

59639-140

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, DC 20460

OFFICE OF  
PREVENTION, PESTICIDES AND  
TOXIC SUBSTANCES

MAY 30 2008

Premjit Halarnkar, Ph.D., MPA  
Senior Project Manager, R & RA  
Valent U.S.A. Corporation  
1600 Riviera Ave., Suite 200  
P.O. Box 8025  
Walnut Creek, CA 94596-8025

**Subject: V-10161 4 SC**  
**EPA Reg. No. 59639-140**  
**Amendment Dated December 20, 2006; Resubmission of March 28, 2008**

Dear Dr. Halarnkar,

The amended label referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide and Rodenticide Act as amended to add new uses for brassica (head & stem), bulb vegetables, and root vegetables (except carrot, potato, and sugar beets), is acceptable, provided you submit the following:

1. Additional storage stability data are required by June 30, 2012 to support the *Brassica* head and stem, bulb, and root vegetable crop field trials. Storage stability studies with a representative root or tuber vegetable (reflecting analysis of roots and tops) and a *Brassica* vegetable must be conducted. The requested data for a root or tuber vegetable may be translated to bulb vegetables. The required studies must reflect the storage conditions of samples from the crop field trials and must include storage intervals of up to 47 months for the root or tuber vegetable and 45 months for the *Brassica* vegetable. If residues are found to be unstable in any representative commodity, additional storage stability data studies will normally be required on additional commodities of that group [see OPPTS 860.1380(c)(5)(ii)(D)].
2. On page 11, within the "Specific Requirements – All Food Crops", in the last sentence under "When to Apply," replace "Conventional spray applications are" with "Chemigation is not".

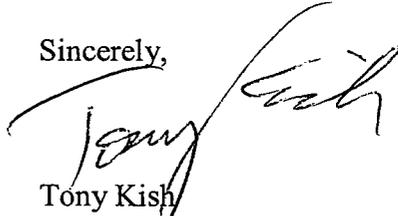
EPA Reg. No. 59639-140  
V-10161 4 SC  
Your Submission Dated March 28, 2008  
Page 2 of 2

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One copy of the label stamped "Accepted with Comments" is enclosed for your records. This label supersedes all labels previously accepted for this product. Please submit one copy of the final printed label that incorporates the required changes, before the product is released for shipment.

Should you have any further questions, please feel free to contact Tawanda Maignan via e-mail at [Maignan.Tawanda@epa.gov](mailto:Maignan.Tawanda@epa.gov) or telephone at 703.308.8050.

Sincerely,



Tony Kish  
Product Manager (Team 22)  
Fungicides Branch  
Registration Division

30f20

ACCEPTED  
with COMMENTS  
In EPA Letter Dated



MAY 30 2008  
Under the Federal Insecticide,  
Fungicide, and Rodenticide Act  
as amended, for the pesticide  
registered under EPA Reg. No.

59629-140

GROUP 43 FUNGICIDE

# V-10161 4 SC

(Fungicide)

FOR CONTROL AND/OR SUPPRESSION OF CERTAIN DISEASES IN BRASSICA (HEAD AND STEM), BULB VEGETABLES, CUCURBIT VEGETABLES, FRUITING VEGETABLES, GRAPES, LEAFY VEGETABLES (EXCEPT BRASSICA VEGETABLES), SWEET POTATOES AND ROOT VEGETABLES (EXCEPT CARROT, POTATO AND SUGAR BEET; AND FOR CONTROL OF PHYTHIUM AND PHYTOPHTHORA ON TURFGRASS & ORNAMENTALS.

Active Ingredient	By Wt
*Fluopicolide.....	39.5%
Other Ingredients .....	60.5%
Total .....	100.0%

\*2,6-dichloro-N-[[3-chloro-5-(trifluoromethyl)-2-pyridinyl]methyl]benzamide

V-10161 4 SC Fungicide is a suspendable concentrate fungicide containing 4 lbs active ingredient per gallon.

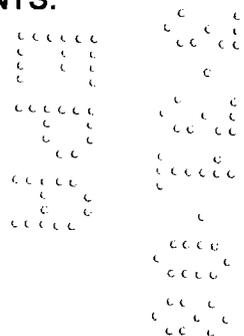
KEEP OUT OF REACH OF CHILDREN

## CAUTION

SEE NEXT PAGE FOR ADDITIONAL PRECAUTIONARY STATEMENTS.

NET CONTENT \_\_\_\_

SHAKE WELL BEFORE USING  
AGITASE BIEN ANTE USO



# PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS & DOMESTIC ANIMALS CAUTION

Harmful if swallowed, inhaled or absorbed through skin. Causes moderate eye irritation. Avoid contact with skin, eyes or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum or using tobacco. Wear long-sleeved shirt and long pants, socks, shoes and gloves. Remove and wash contaminated clothing before reuse. Avoid breathing vapor or spray mist.

## FIRST AID

- If on skin or Clothing:**
  - Take off contaminated clothing.
  - Rinse skin immediately with plenty of water for 15-20 minutes.
  - Call a poison control center or doctor for further 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.
- If swallowed:**
  - Call a poison control center or doctor immediately for treatment advice.
  - Have person sip a glass of water if able to swallow.
  - 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.
- 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)

Some of the 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-resistance category selection chart.

**Applicators and other handlers must wear:** long-sleeved shirt and long pants, chemical-resistant gloves made of any waterproof material such as natural rubber  $\geq$  14 mils, socks and shoes.

## 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.



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**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 CONSISTENT WITH APPLICABLE LAW AGREES THAT ALL SUCH RISKS ASSOCIATED WITH THE APPLICATION AND USE ARE ASSUMED BY THE BUYER.

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. 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**

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 consistent with applicable 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 CONSISTENT WITH APPLICABLE 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 later, 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, consistent with applicable law. Read and follow the entire label of each product to be used in the tank mix with this product.

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## GENERAL INFORMATION

V-10161 4 SC fungicide is formulated as 4 lbs ai/gal suspendable concentrate (SC). The active ingredient in V-10161 4 SC is fluopicolide. V-10161 4 SC exhibits protective, curative, eradivative and antispore activity. Fluopicolide is locally systemic and translaminar and also moves systemically via xylem tissue.

Optimal disease control is achieved when V-10161 4 SC is applied in a regularly scheduled spray program used in combination and/or rotation with other effective fungicides that have different modes of action (i.e., non group 43 fungicides).

### GENERAL RESTRICTIONS AND LIMITATIONS

- A tank mix partner must be used with V-10161 4 SC for resistance management.
- Do not apply to greenhouse food crops.
- Do not apply this product when weather conditions favor spray drift from treated areas.
- When applying by air, observe drift management restrictions and precautions listed under "AERIAL APPLICATION". Best control is achieved through ground application.
- Avoiding spray drift at the application site is the responsibility of the applicator. The interaction of many equipment and weather related factors determine the potential for spray drift. The applicator is responsible for considering all of these factors when making decisions. Where states have more stringent regulations, they should be observed.

### MODE OF ACTION

V-10161 4 SC is active against selective oomycetes. It exhibits the typical mode of action of specific systemic fungicides against oomycete fungi affecting several steps in the reproduction cycle.

Biochemical studies have shown that fluopicolide has an effect on spectrin-like proteins, believed to play a role in maintaining the membrane stability in ascomycete fungi or oomycetes, especially during hyphal tip extension. Microscopy studies demonstrate that fluopicolide induces a quick redistribution of these proteins from the membrane to the cytoplasm in both hyphae and zoospores.

### RESISTANCE MANAGEMENT

V-10161 4 SC contains fluopicolide, a group 43 Fungicide. The target site of action of group 43 fungicides is specific but the detailed, biochemical mode of action is not known. Fungal isolates with acquired resistance to fluopicolide may eventually dominate the fungal population if fluopicolide is used repeatedly in the same field or in successive years as the primary method of control for targeted species. This may result in partial or total loss of control of those species by fluopicolide. To maintain the performance of V-10161 4 SC in the field, do not exceed the total number of sequential applications of V-10161 4 SC and the total number of applications of V-10161 4 SC per season stated in the "CROP SPECIFIC REQUIREMENTS". Adhere to the label instructions regarding the consecutive use of V-10161 4 SC. The following recommendations may be considered to delay the development of fungicide resistance:

- **Tank Mixtures:** V-10161 4 SC must be used in a tank mixture with a fungicide from a different target site of action group that are registered for the same use and that is effective against the pathogens of concern. Valent recommends using at least the minimum labeled rates of each fungicide in the tank mix.

- **Integrated Pest Management (IPM):** V-10161 4 SC must be integrated into a multi-faceted disease and pest management program. Cultural practices known to reduce disease development should be followed. Consult your local extension specialist, certified crop advisor and/or Valent representative for additional IPM strategies established for your area. V-10161 4 SC may be used in Agricultural Extension advisory (disease forecasting) programs which recommend application timing based on environmental factors favorable for disease development.
- **Monitoring:** Monitor efficacy of all fungicides used in the disease management program against the targeted pathogen and record other factors that may influence fungicide performance and/or disease development.
- **Reporting:** If a Group 43 target site fungicide appears to be less effective or no longer effective against a pathogen that it previously controlled or suppressed, contact a Valent representative, local extension specialist or certified crop advisor to assist in determining the cause of reduced performance.

**RAINFASTNESS**

Conventional foliar spray applications of V-10161 4 SC are mainly for downy mildew and other foliar disease control and are rainfast 2 hours after application. Applications for foliar disease control must not be made if measurable rain is expected within 2 hours of application or foliar disease control may be reduced.

**JAR TEST TO DETERMINE COMPATIBILITY OF ADJUVANTS AND V-10161 4 SC**

A jar test should be performed before mixing commercial quantities of V-10161 4 SC, when using V-10161 4 SC for the first time, or when a new water source is being used.

1. Add 1 pt of water plus adjuvant to a quart jar. The water should be from the same source and temperature as which will be used in the spray tank mixing operation.
2. Add 2.5 ml (1/2 tsp) of V-10161 4 SC to the quart jar, gently mix until product goes into suspension.
3. Place cap on jar, invert 10 times, let stand for 15 minutes, evaluate.
4. An ideal tank mix combination will be uniform and free of suspended particles. If any of the following conditions are observed the choice of adjuvant should be questioned:
  - a) Layer of oil or globules on the mixture's surface.
  - b) Flocculation: fine particles in suspension or as a layer on the bottom of the jar.
  - c) Clabbering: thickening texture (coagulated) like gelatin.

**APPLICATION INSTRUCTIONS**

**SPRAYER PREPARATION**

Before applying V-10161 4 SC, start with clean, well maintained application equipment. The spray tank, hoses and booms must be cleaned to ensure no residue from the previous spraying operation remains in the sprayer. The spray equipment must be cleaned according to the manufacturer's directions for the last product used before the equipment is used to apply V-10161 4 SC. If two or more products were tank mixed prior to V-10161 4 SC application, the most restrictive cleanup procedure should be followed.

**MIXING INSTRUCTIONS**

1. Fill clean spray or nurse tank 1/2 to 2/3 of desired level with clean water.
2. While agitating, slowly add the V-10161 4 SC to the tank. Agitation should create a rippling or rolling action on the water surface.
3. When tank mixing V-10161 4 SC with other labeled pesticides, add water soluble packets first, followed by dry formulations, flowables, emulsifiable concentrates and then solutions.
4. Add any required adjuvants.
5. Fill tank to desired level with water. Agitation should continue until all spray solution has been used or applied.

**SPRAYER CLEANUP**

Spray equipment must be cleaned following application of V-10161 4 SC. After V-10161 4 SC is applied, the following steps must be used to clean the spray equipment:

1. Completely drain the spray tank, rinse the sprayer thoroughly, including the inside and outside of the tank and all in-line screens.
2. Fill the spray tank with clean water and flush all hoses, booms, screens and nozzles.
3. Drain tank completely.
4. Remove all nozzles and screens and rinse them in clean water.
5. The rinsate solution may be applied to the crops recommended on this label. Do not exceed the maximum labeled use rate. If cleaners are used, consult the cleaner label for disposal instructions. If no instructions are given, dispose of rinsate at an approved waste disposal facility.

**APPLICATION EQUIPMENT**

Application equipment should be clean and in good repair. Nozzles should be frequently checked for accuracy.

**CARRIER VOLUME**

Apply V-10161 4 SC in sufficient water to ensure thorough coverage of foliage, bloom and fruit. Thorough coverage is required for optimal disease control. For ground application, apply a minimum of 20 gallons of spray mixture per acre and for aerial application, do not apply less than 5 gallons of spray mixture per acre to assure uniform coverage. Follow individual "CROP SPECIFIC REQUIREMENTS" for appropriate spray volumes.

**AERIAL APPLICATION**

To minimize drift, apply the largest droplet size consistent with uniform coverage and satisfactory disease control. To obtain satisfactory application and avoid drift, the following directions must be observed:

Do not apply during low-level inversion conditions, when winds are gusty or under other conditions that favor drift. Do not spray when wind velocity is less than 2 mph or more than 10 mph.

- **Carrier Volume and Spray Pressure:** Application at less than 5 gals per acre may provide inadequate coverage and control. The higher gallonage applications generally afford more consistent disease control. Do not exceed the nozzle manufacturer's recommended pressures. For many nozzle types, lower pressure produces larger droplets. When higher flow rates are needed, use higher flow rate nozzles instead of increasing pressure.
- **Nozzle Selection and Orientation:** Formation of very small drops may be minimized by appropriate nozzle selection, by orienting nozzles away from the air stream as much as possible and by avoiding excessive spray pressure. Use nozzles that produce flat fan or cone spray patterns. Use non-drip type nozzles, such as diaphragm type nozzles, to avoid unwanted discharge of spray solution. The nozzles must be directed toward the rear of the aircraft, producing a spray discharge at an angle between 0 and 15° downward. Do not place nozzles on the outer 25% of the wings or rotors.
- **Adjuvants and Drift Control Additives:** Refer to tank mix partner's label for adjuvant recommendation. Drift control additives may be used although it is better to obtain coarser sprays through appropriate nozzle selection and use wherever possible. When a drift control additive is used, read and carefully observe the cautionary statements and all other information appearing on the additive label, and be certain of compatibility with the tank mix and nozzle types being used before selecting any adjuvant types.

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**CHEMIGATION**

V-10161 4 SC may be applied through sprinkler irrigation systems mainly for soil born infections. Follow all label requirements for these crops regarding application rates, timing of application, special instructions and precautions.

For chemigation applications apply this product only through center pivot, solid set, hand move irrigation systems. Do not apply this product through any other type of irrigation system.

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

The system must be properly calibrated (with water only) to ensure that the amount of V-10161 4 SC applied corresponds to the required rate on this label for the crop being chemigated.

Apply V-10161 4 SC in 1/2 to 3/4 inches of water during the first sprinkler set. Allow time for all lines to flush the fungicide through all nozzles before turning off irrigation water. To ensure the lines are flushed and free of remaining fungicide, a dye indicator may be injected into the lines to mark the end of the application period.

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

**Chemigation of Turf and Ornamentals**

The chemigation to turfgrass sites, apply this product only through center pivot, solid set, hand move or moving wheel irrigation systems. Apply V-10161 4 SC in 1/2 to 3/4 inches of water during the first sprinkler set.

For chemigation to ornamental sites apply this product only through microirrigation (individual spaghetti tube), drip irrigation, overhead irrigation or motorized calibrated irrigation equipment.

**Special Precautions for Chemigation**

1. Do not connect an irrigation system used for pesticide application to a public water system unless the pesticide label-prescribed safety devices for public water systems are in place.
2. 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.
3. The system must be free of leaks and clogged nozzles.
4. The pesticide must be supplied continuously for the duration of the aqueous application. An uneven application may cause injury to the crop or poor control.
5. Agitation must be maintained in the nurse tank.
6. The sprinkler chemigation 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.
7. The pesticide injection pipeline must contain a functional, automatic, quick closing check valve to prevent the flow of fluid back toward the injection pump.
8. 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.
9. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops, or in the case where there is no water pump, when the water pressure decreases to the point where pesticide distribution is adversely affected.
10. 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.

- 11. 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 the pesticides being used and capable of being fitted with a system interlock.
- 12. Do not apply when wind speed favors drift beyond the area intended for treatment.

**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 a 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 the public water system must contain a functional, reduced pressure zone (RPZ), backflow preventer 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 outlet end of the fill pipe and the top overflow rim of the reservoir tank of at least twice the inside diameter of the fill pipe.
- 3. All chemigation systems connected to the public water system must also follow restrictions listed in the preceding section titled "Special Precautions for Chemigation".

**ROTATIONAL RESTRICTIONS**

The following rotational crops may be planted after applying V-10161 4 SC at the labeled rate. Planting earlier than the recommended rotational interval is not allowed.

CROPS	ROTATIONAL INTERVAL
Brassica (Head and Stem) Bulb Vegetables Cucurbit Vegetables Fruiting Vegetables Grapes Leafy Vegetables (Except Brassica) Root Vegetables, (Except Carrot, Potato and Sugar Beet)	Immediately
All Other Crops	18 months

**SPECIFIC REQUIREMENTS – All Food Crops**

**When to Apply:** Begin application when crop and/or environmental conditions favor disease development. Applications must be made on a 7 to 14 day interval, depending on disease pressure. Under severe disease pressure use the higher labeled rate and shortest interval. Apply as a foliar spray in sufficient water to obtain thorough coverage. Conventional spray applications are recommended when the primary disease is downy mildew or other foliar diseases.

**Resistance Management:** V-10161 4 SC must be used as part of an integrated pest management (IPM) program. Apply as a foliar spray in a tank mix with another labeled fungicide product with a different mode of action on the target pathogen in sufficient water to obtain thorough coverage.

**Restrictions and Limitations**

- The maximum V-10161 4 SC application rate is 4 fl oz per acre per application and 12 fl oz per acre per season.
- Apply no more than 2 sequential applications of V-10161 4 SC before alternating with an effective fungicide from a different resistance management group.
- Do not make more than 4 applications of V-10161 4 SC per acre per season.

Crops	Diseases	Application Rates		Minimum Time from Last Application to Harvest (PHI)	Specific Use Instructions
		fl oz/A	GPA		
<b>Brassica (Head and Stem):</b> Broccoli, Brussels Sprouts, Cabbage, Cauliflower, Cavalo Broccolo, Chinese Broccoli, Chinese (napa) Cabbage, Chinese Mustard Cabbage, Kohlrabi	Downy Mildew ( <i>Peronospora parasitica</i> )  Phytophthora ( <i>Phytophthora megasperma</i> )				A tank mix including a labeled rate of another labeled fungicide product with a different mode of action on the target pathogen must be used with V-10161 4 SC for resistance management.  Recommended spray interval: 10 days
<b>Bulb Vegetables including:</b> Beltsville Bunching Onion, Chive (fresh leaves), Chinese Chive (fresh leaves), Chinese Onion Bulb, Daylily Bulb, Elegans Hosta, Fritillaria (bulb and leaves), Garlic Bulb, Great Headed Garlic Bulb, Green Onion, Kurrant, Lady's Leek, Leek, Lily Bulb, Macrostem Onion, Onion (bulb and fresh), Pearl Onion, Potato Onion Bulb, Shallot (bulb and fresh leaves), Serpent Garlic Bulb, Tree Onion Tops, Wild Leek	Botrytis ( <i>Botrytis allii</i> )  Downy Mildew ( <i>Peronospora destructor</i> )	3 to 4 (0.09 to 0.125 lb ai/A)	Ground: 20 to 50  Aerial Minimum: 5	2 days	

continued

**SPECIFIC REQUIREMENTS – All Food Crops**

Crops	Diseases	Application Rates		Minimum Time from Last Application to Harvest (PHI)	Specific Use Instructions
		fl oz/A	GPA		
<b>Cucurbit Vegetables:</b> Acorn Squash; Balsam Apple; Balsam Pear; Bittermelon; Butternut Squash; Calabaza; Cantaloupe; Chayote, Fruit; Chinese Cucumber; Chinese Okra; Chinese Preserving Melon; Chinese Waxgourd; Citron Melon; Cucumber; Cucuzza; Gherkin; Gourd, Edible; Hechima; Hubbard Squash; Hyotan; <i>Momordica</i> spp; Muskmelon; Pumpkin; Spaghetti Squash; Summer Squash; Watermelon; Winter Squash	Downy Mildew ( <i>Pseudoperonospora cubensis</i> )  Phytophthora ( <i>Phytophthora cactorum</i> )  Phytophthora Blight ( <i>Phytophthora capsici</i> )	3 to 4 (0.09 to 0.125 lb ai/A)	Ground: 20 to 50  Aerial Minimum: 5	2 days	A tank mix including a labeled rate of another labeled fungicide product with a different mode of action on the target pathogen must be used with V-10161 4 SC for resistance management.  Recommended spray interval: 10 days
<b>Fruiting Vegetables:</b> Bell Pepper; Chili Pepper; Cooking Pepper; Eggplant; Groundcherry ( <i>Physalis</i> spp.); Pepino; Pimento, Sweet Pepper; Tomatillo; Tomato	Late Blight ( <i>Phytophthora infestans</i> )  Phytophthora ( <i>Phytophthora parasitica</i> )  Phytophthora Blight ( <i>Phytophthora capsici</i> )				A tank mix including a labeled rate of another labeled fungicide product with a different mode of action on the target pathogen must be used with V-10161 4 SC for resistance management.  Recommended spray interval: 10 days

continued

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**SPECIFIC REQUIREMENTS – All Food Crops** (continued)

Crops	Diseases	Application Rates		Minimum Time from Last Application to Harvest (PHI)	Specific Use Instructions
		fl oz/A	GPA		
<b>Grapes</b>	Downy Mildew ( <i>Plasmopara viticola</i> )			21 days	A tank mix including a labeled rate of another labeled fungicide product with a different mode of action on the target pathogen must be used with V-10161 4 SC for resistance management.  Recommended spray interval: 12 to 14 days
<b>Leafy Vegetables (Except Brassica Vegetables):</b> Amaranth, Chinese Spinach; Arugula, Roquette; Cardoon; Celery; Celtuce; Chinese Celery; Chervil; Chrysanthemum, Edible-leaved; Chrysanthemum, Garland; Corn Salad; Cress, Garden; Cress, Upland; Dandelion; Dock, Sorrel; Endive, Escarole; Fennel; Florence; Lettuce, Head and Leaf; Orach; Parsley; Purslane, Garden; Purslane, Winter; Radicchio, Red Chicory; Rhubarb; Spinach; Spinach, New Zealand; Spinach, Vine; Swiss Chard	Downy Mildew ( <i>Bremia lactucae</i> )  White Rust ( <i>Albugo occidentalis</i> )	3 to 4 (0.09 to 0.125 lb ai/A)	Ground: 20 to 50  Aerial Minimum: 5	2 days	A tank mix including a labeled rate of another labeled fungicide product with a different mode of action on the target pathogen must be used with V-10161 4 SC for resistance management.  Recommended spray interval: 10 days
<b>Sweet Potato</b>	Late Blight ( <i>Phytophthora infestans</i> )  Pink Rot ( <i>Phytophthora erythroseptica</i> )			7 days	A tank mix including a labeled rate of another labeled fungicide product with a different mode of action on the target pathogen must be used with V-10161 4 SC for resistance management.  Recommended spray interval: 10 days

continued

**SPECIFIC REQUIREMENTS – All Food Crops** (continued)

Crops	Diseases	Application Rates		Minimum Time from Last Application to Harvest (PHI)	Specific Use Instructions
		fl oz/A	GPA		
<b>Root Vegetables (Except Carrot, Potato and Sugar Beet):</b> Arracacha, Arrowroot, Black Salsify, Cassava (bitter and sweet), Celeriac, Chayote (root), Chicory, Chinese Artichoke, Chufa, Dasheen (taro), Edible Burdock, Edible Canna, Garden Beet, Ginger, Ginseng, Jerusalem Artichoke, Leren, Horseradish, Parsnip, Radish, Oriental Radish, Rutabaga, Salsify, Skirret, Spanish Salsify, Tanier, True Yam, Turmeric, Turnip, Turnip-rooted Chervil, Turnip-rooted Parsley, Yam Bean	Root Dieback (Forking and Stubbing) ( <i>Pythium ultimum</i> and <i>Pythium irregulare</i> )  Cavity Spot ( <i>Pythium violae</i> )	3 to 4 (0.09 to 0.125 lb ai/A)	Ground: 20 to 50  Aerial Minimum: 5	7 days	A tank mix including a labeled rate of another labeled fungicide product with a different mode of action on the target pathogen must be used with V-10161 4 SC for resistance management.  Recommended spray interval: 10 days

### TURFGRASS

V-10161 4 SC is effective at preventing and controlling damping off, root rot and stem diseases caused by pythium blight infesting turfgrass. Pythium blight is sometimes referred to as greasy spot or cottony blight and is in a group of fungi known as water molds. This disease is common in turfgrass areas with poor soil drainage and a wet turfgrass canopy. High humidity and high temperatures provide an ideal environment for development of pythium blight. Pythium blight occurs in all cool season grasses, but is especially prevalent in creeping bentgrass, annual bluegrass and perennial ryegrass.

#### DIRECTIONS FOR USE ON TURFGRASS

Turfgrass	Diseases	Application Rate	Special Instructions
<p><b>Established and Overseeded Turfgrass:</b>            Golf Course Turf            Residential Turf            Commercial Turf            Sod Farms</p>	<p>Pythium Blight            Pythium Damping Off</p>	<p>0.2 fl oz            per 1000 sq ft              (8.6 fl oz/A)</p>	<p>Do not apply more than a total of 0.4 fl oz per 1000 sq ft per year (0.54 lb ai/A per year).</p> <p>Apply in a minimum volume of 2 gals per 1000 sq ft</p> <p>A tank mix including a labeled rate of another labeled fungicide product with a different mode of action on the target pathogen must be used with V-10161 4 SC for resistance management.</p> <p><b>Overseeded Turf:</b> Apply after seed germination to prevent pythium damping off.</p> <p><b>Established Turf:</b> Apply when conditions favor disease development. Favorable conditions included high temperatures and high humidity.</p> <p>If necessary, make an additional application on a 14 day interval.</p>

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## ORNAMENTAL PLANTS

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V-10161 4 SC is effective at preventing water mold, root rot, stem rot, crown rot and damping off caused by pythium and phytophthora diseases in ornamental plants. V-10161 4 SC is mixed with water and applied as a soil drench at the time of seeding or transplanting. V-10161 4 SC may be used on container, bench, or bed grown ornamentals in greenhouses or outdoor nurseries. V-10161 4SC is for use on conifers including Christmas trees and for use on ornamentals grown for outdoor landscaping.

**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 V-10161 4 SC in every locale where it is sold or in all of the combinations of location and plant varieties. Further differences include the soil or media type; pH; moisture or fertility; environmental conditions such as temperature, lighting or degree days; horticultural practice; the manner of use and application of this product. To ensure that V-10161 4 SC 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.

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**DIRECTIONS FOR USE ON ORNAMENTAL PLANTS**

Ornamentals	Diseases	Product Rates	Special Instructions															
Bedding Plants Conifers Flowering Plants Foliage Plants Ground Covers Non-Bearing Fruit Nut Trees Ornamentals Ornamental Trees Shrubs Vines	Phytophthora Pythium Blight	4 to 8 fl oz per 100 gals	<p>Application should be made prior to disease development. Use the higher rate with high potential for disease development. Make applications as necessary, but no more than once every 14 days.</p> <p>A tank mix must be used with V-10161 4 SC for resistance management.</p> <p>Do not apply more than two (2) applications of V-10161 4 SC per cropping cycle.</p> <p>Sequential Application: Do not apply sequentially, alternate with another fungicide registered for use on ornamental plants.</p> <p>Foliar Application: For foliar sprays, 100 gallons of spray mix will treat approximately 20,000 sq ft of area. Apply the spray mixture to all plant surfaces and to the point of runoff.</p> <p>Drench Application: Use enough solution to wet the root zones of plants. Use the information below as a guide for drench application.</p> <p>Container grown plants: Apply in volume as listed. For pot sizes other than those listed, adjust volume accordingly.</p> <table border="1"> <thead> <tr> <th>Pot diameter</th> <th>fl oz per pot</th> </tr> </thead> <tbody> <tr><td>4</td><td>3</td></tr> <tr><td>5</td><td>4</td></tr> <tr><td>6</td><td>6</td></tr> <tr><td>8</td><td>10</td></tr> <tr><td>10</td><td>20</td></tr> <tr><td>12</td><td>30</td></tr> </tbody> </table> <p>Plants grown in flats or beds: Apply at a volume of 1 to 2 pints per square foot (5 to 10 qts per 10 sq ft).</p>		Pot diameter	fl oz per pot	4	3	5	4	6	6	8	10	10	20	12	30
Pot diameter	fl oz per pot																	
4	3																	
5	4																	
6	6																	
8	10																	
10	20																	
12	30																	

- For hand harvesting, thinning, pruning and pinching of cut flowers, a 6 day reentry interval following the last application of V-10161 4SC must be observed.

NOTE: Since ornamental varieties are numerous, constantly changing and may react differently to V-10161 4 SC and tank mixtures including V-10161 4 SC, test the product(s) on a small scale before making large scale applications.

**RATE CONVERSION CHART**

Rate of V-10161 4 SC per 100 gals (fl oz)	Amount of V-10161 4 SC to add to water to achieve desired volume (fl oz)									
	1 gallon		5 gallons		10 gallons		25 gallons		50 gallons	
	fl oz	ml	fl oz	ml	fl oz	ml	fl oz	ml	fl oz	ml
4	0.04	1.2	0.2	6	0.4	12	1	30	2	60
6	0.06	1.8	0.3	9	0.6	18	1.5	45	3	90
8	0.08	2.4	0.4	12	0.8	24	2	60	4	120

**STORAGE AND DISPOSAL**

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

**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 water, food or feed by storage and disposal.  
 Do not store or transport near feed or food.  
 Do not store at temperature below 32°F. If the product is exposed to temperatures below 32°F, thaw at 50°F or higher and shake gently to unify the product.  
 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 must be disposed of on site or at an approved waste disposal facility.

**CONTAINER DISPOSAL**

Nonrefillable container. Do not reuse or refill this container. Offer for recycling, if available. Clean container promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times.

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**Valent U.S.A. Corporation**  
 P.O. Box 8025  
 Walnut Creek, CA 94596-8025  
 www.valent.com

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