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



OFFICE OF PREVENTION, PESTICIDES AND TOXIC SUBSTANCES

## 12/18/2007

Carolyn Brinkley Syngenta Crop Protection, Inc. PO Box 18300 Greensboro, NC 27419

re.

Zephyr 0.15 EC Miticide/Insecticide, EPA Reg. # 100-897 label amendment submitted 12/7/2006 accepted

Dear Ms. Brinkley:

The revised labeling referenced above, submitted in connection with the registration under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), as amended, is accepted. The purpose of this label amendment was to remove the "do not apply east of the Mississippi River" restriction for cotton along with some other minor label changes. A copy of the EFED 10/17/2007 review is enclosed.

Submit two (2) copies of your final printed labeling prior to releasing your product for shipment. If this provision is 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 this condition. A copy of your label stamped "accepted" is enclosed for your records.

Sincerely yours,

0.11

Thomas C. Harris
Biologist
Insecticide Rodenticide Branch
Registration Division (7505C)
Harris.Thomas@epa.gov
(703) 308-9423

enclosures (2)

#### 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.

Zephyr® 0.15EC Miticide/Insecticide

Group	6	Insecticide

Active Ingredient:

## 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.

EPA Reg. No. 100-897

EPA Est. xxxxx

Product of XXXX
Formulated in XXXX

SCP 897A-L (draft)

**Net Contents** 

**ACCEPTED** 

DEC 1.8 2007

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

<sup>&</sup>lt;sup>1</sup>CAS No. 65195-56-4 and 65195-55-3 \*1 gal. contains 0.15 lb. abamectin

FIRST AID		
If swallowed	<ul> <li>Call poison control center or doctor immediately for treatment advice.</li> <li>Do not give any liquid to the person.</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>	
If in eyes	<ul> <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 on skin or clothing	<ul> <li>Take off contaminated clothing.</li> <li>Rinse skin immediately with plenty of water for 15-20 minutes.</li> <li>Call a poison control center or doctor for treatment advice.</li> </ul>	
If inhaled	<ul> <li>Move person to fresh air.</li> <li>If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible.</li> <li>Call a poison control center or doctor for further treatment advice.</li> </ul>	

#### 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 parental 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

#### PRECAUTIONARY STATEMENTS

#### Hazards to Humans and Domestic Animals

#### WARNING/AVISO

May be fatal if swallowed. Causes substantial but temporary eye injury. Do not get in eyes or on clothing. Harmful if inhaled or absorbed through skin. Avoid breathing spray mist or contact with skin. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco. Remove and wash contaminated clothing before reuse.

## **Personal Protective Equipment**

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

## Applicators and other handlers must wear:

- Coveralls worn over short-sleeved shirt and short pants
- Chemical-resistant gloves EPA chemical-resistance Category B (e.g., barrier laminate or butyl rubber ≥14 mils)
- Chemical-resistant footwear plus socks
- Protective eyewear
- Chemical-resistant apron when cleaning equipment, mixing, or loading.

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.

# **User Safety Recommendations**

#### Users should:

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

#### **Environmental Hazards**

This pesticide is toxic to fish and wildlife.

For terrestrial uses: 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 or residues on blooming crops or weeds. Do not apply this product or allow it to drift to blooming crops or weeds if bees are visiting 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.

## Physical or Chemical Hazards

Do not use or store near heat or open flame.

#### **ATTENTION**

This product contains a chemical (N-methyl pyrrolidone) 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 should 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, Inc. or Seller. All such risks shall be assumed by Buyer and User, and 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. This warranty does not extend to the use of the product contrary to label instructions, or under abnormal conditions or under conditions not reasonably foreseeable to or beyond the control of Seller or SYNGENTA, and Buyer and User assume the risk of any such use. SYNGENTA MAKES NO WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE NOR ANY OTHER EXPRESS OR IMPLIED WARRANTY EXCEPT AS STATED ABOVE.

In no event shall SYNGENTA or Seller be liable for any incidental, consequential or special damages resulting from the use or handling of this product. 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 may be 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 restrictedentry interval (REI) of 12 hours.

PPE required for early entry into 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-sleeved shirt and short pants
- Chemical-resistant gloves EPA chemical-resistance Category B (e.g., barrier laminate or butyl rubber ≥14 mils)
- Chemical-resistant footwear plus socks
- Protective eyewear

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

#### **GENERAL INFORMATION**

Zephyr 0.15 EC 0.15EC is an emulsifiable concentrate that will control spider mites (twospotted, carmine, Pacific, and strawberry) on cotton when the product is applied according to the **Directions for Use**. Thorough coverage of foliage is essential for good mite control.

**Chemigation**: Do not apply this product through any type of irrigation system.

# **Spray Drift Precautions**

Observe the following precautions when spraying in the vicinity of aquatic areas such as lakes; reservoirs; rivers; permanent streams, marshes or natural ponds; estuaries and commercial fish farm ponds.

- Do not apply with ground application equipment within 25 ft., or with aircraft within 150 ft. of lakes; reservoirs; rivers; permanent streams, marshes, natural ponds; estuaries, or commercial fish farm ponds.
- All aerial and ground application equipment must be properly calibrated, using appropriate carriers, and maintained. For aerial application, mount the spray boom in a manner that minimizes drift caused by wing tip vortices. Use the minimum practical boom length, but do not exceed 75% of the wing span or rotor diameter.
- Use the largest droplet size consistent with good pest control. Minimize the
  formation of very small droplets by selecting appropriate nozzles, orienting
  nozzles away from the air stream as much as possible and avoiding excessive
  spray boom pressure. Release the spray at the lowest height consistent with
  good pest control and flight safety. Avoid application more than 10 ft. above the
  crop canopy.
- Make aerial or ground applications when wind velocity favors on-target product deposition (approximately 3-10 mph). Do not apply when wind velocity exceeds 15 mph. Avoid applications when wind gusts approach 15 mph. Avoiding application when the wind direction is toward the aquatic area can reduce the risk of exposure to aquatic areas. Do not cultivate within 10 ft. of the aquatic area to allow growth of a vegetative filter strip.

- Low humidity and high temperatures increase the evaporation rate of spray droplets and therefore increase the likelihood of spray drifting to aquatic areas. Avoid spraying during conditions of low humidity and/or high temperature.
- Do not make aerial or ground applications during temperature inversions.
   Inversions are characterized by stable air and temperatures that increase with height above the ground. Mist or fog may indicate the presence of an inversion in humid areas. The applicator may detect the presence of an inversion by producing smoke and observing a smoke layer near the ground surface.

# **Resistance Management**

Zephyr 0.15 EC 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 Zephyr 0.15 EC be used in a sound resistance management program. Treatment may not be effective against labeled pests if mite-tolerant strains develop. When applying Zephyr 0.15 EC use resistance management practices.

Resistance management practices may include, but are not limited to:

- Rotating Zephyr 0.15EC with other products with different modes of action (products not in Group 6),
- Using labeled rates at the specified spray intervals,
- Using non-chemical alternatives such as beneficial arthropods,
- · Rotating susceptible and non-susceptible plants, and
- Using various cultural practices.

For additional information about these or other resistance management practices, consult your local agricultural advisor or company representative.

## **CROP USE DIRECTIONS**

## Cotton

For control of spider mites

Mix with water as indicated below. Thorough coverage of the crop is essential for optimum results. Inadequate coverage may result in reduced control. For best coverage and control apply Zephyr 0.15 EC with ground application equipment.

	, .	
Pest	Fl. oz./A	Instructions
Carmine spider mite	4-6 (Early Season Cotton- See <b>Instructions</b> )	Apply when mites first appear. The use rate depends on the size of the plant and density of the foliage. Repeat application if needed to
Pacific spider mite		maintain control. See <b>Use Restrictions</b> below.
Strawberry spider mite Twospotted	8-16	The lower use rates of <b>4-6 fl. oz./A</b> are only recommended if cotton is early season and under 10 inches in height. Do not use less than 4 fl. oz./A. <b>West of the Rocky Mountains</b> - the lower use rates may only be used on cotton less
spider mite		than 10 inches in height and applied only with ground equipment.
		Note: Zephyr 0.15 EC may be used without a wetting agent. Spreading and penetrating surfactants can improve mite control. When necessary to improve the wetting of foliage and to smooth out spray deposits, a nonionic surfactant is recommended. Do not use binder
		or sticker-type surfactants.

## **Use Restrictions**

- PHI: Do not apply within 20 days of harvest.
- Application Method: Ground or aerial application permitted.
- Minimum Amount of Water: Do not apply in less than 5 gals. of water/acre. Use sufficient volume to insure thorough coverage.
- Maximum Amount per Application: Do not apply more than 16 fl. oz./A per application.
- Application Interval: Wait at least 21 days before repeating application.
- Maximum Amount per Season: Do not apply more than 32 fl. oz./A per season.
- Grazing/Feeding: Do not feed or allow livestock to graze treated cotton.

## STORAGE AND DISPOSAL

Do not contaminate water, food, or feed by storage or disposal. Open dumping is prohibited. Do not reuse empty container.

## Storage

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

# **Pesticide Disposal**

Waste resulting from the use of this product must be disposed of on site or at an approved waste disposal facility.

# **Container Disposal**

Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill or by other procedures allowed by State and local authorities.

For minor spills, leaks, etc., follow all precautions indicated on this label and clean up immediately. Take special care to avoid contamination of equipment and facilities during cleanup procedures and disposal of wastes.

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

Manufactured for : Syngenta Crop Protection, Inc. Greensboro, North Carolina 27409 www.syngenta-us.com

SCP 897A-L (draft)

ZEP 0.15EC 897A L(draft) - ig - 9-19-06 000100-00897.20060920.pdf

# (NON-DETACHABLE 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.

Zephyr® 0.15EC Miticide/Insecticide

•	Group	6	Insecticide
Active Ingredient:			•
Active Ingredient: Abamectin <sup>1</sup>		2.0%	<b>′</b> *
Other Ingredients:		98.0%	, D
Total:		100.0%	, 0 .

<sup>&</sup>lt;sup>1</sup> CAS No. 65195-56-4 and 65195-55-3

#### 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. 100-897

EPA Est. xxxxx

SCP 897A-L (draft)

**Net Contents** 

<sup>\*1</sup> gal. contains 0.15 lb. abamectin

## **PRECAUTIONARY STATEMENTS**

# **Hazards to Humans and Domestic Animals**

## **WARNING/AVISO**

May be fatal if swallowed. Causes substantial but temporary eye injury. Do not get in eyes, or on clothing. Harmful if inhaled or absorbed through skin. Avoid breathing spray mist and contact with skin. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum or using tobacco. Remove and wash contaminated clothing before reuse.

	FIRST AID
If swallowed	<ul> <li>Call poison control center or doctor immediately for treatment advice.</li> <li>Do not give any liquid to the person.</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>
If in eyes	<ul> <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 on skin or clothing	<ul> <li>Take off contaminated clothing.</li> <li>Rinse skin immediately with plenty of water for 15-20 minutes.</li> <li>Call a poison control center or doctor for treatment advice.</li> </ul>
If inhaled	<ul> <li>Move person to fresh air.</li> <li>If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible.</li> <li>Call a poison control center or doctor for further treatment advice.</li> </ul>

# **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 parental 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 this product 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

#### **Environmental Hazards**

This pesticide is toxic to fish and wildlife.

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This product is highly toxic to bees exposed to direct treatment or residues on blooming crops or weeds. Do not apply this product or allow it to drift to blooming crops or weeds if bees are visiting 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.

# **Physical or Chemical Hazards**

Do not use or store near heat or open flame.

#### STORAGE AND DISPOSAL

Do not contaminate water, food, or feed by storage or disposal. Open dumping is prohibited. Do not reuse empty container.

# Storage

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

# Pesticide Disposal

Waste resulting from the use of this product must be disposed of on site or at an approved waste disposal facility.

# Container Disposal

Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill or by other procedures allowed by State and local authorities.

For minor spills, leaks, etc., follow all precautions indicated on this label and clean up immediately. Take special care to avoid contamination of equipment and facilities during cleanup procedures and disposal of wastes.

Chemigation: Do not apply this product through any type of irrigation system.

Zephyr® and the Syngenta logo are trademarks of a Syngenta Group Company

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Manufactured for : Syngenta Crop Protection, Inc. Greensboro, North Carolina 27409 www.syngenta-us.com

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# Chron

1/31/02 – Notif -added Prop. 65 language

9/26/02 - Accepted – Revised First Aid per PR Notice 2001-1; revised glove statement in PPE and AG USE box to reflect category B language. Per EPA letter-moved "Spray Drift" to Direction for Use section, revised base label language

11/21/05 – Accepted – reinstated "A" variant formulation.

9/20/06 – Draft – Primary reason for revision: Remove voluntary restriction prohibiting use east of the MS River.

Other changes:

1) Added resistance category and resistance management section, 2) In Precautionary Statements section: revised Hazards to Humans ... language except did not include chemical resistant headgear in PPE – not appropriate for cotton 3) Added paragraph about endangered species 4) Revised spray drift language 5) changed format of directions for use 6) added language re: thorough coverage for best results 7) deleted max no of 2 applications/season – already covered by max amount of product per season 8) clarified early season cotton directions 9) added language recommending ground application for best coverage/control 10) revised Storage & Disposal language, 11) added instructions about use of surfactant.