12-29-2009

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY WASHINGTON, DC 20460

OFFICE OF PREVENTION, PESTICIDES AND TOXIC SUBSTANCES

Mr. Michael Kellogg Tessenderlo Kerley, Inc. c/o Pyxis Regulatory Consulting, Inc. 4110 136<sup>th</sup> St. NW Gig Harbor, WA 98332 DEC 29 2009

Subject: Autograph

EPA Reg. No. 61842-10

Submission of alternate CSF and label amendment revising the toxicity category

Decision No. 418240

Dear Mr. Kellogg,

The alternate Confidential Statement of Formula (CSF) labeled "Alternate Formulation # 2" dated August 8, 2009 referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide and Rodenticide Act as amended is acceptable and will be added to the regulatory file. A copy of the Product Chemistry Review dated October 13, 2009 and Acute Toxicity Review dated November 12, 2009 are enclosed for your records.

The amended label referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide and Rodenticide Act as amended is acceptable provided the following changes are made:

#### Page 1

- Re-order the First Aid statements as follows: If in eyes, If on skin or clothing, If swallowed, and then If inhaled.
- Revise the Hazards to Humans and Domestic Animals section by deleting the following sentence. "Wear protective eyewear (goggles, face shield, or safety glasses).

#### Page 2

- Add the sub-heading "User Safety Requirements" prior to the text "Follow manufacturer's instructions…laundry". Also add the word "exist" following "washables" in this paragraph.
- Add the sub-heading "Engineering Controls" prior to the text starting with "When handlers use... WPS".
- Revise the "User Safety Recommendations" statements as follows:

#### "Users should

- Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.
- Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing."
- Replace the bolded text (not for use on home or residential lawns) with applicable use sites.
- For the last sentence in the "Agricultural Use Requirements" box, prior to "water-proof" add "chemical resistant gloves made of any" and then replace the word "gloves" with "material" following "waterproof". Also add "(such as goggles, face shield or safety mask)" following "eyewear" in the same sentence.

The following sentence must be inserted following "Do not enter or allow worker entry". "Exception: if the product is soil-injected or soil incorporated, the Worker Protection Standard, under certain circumstances, allows workers to enter the treated area if there will be no contact with anything that has been treated."

#### Page 3

• Replace the title "Container Disposal" with "Container Handling".

#### Page 4

- In the last sentence within "Ornamental and Bedding Plants", replace the word "recommended" with "specified".
- Move the header "Plant tolerance" to the top of page 5 so it appears just before the plant tolerance information.

#### Page 5

• For the first bullet point, (text starting: Plant tolerances to..) in the sentence starting with "If using Autograph for the first time", replace "recommended" with "specified".

Also in this same section, adjust the font sizing of the final sentence in the first paragraph so it matches the rest of the label.

- Within the first paragraph of the "Ornamental and Bedding Plant Tank Mixtures" section, add the word "Autograph" following "Additional Disease Control". Also within this paragraph, delete the period following "fungicides" in the first sentence and add a period following the word "diseases" in the final sentence.
- In the second paragraph of the starting "Ornamental and Bedding plant Tank Mixtures" section, replace the word "recommended" with "specified".

- Within the "Compatibility" section in the paragraph following the first bullet point text, delete the comma following "curding" within the sentence starting "Check for any".
- Under the heading "Compatibility", delete the text section starting with "Autograph is not physically compatible...application", and the bulleted section starting with "If using an Autograph tank mix...use". This information is already stated on the label.
- Move the "all-capped" sentence starting "Always read and follow the label directions", so that it appears directly under the "Ornamental and Bedding Plant Tank Mixtures" header.

Then following the "all-capped" sentence starting "Always read and follow the label directions", add the following: "Observe the most restrictive label limitations and precautions and do not exceed the label rates. Do not tank mix with products which prohibit tank mixing."

• Within the "Ornamentals" section ("foliar application" starting with Application Instructions), delete the extra period following the word "wet" in "application instructions".

#### Page 6

• Move the header "Fire blight suppression" so that it appears on the next page.

#### Page 7

- Within the "Turf" section, under the heading "Application Instructions", replace "recommended" with "specified" within the second and third sentences.
- Delete the table row on page 7. This information is present on page 8.

#### Pages 8 and 9

- Within the "Summer stress complex/summer decline" section, move the final sentence of that paragraph (starting "Do not mix…label") so that it appears directly under the header "Tank mixtures for turf diseases"
- Delete the final sentence of the second paragraph in The "Tank mixtures for turf diseases" section.
- Add the following sentence directly under the "Tank mixtures for turf diseases"
  header. Follow the most restrictive of label limitations and precautions and do not
  exceed label dosage rates.
- Delete the final sentence in the paragraph starting "Bentgrass deadspot".
- Provide the active ingredient and complete product name for each the tank mix partner option and for those products which are not physically compatible with Autograph.

#### Pages 9 and 10,

- Remove the following products from your label as tank mix partners.
   Cavalier 50 WSB, Cavalier Flowable, Revere 4000, Manicure Ultrex, Rainsheild NT, Manicure DG, and TwoSome Flowable Fungicide. These products have been cancelled.
- Delete or identify an actively registered product name for association to the following EPA reg #s: 66222-149 and 66222-154. The product names on your label (Concorde DF and Concorde SST, respectively) are cancelled.
- The following product names and registration numbers have changed. Revise your labeling/records to reflect.
  - 1. The product name for EPA reg # 1001-77 is Protect DF not Protect T/O.
  - 2. Turfcide 400 (EPA reg # 400-454) is now Turfcide 4F (EPA reg# 5481-8992).
  - 3. The correct name associated with EPA reg # 48234-13 is SysTec 1998 WDG. You have both SysTec 1998 WDG and SysTec 1998 listed.
  - 4. Sys Star (EPA reg # 48234-18) is now registered under EPA reg # 432-1440.
  - 5. The product name on file for EPA reg # 5481-8991 is Terrachlor Flowable fungicide.
  - 6. The product name for EPA reg # 60063-7 is Echo 720 Agricultural fungicide.
  - 7. The product name for EPA reg # 62719-388 is Fore 80 WP Rainshield. You have both Fore WP and Fore Rainshield listed.
  - 8. The product name for EPA reg # 62719-402 is Dithane DF Rainshield not Dithane T/O.

Please note that should additional products be cancelled, or have its turf use deleted, you must remove that product from your label. Only actively registered products may be listed on the label for tank mix uses. For future label submissions, provide a listing of tank mixture options including the EPA registration number. For future CSF submissions, update box 5 with PM 20 – S. Joyner.

One copy of the label stamped "Accepted with comments" is enclosed for your records. This label supersedes all labels previously accepted for this product. Within 45 days of receiving this letter, submit one copy of the final printed label that incorporates the required changes before the product is released for shipment. If you have questions concerning this letter, please contact Shaunta Hill via phone 703-347-8961, or email at hill.shaunta@epa.gov.

Sincerely,

Shaja B. Joyner

Product Manager (20)

Fungicide Branch

Registration Division (7505P)

- Enclosure(s):
  -Label stamped "Accepted with Comments"
  -Product chemistry review dated 10/13/09
  -Acute toxicity review dated 11/12/09

## **Autograph®**

ACTIVE MOREDIENT	GROUP 33 FUNGICIDE
ACTIVE INGREDIENT:	
Aluminum tris (O-ethyl phosphonate)	70.0%
OTHER INGREDIENTS:	30.0%
TOTAL:	100.0%

Autograph® contains aluminum tris (O-ethyl phosphonate), the same active ingredient found in Chipco® Signature®.

### 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> <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> </ul>		
If swallowed:	<ul> <li>Call a poison control center or doctor for treatment advice.</li> <li>Call a poison control center or doctor immediately for treatment advice.</li> </ul>		
n swanowed.	<ul> <li>Have person sip a glass of water if able to swallow.</li> </ul>		
	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.		
lf on skin or	Take off contaminated clothing.		
clothing:	Rinse skin immediately with plenty of water for 15-20 minutes.		
	Call a poison control center or doctor for treatment advice.		
If inhaled:	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.		
	HOT LINE NUMBER		
	ct container or label with you when calling a poison control center or doctor, or going for may also contact 1-800-877-1737 for emergency medical treatment information.		

# PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS AND DOMESTIC ANIMALS WARNING

Causes substantial but temporary eye injury. Harmful if swallowed or absorbed through the skin or inhaled. Do not get in eyes or on clothing. Avoid contact with skin. Wear protective eyewear (goggles, face shield or safety glasses).

EPA Reg. No. 61842-10

**EPA Est. No.** 

Manufactured for:

Tessenderlo Kerley, Inc. 2255 North 44<sup>th</sup> Street, Suite 300 Phoenix, AZ 85008-3279 1-888-732-8246

**Net Weight:** 

ACCEPTED
with COMMENTS
In EPA Lotter Dated
DEC 2 9 2009

Under the Praeral Innerticide, Fundicide, and Rodsmicide Act as amended. For the posticide registeres one with AReg. No.

61842-10

#### 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-resistant category selection chart. Applicators and other handlers must wear long-sleeved shirt and long pants, chemical resistance gloves made of any waterproof material such as polyethylene or polyvinyl chloride, shoes plus socks, and protective eyewear. Follow manufacturer's instructions for cleaning/maintaining personal protective equipment (PPE). If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

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.

#### **ENVIRONMENTAL HAZARDS**

This product is toxic to aquatic and estuarine invertebrates. Drift and runoff may be hazardous to aquatic and estuarine organisms in neighboring areas. 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 contaminate water when disposing of equipment wash waters or rinsate.

#### **USER SAFETY RECOMMENDATIONS**

#### Users should:

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

#### **DIRECTIONS FOR USE**

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. Read entire label before using this product. 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.

Not for use on home or residential lawns.

#### 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 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: coveralls, waterproof gloves, shoes plus socks, and protective eyewear.

#### 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.

#### STORAGE AND DISPOSAL

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

PESTICIDE STORAGE: Store in original container and keep tightly closed. Store in a cool dry place.

**PESTICIDE DISPOSAL:** Pesticide wastes are acutely 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 DISPOSAL:** Nonrefillable container. Do not reuse or refill this container. Completely empty bag into application equipment. Then offer for recycling if available or dispose of empty bag in a sanitary landfill or by incineration, or, if allowed by State and local authorities, by burning. If burned, stay out of smoke.

#### **CHEMIGATION**

#### APPLICATION DIRECTIONS THROUGH SPRINKLER AND DRIP IRRIGATION SYSTEMS

Apply this product only through sprinkler irrigation systems including microjet, drip, solid set and center pivot. Do not apply this product through any other type of irrigation system.

Crop injury, lack of effectiveness, or illegal pesticide residues in the crop can result from non-uniform distribution of treated water.

If you have questions about calibration, you should contact State Extension Service specialists, equipment manufacturers or other experts.

Do not connect an irrigation system (including greenhouse systems) used for pesticide application to a public water system unless the pesticide label-prescribed safety devices for public water systems are in place.

A person knowledgeable of the chemigation system and responsible for its operation or under the supervision of the responsible person, shall shut the system down and make necessary adjustments should the need arise.

**SET UP:** Clean all tanks, hoses, fittings and other parts of the injector system. Be sure to remove residues of prior applications, salt residues or other foreign substances. Flush using clean water.

**APPLICATION INSTRUCTIONS:** First mix **Autograph** in a tank filled with 1/2 to 3/4 the prescribed amount of water. Begin agitation. Add **Autograph** to the tank, and then add the remaining volume of water. Set sprinkler to irrigate 0.1 to 0.3 inch of water per acre. Start sprinkler and inject the concentrated mixture of **Autograph** into the irrigation system near the end of the irrigation cycle checking to be sure the proper rate per acre is being applied. The **Autograph** mixture should be injected using a positive displacement pump into the main line in front of a right angle turn to achieve proper incorporation. Stop the injection equipment after treatment is completed and continue to operate the irrigation system until all of the **Autograph** mixture has been cleared from the last sprinkler head.

If you should have any other questions about calibration, you should contact State Extension Service specialists, equipment manufacturers or other experts.

**NOTE:** For Microjet and Drip Irrigation Systems: After treatment with Autograph has been completed, prevent additional irrigation for 24 to 48 hours.

For Solid Set and Center Pivot Irrigation Systems: After treatment with Autograph has been completed, prevent additional irrigation until foliage is dry to avoid washing Autograph off the plants.

#### SPECIFIC REQUIREMENTS FOR SPRINKLER AND DRIP IRRIGATION SYSTEMS

Maintain continuous agitation in mix tank during mixing and application to assure a uniform suspension.

- 1. The system must contain a functional check valve, vacuum relief valve, and low pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from backflow.
- 2. The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to

- prevent the flow of fluid back toward the injection pump.
- 3. The pesticide injection pipeline must also contain a functional, normally closed solenoid operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shutdown.
- 4. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.
- 5. The irrigation line or water pump must include a functional pressure switch which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.
- 6. Systems must use a metering pump, such as a positive displacement injection pump (e. g., diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.
- 7. Do not apply when wind speed favors drift beyond the area intended for treatment.

## SPECIFIC REQUIREMENTS FOR CHEMIGATION SYSTEMS CONNECTED TO PUBLIC WATER SYSTEMS

- 1. Public water system means a system for the provision to the public of piped water for human consumption if such system has at least 15 service connections or regularly serves an average of at least 25 individuals daily at least 60 days out of the year.
- 2. Chemigation systems connected to public water systems must contain a functional, reduced-pressure zone, back flow preventer (RPZ) or the functional equivalent in the water supply line upstream from the point of pesticide introduction. As an option to the RPZ, the water from the public water system should be discharged into a reservoir tank prior to pesticide introduction. There shall be a complete physical break (air gap) between the flow outlet end of the fill pipe and the top or overflow rim of the reservoir tank of at least twice the inside diameter of the fill pipe.
- 3. The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection.
- 4. The pesticide injection pipeline must contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.
- 5. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops, or in cases where there is no water pump, when the water pressure decreases to the point where pesticide distribution is adversely affected.
- 6. Systems must use a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.
- 7. Do not apply when wind speed favors drift beyond the area intended for treatment.

#### ORNAMENTALS AND BEDDING PLANTS

**Autograph** may be applied to ornamentals and bedding plants grown in field nurseries, greenhouses, and landscaping and conifer nurseries for the control of diseases caused by Pythium and Phytophthora. **Autograph** may also be used to control downy mildew and fire blight and for the suppression of bacterial blight caused by certain pathovars of *Xanthomonas campestris*.

For best results application of **Autograph** must be made before disease develops. Apply when conditions favor disease development and follow sound IPM and cultural management practices. When diseases pressure is severe, use higher rates. Plant injury may occur if recommended rates are exceeded or applications are made at more frequent intervals than listed here.

#### **PLANT TOLERANCE**

• Plant tolerances to **Autograph** have been found to be acceptable in the specific genera and species listed on this label. There are far too many species and varieties of ornamental plants to determine the plant tolerance of every one to **Autograph**. If using **Autograph** for the first time or plant tolerance is not known, test for possible phytotoxicity by treating a small area at the recommended rate. Wait 3-7 days and inspect for visual damage. If damage is present, do not use.

#### ORNAMENTAL AND BEDDING PLANT TANK MIXTURES

**Additional Disease Control:** is compatible with most commonly used fungicides, and thus may be tank mixed with fungicides labeled for control of additional diseases. For control of diseases such as Aerial Web Blight, Alternaria Leaf Blight, Botrytis Blight, Fusarium Leaf Spot, Helminthosporium Leaf Spot, and Ray Blight, **Autograph** can be tank-mixed with other fungicides labeled for control of these diseases.

If a tank-mix with other fungicides is used, follow label directions for the use of that product and apply at the recommended rate for control of the target disease organism. **Autograph** is not physically compatible with some flowable formulations of pesticides such as chlorothalonil or mancozeb fungicides. These products must NOT be combined for application.

#### COMPATIBILITY

Do NOT tank-mix **Autograph** with copper compounds. Tessenderlo Kerley Inc. has determined that the mixing of copper containing compounds with **Autograph** may cause phytotoxicity. In addition, the application of **Autograph** to foliage with copper residues may cause phytotoxicity from solubilized copper on the leaf surface. Allow at least a 14 day interval between applications of **Autograph** and any copper based products

Autograph may not be compatible with foliar fertilzers.

• Some adjuvants such as stickers, wetting agents and those that enhance pesticide leaf penetration may not be compatible or may cause phytotoxicity when mixed with **Autograph**.

To test the mixing compatibility of **Autograph** with any tank mix partner, conduct a "jar test" by mixing a small amount of the tank mix components in a small container. Mix the ingredients with water in the concentration, and in the order of addition desired for the final spray application. Wait 15 minutes. Check for any indication of incompatibility such as separation or curdling,. If any indication of incompatibility exists, do not use this application mixture.

**Autograph** is not physically compatible with some flowable pesticide formulations such as chlorothalonil or mancozeb fungicides. These products must NOT be combined for application.

• If using an Autograph tank mix for the first time or if the plant tolerance to the tank mix is not known, test for possible phytotoxicity by treating a small area at the recommended rate. Wait 3.7 days and inspect for visual damage. If damage is present, do not use.

ALWAYS READ AND FOLLOW THE LABEL DIRECTIONS OF ALL TANK MIX COMPONENTS

#### ORNAMENTALS

<u>FOLIAR APPLICATIONS</u> to Aglaonema, Aphelandra, Azalea, Bougainvillea, Boxwood, *Cattelya skinneri*, Cissus, Dieffenbachia, Hibiscus, Juniper, Leather-leaf Fern, Pittosporum, Philodendron, Pothos, Rhododendron, Spathiphyllum and Taxus media.

Use Precautions:

- Do NOT apply more than 400 gallons of spray solution per acre.
- Do NOT make more than one application every 30 days.

Application Instructions: Mix 2.85 – 5.7 lbs. of **Autograph** with 100 gallons of water and spray to wet. When using a spray solution of less than 100 gallons per acre, be sure to apply at least 2.5 - 5.0 lbs. of **Autograph** per acre. Make repeat applications as necessary to control disease but do not apply more than one spray every 30 days.

<u>DRENCH APPLICATIONS</u> to Aphelandra, Azalea, Boxwood, Cissus, Dieffenbachia, Japanese Holly, Juniper, Monterey Pine, Philodendron, Pieris, Pittosporum, Rhododendron, Schefflera, Spathiphyllum, and Taxus media.

#### Use Precautions:

Do NOT apply more than once every 30 days.

Application Instructions: Mix 0.46 - 0.91 lbs. (7.4 - 14.6 oz.) of **Autograph** with 100 gallons of water and apply to 400 sq. ft. (2 pints of solution per sq. ft.). Repeat as necessary to control disease. Do not apply more than one spray every 30 days.

<u>SOIL INCORPORATION</u> to Rhododendron, Azalea, or Pieris for control of Phytophthora species *only*. Use Precautions:

Incorporate Autograph in to soil media. Use for plants with established root systems only

Application Instructions: Immediately before potting, mix 0.57 – 0.91 lbs. (9.1 – 14.6 oz.) of **Autograph** per cubic yard of soil mix. Further applications as a foliar spray or drench may be made as needed. Do NOT make more than one application every 30 days.

#### **BEDDING PLANTS**

FOLIAR APPLICATIONS to Begonia, Pansy, Vinca, Marigold, Zinnia, Petunia, Geranium, and Impatiens.

#### Use Precautions:

- Do NOT apply more than 400 gallons spray per acre.
- Do NOT make more than one application every 14 days.

Application Instructions: Mix 1.4 - 4.6 lbs. of **Autograph** with 100 gallons of water and spray to wet. Repeat as necessary. Do NOT apply more than once every fourteen days.

#### PHYTOPHTHORA ROOT ROT PREVENTION FOR CONIFERS IN NURSERIES

#### NOTE: This type of application is NOT registered for use in California.

<u>DIP TREATMENTS</u> to conifers such as Douglas fir, spruce, and pines.

Use Precautions: Be sure to wear chemical/water resistant gloves, goggles or face shield, long pants (coveralls), long sleeved shirt, shoes, and socks when making dip applications.

Application Instructions: Thoroughly immerse plant, including roots by dipping transplants in a solution of 2.5 lbs. of **Autograph** per 100 gallons of water. Dip immediately before transplanting.

FOLIAR APPLICATIONS to conifers such as Douglas fir, spruce, and pines.

Application Instructions: Mix 2.85 – 5.7 lbs. of **Autograph** with 100 gallons of water and spray to wet. When using a spray solution of less than 100 gallons per acre be sure to apply at least 2.5 - 5.0 lbs. of **Autograph** per acre. Make repeat applications as necessary to control disease but do not apply more than one spray every 30 days.

#### **DOWNY MILDEW CONTROL IN ROSES**

<u>FOLIAR APPLICATIONS</u> to field, container, landscape and mini varieties to control downy mildew (*Peronospora sparsa*). NOTE: Follow sound disease sanitation practices to reduce the spread of disease.

#### Use Precautions:

- Do NOT apply more than 400 gallons of spray solution per acre.
- Do NOT make more than one application every seven days.

Application Instructions: Mix 2.85 lbs. of **Autograph** with 100 gallons of water and spray to wet. When using a spray solution of less than 100 gallons per acre, be sure to apply at least 2.5 - 5.0 lbs. of **Autograph** per acre. Repeat as necessary but do NOT make more than one spray every seven days.

#### FIRE BLIGHT SUPPRESSION

<u>FOLIAR APPLICATIONS</u> to ornamental pear, pyracantha, and hawthorn. Apply before disease is present. **Autograph** works only as a preventive treatment in this type of application. NOTE: Follow sound disease sanitation practices to reduce the spread of disease.

#### Use Precautions:

- Do NOT apply more than 400 gallons of spray solution per acre.
- Do NOT make more than one application every seven days.

Application Instructions: Mix 2.85 lbs. of **Autograph** in 100 gallons of water and spray to wet. If applying less than 100 gallons of spray solution per acre, then apply 2.5 - 5.0 lbs. of **Autograph** per acre. Start applications at the pre-bloom stage and reapply at 7-day intervals throughout the bloom period

If tank mixing **Autograph** be sure to read the compatibility statements at the beginning of this section.

#### **BACTERIAL BLIGHT SUPPRESSION**

NOTE: This type of application is NOT registered for use in California.

<u>FOLIAR APPLICATIONS</u> to English ivy, schefflera, anthurium, dieffenbachia, spathaphyllum, syngonium, and ficus to suppress *Xanthomonas campestris* pathovars *hederae*, *dieffenbachiae*, *syngonii*, and *fici*. NOTE: Follow sound disease sanitation practices to reduce the spread of disease.

#### Use Precautions:

- Do NOT apply more than 400 gallons of spray solution per acre.
- Do NOT make more than one application every seven days.

Application Instructions: Mix 2.3 - 4.6 lbs. of **Autograph** with 100 gallons of water and spray to wet. When using a spray solution of less than 100 gallons per acre, be sure to apply at least 2.5 - 5.0 lbs. of **Autograph** per acre. Make repeat applications as necessary but do NOT make more than one application every 7 days.

If tank mixing Autograph be sure to read the compatibility statements at the beginning of this section.

#### **TURF**

#### NOTE: DO NOT apply to home or residential lawns.

Autograph is a fungicide that works systemically. Use in an integrated pest management (IPM) program for the control of Pythium diseases (such as blight and root rot, and yellow tuft) on turf grass in golf courses, sod farms and other commercial turf areas. Because Autograph contains fosetyl al, a known inducer of systemic acquired resistance (SAR) in plants, Autograph assists in the development of thick, vigorous turf. Turf treated with Autograph can better withstand plant stresses such as heat, humidity, drying winds, and excessive traffic, which can damage turf. Autograph aids the turf's natural ability to resist disease. Plus, a thick healthy turf reduces the likelihood of other pests such as weeds and algae from developing.

#### **Use Precautions:**

- Do not graze animals on treated turf.
- Do not feed clippings from treated turf to livestock and poultry.
- Do not mow and/or water treated areas until foliage is completely dry.

**Application Instructions:** Begin using **Autograph** when environmental conditions favor disease development and repeat applications as recommended in the table below. Apply as a foliar spray at the rate recommended below in 1 - 5 gallons of water per 1,000 sq. ft. Use an accurately calibrated sprayer and agitate while mixing and spraying.

	Application Rate	
Application Interval	(Oz. per 1,000 S g . Ft.)	

Application Interval	Application Rate (Oz. per 1,000 S q . F t .)	
14 days	4.6	
21 days	9.1	

#### COMPATIBILITY

NOTE: Do NOT mix Autograph with any surfactant, sticker, adjuvant or wetting agent.

**Autograph** may not be chemically compatible with foliar fertilizers or copper based fungicides. Mixing with these products may result in phytotoxicity. **Autograph** is NOT physically compatible with flowable formulations of certain pesticides such as Daconil 2787<sup>®</sup> or Fore<sup>®</sup> fungicides, Bayleton<sup>®</sup> 50W, Rubigan<sup>™</sup> A.S. and Spectro<sup>™</sup> 90 WDG. Do not use these products in tank mixes with **Autograph**.

To determine the physical compatibility of **Autograph** with another product, conduct a "jar test" by mixing a small amount of the tank mix components in a small container. Mix the ingredients with water in the concentration, and in the order of addition desired for the final spray application. Wait 15 minutes. Check for any indication of incompatibility such as separation or curdling. If any indication of incompatibility exists, do not use this application mixture. Be sure to read and follow all directions and precautions on this label and on the labels of any tank mix partner products.

#### TANK MIXTURES FOR TURF DISEASES

**Summer Stress Complex / Summer Decline: Autograph** may be used in a tank mix with products labeled to control Summer Stress Complex / Summer Decline caused by a complex of *Pythium* and *Rhizoctonia* diseases on common turf grass on golf courses, sod farms, industrial or municipal turf areas. Do NOT mix **Autograph** with any product which prohibits mixing on its label.

Anthracnose: Autograph may be used in a tank mix with products labeled for use on common turf grass on golf courses, sod farms, and industrial or municipal turf areas for control of anthracnose. For best results use a preventative program with repeated applications every 14 days. Begin application during conditions conducive for disease development and before symptoms appear. Be sure to follow the most restrictive of label limitations and precautions and do not exceed label dosage rates.

Bentgrass Deadspot: Autograph may be used in a tank mix with products used to control bentgrass deadspot in common turf grass on golf courses, sod farms, and industrial or municipal turf areas. For best results use a preventative program with repeated applications every 14 days. Begin application during conditions conducive for disease development and before symptoms appear. Be sure to follow the most restrictive of label limitations and precautions and do not exceed label dosage rates:

[Note to Reviewer: Text and table appearing on this page are OPTIONAL language and may not appear on final product labeling. If "TANK MIXTURES FOR TURF DISEASES" text from previous page appears on final label, language on this page will not appear on final label.]

#### TANK MIXTURES FOR TURF DISEASES

**Summer Stress Complex / Summer Decline: Autograph** may be used in a tank mix with products labeled to control Summer Stress Complex / Summer Decline caused by a complex of *Pythium* and *Rhizoctonia* diseases on common turf grass on golf courses, sod farms, industrial or municipal turf areas (see partial list below). Do NOT mix **Autograph** with any product which prohibits mixing on its label.

Anthracnose: Autograph may be used in a tank mix with products labeled for use on common turf grass on golf courses, sod farms, and industrial or municipal turf areas for control of anthracnose (see partial list below). For best results use a preventative program with repeated applications every 14 days. Begin application during conditions conducive for disease development and before symptoms appear. Be sure to follow the most restrictive of label limitations and precautions and do not exceed label dosage rates.

Bentgrass Deadspot: Autograph may be used in a tank mix with products used to control bentgrass deadspot in common turf grass on golf courses, sod farms, and industrial or municipal turf areas (see partial list below). For best results use a preventative program with repeated applications every 14 days. Begin application during conditions conducive for disease development and before symptoms appear. Be sure to follow the most restrictive of label limitations and precautions and do not exceed label dosage rates.

Disease Treated	Tank Mix Partner	Application Rate (Oz. / 1,000 FT²)	Application Interval
	Autograph	4.6 – 9.1	
	+	<b>.</b>	
	26GT™	3.0 - 4.0	
	or	or	
	Daconil Ultrex®	3.3	
	or	or	
Summer Stress Complex <sup>‡</sup>	Manicure™ DG	3.3	
(Pythium, Anthracnose,	or	or	
and Rhizoctonia spp.)	Dithane® T/O	8.0	
	ог	or	·
and/or	Protect T/O	8.0	
	or	or	
Anthracnose	Mancozeb DG	8.0	14 days
(Colletotrichum	or	or	14 days
graminicola)	Fore® WP	4.0 - 8.0	
	or	· or	· ·
	Heritage <sup>®</sup>	0.2 - 0.4	•
	or	or	
Ì	Banner® Maxx®	1.0 - 2.0	
	or	or	
	ProStar® 70 WP	1.5 - 3.0	
	Autograph	4.6	
Bentgrass Deadspot	+	+ .	
(Ophiosphaerella agrostis)	Fore <sup>®</sup> Rainshield™	8.0	
(Opiniospinasional agreens)	or	or	
	Daconil Ultrex®	3.2	

<sup>&</sup>lt;sup>‡</sup> The following fungicides may be substituted for the companion products listed above for use with **Autograph** in a Summer Stress Complex disease control program: Bayleton® 50<sup>†</sup>, Cavalier™ 50 WSB, Cavalier™ Flowable, Chlorostar, Cleary's 3336™ WP<sup>†</sup>, Cleary's 3336™ F<sup>†</sup>, Compass™, Concorde™ SST, Concorde™ DF, Consyst, Curalan® EG, Daconil® Weather Stik®†, Daconil ZN®, Rainshield NT™, Eagle, Echo® 90 DF, Echo® Flowable, Endorse™, Fluid Fungicide, Fungo® Flo, Fungo® 50 WSB, MANhandle™, Manicure™ 6 Flowable, Manicure™ T/O Flowable, Manicure™ Ultrex®, Medallion®, Pentathlon® DF, Revere™ 4000, SysStar®, SysTec® 1998, SysTec® 1998

WDG, Systhane® WSP, Terrachlor® 75 WP and 400<sup>†</sup>, Terraquard® 50W, Terrazole® 35% WP. Touche EG. Turfcide® 400, TwoSome™ Flowable Fungicide.

<sup>†</sup> NOTE: Disperse these products in to at least a ½ filled tank containing water first before adding Autograph.

#### **Tank-Mix Mixing Instructions**

The order in which products are added to tank mixes can affect Autograph ability to go in to solution. Unless otherwise indicated on this label, it is preferable to add Autograph to a tank which has been partially filled with water and has no other tank mix components.

If tank-mixing with other pesticides, follow the label directions for the use of the tank-mix partner product and apply at the recommended rate for control of the target disease organism. Be sure to maintain agitation while mixing and spraying.

#### CONDITIONS OF SALE - LIMITED WARRANTY AND LIMITATIONS OF LIABILITY AND REMEDIES

The directions on this label are believed to be reliable and must be followed carefully. Insufficient control of pests and/or injury to the crop to which the product is applied may result from the occurrence of extraordinary or unusual weather conditions, the failure to follow the label directions, or good application practices, all of which are beyond the control of Tessenderlo Kerley, Inc., or seller. In addition, failure to follow label directions may cause injury to crops, animals, man or the environment, Tessenderlo Kerley, Inc. warrants that this product conforms to the chemical description on the label and is reasonably fit for the purpose referred to in the directions for use, subject to the factors noted above which are beyond the control of Tessenderlo Kerley, Inc. Except as warranted by this label, Tessenderlo Kerley, Inc. makes no other warranties or representations of any kind, express or implied, concerning the product, including no implied warranty of merchantability or fitness for any particular purpose. To the extent consistent with applicable law, the exclusive remedy against Tessenderlo Kerley, Inc. for any cause of action relating to the handling or use of this product is a claim of damage, and in no event shall damages or any other recovery of any kind against Tessenderlo Kerley, Inc. exceed the price of the product which causes the alleged loss, damage, injury, or other claim. To the extent consistent with applicable law, Tessenderlo Kerley, Inc. shall not be liable and any and all claims against Tessenderlo Kerley, Inc. are waived, for special, indirect, incidental, or consequential damages or expense of any nature, including, but not limited to, loss of profits or income, whether or not based on the negligence of Tessenderlo Kerley, Inc. breach of warranty, strict liability in tort, or any other cause of action. Tessenderlo Kerley, Inc. and the seller offer this product, and the buyer and users accept it, subject to the foregoing conditions of sale and limitations of warranty, liability and remedies.

Bayleton® and Prostar® are registered trademarks of Bayer. Chipco® and Signature® are registered trademarks of Bayer Crop Science LP

Compass® is a registered trademark of Bayer.

Endorse™ is a trademark of Avesta.

Banner<sup>®</sup>, Maxx<sup>®</sup>, Heritage<sup>®</sup>, Daconil<sup>®</sup>, Daconil Ultrex<sup>®</sup>, Weather Stik<sup>®</sup>, Daconil Zn<sup>®</sup>, and Medallion<sup>®</sup> are registered trademarks of Syngenta.

Dithane<sup>®</sup>, Systhane<sup>®</sup> and Fore<sup>®</sup> are registered trademarks of Dow AgroSciences Company.

Cavalier™, Manicure™, MANhandle™, Revere™, TwoSome™ and Lesco™ are trademarks of Lesco, Inc.

Curalan® is a registered trademark of BASF Corporation.

3336™ and Spectro™ are trademarks of Cleary Chemical Company.

Systec® and Systar® are registered trademarks of Regal Chemical Company.

Echo® is a registered trademark of SIPCAM AGRO USA, Inc.

Fungo® is a registered trademark of the Scotts Company.

Terrachlor®, Terraguard®, Terrazole® and Turfcide® are registered trademarks of Uniroyal Chemical

Concorde™ is a trademark and Pentathlon® is a registered trademark of Griffin L.L. C.

NovaSource® and Autograph® are registered trademarks of Tessenderlo Kerley, Inc.

Autograph® is not manufactured or distributed by Bayer Crop Science LP, seller of Chipco® Signature®.

[EPA approval date]