temperature inversion because the potential for drift is high. Temperature inversions restrict vertical air mixing, and this causes

small, suspended droplets to remain in a concentrated cloud. This cloud can move in unpredictable directions due to the light variable winds that are common during inversions. Temperature inversions are characterized by temperatures that increase with altitude and are common on nights with limited cloud cover and light to no wind. Inversions begin to form as the sun sets and often continue into the morning. Their presence can be indicated by ground fog; however, if fog is not present, the movement of smoke from a ground source or an aircraft smoke generator can also identify inversions. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing.

Resistance Management

Epi-Mek SC is a Group 6 insecticide (contains the active ingredient abamectin). Because of the inherent risks of pests developing resistance to any product, it is strongly advised that Epi-Mek SC be used in a sound resistance management program. Treatment may not be effective against labeled pests if insect or mite tolerant strains develop. When applying Epi-Mek SC to plants that are hosts of labeled pests with multiple generations per crop per year, use resistance management practices.

Resistance management practices include, but are not limited to:

- rotating Epi-Mek SC with other products with different modes of action,
- avoiding treatment of successive generations with the Epi-Mek SC,
- using labeled rates at the specified spray intervals,
- using non-chemical alternatives such as beneficial arthropods,
- rotating susceptible to non-susceptible plants, and
- using various cultural practices

For additional information regarding the implementation of these or other resistance management practices, consult your local agricultural advisor or company representative.

CROP USE DIRECTIONS

APPLES

For control of European red mite, McDaniel spider mite, Tentiform leafminer, Twospotted spider mite, and White apple leafhopper

Apply Epi-Mek SC using conventional dilute or concentrate ground application sprayers calibrated to deliver sufficient water for thorough coverage. Gallons of spray will vary with size and number of trees per acre and density of foliage. In any case, thorough coverage is essential for good spider mite and insect control.

Apples

Pest	For Dilute Sprays¹ fl. oz./ 100 gals.	For Concentrate Sprays² fl. oz./A	Instructions
European red mite McDaniel spider mite Tentiform leafminer Twospotted spider mite White apple leafhopper	0.5-1.0	2.25-4.25	<ul style="list-style-type: none"> To avoid illegal residues, Epi-Mek SC must be mixed with a horticultural spray oil (not a dormant oil). (See Use Restrictions.)
Horticultural Spray Oil (not a dormant oil)	0.25% or 1 gal./A	Minimum of 1 gal./A	<ul style="list-style-type: none"> Apply Epi-Mek SC when spider mite or insect thresholds are reached. Make a second application, if needed, to maintain control. (See Use Restrictions.) Spider Mites: For best results, apply before a threshold of 5 spider mites per leaf is reached. Residual spider mite control is greater from spray deposits on newer leaves compared to older. For best results, apply Epi-Mek SC for spider mite control in the tree development period extending from petal fall through 6 weeks following petal fall. Tentiform Leafminer: For best results, apply against egg (to control new hatch) and early sap feeder stages of first- and second-generation tentiform leafminers when locally established thresholds have been reached. Do not apply during bloom. White Apple Leafhopper (Not for use west of the Rocky Mountains): Application of Epi-Mek SC is limited only to first generation white apple leafhoppers. Apply soon after petal fall.

¹The rate of Epi-Mek SC per 100 gals. is based on a volume of 400 gals./A dilute spray.

²To determine the amount of product per acre for concentrate sprays, first determine the amount that would be required in a full cover dilute spray. Use the same amount of product/A in concentrate sprays as would be required for the dilute sprays to the same orchard/grove. This can result in use of less than 2.25 fl. oz./A on small trees.

Use Restrictions – Apples

- **PHI:** Do not apply within **28 days** of harvest.
- **Adjuvant Requirement:** To avoid illegal residues, Epi-Mek SC **must** be mixed with a horticultural spray oil (not a dormant oil) approved for use on apples. Carefully follow the **Directions for Use** and **Precautions** on the horticultural spray oil label as well as the precautions in official spray guides or on product labels.
 - When used alone or when other products are applied sequentially, the combination of Epi-Mek SC with horticultural spray oil can injure the fruit of certain apple varieties (e.g., russetting on light-skinned varieties such as Golden Delicious).
 - Applying the combination of Epi-Mek SC and horticultural spray oil fewer than 14 days before or after applying Captan® or other sulfur containing products can result in phytotoxicity and crop loss.
- **Application Method:** Ground application only. Do not apply with aircraft.
- **Amount of Water:** Do not apply in less than 40 gals. of water/A.
- **Maximum Amount per Application:** Do not apply more than 4.25 fl. oz./A (or 0.023 lb. ai./A) of Epi-Mek SC or any other foliar applied abamectin containing product per application.
- **Application Interval:** If a second application is necessary, wait at least 21 days before repeating application of Epi-Mek SC or any other foliar applied abamectin containing product.
- **Number of Applications:** Do not make more than 2 applications of Epi-Mek SC or any other foliar applied abamectin containing product per growing season.
- **Maximum Amount per Season:** Do not apply more than 8.5 fl. oz./A (or 0.047 lb. ai./A) of Epi-Mek SC or any other foliar applied abamectin containing product in a growing season.
- **Grazing:** Do not allow livestock to graze in treated orchards.

AVOCADOS

For control of Avocado thrips

NOTE: Aerial vs. Ground Application: Apply Epi-Mek SC using ground application equipment or aircraft. Aerial application is permitted because of its importance to the avocado growing industry. However, aerial application is not the preferred method of application for the best control of thrips. With aerial application, the resulting level and duration of control of thrips could be less than with ground application.

Gallons of spray will vary with size and number of trees per acre and density of foliage. In any case, thorough coverage is essential for good mite and insect control.

Avocados

Pest	fl. oz./A	Instructions
Avocado Thrips (<i>Scirtothrips perseae</i>)	2.25-4.25 Do not use less than 2.25 fl. oz. of product/A	<ul style="list-style-type: none"> To avoid illegal residues, Epi-Mek SC must be mixed with 1.0% to 4.0% v/v of a horticultural spray oil (not a dormant oil) approved for use on avocados. (See Use Restrictions.) For best results, apply when immature thrips are first observed but before numbers exceed 5 immature thrips per leaf/fruit. Use 2.25-3.25 fl. oz. of product /A for low* to moderate* infestations and 3.25-4.25 fl. oz. of product/A for severe* infestations.
Horticultural Spray Oil (not a dormant oil)	Minimum 1 to 4% v/v	<ul style="list-style-type: none"> Make a second application if needed to maintain control, but wait at least 30 days after the first application to retreat. (See Use Restrictions.) For Ground Application: If spray volume is greater than 400 gals./A, apply Epi-Mek SC at a rate of 0.5 fl. oz. per 100 gals. of water.

*Thrips Infestation Level	Number of immature thrips per leaf/fruit
Low	1-2
Moderate	3-4
Severe	More than 5

Use Restrictions - Avocados

- **PHI:** Do not apply within **14 days** of harvest.
- **Adjuvant Requirement:** To avoid illegal residues, Epi-Mek SC **must** be mixed with a horticultural spray oil (not a dormant oil) approved for use on avocados. Carefully follow the **Directions for Use and Precautions** on the horticultural spray oil label as well as the precautions in official spray guides or on product labels.
 - Note:** To prevent crop injury, observe all precautions and restrictions on the horticultural spray oil label. When using horticultural spray oil concentrations above 2.0%, treat a small test area before making a large-scale application.
- **Application Method:** Ground and aerial application permitted.
- **Amount of Water:** Do not apply in less than 100 gals. of water with ground application equipment or 50 gals. of water with aircraft.
- **Maximum Amount per Application:** Do not apply more than 4.25 fl. oz./A (or 0.023 lb. ai./A) of Epi-Mek SC or any other foliar applied abamectin containing product per application.
- **Application Interval:** Wait at least 30 days before repeating application of Epi-Mek SC or any other foliar applied abamectin containing product.

- **Number of Applications:** Do not make more than 2 applications of Epi-Mek SC or any other foliar applied abamectin containing product per season.
- **Maximum Amount per Season:** Do not apply more than 8.5 fl. oz./A (or 0.047 lb. ai./A) of Epi-Mek SC or any other foliar applied abamectin containing product per season.
- **Grazing:** Do not allow livestock to graze in treated orchards.

CELERIAC (*Apium graveollens*)

For control of Twospotted spider mite

Apply Epi-Mek SC using conventional dilute or concentrate sprayers. Thorough coverage of the crop canopy is essential for optimum results. Inadequate crop coverage can result in reduced control.

Celeriac

Pest	fl. oz./A	Instructions
Twospotted spider mite	3.5	<ul style="list-style-type: none"> • To avoid illegal residues, Epi-Mek SC must be mixed with a non-ionic activator type wetting, spreading and/or penetrating adjuvant. Do not use binder sticker type adjuvants. (See Use Information.) • Apply when mites first appear and repeat as necessary to maintain control. (See Use Restrictions.)

Use Restrictions – Celeriac

- **PHI:** Do not apply within **7 days** of harvest.
- **Adjuvant Requirement:** To avoid illegal residues, Epi-Mek SC **must** be mixed with a non-ionic activator type wetting, spreading and/or penetrating adjuvant approved for use on celeriac. Carefully follow the **Directions for Use** and **Precautions** on the adjuvant label as well as the precautions in official spray guides or on product labels. Do not use binder-sticker type adjuvants.
- **Application Method:** Apply with ground application equipment only.
- **Amount of Water:** Do not apply in less than 20 gals. of water/A.
- **Application Interval:** Wait at least 7 days before repeating application of Epi-Mek SC or any other foliar applied abamectin containing product.
- **Number of Applications:** Do not make more than 2 sequential applications of Epi-Mek SC or any other foliar applied abamectin containing product.
- **Maximum Amount per Season:** After transplanting the celeriac, do not apply more than 10.25 fl. oz./A (or 0.056 lb. ai./A) of Epi-Mek SC or any other foliar applied abamectin containing product per season.

CITRUS FRUIT CROP GROUP (Crop Group 10)

Crops in this group are: Calamondin, Citrus citron, Citrus hybrids (includes chironja, tangelo, tangor), Grapefruit, Kumquat, Lemon, Lime, Mandarin (tangerine), Sour orange, Sweet orange, Pummelo, and Satsuma mandarin.

For control of Asian citrus psyllid, Broad mite, Citrus bud mite, Citrus leafminer, Citrus rust mite, Citrus thrips, and Twospotted spider mite

Thorough spray coverage is essential for good mite and insect control. Spray gallonage can vary depending on size and number of trees per acre as well as density of foliage.

- **Ground Application**

Apply using conventional dilute or concentrate ground application sprayers calibrated to deliver sufficient water for thorough coverage (or outside coverage for Asian citrus psyllid, citrus leafminer, or citrus thrips).

- **Aerial Application**

Aerial application is permitted **only** for control of citrus leafminer. With aerial application, the resulting level and duration of control of citrus leafminer could be less than with ground application.

Aerial application to citrus is not approved in California.

Citrus Fruit Crop Group

Pest	For Dilute Sprays ¹ fl. oz./100 gals.	For Concentrate Sprays ² fl. oz./A	Instructions
Asian citrus psyllid	--	2.25-4.25 ³	<ul style="list-style-type: none"> • To avoid illegal residues, Epi-Mek SC must be mixed with a minimum of 0.20% horticultural spray oil (not a dormant oil) in the spray mixture or not less than 1.0 gal. of horticultural spray oil/A (except when specified differently in footnotes below). • Asian Citrus Psyllid: Apply Epi-Mek SC to protect newly expanding foliage flush during the spring, summer, or fall. Epi-Mek SC will only control adults and nymphs present at the time of application. • Mites: Apply when mites first appear during spring, summer, and/or fall. • Citrus Bud Mite: For best results, time the spray at "bud swell." • Citrus Leafminer: Apply to protect new growth during spring, summer, or fall. • Citrus Thrips: Application targeted for citrus thrips will only control the current generation and must be correctly timed. Apply when economic thresholds have been reached (after egg hatch has begun – preferably early to mid-hatch).
Broad mite	0.25-0.4	2.25-4.25 ³	
Citrus bud mite	0.25-0.4	2.25-4.25 ⁴	
Citrus leafminer	--	1.0-4.25 ³	
Citrus rust mite	0.125-0.4	1.0-4.25 ³	
Citrus thrips	--	2.25-4.25 ⁵	
Twospotted spider mite	0.25-0.4	2.25-4.25	

¹The rate of Epi-Mek SC per 100 gals. is based on a volume of 1,000 gals./A dilute spray.

²For concentrate sprays, adjust the dosage to apply an amount/A equal to that used in full cover dilute spray.

³Ground application: For best results, use 150-300 gals./A of spray mix with a minimum of 3 gal./A of horticultural spray oil (not a dormant oil) and apply at a ground speed of 1 to 1.5 MPH.

⁴For best results, use a minimum of 500 gals./A of spray mix with a minimum of 0.5% horticultural spray oil (not a dormant oil).

⁵For best results, use 100-250 gals./A of spray mix applied to achieve outside coverage.

Use Restrictions – Citrus Fruit Crop Group

- **PHI:** Do not apply within **7 days** of harvest.
- **Adjuvant Requirement:** To avoid illegal residues, Epi-Mek SC **must** be mixed with a horticultural spray oil (not a dormant oil) approved for use on citrus. Carefully follow the **Directions for Use** and **Precautions** on the horticultural spray oil label as well as the precautions in official spray guides or on product labels. Refer to the **Directions for Use** table above for additional instructions.
- **Application Method:**
 - **To control citrus leafminer** - Ground or aerial application is permitted; however, do not apply with aircraft to citrus in California. For aerial application, use a minimum of 10 gallons of finished spray volume per acre. Under conditions such as high pest populations, dense foliage, or adverse application conditions (such as high temperatures) use a greater volume of water to ensure adequate coverage.
 - **All other pests** - Ground application only. Do not apply with aircraft.
- **Prohibited Use:** To manage resistance, do not use in citrus nurseries.
- **Application Interval:** Wait at least 30 days before repeating application of Epi-Mek SC or any other foliar applied abamectin containing product.
- **Maximum Amount per Season:**
 - **Do not** apply more than 8.5 fl. oz./A (or 0.047lb. a.i./A) of Epi-Mek SC or any other foliar-applied abamectin-containing product in any growing season.
 - **Do not** make more than 3 applications of Epi-Mek SC or any other foliar applied abamectin containing product in any growing season.
- **Grazing:** Do not allow livestock to graze in treated orchards.

CUCURBIT VEGETABLES CROP GROUP (Crop Group 9)

Crops in this group are: Chayote, Chinese waxgourd, Citron Melon, Cucumber, Gherkin, Edible Gourd (includes hyotan, cucuzza, hechima, Chinese okra), *Momordica* spp. (includes balsam apple, balsam pear, bittermelon, Chinese cucumber), Muskmelon (hybrids and/or cultivars of *Cucumis melo*, includes true cantaloupe, cantaloupe, casaba, Crenshaw melon, golden pershaw melon, honeydew melon, honey balls, mango melon, Persian melon, pineapple melon, Santa Claus melon, and snake melon), Pumpkin, Summer Squash (includes crookneck squash, scallop squash, straightneck squash, vegetable marrow, zucchini), Winter Squash (includes butternut squash, calabaza, hubbard squash, acorn squash, spaghetti squash), Watermelon (includes hybrids and/or varieties of *Citrullus lanatus*).

For Control of Leafminers and Spider Mites

Mix with water as indicated below. Thorough coverage of the crop canopy is essential for optimum results. Inadequate coverage can result in reduced control.

Note:

- Apply Epi-Mek SC with ground application equipment or aircraft.
- For best control of mites, apply Epi-Mek SC with ground application equipment. With aerial application, the resulting level and duration of control of mites could be less than with ground application.

Cucurbit Vegetables Crop Group

Pest	fl. oz./A	Instructions
Leafminers Spider mites	1.75-3.5	<ul style="list-style-type: none"> • To avoid illegal residues, Epi-Mek SC must be mixed with a non-ionic activator type wetting, spreading and/or penetrating adjuvant. Do not use binder-sticker type adjuvants. (See Use Information and Use Restrictions.) • Use 1.75-2.5 fl. oz./A for low to moderate infestations and 3.5 fl. oz./A for severe infestations. • Apply when adult leafminer flies or spider mites are first observed and repeat application, as needed, to maintain control within constraints of a sound resistance management program. (See Use Restrictions.)

Use Restrictions – Cucurbit Vegetables Crop Group

- **PHI:** Do not apply within **7 days** of harvest.
- **Adjuvant Requirement:** To avoid illegal residues, Epi-Mek SC **must** be mixed with a non-ionic activator type wetting, spreading and/or penetrating adjuvant **(See Use Information)** approved for use on cucurbits. Carefully follow the **Directions for Use and Precautions** on the adjuvant label as well as the precautions in official spray guides or on product labels. Do not use binder sticker type adjuvants.
- **Application Method:** Ground or aerial application is permitted; however do not apply with aircraft in New York State.
- **Amount of Water:** Do not apply in less than 20 gals. of water/A with ground application equipment. Do not apply in less than 5 gals. of water/A with aircraft. Under conditions such as high pest populations, dense foliage, or adverse application conditions (such as high temperatures), use a greater volume of water to ensure adequate coverage.
- **Maximum Amount per Application:** Do not apply more than 3.5 fl oz./A (or 0.019 lb. ai./A) of Epi-Mek SC or any other foliar applied abamectin containing product per application.
- **Application Interval:** Wait at least 7 days before repeating application of Epi-Mek SC or any other foliar applied abamectin containing product.

- **Number of Applications:** Do not make more than 2 sequential applications of Epi-Mek SC or any other foliar applied abamectin containing product.
- **Maximum Amount per Season:** Do not apply more than 10.25 fl. oz./A (or 0.056 lb. ai./A) of Epi-Mek SC or any other foliar applied abamectin containing product in a growing season.

FRUITING VEGETABLES CROP GROUP (except Cucurbits) (Crop Group 8)

Crops in this group are: Eggplant, Groundcherry, Pepino, Peppers (includes bell pepper, chili pepper, cooking pepper, pimento, sweet pepper), Tomatillo, and Tomato

For control of Broad mite, Colorado potato beetle, *Liriomyza* leafminers, Spider mites, *Thrips palmi*, Tomato pinworm, Tomato psyllid, and Tomato russet mite

Mix with water as indicated below. Thorough coverage of the crop canopy is essential for optimum results. Inadequate coverage can result in reduced control.

Note:

- Apply Epi-Mek SC with ground application equipment or aircraft.
- For best control of mites, apply Epi-Mek SC with ground application equipment. With aerial application, the resulting level and duration of control of mites could be less than with ground application.

Fruiting Vegetables Crop Group

Pest	fl. oz./A.	Instructions
Broad mite Colorado potato beetle <i>Liriomyza</i> leafminers Spider mites Thrips palmi Tomato psyllid Tomato russet mite	1.75-3.5	<ul style="list-style-type: none"> To avoid illegal residues, Epi-Mek SC must be mixed with a non-ionic activator type wetting, spreading and/or penetrating adjuvant. Do not use binder sticker type adjuvants. (See Use Information.) Broad, russet, and spider mites: Apply when mites first appear. <i>Thrips palmi</i>: Apply when thrips are first observed.
Tomato pinworm	3.5	<ul style="list-style-type: none"> Tomato pinworm: Application can be made from the time moth activity is detected up to, but no later than, the time when newly emerged larvae are present. Mites, leafminers, <i>Thrips palmi</i>, and Colorado potato beetle: Use 1.75 fl. oz./A for low to moderate infestations and 3.5 fl. oz./A for severe infestations. Repeat application as necessary to maintain control. (See Use Restrictions.)

Use Restrictions – Fruiting Vegetables Crop Group

- **PHI:** Do not apply within **7 days** of harvest.
- **Adjuvant Requirement:** To avoid illegal residues, Epi-Mek SC **must** be mixed with a non-ionic activator type wetting, spreading and/or penetrating adjuvant **(See Use Information)** approved for use on fruiting vegetables. Carefully follow the **Directions for Use and Precautions** on the adjuvant label as well as the precautions in official spray guides or on product labels. Do not use binder sticker type adjuvants.
- **Application Method:** Ground or aerial application permitted; however do not apply with aircraft in New York State.
- **Prohibited Use:** For resistance management, do not use on fruiting vegetables grown for transplanting.
- **Amount of Water:** Do not apply in less than 20 gals. of water/A with ground application equipment. Do not apply in less than 5 gals. of water/A with aircraft. Under conditions such as high pest populations, dense foliage, or adverse application conditions (such as high temperatures), use a greater volume of water to ensure adequate coverage.

- **Maximum Amount per Application:** Do not apply more than 3.5 fl. oz./A (or 0.019 lb. ai./A) of Epi-Mek SC or any other foliar applied abamectin containing product per application.
- **Application Interval:** Wait at least 7 days before repeating application of Epi-Mek SC or any other foliar applied abamectin containing product.
- **Number of Applications:** Do not make more than 2 sequential applications of Epi-Mek SC or any other foliar applied abamectin containing product.
- **Maximum Amount per Season:** Do not apply more than 10.25 fl. oz./A (or 0.056 lb. ai./A) of Epi-Mek SC or any other foliar applied abamectin containing product in a growing season.

GRAPES

For control of Pacific spider mite, Twospotted spider mite, Variegated leafhopper, Western grape leafhopper, Western grapeleaf skeletonizer, and Willamette spider mite

Apply Epi-Mek SC using conventional ground sprayers calibrated to deliver sufficient water for thorough coverage. Thorough coverage is essential for good spider mite and insect control. Do not spray alternate rows. Epi-Mek SC must be applied to both sides of each row for maximum coverage.

Grapes

Pest	fl. oz./A	Instructions
Pacific spider mite Twospotted spider mite Variegated leafhopper Western grape leafhopper Western grapeleaf skeletonizer Willamette spider mite	1.75-3.5	<ul style="list-style-type: none"> • To avoid illegal residues, Epi-Mek SC must be mixed with a non-ionic activator type wetting, spreading and/or penetrating adjuvant. Do not use binder-sticker type adjuvants. (See Use Information and Use Restrictions.) • Use 1.75-2.5 fl. oz./A for low to moderate infestations and 3.5 fl. oz. for severe infestations. • Repeat application, if needed. (See Use Restrictions.) • Spider mites: Apply when mites first appear but before motiles exceed 5 per leaf. • Western grapeleaf skeletonizer: Apply when larvae are first observed. For optimum control, apply shortly after egg hatch. • Leafhoppers: Epi-Mek SC provides contact knock-down only.

Use Restrictions – Grapes

- **PHI:** Do not apply within **28 days** of harvest.
- **Adjuvant Requirement:** To avoid illegal residues, Epi-Mek SC **must** be mixed with a non-ionic activator type wetting, spreading and/or penetrating adjuvant (**See Use Information**) approved for use on grapes. Although Epi-Mek SC has been tested in combination with a range of non-ionic activator type wetting, spreading and/or penetrating adjuvants for safety to grapes, it is impossible to test on all grape varieties under the variety of conditions that could cause crop injury. Therefore, when using Epi-Mek SC, carefully follow the **Directions for Use and Precautions** on the adjuvant label and in official spray guides. Do not use binder sticker type adjuvants.
- **Application Method:** Ground application only.
- **Amount of Water:** Do not apply in less than 50 gals. of water/A with conventional ground application equipment.
- When using an electro-static sprayer, less than 50 gals. of water/A can be used; however do not use less than 5 gals. of water/A.
- **Maximum Amount per Application:** Do not apply more than 3.5 fl. oz./A (or 0.019 lb. ai./A) of Epi-Mek SC or any other foliar applied abamectin containing product per application.
- **Application Interval:** If a second application is necessary, wait at least 21 days before repeating application of Epi-Mek SC or any other foliar applied abamectin containing product.
- **Number of Applications:** Do not make more than 2 applications of Epi-Mek SC or any other foliar applied abamectin containing product per growing season.
- **Maximum Amount per Season:** Do not apply more than 7.0 fl. oz./A (0.038 lb. ai./A) of Epi-Mek SC or any other foliar applied abamectin containing product in a growing season.
- **Grazing:** Do not allow livestock to graze in treated vineyards.

HERB CROP SUBGROUP (Crop Subgroup 19A) (Except Chives)

Crops in this subgroup are: Angelica, Balm, Basil, Borage, Burnet, Camomile, Catnip, Chervil (dried), Clary, Coriander (leaf), Cilantro (leaf), Costmary, Culantro (leaf), Curry (leaf), Dill weed, Horehound, Hyssop, Lavender, Lemongrass, Lovage (leaf), Marigold, Marjoram (*Origanum* species), Nasturtium, Parsley (dried), Pennyroyal, Rosemary, Rue, Sage, Summer and Winter savory, Sweet bay, Tansy, Tarragon, Thyme, Wintergreen, Woodruff, and Wormwood.

For control of *Liriomyza* leafminers

Mix with water as indicated below. Apply thoroughly with ground application equipment as a foliar spray and ensure good upper and lower leaf coverage.

Herb Crop Subgroup (Except Chives)

Pest	fl. oz./A.	Instructions
<i>Liriomyza</i> leafminers	1.75-3.5	<ul style="list-style-type: none"> • To avoid illegal residues, Epi-Mek SC must be mixed with a non-ionic activator type wetting, spreading and/or penetrating adjuvant. Do not use binder sticker type adjuvants. (See Use Information and Use Restrictions.) • Use 1.75 fl. oz./A for low to moderate infestations and 3.5 fl. oz./A for severe infestations. Apply when adult flies are first observed and repeat application, as necessary to maintain control. (See Use Restrictions.)

Use Restrictions – Herb Crop Subgroup (Except Chives)

- **PHI:** Do not apply within **14 days** of harvest.
- **Adjuvant Requirement:** To avoid illegal residues, Epi-Mek SC **must** be mixed with a non-ionic activator type wetting, spreading and/or penetrating adjuvant **(See Use Information)** approved for use on herbs. Although Epi-Mek SC has been tested in combination with a range of non-ionic activator type wetting, spreading and/or penetrating adjuvants for safety to herbs, it is impossible to test on all herb types and varieties under the variety of conditions that could cause crop injury. Therefore, it is important to carefully follow the **Directions for Use** and **Precautions** on the adjuvant label and in official spray guides. Do not use binder sticker type adjuvants.
- **Application Method:** Apply with ground application equipment.
- **Amount of Water:** Use a minimum of 30 gals of water/A.
- **Maximum Amount per Application:** Do not apply more than 3.5 fl. oz./A (or 0.019 lb. ai./A) of Epi-Mek SC or any other foliar applied abamectin containing product per application.
- **Application Interval:** Wait at least 7 days before repeating application of Epi-Mek SC or any other foliar applied abamectin containing product.
- **Number of Applications:** Do not make more than 2 applications of Epi-Mek SC or any other foliar applied abamectin containing product per single cutting (harvest).
- **Maximum Amount per Season:** Do not apply more than 10.25 fl. oz./A (or 0.056 lb. ai./A) of Epi-Mek SC or any other foliar applied abamectin containing product per cropping season.

HOPS (Not approved for use in California)

For control of Twospotted spider mite

Mix with water as indicated below. Apply with ground application equipment as a foliar spray and ensure good upper and lower leaf coverage. Gallons of spray can vary with the size of plants and density of foliage. In any case, thorough coverage is essential for good control of Twospotted spider mite. When using concentrate sprays, the amount of water is reduced, but the amount of Epi-Mek SC per acre must remain the same as for dilute sprays.

Hops

Pest	fl. oz./A	Instructions
Twospotted spider mite	1.75-3.5	<ul style="list-style-type: none"> • To avoid illegal residues, Epi-Mek SC must be mixed with a non-ionic activator type wetting, spreading and/or penetrating adjuvant. Do not use binder-sticker type adjuvants. (See Use Information and Use Restrictions.) • Apply Epi-Mek SC when Twospotted spider mites reach treatment thresholds. • For applications at ½ trellis growth (6-8 ft. height), apply 1.75-3.5 fl. oz./A in a minimum of 40 gals. of water/A. • For applications beyond ½ trellis growth, do not use less than 3.5 fl. oz./A in a minimum of 100 gals. of water/A.

Use Restrictions – Hops

- **PHI:** Do not apply within **28 days** of harvest.
- **Adjuvant Requirement:** To avoid illegal residues, Epi-Mek SC **must** be mixed with a non-ionic activator type wetting, spreading and/or penetrating adjuvant **(See Use Information)** approved for use on hops. Carefully follow the **Directions for Use and Precautions** on the adjuvant label as well as the precautions in official spray guides or on product labels. Do not use binder sticker type adjuvants.
- **Application Method:** Ground application only. Do not apply with aircraft.
- **Application Interval:** If a second application is necessary to maintain control, wait at least 21 days before repeating application of Epi-Mek SC or any other foliar applied abamectin containing product and repeat application of Epi-Mek SC or any other foliar applied abamectin containing product only after an alternative miticide with a different mode of action has been used.

- **Maximum Amount per Application:** Do not apply more than 3.5 fl. oz./A (or 0.019 lb ai.A) of Epi-Mek SC or any other foliar applied abamectin containing product per application.
- **Maximum Number of Applications:** Do not make more than 2 applications of Epi-Mek SC or any other foliar applied abamectin containing product per growing season.
- **Maximum Amount per Season:** Do not apply more than 7.0 fl. oz./A (or 0.038 lb. ai./A) of Epi-Mek SC or any other foliar applied abamectin containing product in a growing season.
- **Grazing:** Do not allow livestock to graze in treated hops yards.

LEAFY VEGETABLES CROP GROUP (except *Brassica* vegetables) (Crop Group 4)

Crops in this group are: Amaranth (leafy Amaranth, Chinese spinach, tampala); Arugula (Roquette); Cardoon; Celery; Celtuce; Chervil; Chinese celery; Chrysanthemum, edible leaved and garland; Corn salad; Cress, garden and upland (yellow rocket and winter cress); Dandelion; Dock (Sorrel); Endive (escarole); Florence fennel; Lettuce, head and leaf; New Zealand spinach; Orach; Parsley; Purslane, garden and winter; Radicchio (red chicory); Rhubarb; Spinach; Vine spinach; and Swiss chard.

For Control of Carmine spider mite, *Liriomyza* leafminers, and Twospotted spider mite

Mix with water as indicated below. Thorough coverage of the crop canopy is essential for optimum results. Inadequate coverage can result in reduced control.

Note:

- Apply Epi-Mek SC with ground application equipment or aircraft.
- For best control of mites, apply Epi-Mek SC with ground application equipment. With aerial application, the resulting level and duration of control of mites could be less than with ground application.

Leafy Vegetables Crop Group

Pest	fl. oz./A	Instructions
Carmine spider mite <i>Liriomyza</i> leafminers Twospotted spider mite	1.75-3.5	<ul style="list-style-type: none"> • To avoid illegal residues, Epi-Mek SC must be mixed with a non-ionic activator type wetting, spreading and/or penetrating adjuvant. Do not use binder sticker type adjuvants. (See Use Information and Use Restrictions.) • Use 1.75-2.5 fl. oz./A for low to moderate infestations and 3.5 fl. oz./A for severe infestations. • Spider mites: Apply when mites first appear, and repeat as needed to maintain control. (See Use Restrictions.) • Leafminers: Apply when adult flies are first observed and repeat applications as needed to maintain control. (See Use Restrictions.)

Use Restrictions – Leafy Vegetables Crop Group

- **PHI:** Do not apply within **7 days** of harvest.
- **Adjuvant Requirement:** To avoid illegal residues, Epi-Mek SC **must** be mixed with a non-ionic activator type wetting, spreading and/or penetrating adjuvant **(See Use Information)** approved for use on leafy vegetables. Carefully follow the **Directions for Use** and **Precautions** on the adjuvant label as well as the precautions in official spray guides or on product labels. Do not use binder sticker type adjuvants.
- **Application Method:** Ground or aerial application permitted; however do not apply with aircraft in New York State.
- **Prohibited Use:** For resistance management, do not use on leafy vegetables grown for transplanting.
- **Amount of Water:** Do not apply in less than 20 gals. of water/A. with ground application equipment. Do not apply in less than 5 gals. of water per acre with aircraft. Under conditions such as high pest populations, dense foliage, or adverse application conditions (such as high temperatures), use a greater volume of water to ensure adequate coverage.
- **Maximum Amount per Application:** Do not apply more than 3.5 fl. oz./A (or 0.019 lb. ai./A) of Epi-Mek SC or any other foliar applied abamectin containing product per application.
- **Application Interval:** Wait at least 7 days before repeating application of Epi-Mek SC or any other foliar applied abamectin containing product.

- **Number of applications:** Do not make more than 2 sequential applications of Epi-Mek SC or any other foliar applied abamectin containing product.
- **Maximum Amount per Season:** Do not apply more than 10.25 fl. oz./A (or 0.056 lb. ai./A) of Epi-Mek SC or any other foliar applied abamectin containing product per growing season.

MINT (PEPPERMINT AND SPEARMINT)

For control of Twospotted spider mite

Mix with water as indicated below. Thorough coverage of the crop canopy is essential for optimum results. Inadequate coverage can result in reduced control.

Note:

- Apply Epi-Mek SC with ground application equipment or aircraft.
- For best control of mites, apply Epi-Mek SC with ground application equipment. With aerial application, the resulting level and duration of control of mites could be less than with ground application.

Mint

Pest	fl. oz./A	Instructions
Twospotted spider mite	1.75-2.5	<ul style="list-style-type: none"> • To avoid illegal residues, Epi-Mek SC must be mixed with a non-ionic activator type wetting, spreading and/or penetrating adjuvant. Do not use binder sticker type adjuvants. (See Use Information and Use Restrictions.) • Treat when mites first appear.

Use Restrictions – Mint

- **PHI:** Do not apply within **28 days** of harvest.
- **Adjuvant Requirement:** To avoid illegal residues, Epi-Mek SC **must** be mixed with a non-ionic activator type wetting, spreading and/or penetrating adjuvant **(See Use Information)** approved for use on mint. Carefully follow the **Directions for Use and Precautions** on the adjuvant label as well as the precautions in official spray guides or on product labels. Do not use binder sticker type adjuvants.
- **Application Method:** Ground or aerial application permitted; however do not apply with aircraft in New York State.
- **Amount of Water:** Do not apply in less than 20 gals. of water/A with ground application equipment. Do not apply in less than 5 gals. of water/A with aircraft. Under conditions such as high pest populations, dense foliage, or adverse

application conditions such as high temperatures, use a greater volume of water to ensure adequate coverage.

- **Maximum Amount per Application:** Do not apply more than 2.5 fl. oz./A (or 0.014 lb. ai./A) of Epi-Mek SC or any other foliar applied abamectin containing product per application.
- **Application Interval:** Wait at least 7 days before repeating application of Epi-Mek SC or any other foliar applied abamectin containing product.
- **Number of Applications:** Do not make more than 2 sequential applications of Epi-Mek SC or any other foliar applied abamectin containing product and do not apply more than 3 applications of Epi-Mek SC or any other foliar applied abamectin containing product per season.
- **Maximum Amount per Season:** Do not apply more than 7.75 fl. oz./A (or 0.042 lb. ai./A) of Epi-Mek SC or any other foliar applied abamectin containing product per crop per season.
- **Grazing:** Do not allow livestock to graze or feed treated foliage to livestock.

PEARS (including Oriental pear trees)

For control of European red mite, McDaniel spider mite, Pear psylla, Pear rust mite, Twospotted spider mite, and Yellow mite

Apply Epi-Mek SC using conventional dilute or concentrate ground application sprayers calibrated to deliver sufficient water for thorough coverage. Gallons of spray will vary with size and number of trees per acre and density of foliage. In any case, thorough coverage is essential for good spider mite and insect control.

Pears

Pest	For Dilute Sprays¹ fl. oz./ 100 gals.	For Concentrate Sprays² fl. oz./A	Instructions
European red mite McDaniel spider mite Pear psylla Pear rust mite Twospotted spider mite Yellow mite	0.5-1.0	2.25-4.25	<ul style="list-style-type: none"> • To avoid illegal residues, Epi-Mek SC must be mixed with a horticultural spray oil (not a dormant oil). (See Use Restrictions.) • Apply Epi-Mek SC when spider mite or insect thresholds are reached. • Make a second application, if needed, to maintain control. (See Use Restrictions)
Horticultural Spray Oil (not a dormant oil)	0.25% or 1 gal./A	Minimum of 1 gal./A	

¹The rate of Epi-Mek SC per 100 gals. is based on a volume of 400 gals./A dilute spray.

²To determine the amount of product per acre for concentrate sprays, first determine the amount that would be required in a full cover dilute spray. Use the same amount of product/A in concentrate sprays as would be required for the dilute sprays to the same orchard/grove. This can result in use of less than 2.25 fl. oz./A on small trees.

Use Restrictions – Pears

- **PHI:** Do not apply within **28 days** of harvest.
- **Adjuvant Requirement:** To avoid illegal residues, Epi-Mek SC **must** be mixed with a horticultural spray oil (not a dormant oil) approved for use on pears. Carefully follow the **Directions for Use** and **Precautions** on the horticultural spray oil label as well as the precautions in official spray guides or on product labels.
 - Applying the combination of Epi-Mek SC and horticultural spray oil fewer than 14 days before or after applying Captan® or other sulfur containing products can result in phytotoxicity and crop loss.
- **Application Method:** Ground application only. Do not apply with aircraft.
- **Amount of Water:** Do not apply in less than 40 gals. of water/A.
- **Maximum Amount per Application:** Do not apply more than 4.25 fl. oz./A (or 0.023 lb. ai./A) of Epi-Mek SC or any other foliar applied abamectin containing product per application.
- **Application Interval:** If a second application is necessary, wait at least 21 days before repeating application of Epi-Mek SC or any other foliar applied abamectin containing product.

- **Number of Applications:** Do not make more than 2 applications of Epi-Mek SC or any other foliar applied abamectin containing product per growing season.
- **Maximum Amount per Season:** Do not apply more than 8.5 fl. oz./A (or 0.047 lb. ai./A) of Epi-Mek SC or any other foliar applied abamectin containing product in a growing season.
- **Grazing:** Do not allow livestock to graze in treated orchards.

STONE FRUIT CROP GROUP (Crop Group 12)

Crops in this group are: apricot, cherry (sweet and tart), nectarine, peach, plum, plum (chickasaw, damson, and Japanese), plumcot, and prune (fresh)

For control of European spider mite, Pacific spider mite, and Twospotted spider mite

Apply Epi-Mek SC using conventional dilute or concentrate sprayers calibrated to deliver sufficient water for thorough coverage. Gallons of spray will vary with size and number of trees per acre and density of foliage. In any case, thorough coverage is essential for good spider mite control.

Stone Fruit Crop Group

Pest	For Dilute Sprays ¹ fl.oz./ 100 gals.	For Concentrate Sprays ² fl. oz./A	Instructions
European red mite Pacific spider mite Twospotted spider mite	0.5-1.0	2.25-4.25	<ul style="list-style-type: none"> To avoid illegal residues, Epi-Mek SC must be mixed with a non-ionic activator type wetting, spreading and/or penetrating adjuvant or with a horticultural spray oil (not a dormant oil). Do not use binder sticker type adjuvants. (See Use Information and Use Restrictions.) Apply when mites first appear. Make a second application, if needed, to maintain control. (See Use Restrictions.)
Horticultural Spray Oil (not a dormant oil)	0.25% or 1 gal./A	Minimum of 1 gal./A	<ul style="list-style-type: none"> A horticultural spray oil (not a dormant oil) can improve efficacy but it could also increase the possibility of phytotoxicity to foliage and fruit. Use a minimum of 0.25% horticultural spray oil (not a dormant oil) in the dilute spray mixture and not less than 1.0 gal. of horticultural spray oil per acre in the final finished spray.

¹The rate of Epi-Mek SC per 100 gals. is based on a volume of 400 gals./A dilute spray.

²To determine the amount of product per acre for concentrate sprays, first determine the amount that would be required in a full cover dilute spray. Use the same amount of product per acre in concentrate sprays as would be required for the dilute sprays to the same orchard/grove. This can result in use of less than 2.25 fl. oz./A on small trees.

Use Restrictions – Stone Fruit Crop Group

- **PHI:** Do not apply within **21 days** of harvest.
- **Adjuvant Requirement:** To avoid illegal residues, Epi-Mek SC **must** be mixed with a non-ionic activator type wetting, spreading and/or penetrating adjuvant **(See Use Information)** or horticultural spray oil (not a dormant oil) approved for use on crops in the stone fruit crop group. Carefully follow the Directions for Use and Precautions on the adjuvant or horticultural spray oil label and in official spray guides. See the

Directions for Use table above for application instructions. Do not use binder sticker type adjuvants.

- **Application Method:** Ground application only. Do not apply with aircraft.
- **Amount of Water:** Do not apply in less than 40 gals. of water/A.
- **Maximum Amount per Application:** Do not apply more than 4.25 fl. oz./A (or 0.023 lb. ai./A) of Epi-Mek SC or any other foliar applied abamectin containing product per application.
- **Application Interval:** **If a second application is needed, wait at least 21 days before repeating application** of Epi-Mek SC or any other foliar applied abamectin containing product.
- **Number of Applications:** Do not make more than 2 applications of Epi-Mek SC or any other foliar applied abamectin containing product per growing season.
- **Maximum Amount per Season:** Do not apply more than 8.5 fl. oz./A (or 0.047 lb. ai./A) of Epi-Mek SC or any other foliar applied abamectin containing product in a growing season.
- **Grazing:** Do not allow livestock to graze in treated orchards.

TREE NUTS CROP GROUP (Crop Group 14) AND PISTACHIO

Crops in this group are: almond, beech nut, Brazil nut, butternut, cashew, chestnut, chinquapin, filbert (hazelnut), hickory nut, macadamia nut, pecan, and walnuts (black and English)

For control of European red mite, Pacific spider mite, Strawberry spider mite, and Twospotted spider mite

Apply Epi-Mek SC using conventional dilute or concentrate sprayers calibrated to deliver sufficient water for thorough coverage. Gallons of spray will vary with size and number of trees per acre and density of foliage. In any case, thorough coverage is essential for good spider mite and insect control.

Tree Nuts Crop Group and Pistachio

Pest	For Dilute Sprays ¹ fl. oz./ 100 gals.	For Concentrate Sprays ² fl. oz./A	Instructions
European red mite Pacific spider mite Strawberry spider mite Twospotted spider mite	0.5-1.0	2.25-4.25	<ul style="list-style-type: none"> To avoid illegal residues, Epi-Mek SC must be mixed with horticultural spray oil (not a dormant oil). (See Use Restrictions.) Apply Epi-Mek SC when spider mites first appear. Residual spider mite control is greater from spray deposits on newer leaves compared to older leaves. Make a second application, if needed, to maintain control. (See Use Restrictions.)
Horticultural Spray Oil (not a dormant oil)	0.25% or 1 gal./A	Minimum of 1 gal./A	

¹The rate of Epi-Mek SC per 100 gals. is based on a volume of 400 gals./A dilute spray.

²To determine the amount of product per acre for concentrate sprays, first determine the amount that would be required in a full cover dilute spray. Use the same amount of product per acre in concentrate sprays that would be required for the dilute sprays to the same orchard/grove. This can result in use of less than 2.25 fl. oz./A on small trees.

Use Restrictions – Tree Nuts Crop Group and Pistachio

- **PHI:** Do not apply within **21 days** of harvest.
- **Adjuvant Requirement:** To avoid illegal residues, Epi-Mek SC **must** be mixed with a horticultural spray oil (not a dormant oil) approved for use on crops in the tree nuts crop group and on pistachio. Carefully follow the **Directions for Use** and **Precautions** on the horticultural spray oil label as well as the precautions in official spray guides or on product labels.
- **Application Method:** Ground application only. Do not apply with aircraft.
- **Amount of Water:** Do not apply in less than 40 gals. of water/A.
- **Application Interval:** If a second application is necessary, wait at least 21 days before repeating application of Epi-Mek SC or any other foliar applied abamectin containing product.

- **Maximum Amount per Application:** Do not apply more than 4.25 fl. oz./A (or 0.023 lb. ai./A) of Epi-Mek SC or any other foliar applied abamectin containing product per application.
- **Applications per Season:** Do not make more than 2 applications of Epi-Mek SC or any other foliar applied abamectin containing product per growing season.
- **Maximum Amount per Season:** Do not apply more than 8.5 fl. oz./A (or 0.047 lb. ai./A) of Epi-Mek SC or any other foliar applied abamectin containing product in a growing season.
- **Grazing:** Do not allow livestock to graze in treated groves/orchards.

TUBEROUS AND CORM VEGETABLES CROP SUBGROUP (Crop Subgroup 1C)

Crops in this subgroup are: arracacha; arrowroot; artichoke, Chinese; artichoke, Jerusalem; canna, edible; cassava (bitter and sweet); chayote (root); chufa; dasheen; ginger; leren; potato; sweet potato; tanier; turmeric; yam bean; and yam (true).

For control of Colorado potato beetle, *Liriomyza* leafminers, Potato psyllid, and Spider mites

Mix with water as indicated below. Thorough coverage of the crop canopy is essential for optimum results. Inadequate coverage can result in reduced control.

Note:

- Apply Epi-Mek SC using ground application equipment or aircraft.
- For best control of mites, apply Epi-Mek SC with ground application equipment. With aerial application, the resulting level and duration of control of mites could be less than with ground application.

Tuberous and Corm Vegetables Crop Subgroup

Pests	fl. oz./A	Instructions
Colorado potato beetle <i>Liriomyza</i> leafminers Potato psyllid Spider mites	1.75-3.5	<ul style="list-style-type: none"> To avoid illegal residues, Epi-Mek SC must be mixed with a non-ionic activator type wetting, spreading and/or penetrating adjuvant. Do not use binder sticker type adjuvants. (See Use Information and Use Restrictions.) Use 1.75-2.5 fl. oz./A for low to moderate infestations and 3.5 fl. oz./A for severe infestations. Insect and spider mite control can be reduced if Epi-Mek SC is used in combination with a sticker or binder-type product such as Bravo® Weather Stik®. Colorado potato beetle: Make the first application after approximately 50% of the egg masses have hatched and larvae are present. If 2 applications are needed, limit them to a single Colorado potato beetle generation per crop. Do not make more than 2 applications per crop. (See Use Restrictions.) <i>Liriomyza</i> leafminers: Make the first application when adult flies are first observed. Repeat applications as needed to maintain control. (See Use Restrictions.) Spider mites: Make the first application when mites first appear. Repeat application as needed to maintain control. (See Use Restrictions.)

Use Restrictions – Tuberous and Corm Vegetables Crop Subgroup

- **PHI:** Do not apply within **14 days** of harvest.
- **Adjuvant Requirement:** To avoid illegal residues, Epi-Mek SC **must** be mixed with a non-ionic activator type wetting, spreading and/or penetrating adjuvant **(See Use Information)** approved for use on crops in the tuberous and corm vegetables crop subgroup. Carefully follow the Directions for Use and Precautions on the adjuvant label and in official spray guides. See the **Directions for Use** table above for application instructions. Do not use binder sticker type adjuvants.
- **Application Method:** Ground or aerial application permitted; however, do not apply with aircraft in New York State.
- **Amount of Water:** Do not apply in less than 20 gals. of water/A with ground application equipment. Do not apply in less than 5 gals. of water/A with aircraft. Under conditions such as high pest populations, dense foliage, or adverse application conditions (such as high temperatures), use a greater volume of water to ensure adequate coverage.

- **Maximum Amount per Application:** Do not apply more than 3.5 fl. oz. /A (or 0.019 lb. ai./A) per application.
- **Application Interval:** Wait at least 7 days before repeating application of Epi-Mek SC or any other foliar applied abamectin containing product.
- **Number of Applications:** Do not make more than 2 sequential applications of Epi-Mek SC or any other foliar applied abamectin containing product.
- **Maximum Amount per Crop:**
 - For spider mite or Colorado potato beetle control, do not apply more than 7.0 fl. oz./A (or 0.038 lb. ai.A) of Epi-Mek SC or any other foliar applied abamectin containing product per crop.
 - For leafminer control or potato psyllid, do not apply more than 10.25 fl. oz./A (or 0.056 lb. ai./A) of Epi-Mek SC or any other foliar applied abamectin containing product per crop.
- **Grazing:** Do not allow livestock to graze or feed treated foliage to livestock.

STORAGE AND DISPOSAL

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

Pesticide Storage

Store in a tightly closed container in a cool, dry place.

Pesticide Disposal

Pesticide waste may be hazardous. Improper disposal of excess pesticide, spray mixture or rinsate is a violation of Federal Law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control agency, or the Hazardous Waste representative at the nearest EPA regional Office for guidance.

Container Handling

Non-refillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or by other procedures allowed by state and local authorities.

Epi-Mek™, Bravo® Weather Stik®, the ALLIANCE FRAME, the SYNGENTA Logo, and the PURPOSE ICON are Trademarks of a Syngenta Group Company
Captan® is a trademark of Tomen Agro, Inc.

For non-emergency (e.g. current product information) call
Syngenta Crop Protection at 1-800-334-9481.

Manufactured for:
Syngenta Crop Protection, LLC
P.O. Box 18300
Greensboro, North Carolina 27419-8300

SCP 1408-M(draft)

(Nondetachable Container Label)

RESTRICTED USE PESTICIDE

TOXIC TO FISH, MAMMALS, AND AQUATIC ORGANISMS
FOR RETAIL SALE TO AND USE ONLY BY CERTIFIED APPLICATORS OR
PERSONS UNDER THEIR DIRECT SUPERVISION, AND ONLY FOR THOSE USES
COVERED BY THE CERTIFIED APPLICATOR'S CERTIFICATION.

Epi-Mek™ SC Miticide/Insecticide

Group	6	Insecticide
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Active Ingredient:

Abamectin ¹	8.0%*
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Other Ingredients:	92.0%
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Total:	100.0%
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¹CAS No. 71751-41-2

*1 gal. contains 0.7 lb. abamectin formulated as a suspension concentrate

KEEP OUT OF REACH OF CHILDREN.

WARNING/AVISO

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand the label, find someone to explain it to you in detail.)

See additional precautionary statements and directions for use in booklet.

AGRICULTURAL USE REQUIREMENTS

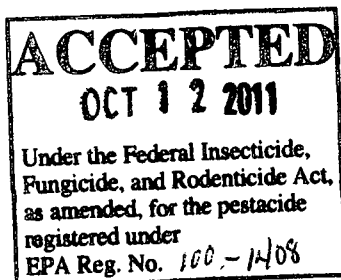
Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. Refer to supplemental labeling under "Agricultural Use Requirements" in the Directions for Use section for information about this standard.

EPA Reg. No. 100-1408

EPA Est. XXXX

SCP 1408-M(draft)

Net Contents



PRECAUTIONARY STATEMENTS

Hazards to Humans and Domestic Animals

WARNING/AVISO

May be fatal if swallowed or inhaled. Do not breathe vapor or spray mist. Harmful if absorbed through the skin. Causes moderate eye irritation. Avoid contact with skin, eyes, or clothing. 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.

FIRST AID	
If swallowed	<ul style="list-style-type: none"> • Call poison control center or doctor immediately for treatment advice. • Have a person sip a glass of water if able to swallow. • Do not induce vomiting unless told to do so by the poison control center or doctor. • Do not give anything by mouth to an unconscious person.
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, preferably by mouth-to-mouth, if possible. • Call a poison control center or doctor for further treatment 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 treatment advice.
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 treatment advice.

NOTE TO PHYSICIAN

Early signs of intoxication include dilation of pupils, muscular incoordination, and muscular tremors. Toxicity following accidental ingestion of this product can be minimized by early administration of chemical adsorbents (e.g., activated charcoal).

If toxicity from exposure has progressed to cause severe vomiting, the extent of resultant fluid and electrolyte imbalance should be gauged. Appropriate supportive parenteral fluid replacement therapy should be given, along with other required supportive measures (such as maintenance of blood pressure levels and proper respiratory functionality) as indicated by clinical signs, symptoms, and measurements.

In severe cases, observations should continue for at least several days until clinical condition is stable and normal. Since abamectin is believed to enhance GABA activity in animals, it is probably wise to avoid drugs that enhance GABA activity (barbiturates, benzodiazepines, valproic acid) in patients with potentially toxic abamectin exposure.

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

HOT LINE NUMBER

For 24-Hour Medical Emergency Assistance (Human or Animal)
Or Chemical Emergency Assistance (Spill, Leak, Fire or Accident),
Call
1-800-888-8372

Refer to booklet for PPE.

Environmental Hazards

This pesticide is toxic to fish and wildlife.

Do not apply directly to water, to areas where surface water is present, or to intertidal areas below the mean high water mark. Do not apply when weather conditions favor drift from target areas. Do not contaminate water when disposing of equipment wash water or rinsate. This product is highly toxic to bees exposed to direct treatment on blooming crops or weeds. Do not apply this product or allow it to drift to blooming crops or weeds if bees are foraging in/or adjacent to the treatment area.

Use of this product may pose a risk to threatened and endangered species of fish, amphibians, crustaceans (including fresh water shrimp), and insects. All use of this product in the state of California should comply with the recommendations of the California Endangered Species Project. Before using this product in California, consult with your county agriculture commissioner to determine use limitations that apply in your area.

Attention: This product contains a chemical known to the State of California to cause birth defects or other reproductive harm.

STORAGE AND DISPOSAL

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

Pesticide Storage

Store in a tightly closed container in a cool, dry place.

Pesticide Disposal

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Manufactured for:
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P.O. Box 18300
Greensboro, North Carolina 27419-8300

SCP 1408-M(draft)

Epi-Mek SC 1408-M(8-3-11) – pl – 8/11/11
Epi-Mek SC 1408-M(draft) PROP 65 AMEND SEP2011 CLEAN – pl – 8/31/11
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