

70950-2

02/21/2012

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY



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

OFFICE OF CHEMICAL SAFETY  
AND POLLUTION PREVENTION

AVA Chemical Ventures, LLC  
c/o Ross Gilbert  
Pyxis Regulatory Consulting, Inc.  
4110 136<sup>th</sup> St. NW  
Gig Harbor, WA 98332

FEB 21 2012

Subject: Label Amendment to consolidate the three sublabels into one master label.  
AVACHem Sucrose Octanoate [40.0%]  
EPA Reg. No.: 70950-2  
Your submission dated October 13, 2011  
Decision Number: 456556

Dear Mr. Gilbert:

The amendment referred to above submitted in connection with registration under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) section 3(c)(5), is acceptable provided that you:

- 1) Submit and/or cite all data required for registration/reregistration of your product under FIFRA section 3(c)(5) when the Agency requires all registrants of similar products to submit such data.
- 2) Submit two (2) copies of your final printed labeling before you release the product for shipment. Final printed labeling means the label or labeling of the product when distributed or sold. Clearly legible reproductions or photo reductions will be accepted for unusual labels, such as those silk-screened directly onto glass or metal containers or large bags or drum labels.

If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA section 6(e). Your release for shipment of the product bearing the amended labeling constitutes acceptance of these conditions. A stamped copy of the label is enclosed for your records. Should you have any questions, you may contact Mr. Colin Walsh directly at (703) 308-0298 or via email at [walsh.colin@epa.gov](mailto:walsh.colin@epa.gov).

Sincerely,

Linda A. Hollis, Chief  
Biochemical Pesticides Branch

CONCURRENCES  
Biochemical Pesticides and Pollution

SYMBOL	7511P	7511P					
SURNAME	Walsh	COLE					
DATE	2/16/12	2/16/12					

Prevention Division (7511P)

# AVACHEM SUCROSE OCTANOATE [40.0%] BIOCHEMICAL INSECTICIDE/MITICIDE

FOR ORGANIC PRODUCTION  
For Mushroom Media Treatment and Foliar Use and Honey Bee  
Treatment

Biochemical Insecticide For Sciarid Fly Control in Mushroom Growing Media  
Biochemical Insecticide/Miticide for Greenhouse, Nursery & Field Crop Use  
Biochemical Miticide for *Varroa* Mite Control on Honey Bees

**ACTIVE INGREDIENT**

Sucrose Octanoate Esters ( $\alpha$ -D-Glucopyranosyl -  $\beta$ -D-fructofuranosyl - octanoate),  
mono-, di-, and triesters of sucrose octanoate ..... 40.0%

OTHER INGREDIENTS ..... 60.0%

TOTAL ..... 100.0%

EPA Reg. No. 70950-2

EPA Est. No. ....

U.S. Patent #'s 5, 756,716; 6,384,266

**KEEP OUT OF REACH OF CHILDREN**

## WARNING

See inside label booklet for First Aid, Precautionary Statements and Directions for Use including Storage and Disposal instructions.

Manufactured for:

AVA Chemical Ventures, L.L.C.  
80 Rochester Avenue, Suite 214  
Portsmouth, NH 03801  
(866) 853-9958

# ACCEPTED

FEB 21 2012

Under the Federal Insecticide, Fungicide,  
and Rodenticide Act, as amended, for  
the pesticide registered under  
EPA Reg. No. 70950-2

**STOP - READ THE LABEL BEFORE USE  
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.)

FIRST AID	
If in eyes:	<ul style="list-style-type: none"> <li>• Hold eye open and rinse slowly and gently with water for 15-20 minutes.</li> <li>• Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>
If swallowed:	<ul style="list-style-type: none"> <li>• Call poison control center or doctor immediately for treatment advice.</li> <li>• Have person sip a glass of water if able to swallow.</li> <li>• Do not induce vomiting unless told to do so by the poison control center or doctor.</li> <li>• Do not give anything by mouth to an unconscious person.</li> </ul>
HOT LINE NUMBER	
<p>Have the product container or label with you when calling a poison control center or doctor, or going for treatment. For emergency information on Avachem Sucrose Octanoate [40%], call Chemtrec at 1-800-424-9300, seven days a week, 24 hours a day.</p>	

Manufactured for:  
AVA Chemical Ventures, L.L.C.  
80 Rochester Avenue, Suite 214  
Portsmouth, NH 03801  
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Net Contents: 1 Pint, 1 Gallon, 2.5 Gallons, 5 Gallons, 55 Gallons

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**PRECAUTIONARY STATEMENTS**

**Hazard to Humans and Domestic Animals:**

**WARNING:** Causes substantial but temporary eye injury. Harmful if swallowed. Do not get in eyes or on clothing. Wear protective eyewear (goggles or face shield). Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet. Remove contaminated clothing and wash clothing before reuse.

**Personal Protective Equipment (PPE):**

Applicators and other handlers must wear:

- Long sleeved shirt and long pants
- Waterproof gloves
- Shoes plus socks
- Protective eyewear.

Follow the 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.

**User Safety Recommendations:**

Users should:

- Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.

**Environmental Hazards:**

Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment washwater or rinsate.

**DIRECTIONS FOR USE**

It is a violation of Federal Law to use this product in a manner inconsistent with its labeling. For any requirements specific to your State or Tribe, consult the State or Tribal agency responsible for pesticide regulation.

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application.

Do not allow spray to drift from the application site and contact people, structures people occupy at any time and the associated property, parks and recreational areas, non-target crops, aquatic and wetland areas, woodlands, pastures, rangelands or animals. Apply only when wind speed is not more than 10 mph. For sprays, apply largest size droplets possible.

**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 48 hours.

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,
- shoes plus socks,
- protective eyewear, and
- waterproof gloves.

**NON-AGRICULTURAL USE REQUIREMENTS**

The requirements in this box apply to uses of this product that are not within the scope of the Worker Protection standard for agricultural pesticides (40 CFR part 170). The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries, or greenhouses.

Keep unprotected persons out of the treated areas until sprays have dried.

**PRODUCT INFORMATION**

AVACHEM SUCROSE OCTANOATE [40%] is a biochemical insecticide/miticide for use against the soft-bodied insects listed on this label, similar insect types; mites and thrips. It controls *Varroa* mites (*Varroa destructor*) on adult honey bees and controls the emergence of adult sciarid flies when applied to mushroom casing and/or compost prior to spawning. AVACHEM SUCROSE OCTANOATE [40%] is primarily a contact insecticide with limited residual activity.

- ◆ Do not apply this product through any type of irrigation system.

**MUSHROOM MEDIA TREATMENT**

**MIXING AND APPLICATION**

Shake or stir before use.

AVACHEM SUCROSE OCTANOATE [40%] dissolves readily in water. To achieve and to maintain the suspension, add the appropriate quantity to water with agitation and maintain gentle agitation during application.

**Rates:** Use 1.25% to 2.50% v/v solution of this product, depending on the severity of the infestation.

**Compost Treatment:** Use 100-300 gallons of total mix volume per 8000 square feet of mushroom growing area. Apply between filling and spawning time or concurrently with spawning by thorough incorporation such as with a spawning machine.

**Casing Treatment:** Spray 200-400 gallons of total mix volume per 8000 square feet of mushroom growing area.

Rate Table		
Total Mix Volume	% v/v Solution	Amount English (Metric)

100 gal. (378.5 liters)	1.25%	5.0 quarts (4.7 liters)
	2.50%	2.50 gallons (9.5 liters)

**Test Application**

Test AVACHEM SUCROSE OCTANOATE [40%] for possible effects on mushroom growth rates prior to large scale use.

**Application**

- Do not apply this product through any type of irrigation system.
- To achieve good control this product must come into contact with immature stage sciarid flies in the mushroom growing media. It does not directly affect adult sciarid flies.

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**FOLIAR USE**

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**PESTS CONTROLLED**

Use this product as a foliar spray to control or suppress soft-bodied pests which include: adelgid, aphids, caterpillars, glassy-winged sharpshooter, lace bug, leafhopper, mealy bug, plant bug, psyllid, soft scale, mites, tent caterpillar, thrips and whitefly.

**MIXING AND APPLICATION**

- ◆ Do not apply this product through any type of irrigation system.
- ◆ Apply as soon as infestation begins.
- ◆ Use in sufficient water to achieve adequate coverage.
- ◆ Repeat applications, as necessary, at intervals of 7 - 10 days, to maintain control.
- ◆ Thorough spray coverage of plant foliage, including the undersides of leaves, is essential for good control of the pest.
- ◆ Apply up to and including day of harvest.

Shake or stir before use.

AVACHEM SUCROSE OCTANOATE [40%] dissolves readily in water. To achieve and to maintain the suspension, add the appropriate quantity to water with agitation and maintain gentle agitation during application.

**Rate**

- Use a 0.8% to 1.0% v/v solution of this product, depending on the severity of infestation.

Use between 25 and 400 gallons of total mix volume per acre. The amount of total mix required to achieve adequate coverage will vary with the type, growth stage and/or spacing of the treated crop.

Rate Table		
Total Mix Volume	% v/v Solution	Amount English (Metric)

Rate Table		
Total Mix Volume	% v/v Solution	Amount English (Metric)
25 gal. (94.63liters)	0.8%	25 Fl. Oz. (3 Cups) (740 ml)
	1.0%	1 Quart (950 ml)
100 gal. (378.5 liters)	0.8%	3 Quarts+1 Cup (3.0 liters)
	1.0%	1 gallon (3.8 liters)

**Timing of Application**

Initiate applications as soon as pest is observed. Repeat applications, as necessary, at intervals of 7 - 10 days to maintain control.

**Test Application**

This product has been tested on many crops and ornamentals. However, it is not possible to evaluate all plant species or varieties for tolerance to this product. Test AVACHEM SUCROSE OCTANOATE [40%] for possible phytotoxic responses by treating a few plants at the label use rate prior to large scale use.

**Mixing**

The user at his discretion can tank mix pesticides currently labeled for the same crop unless the product labels specifically prohibit such use. AVACHEM SUCROSE OCTANOATE [40%] has not been extensively tested for use in tank mixes with many commonly used insecticides, fungicides or spray tank adjuvants. Test all tank mix combinations for physical compatibility by first performing a jar compatibility test using proper proportions of chemicals and water.

- Always determine the compatibility of water, pesticides and other tank additives, such as penetrators, spreader stickers or activators, gibberellic acid, calcium nitrate or diatomaceous earth, foliar nutrients and alkaline based chelating agents such as EDTA, with this product prior to addition to the spray tank. See below for compatibility testing information.
- For best results, use freshly mixed spray made with soft water. If water has high mineral content (hardness >300 ppm or 17.5 grains/gallon), check for compatibility as described above. If needed, add a compatibility agent to the tank prior to the addition of this product. Do not lower the pH of the final spray mixture below 7.0.
- A defoaming agent may be needed for use in sprayers equipped with an agitator.
- Use freshly prepared spray solutions.
- When using this product in a tank mix, read and follow all product labels. Mix in this order:
  - Compatibility agent (if needed)
  - Wettable and soluble powders
  - Flowable liquids
  - Emulsifiable oils and concentrates
  - AVACHEM SUCROSE OCTANOATE [40%]
- Application of spray mixtures must conform to use precautions and directions for all products included in the tank mix. Spray promptly after mixing and keep combinations agitated to achieve and maintain the suspension.

**Compatibility Testing**

Follow the steps below to determine compatibility of the spray tank ingredients.

1. Use a clean dry quart glass jar and add 1 pint of water.
2. To the jar, add 1 teaspoon of tank mix ingredients in the following order:
  - Dry formulations such as wettable powders, granulars, and dry flowables
  - Liquids such as flowable formulations
  - Liquids such as emulsifiable concentrates
3. Then add approximately 1.0 teaspoon of AVACHEM SUCROSE OCTANOATE [40%]:
4. Shake the jar for 15 seconds and allow to stand for at least 5 minutes. If the contents readily re-suspends, it is considered compatible. If the mixture separates out or forms flakes, sludges, gels, or lumps, etc., then the mixture is not compatible.

**Application**

- Apply this product with ground spray equipment. Do not apply this product through any type of irrigation system.
- This product must come into contact with the targeted pests to be effective. Complete coverage of plant foliage is essential for maximum control.
- Apply promptly after mixing with other pesticides to avoid or reduce alkaline hydrolysis of certain pesticides.

**INSECTICIDAL/MITICIDAL USES**

**VEGETABLES, HERBS AND SPICES**

(Greenhouse and Outdoor)

**Vegetables:** Artichoke, Asparagus, Brassica (cole), (such as: bok choy, broccoli, broccoli raab, Brussels sprouts, cabbage, cauliflower, Chinese broccoli, Chinese cabbage, collard greens, kale, kohlrabi, mustard greens, napa cabbage and Swiss chard), **Bulb** (such as: green onion, leeks, garlic, onion and shallot), **Cucurbit** (such as: cucumber, melon, pumpkin and summer squash), **Fruiting** (such as: eggplant, pepper and tomato), **Leafy** (such as: celery, endive, escarole, lettuce and spinach), **Legume** (such as: bean, pea and soybean), **Root and tuber** (such as: beet, carrot, horseradish, potato, radish, rutabaga, sugarbeet and yam), **Herbs and spices** (such as: basil, chive, dill, marjoram, mint, parsley and sage), **Watercress**.

**Pests Controlled:** Aphids, caterpillars, leafhoppers, mites, thrips, whiteflies.

**FRUIT AND NUT CROPS**

**Citrus fruits** (such as: citron, grapefruit, kumquat, lemon, lime, tangelo, and tangerine), **Pome fruits** (such as: apple, crabapple, pear and quince), **Stone fruits** (such as: apricot, cherry, nectarine, peach, plum and prune), **Small Fruits and Berries** (such as: blackberry, blueberry, cane berries, cranberry, currants, grape, raspberry, strawberry, boysenberry, and olallieberry) **Tree nuts** (such as: almond, chestnut, filbert, pecan, pistachio, black and English walnut).

**Pests Controlled:** Aphids, glassy-winged sharp-shooter, leafhoppers, mites, mealy bug, psyllid, soft scale, thrips, whiteflies.

**FIELD CROPS**

**Alfalfa, Canola, Cotton, Peanut, Soybean, Tobacco and Wheat**

**Pests Controlled:** Aphids, caterpillars, mites, thrips, whiteflies.

**HOPS, COFFEE, BANANA AND PINEAPPLE**

**Pests Controlled:** Aphids, leafhoppers, mealy bug, mites, plant bug, soft scale, thrips, whiteflies.

**ORNAMENTAL LANDSCAPE TREES AND SHRUBS, CHRISTMAS TREES, ROSES, FLOWERS AND BEDDING PLANTS**

**Pests Controlled:** Adelgid, aphids, lace bug, leafhopper, mealy bug, mites, plant bug, psyllid, soft scale, tent



caterpillar, thrips, whiteflies.

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## HONEY BEE TREATMENT

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### MIXING AND APPLICATION

- Do not apply this product through any type of feeding/watering system.
- Apply as soon as infestation is detected.
- Use in sufficient water to achieve adequate coverage of the adult honey bee population.
- Repeat applications at intervals of 7-10 days, up to three times per infestation, to control mites emerging from brood cells.
- Thorough spray coverage of adult honey bees on frames is essential for good control of the pest. Remove frames with adhering bees and spray both sides, or leave frames in place and apply this product to the frame spaces.

Shake or stir before use.

AVACHEM SUCROSE OCTANOATE [40%] is miscible in water. To achieve and to maintain the suspension, add the appropriate quantity to water with agitation and maintain gentle agitation during application.

**Rate:** Use a 0.625% v/v solution of this product.

Apply 1.5 fl. Oz (45 ml) of total mix volume to each full depth frame of bees, or 3.0 fl. Oz per frame space. (Typical 18 frame two story colony will receive 27-30 fl. Oz. (810-900 ml) of total mix volume.)

Rate Table		
Total Mix Volume	% v/v Solution	Amount English (Metric)
2 gal. (7.57 liters)	0.625%	3 TBS (50 ml)
10 gal. (37.85 liters)	0.625%	1 Cup (235 ml)

#### Test Application

Initiate applications as soon as *Varroa* mites are observed. Repeat applications, as necessary, at intervals of 7 - 10 days to maintain control, up to three times per infestation, to control mites emerging from brood cells.

#### Test Application

This product has been tested on European-derived honey bees managed in standard Langstroth style beehives in temperate areas of North America. However, it is not possible to evaluate all management systems and climactic conditions. Test AVACHEM SUCROSE OCTANOATE [40%] for possible detrimental effects on honey bees by treating a few beehives at the label use rate prior to large scale use.

#### Application

- Apply this product with a garden type hand held sprayer, a backpack sprayer, or powered commercial sprayer. Do not apply this product through any type of feeding/irrigation system.
- This product must come into contact with the *Varroa* mites to be effective. Complete wetting of the adult honey bee population on frames is essential for maximum control.
- Use a spray nozzle tip that delivers a fan-shaped spray pattern, such as VisiFlo Flat Spray Tip, #8002 (80 degree angle; 0.2 GPM) or equivalent.

- Prior to application, calculate the number of seconds needed to deliver the proper dosage by spraying into a measured container.
- Apply by either of the following methods:
  - o **Lift and Spray:** Remove each frame with adhering bees and apply 1.5 Fl. Oz. of total mix volume to both sides, using a sprayer with a single nozzle.
  - o **Spray-Down:** Spray between the frame spaces, applying 3.0 Fl. Oz. of total mix volume per frame space, using either a single nozzle sprayer or a multi-nozzle spray boom with nozzle spacing that conforms to the frame spaces.
- Do not apply when honey bees are in winter cluster or at temperatures below 55°F to avoid chilling the bee population.

**STORAGE AND DISPOSAL**

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

**Pesticide Storage:** Store in a cool, dry location.

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

**Container Handling:** Nonrefillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying.

[Containers equal to or less than 5 gallons:] 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 1/4 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.

[Containers greater than 5 gallons:] Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times.

Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

**WARRANTY STATEMENT, DISCLAIMER**

AVA Chemical Ventures, L.L.C. (AVA Chemical) seeks to present reliable information concerning the composition, properties and use of the product; however: (1) To the extent consistent with applicable law, all advice concerning selection and use of this product is provided at no charge and with no warranty. (2) To the extent consistent with applicable law, no warranty is made hereby. the product described herein is warranted to conform to AVA Chemical specifications, therefore, only at the time of sale. THIS WARRANTY IS EXCLUSIVE AND IN LIEU OF ANY AND ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, ARISING BY LAW OR CUSTOM, INCLUDING BUT NOT BY WAY OF LIMITATION, THE IMPLIED WARRANTY OF MERCHANTABILITY AND THE IMPLIED WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE. To the extent consistent with applicable law, remedy for any breach of warranty is limited to replacement of the defective product. (3) To the extent consistent with applicable law, AVA Chemical assumes no responsibility for any patent liability arising from the use of the product in a process, manner or formula not designed by AVA Chemical. Nothing in the listed information shall be construed as an inducement or recommendation to use any process or to produce or use the product in conflict with existing or future patents.

[EPA APPROVAL DATE]