

59639-125

5/22/2008

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**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**

WASHINGTON, D.C. 20460

OFFICE OF  
PREVENTION, PESTICIDES  
AND TOXIC SUBSTANCES

MAY 22 2008

Michael Leggett, Ph.D.  
Valent U.S.A. Corporation  
1600 Riviera Avenue, Suite 200  
P.O. Box 8025  
Walnut Creek, CA 94596-8025

Subject: Pyridalyl Final Printed Labels

EPA Reg. No. 59639-125 ✓  
S-1812 PPG Insecticide

EPA Reg. No. 59639-126  
Pyridalyl Technical Grade

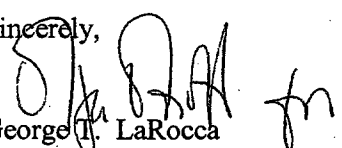
Your Submissions Dated May 7, 2008 & May 22, 2008

Dear Dr. Leggett:

The labeling referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA), as amended, is acceptable. Stamped copies of the labels are enclosed for your records.

If you have any questions regarding this action, please contact Olga Odiott of my team at (703) 308-9369.

Sincerely,

  
George T. LaRocca  
Product Manager 13  
Insecticide Branch  
Registration Division (7505P)

Enclosure

FINAL PRINTED LABEL



# S-1812 PPG

(INSECTICIDE)

For use in enclosed commercial greenhouses only. Not for residential use.

Active Ingredient	By Wt.
Pyridalyl* .....	35%
Other Ingredients .....	65%
Total .....	100%

\*Pyridine 2-[3-[2,6-dichloro-4-[(3,3-dichloro-2-propenyl)oxy]phenoxy]propoxy]-5-(trifluoromethyl)

**KEEP OUT OF REACH OF CHILDREN**

**CAUTION**

<b>ACCEPTED</b>
MAY 22 2008
Under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended, for the pesticide Registered under EPA Reg. No. 59639-125

**SEE BELOW FOR ADDITIONAL PRECAUTIONARY STATEMENTS**

**NET CONTENTS \_\_\_\_\_**

**PRECAUTIONARY STATEMENTS  
HAZARDS TO HUMANS & DOMESTIC ANIMALS  
CAUTION**

Causes moderate eye irritation. Avoid contact with eyes or clothing. Wear protective eyewear such as goggles or safety glasses. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum or using tobacco.

**FIRST AID**

- If in eyes:**
- Hold eye open and rinse slowly and gently with water for 15-20 minutes.
  - Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.
  - Call a poison control center or doctor for treatment advice.

**HOT LINE NUMBER**

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact **800-892-0099** for emergency medical treatment information.

**Personal Protective Equipment (PPE):**

**Applicators and other handlers must wear:** long-sleeved shirt and long pants, waterproof gloves, 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.

**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.
- 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.

**ENVIRONMENTAL HAZARDS:**

This pesticide is toxic to fish and invertebrates. Do not apply directly to water, to areas where surface water is present, or to intertidal areas below the mean high water mark. Drift and runoff may be hazardous to aquatic organisms in water adjacent to treated areas. Do not contaminate water when disposing of equipment washwaters or rinsate.

**DIRECTIONS FOR USE**

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

**READ ENTIRE LABEL. USE STRICTLY IN ACCORDANCE WITH PRECAUTIONARY STATEMENTS AND DIRECTIONS AND WITH APPLICABLE STATE AND FEDERAL REGULATIONS.**

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: coveralls, waterproof gloves and shoes plus socks.

**DISCLAIMER, RISKS OF USING THIS PRODUCT,  
LIMITED WARRANTY  
AND LIMITATION OF LIABILITY**

**IMPORTANT: Read the entire Label including this Disclaimer, Risks of Using this Product, Limited Warranty, and Limitation of Liability before using this product. If the terms are not acceptable THEN DO NOT USE THE PRODUCT; rather, return the unopened product within 15 days of purchase for a refund of the purchase price.**

**RISKS OF USING THIS PRODUCT**

The Buyer and User (referred to collectively herein as "Buyer") of this product should be aware that there are inherent unintended risks associated with the use of this product which are impossible to eliminate. These risks include, but are not limited to, injury to plants and crops to which this product is applied, lack of control of the target pests or weeds, resistance of the target pest or weeds to this product, injury caused by drift, and injury to rotational crops caused by carryover in the soil. Such risks of crop injury, non-performance, resistance or other unintended consequences are unavoidable and may result because of such factors as weather, soil conditions, disease, moisture conditions, irrigation practices, condition of the crop at the time of application, presence of other materials either applied in the tank mix with this product or prior to application of this product, cultural practices or the manner of use or application, (or a combination of such factors) all of which are factors beyond the control of Valent. The Buyer should be aware that these inherent unintended risks may reduce the harvested yield of the crop in all or a portion of the treated acreage, or otherwise affect the crop such that additional care, treatment and expense are required to take the crop to harvest. If the Buyer chooses not to accept these risks, THEN THIS PRODUCT SHOULD NOT BE APPLIED. By applying this product Buyer acknowledges and accepts these inherent unintended risks AND TO THE EXTENT ALLOWED BY LAW, AGREES THAT ALL SUCH RISKS ASSOCIATED WITH THE APPLICATION AND USE ARE ASSUMED BY THE BUYER.

To the extent consistent with applicable law, Valent shall not be responsible for losses or damages (including, but not limited to, loss of yield, increased expenses of farming the crop or such incidental, consequential or special damages that may be claimed) resulting from use of this product in any manner not set forth on the label. To the extent consistent with applicable law, Buyer assumes all risks associated with the use of this product in any manner or under conditions not specifically directed or approved on the label.

**LIMITED WARRANTY**

To the extent consistent with applicable law, Valent warrants only that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated in the label, under average use conditions, when used strictly in accordance with the label and subject to the Risks of Using This Product as described above. **To the extent consistent with applicable law AND AS SET FORTH ABOVE, VALENT MAKES NO OTHER WARRANTIES, EITHER EXPRESSED OR IMPLIED.** No agent or representative of Valent or Seller is authorized to make or create any other express or implied warranty.

**LIMITATION OF LIABILITY**

To the extent allowed by law, Valent or Seller is not liable for any incidental, consequential, indirect or special damages resulting from the use or handling of this product. The limitation includes, but is not limited to, loss of yield on all or any portion of the treated acreage, increased care, treatment or other expenses required to take the crop to harvest, increased finance charges or altered finance ratings, emotional or mental distress and/or exemplary damages. **TO THE EXTENT ALLOWED BY LAW, THE EXCLUSIVE REMEDY OF THE BUYER, AND THE EXCLUSIVE MAXIMUM LIABILITY OF VALENT OR 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 THIS PRODUCT OR, AT THE ELECTION OF VALENT OR SELLER, THE REPLACEMENT OF THE PRODUCT.**

**PROMPT NOTICE OF CLAIM**

To the extent consistent with applicable law allowing such requirements Valent must be provided notice as soon as Buyer has reason to believe it may have a claim, but in no event later than twenty-one days from date of planting, or twenty-one days from the date of application, whichever is latter, so that an immediate inspection of the affected property and growing crops can be made.

To the extent consistent with applicable law if Buyer does not notify Valent of any claims, in such period, it shall be barred from obtaining any remedy.

**NO AMENDMENTS**

Valent and Seller offer this product, and Buyer accepts it, subject to the foregoing Disclaimer, Risks of Using This Product, Limited Warranty and Limitation of Liability, which may not be modified by any oral or written agreement.

**TANK MIXES**

**NOTICE: Tank mixing or use of this product with any other product which is not specifically and expressly authorized by the label shall be the exclusive risk of user, applicator and/or application advisor.**

Read and follow the entire label of each product to be used in the tank mix with this product.

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## WATER SOLUBLE PACKAGING

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### MULTIPLE PACKAGING

This bag contains multiple water soluble packets of S-1812 PPG. Do not handle the packets with wet gloves or allow the packets to become wet prior to addition to the mix or spray tank. Do not break open packets. If all packets are not used, close and reseal outer container to protect remaining packet(s).

### SINGLE PACKAGING

This bag contains one water soluble packet of S-1812 PPG. Do not handle the packet with wet gloves or allow the packet to become wet prior to addition to spray tank. Do not break open packet. Open outer bag by pulling perforated tearstrip and drop the unopened inner packet of S-1812 PPG into the mix or spray tank.

## GENERAL INFORMATION

**Do not apply this product through any type of irrigation system. Not for use by homeowners.**

S-1812 PPG is a wettable powder insecticide containing 35 percent active ingredient pyridalyl for greenhouse use. S-1812 PPG provides control of thrips (including Western flower thrips) and the larvae of various lepidopteran insect pests infesting greenhouse grown ornamentals, including flowering and foliage crops, ground covers, shrubs and ornamental trees, and non-bearing fruit and nut trees grown indoors. S-1812 PPG may also be applied to greenhouse grown head and stem brassica (Subgroup 5A), fruiting vegetables (except cucurbits) (Crop group 8) and leafy vegetables (except brassica vegetables) (Crop group 4).

S-1812 PPG controls insects by both contact and ingestion activity, although contact activity is dominant and faster than ingested activity. Reapplication of S-1812 PPG to maintain insect control should be repeated only as directed.

S-1812 PPG also has strong translaminar activity on a variety of plants, including poinsettia, hibiscus, gerbera daisy and chrysanthemums. S-1812 PPG applied to the upper leaf surface will rapidly penetrate the leaf cuticle, and can subsequently be ingested by immature and adult insects feeding on the lower leaf surface. Therefore, even in cases where it is difficult to achieve thorough under-leaf spray coverage, S-1812 PPG can still provide highly effective control.

### MANAGING INSECT RESISTANCE

S-1812 PPG is intended for use in Integrated Pest Management (IPM) and/or Integrated Resistance Management (IRM) programs and it is recommended for use in combination and/or rotation with other IPM or IRM materials. S-1812 PPG does not significantly impact most natural predaceous arthropod complexes including ladybird beetles, lacewings and predatory

bugs. The feeding activities of these predatory beneficials will aid in extending natural control of other insect pests and reduce the likelihood of secondary pest outbreaks.

To optimize resistance management practices, do not apply S-1812 PPG more than three times per cropping cycle or no more than three times per six months. Repeated use of the same class of insecticides, or insecticides with similar modes of action can lead to the buildup of resistant insect strains. S-1812 PPG should be used in alternation with other insecticides possessing dissimilar modes of action and/or with other chemical classes of insecticides. Follow local, state, and federal IPM and IRM recommendations.

**PLANT TOLERANCE**

**IMPORTANT:** The large number of existing ornamental species and their varieties and cultivars coupled with the constant introduction of new varieties makes it impossible to field test S-1812 PPG in every locale where it is sold or in all of the combinations of location and plant variety. Further differences include the soil or media type, pH, moisture or fertility, environmental conditions such as temperature, lighting or degree-days and horticultural practice and the manner of use and application of this product. To ensure that S-1812 PPG is compatible with the ornamental plant variety or cultivar under your specific conditions, test this product on a limited scale and observe for phytotoxicity or other unintended effects for two weeks before making large scale applications.

**CONTROLLING PESTICIDE RUNOFF**

Do not allow pesticide spray solution to runoff outside of the application area. Do not use in greenhouses that discharge irrigation runoff to surface water drains. If applied in an area with a non-permeable floor and a floor drainage system, excess application spray or irrigation runoff must be collected and subjected to secondary wastewater treatment.

**MIXING INSTRUCTIONS**

Prepare no more spray mixture than is necessary for the immediate operation. Thoroughly clean spray equipment before using this product. Agitate thoroughly before and during application. Flush spray tank thoroughly with clean water daily after use and dispose of pesticide rinsate by application to a previously treated area. Add 1/2 of the required amount of water to the spray or mix tank. With the agitator running, drop the required number of unopened packets into the spray tank. Continue agitation while adding the remainder of the water. **Do not add any additional tank mix ingredients such as liquid fertilizers, micronutrients or other plant protection products to the spray solution until after the packet has completely dissolved and the content is completely dispersed.** Water soluble packet(s) should completely dissolve in approximately five minutes. Dissolution rate may be slowed by cold water or lack of agitation. Begin application of the spray solution after S-1812 PPG has been added and completely dispersed into the mix water. Maintain agitation until all of the mixture has been applied.

**COMPATIBILITY**

S-1812 PPG is compatible with most commonly used insecticides and fungicides. When using S-1812 PPG in tank mixes with other pesticides, observe all directions for use and precautions

on the respective tank mix label. When making an application of a tank mix for the first time, it is recommended that physical compatibility be checked and that a few plants be treated and observed for phytotoxicity or other unintended effects for two to four weeks before making large scale applications.

**APPLICATION EQUIPMENT**

Apply S-1812 PPG dispersed in water using suitable hand or power-operated application equipment such as portable, pump-up, backpack, hydraulic, or boom sprayers in a manner to provide complete and uniform coverage.

**LOW VOLUME SYSTEMS**

S-1812 PPG has been evaluated and shown to be effective for foliar applications when applied through Electrostatic Spraying Systems Max Charge™ Systems, PulsFOG® Systems, or other low volume systems. To calculate the amount of product to be applied, use the appropriate amount of S-1812 PPG for the square footage to be treated with spray as listed. The amount of carrier (water) is dependent on the amount needed for adequate coverage.



**Directions for Use on Enclosed Greenhouse Grown Commodities: Shrubs, Ornamentals, Flowering Plants, Foliage Plants, Bedding Plants, Ground Covers, Ornamental Trees, Non-Bearing Fruit, Nut Trees and Vines**

PESTS	PRODUCT RATE	APPLICATION METHOD	SPECIAL INSTRUCTIONS
<p><b>Thrips including:</b>            Chili Thrips            Western Flower Thrips</p> <p><b>Lepidopterous larvae including:</b>            Azalea Caterpillar            Beet Armyworm            Cabbage Looper            Fall Webworm            Gypsy Moth            Nantucket Pine Tip Moth            Southern Armyworm            Spruce Budworm            Tent Caterpillars            Tobacco Budworm            Tomato Hornworm            Yellowstriped Armyworm</p>	<p>8 oz/100 gals             (0.175 lb ai/100 gals)             (Use four (4) 2oz WSP per 100 gals)</p>	<p><b>Foliar Spray</b>            100 gals of spray mix will treat 20,000 sq ft of area.</p>	<p>Apply the spray mixture uniformly to all plant surfaces and to the point of runoff.</p> <p>Do not apply S-1812 PPG more than three times per cropping cycle or no more than three times per six months.</p> <p><b>Thrips:</b> Make first application when thrips begin to appear. If necessary, make a second application 14 to 28 days after the first application. Use longer interval for newly established infestations and when plants are not rapidly flushing new growth. Use shorter interval for established infestations and/or when plants are rapidly flushing new growth.</p> <p><b>Lepidopterous larvae:</b> Apply when larvae are small, exposed and actively feeding. For Tent Caterpillar larvae, apply early when webs are first observed and direct the spray into the web and surrounding foliage within at least three feet of the nest.</p>
<p><b>NOTE:</b> Since ornamental varieties are numerous, constantly changing, and may react differently to S-1812 PPG and tank mixtures including S-1812 PPG, test the product(s) on a small scale before making large-scale applications.</p>			

**Directions for Use on Vegetable Transplants Grown in Enclosed Greenhouses**

CROPS	PESTS	PRODUCT RATE	SPECIAL INSTRUCTIONS
Head and Stem Brassica Subgroup 5A <sup>1</sup>	Beet Armyworm Cabbage Looper Diamondback Moth Imported Cabbageworm Southern Armyworm Thrips including: Chili Thrips Western Thrips Yellowstriped Armyworm	4 oz/20,000 sq ft  (0.19 lb ai/A)  (Use two (2) 2oz WSP per 20,000 sq ft)	Apply S-1812 PPG as a foliar spray in adequate water for uniform coverage (100 gals/20,000 sq ft).  Begin application when insects reach economic threshold and repeat as needed to maintain control, but not more often than every 14 days. S-1812 PPG should be used in alternation with other insecticides possessing dissimilar modes of action and/or with other chemical classes of insecticides.
Fruiting Vegetables (except Cucurbits) Crop Group 8 <sup>2</sup>	Beet Armyworm Corn Earworm Diamondback Moth Southern Armyworm Thrips including: Chili Thrips Western Thrips Tomato Fruitworm Tobacco Hornworm Tomato Hornworm Yellowstriped Armyworm	4 oz/20,000 sq ft  (0.19 lb ai/A)  (Use two (2) 2oz WSP per 20,000 sq ft)	Full effectiveness does not occur until 3 days after application.  <b>Cabbage Looper:</b> In Arizona and Texas an additional insecticide may have to be added to S-1812 PPG to obtain satisfactory control.  <b>Fruiting Vegetables:</b> The use of S-1812 PPG on tomatoes is restricted to varieties that grow to greater than 2 inches in diameter.
Leafy Vegetables (except Brassica Vegetables) Crop Group 4 <sup>3</sup>	Beet Armyworm Cabbage Looper Corn Earworm Diamondback Moth Imported Cabbageworm Southern Armyworm Thrips including: Chili Thrips Western Thrips Yellowstriped Armyworm	4 oz/20,000 sq ft  (0.19 lb ai/A)  (Use two (2) 2oz WSP per 20,000 sq ft)	Full effectiveness does not occur until 3 days after application.  <b>Cabbage Looper:</b> In Arizona and Texas an additional insecticide may have to be added to S-1812 PPG to obtain satisfactory control.  <b>Fruiting Vegetables:</b> The use of S-1812 PPG on tomatoes is restricted to varieties that grow to greater than 2 inches in diameter.
<ul style="list-style-type: none"> <li>Do not apply S-1812 PPG more than three times per cropping cycle or no more than three times per six months.</li> <li><b>For Head and Stem Brassica:</b> Do not apply S-1812 PPG within 3 days of harvest.</li> <li><b>For Fruiting Vegetables and Leafy Vegetables:</b> Do not apply S-1812 within 1 day of harvest.</li> </ul>			

<sup>1</sup>Head and Stem Brassica Subgroup 5A: Broccoli, Brussels Sprouts, Cabbage, Cauliflower, Cavalo Broccolo, Chinese Broccoli, Chinese (Napa) Cabbage, Chinese Mustard and Kohlrabi

<sup>2</sup>Fruiting Vegetables (except Cucurbits) Crop Group 8: Eggplant, Groundcherry (*Physalis* spp), Pepino, Pepper (Includes Bell Pepper, Chili Pepper, Cooking Pepper, Pimento, Sweet Pepper), Tomatillo and Tomato

<sup>3</sup>Leafy Vegetables (except Brassica Vegetables) Crop Group 4: Amaranth (Chinese Spinach), Arugula (Roquette), Cardoon, Celery, Celtuce, Chervil, Chinese Celery, Chrysanthemum (edible-leaved), Chrysanthemum Garland, Corn Salad, Dandelion, Dock (Sorrel), Endive (Escarole), Florence Fennel, Garden Cress, Lettuce (Head and Leaf), New Zealand Spinach, Orach, Parsley, Purslane, Radicchio (Red Chicory), Rhubarb, Spinach, Swiss Chard, Upland Cress, Vine Spinach and Winter Purslane

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## **STORAGE AND DISPOSAL**

### **PESTICIDE STORAGE**

Keep pesticide in original container.

Do not put concentrate or dilute into food or drink containers.

Store in a cool dry place.

Do not contaminate food or foodstuffs.

Do not store or transport near feed or food.

For help with any spill, leak, fire or exposure involving this material, call day or night 800-892-0099.

### **PESTICIDE DISPOSAL**

Waste resulting from the use of this product may be disposed of on site or at an approved waste disposal facility. Do not contaminate water, food or feed by storage, disposal or cleaning of equipment. Open dumping is prohibited.

### **CONTAINER DISPOSAL**

Nonrefillable container. Do not reuse or refill the outer bag. Dispose of outer bag in a sanitary landfill or by incineration, or if allowed by State and local authorities, by burning. If burned, stay out of smoke.

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PulsFOG is a registered trademark of Dramm Corporation  
MaxCharge Systems is a trademark of Electrostatic Spraying Systems, Inc.

Manufactured for:

**Valent U.S.A. Corporation**

P.O. Box 8025

Walnut Creek, CA 94596-8025

[www.valent.com](http://www.valent.com)

Made in U.S.A.

EPA Reg. No. 59639-125

EPA Est.

059639-00125.20080320.S1812PPG.FINAL

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[Information below to be used on the Water Soluble Packaging only.]

**S-1812 PPG**

Active Ingredient	By Wt.
Pyridalyl (Pyridine 2-[3-[2,6-dichloro-4- [(3,3-dichloro-2-propenyl)oxy]phenoxy] propoxy]-5-(trifluoromethyl) .....	35%
Other Ingredients .....	65%
Total .....	100%

EPA Reg. No. 59639-125

KEEP OUT OF REACH OF CHILDREN

CAUTION

REFER TO OUTER CONTAINER LABEL FOR USE  
DIRECTIONS AND PRECAUTIONS.

NET WEIGHT \_\_\_\_\_