

100-913

9/26/2002

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



OFFICE OF  
PREVENTION, PESTICIDES  
AND TOXIC SUBSTANCES

September 26, 2002

301  
17 5-620935

Syngenta Crop Protection, Inc.  
P.O. Box 18300  
Greensboro, NC 27419-8300

Attention: Mr. John Hott

**Subject** Endeavor® Insecticide  
EPA Reg. No. 100-913  
Revised label  
Your letter of August 13, 2002

**Purpose** The purpose of your submission is to amend the product label.

**Review of label** The labeling submitted with the above letter, under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) is acceptable, provided that you submitted one (1) copy of your final printed label prior to releasing the product for shipment with the amended labeling. A copy of the stamped label is enclosed for your records.

**Note** In any future printing of final printed labeling, we would expect your "STORAGE AND DISPOSAL" section for this and other pymetrozine products and for rodenticide products to follow, the "DIRECTIONS FOR USE" section. It is too confusing to have a totally different section incorporated into the body of another section.

**Existing stocks** Stocks of existing labels may be used for eighteen (18) months.

2715

(Detachable Container Label)

Endeavor™

Insecticide

For Professional Use Only (Not for application by homeowners)

ACCEPTED  
with COMMENTS  
in EPA Letter Dated:

SEP 25 2002

For control of aphids and whiteflies on landscape ornamentals, field grown ornamentals, container grown ornamentals, nonbearing fruit and nut trees in nurseries, Christmas trees, ground covers, and ornamental plants in greenhouses, lath and shadehouses, and interiorscapes.

Under the Federal Insecticide, Fungicide, and Rodenticide Act, this product is registered under EPA Reg. No. 100-913

Active Ingredient:	
<u>Pyrethrin (CAS No. 123312-89-0)</u>	50.0%
<u>Other Ingredients:</u>	50.0%
Total:	100.0%

Endeavor™ is a water-dispersible granule.

**KEEP OUT OF REACH OF CHILDREN.**

**CAUTION**

See additional precautionary statements and directions for use inside booklet.

EPA Reg. No. 100-913

EPA Est. 67545-AZ-1

Product of Switzerland

Formulated in the USA

SCP 913B-L1 (Draft)

6 X 2.5 ounce packets  
15 ounces  
Total Net Weight Per Box  
U.S. Standard Measure

**PRECAUTIONARY STATEMENTS**

<b>FIRST AID</b>	
<b>If in eyes</b>	<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>
<b>If on skin or clothing</b>	<ul style="list-style-type: none"><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>
<b>If inhaled</b>	<ul style="list-style-type: none"><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>
<b>If swallowed</b>	<ul style="list-style-type: none"><li>• Call a 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>
Have the product container or label with you when calling a poison control center or doctor, or going for treatment.	
<b>HOT LINE NUMBER</b> For 24 Hour Medical Emergency Assistance (Human or Animal) or Chemical Emergency Assistance (Spill, Leak, Fire, or Accident), Call <b>1-800-888-8372</b>	

**Hazards to Humans and Domestic Animals**

**CAUTION**

Harmful if absorbed through skin. Avoid contact with eyes, skin, or clothing. Wash thoroughly with soap and water after handling.

**Personal Protective Equipment**

**Applicators and other handlers must wear:**

- Long-sleeved shirt and long pants
- Chemical-resistant gloves made of any waterproof material – Category A (e.g., barrier laminate, butyl rubber, nitrile rubber, neoprene rubber, natural rubber, polyethylene, polyvinylchloride (PVC) or viton).
- Shoes plus socks

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 Control Statements**

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.

**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**

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 cleaning equipment or disposing of equipment wash water.

**Physical or Chemical Hazards**

Do not use, pour, spill, or store near heat or open flame.

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**CONDITIONS OF SALE AND LIMITATION OF WARRANTY AND LIABILITY**

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**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 of Liability, which may not be modified except by written agreement signed by a duly authorized representative of SYNGENTA.

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### DIRECTIONS FOR USE

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 restricted entry interval (REI) of 12 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:

- Long-sleeved shirt and long pants
- Chemical-resistant gloves made of any waterproof material – Category A (e.g., barrier laminate, butyl rubber, nitrile rubber, neoprene rubber, natural rubber, polyethylene, polyvinylchloride (PVC) or viton).
- Shoes plus socks

#### 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 product agricultural plants on farms, forests, nurseries, or greenhouses.

**Do not enter treated areas without protective clothing until sprays have dried.**

**FAILURE TO FOLLOW DIRECTIONS AND PRECAUTIONS ON THIS LABEL MAY RESULT IN CROP INJURY AND/OR POOR INSECT CONTROL.**

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#### STORAGE AND DISPOSAL

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

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### **Storage**

Store in original container, in a cool, dry place inaccessible to children and pets. Product is hygroscopic. Keep the container tightly closed.

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.

### **Pesticide Disposal**

Pesticide wastes may be toxic. Improper disposal of unused pesticide, spray mixture, or rinse water is a violation of federal law. If these wastes cannot be used according to label instruction, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance in proper disposal methods.

### **Container Disposal**

Completely empty bag into application equipment. Dispose of empty bag in a sanitary landfill, or, by other procedures allowed by state and local authorities.

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## **GENERAL INFORMATION**

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Endeavor is an insecticide that controls aphids and whiteflies on landscape ornamentals, field grown ornamentals, container grown ornamentals, nonbearing fruit and nut trees in nurseries, Christmas trees, ground covers, and ornamental plants in greenhouses, lath- and shade-houses and interiorscapes.

### **Mode of Action**

Endeavor has a mode of action that controls aphids and whiteflies by stopping their feeding activity. These insects stop feeding within hours, but remain on the plant for a short time (2-4 days). Endeavor has residual activity in the plant and will control aphids and whiteflies that move onto the plant after spraying.

### **Suitability for Integrated Pest Management Programs**

Endeavor is suitable for Integrated Pest Management (IPM) programs as it has a low toxicity to beneficial insect (including honeybees and bumblebees) and mite populations.

### **Use Restrictions**

Do not apply aerially.

Do not apply more than 10 oz./A per application.

For outdoor use, do not apply more than 48 oz./A per year.

For indoor use, do not apply more than 100 oz. **(48 oz. in CA only)**/A per year.

### **Chemigation**

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

### **Phytotoxicity**

Endeavor has been evaluated for phytotoxicity on many greenhouse, nursery, and ornamental plants. All plants tested under university research and commercial production conditions have not shown phytotoxicity at labeled rates of Endeavor. While many species and cultivars have been tested, a small

group of each specie and cultivar should be evaluated for phytotoxicity two weeks prior to making applications to the entire crop. Applications should not be made to poinsettia after bract formation.

### Resistance Management

Endeavor belongs to a class of chemicals not previously used as pesticides and not known to be cross-resistant to other classes of insecticides. However, insect pests are known to develop resistance to products used repeatedly. Because resistance development cannot be predicted, the use of this product should conform to resistance management strategies established for the crop and use area. Such strategies may include rotating with insecticides with different modes of action. Consult your local pest control advisor or extension office for details. If resistance to this product develops in your area, it may not provide adequate control. If you experience difficulty with control, and resistance is a likely cause, consult your local Syngenta Crop Protection representative or local agricultural authorities for the best alternative method of control. Syngenta encourages responsible product stewardship to ensure effective long-term control of the insect pests on this label.

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### SPRAY EQUIPMENT

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- Use sufficient water to provide thorough, uniform coverage.
- Use sprayer nozzles that provide accurate, uniform application.
- Calibrate sprayer to insure delivery of adequate spray volume per unit area.
- To avoid spray drift, do not apply when conditions favor drift beyond the target area.
- Avoid spray overlap, as crop injury may occur.

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### MIXING PROCEDURES

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Prepare no more spray mixture than is needed for the immediate operation. Thoroughly clean spray equipment before using this product. Vigorous agitation is necessary for proper dispersal of the product. Maintain maximum agitation throughout the spraying operation. Do not let the spray mixture stand overnight in the spray tank. Flush the spray equipment thoroughly following each use and apply the rinsate to a previously treated area.

**Endeavor Alone:** Add ½ of the required amount of water to the mix tank. With the agitator running, add the Endeavor to the tank. Continue agitation while adding the remainder of the water. Begin application of the solution after the Endeavor has completely dispersed into the mix water. Maintain agitation until all of the mixture has been applied.

**Endeavor + Tank Mixtures:** Endeavor is compatible with most insecticide and fungicide products. However, the physical compatibility of Endeavor with tank mix partners should be tested before use. To determine the physical compatibility of Endeavor with other products, use a jar test.

Using a 1½ qt. jar, add the proportionate amounts of the products to 1 qt. of water. Add wettable powders and water-dispersible granular products first, then liquid flowables, and emulsifiable concentrates last. After thoroughly mixing, let stand for at least 5 minutes. If the combination remains mixed or can be remixed readily, it is physically compatible. Once compatibility has been proven, use the same procedure for adding required ingredients to the spray tank.

If mixture is physically compatible, add ½ of the required amount of water to the mix tank. Start the agitator before adding any tank mix partners. Add products in this order: products packaged in water-soluble packaging, wettable powders, wettable granules (dry flowables) such as Endeavor, liquid flowables, liquids, and emulsifiable concentrates.



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Always allow each tank mix partner to become fully dispersed before adding the next product. Provide sufficient agitation while adding the remainder of the water. Maintain agitation until all the mixture has been applied.

**Note:** If using Endeavor in tank mixtures, all products in water-soluble packaging should be added to the tank before any other tank mix partner, including Endeavor. Allow the water-soluble packaging to completely dissolve and the product(s) to completely disperse before adding any other tank mix partner to the tank.

If using Endeavor in a tank mixture, observe all directions for use, crop/sites, use rates, dilution ratios, precautions, and limitations which appear on the tank mix product label. No label dosage rate should be exceeded, and the most restrictive label precautions and limitations should be followed. This product should not be mixed with any product which prohibits such mixing. Tank mixtures or other applications of products referenced on this label are permitted only in those states in which the referenced products are labeled.

**APPLICATION DIRECTIONS**

When target pests appear and conditions do not favor drift beyond the target area, apply foliar spray mixture uniformly to all plant surfaces, particularly the stem and leaf undersides, to point of runoff. Avoid spray overlap that could cause phytotoxicity. Use the following rates and retreatment intervals.

Pests	Type of Application & Sites	Application Rates for Endeavor	Retreatment Intervals
Whiteflies, including Silverleaf whitefly <i>(Bermisia argentifolii)</i> Greenhouse Whitefly <i>(Trialeurodes vaporariorum)</i> Aphids including: Green Peach Aphid <i>(Myzus persica)</i> Melon Aphid <i>(Aphis gossypii)</i>	Ground Foliar Spray  Ornamentals	2.5-5.0 oz./100 gals. water  Maximum rate of 10 oz./A	7-days-severe insect pressure  14-days-normal insect pressure

**Note:** On hard to wet plants, add a nonionic or organosilicone-based surfactant to improve coverage. Follow product's use directions and rate recommendations.

**Restrictions**

Do not apply more than 10 oz./A per application.

For outdoor use, do not apply more than 48 oz./A per year.

For indoor use, do not apply more than 100 oz./A per year.

**In CA only:** For indoor use, do not apply more than 48 oz./A per year.

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Endeavor™ and the Syngenta logo are trademarks of a Syngenta Group Company  
U.S. Patent No. 5,153,200

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

Product of Switzerland

Formulated in the USA

Syngenta Crop Protection, Inc.  
Greensboro, North Carolina 27409  
[www.syngenta-us.com](http://www.syngenta-us.com)

SCP 913B-L1 (Draft)

Z:LABELLE-W/ENDV913B-L1 (Clean) – lg – 8/13/02

11815

(Non-Detachable Container Label)

Endeavor™

Insecticide

For Professional Use Only

For control of aphids and whiteflies on landscape ornamentals, field grown ornamentals, container grown ornamentals, nonbearing fruit and nut trees in nurseries, Christmas trees, ground covers, and ornamental plants in greenhouses, lath and shadehouses and interiorscapes.

ACCEPTED  
with COMMENTS  
in EPA Letter Dated:

SEP 25 2002

Under the Federal Insecticide, Fungicide, and Rodenticide Act as amended by the pesticide registration and EPA Reg. No.

100-913

Active Ingredient:	
Pymetrozine: (CAS No. 123312-89-0) .....	50.0%
Other Ingredients:	50.0%
Total:	100.0%

Endeavor™ is a water-dispersible granule.

**KEEP OUT OF REACH OF CHILDREN.**

**CAUTION**

See additional precautionary statements and Directions for Use in attached 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. 100-913

EPA Est. 67545-AZ-1

SCP 913B-L1 (Draft)

6 X 2.5 ounce packets

15 ounces

Total Net Weight Per Box

U.S. Standard Measure

**Precautionary Statements**

**Hazards to Humans and Domestic Animals**

**CAUTION**

Harmful if absorbed through skin. Avoid contact with eyes, skin, or clothing. Wash thoroughly with soap and water after handling.

<b>FIRST AID</b>	
<b>If in eyes</b>	<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>
<b>If on skin or clothing</b>	<ul style="list-style-type: none"> <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>
<b>If inhaled</b>	<ul style="list-style-type: none"> <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>
<b>If swallowed</b>	<ul style="list-style-type: none"> <li>• Call a 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>
Have the product container or label with you when calling a poison control center or doctor, or going for treatment.	
<p><b>HOT LINE NUMBER</b>            For 24 Hour Medical Emergency Assistance (Human or Animal) or            Chemical Emergency Assistance (Spill, Leak, Fire, or Accident),            Call  <b>1-800-888-8372</b></p>	

**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 cleaning equipment or disposing of equipment wash water.

**Physical or Chemical Hazards**

Do not use, pour, spill, or store near heat or open flame.

**Storage and Disposal**

**Storage**

Store in original container in a cool, dry place inaccessible to children and pets. For minor spills, see booklet label.

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**Pesticide Disposal**

See booklet label.

**Container Disposal**

Completely empty bag into application equipment. Dispose of empty bag in a sanitary landfill, or, by other procedures allowed by state and local authorities.

**Chemigation**

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

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Endeavor™ and the Syngenta logo are trademarks of a Syngenta Group Company  
U.S. Patent No. 5,153,200

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Syngenta Crop Protection, Inc.  
Greensboro, North Carolina 27409  
[www.syngenta-us.com](http://www.syngenta-us.com)

SCP 913B-L1 (Draft)

Z:LABELE-W/ENDV913B-L1 (Clean) – lg – 8/13/02

**Chron**

1/21/02 - Syngenta format

8/13/02 - Revised First Aid per PR Notice 2001-1; revised PPE glove statement; revised container disposal; made changes requested by the EPA.

15 7 15

(Packet Label)

Endeavor™

Insecticide

Contains pymetrozine (CAS No. 123312-89-0)

ACCEPTED  
with COMMENTS  
in EPA Letter Dated:

SEP 25 2002

KEEP OUT OF REACH OF CHILDREN.

CAUTION

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

See additional Precautionary Statements and Directions for Use in booklet on  
outer container.

100-913

EPA Reg. No. 100-913

EPA Est. 67545-AZ-1

SCP 913B-L2B 0102

Store packet in original box.

Z - LABEL-E-W/END913B-L2B 0102 - ccg - 1/23/02

