

59639-150

1-4-2008

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## U.S. ENVIRONMENTAL PROTECTION AGENCY

Office of Pesticide Programs  
Registration Division (7505C)  
1200 Pennsylvania Ave., N.W.  
Washington, D.C. 20460

EPA Reg. Number:

59639-150

Date of Issuance:

JAN 4 2008

## NOTICE OF PESTICIDE:

☒ Registration  
☐ Reregistration

(under FIFRA, as amended)

Term of Issuance:

Conditional

Name of Pesticide Product:

V-10170 2.13 SC

## Name and Address of Registrant (include ZIP Code):

Valent U.S.A. Corporation  
1600 Riviera Ave., Suite 200  
Walnut Creek, CA 94596-8025

Note: Changes in labeling differing in substance from that accepted in connection with this registration must be submitted to and accepted by the Registration Division prior to use of the label in commerce. In any correspondence on this product always refer to the above EPA registration number.

On the basis of information furnished by the registrant, the above named pesticide is hereby registered/reregistered under the Federal Insecticide, Fungicide and Rodenticide Act.

Registration is in no way to be construed as an endorsement or recommendation of this product by the Agency. In order to protect health and the environment, the Administrator, on his motion, may at any time suspend or cancel the registration of a pesticide in accordance with the Act. The acceptance of any name in connection with the registration of a product under this Act is not to be construed as giving the registrant a right to exclusive use of the name or to its use if it has been covered by others.

This product is conditionally registered in accordance with FIFRA section 3(c)(7)(A) provided that you:

1. Submit and/or cite all data required for registration/reregistration of your product when the Agency requires all registrants of similar products to submit such data.
2. Make the following label changes before you release the product for shipment:
  - a. Revise the EPA Registration Number to read, "EPA Reg. No. 59639-150".
  - b. On page 7 of the label, revise the header "General Information" to read "Restrictions and Limitations."
  - c. Within the foliar application table for grapes, revise the sentence "Do not apply more than 12 fl oz of V-10170 2.13 SC per acre per season." to read "Do not apply more than 12 fl oz of V-10170 2.13 SC (0.2 lb ai) per acre per season."
  - d. On page 22 of the label, revise the header "General Restrictions and Limitations" to read "Restrictions and Limitations."

Signature of Approving Official:

Kable Bo Davis, Entomologist  
Insecticide-Rodenticide Branch, Registration Division (7505P)

Date:

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3. The data requirements for storage stability (830-6317) and corrosion characteristics (830- 6320) have not been satisfied, and must be submitted within eighteen months of the date of this letter.
4. Submit one copy of the revised final printed label for the record before you release the product for shipment.

If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA section 6(e). Your release for shipment of the product constitutes acceptance of these conditions.

A stamped copy of the label is enclosed for your records.

Kable Bo Davis  
Entomologist  
Insecticide-Rodenticide Branch  
Registration Division (7505P)

Enclosure



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[MASTER LABEL]

GROUP	4A	INSECTICIDE
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## V-10170 2.13 SC INSECTICIDE

**FOR USE ON GRAPE, POME FRUIT, POTATO AND TOBACCO**

**FOR SYSTEMIC CONTROL OF INSECTS ON ORNAMENTAL PLANTS, NON-BEARING FRUIT AND NUTS GROWN IN FIELD NURSERY PLANTINGS, CONTAINER NURSERIES, FOREST NURSERIES, GREENHOUSES, LATH AND SHADE HOUSES, INTERIORSCAPES AND OTHER SITES WHERE PLANTS ARE GROWN FOR ORNAMENTAL, AESTHETIC AND CLIMATE MODIFICATION PURPOSES, SOD FARMS AND TURFGRASS**

Active Ingredient	By Wt.
*Clothianidin .....	23.00%
Other Ingredients .....	77.00%
Total .....	100.00%

\*(E)-1-(2-chlorothiazol-5-ylmethyl)-3-methyl-2-nitroguanidine

Contains 2.13 lbs active ingredient per gallon

**KEEP OUT OF REACH OF CHILDREN**

**CAUTION**

SEE NEXT PAGE FOR PRECAUTIONARY STATEMENTS

**NET WEIGHT**

**ACCEPTED  
with COMMENTS  
In EPA Letter Dated:**

**JAN 4 2008**

EPA Reg. No. 59639-XXX  
EPA Est. No.

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

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## Sub Label 1

V-10170 2.13 SC

For use on Grape, Pome Fruit, Potato and Tobacco

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GROUP	4A	INSECTICIDE
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# V-10170 2.13 SC

## INSECTICIDE

FOR USE ON GRAPE, POME FRUIT, POTATO AND TOBACCO

Active Ingredient	By Wt.
*Clothianidin .....	23.60%
Other Ingredients .....	76.40%
Total .....	100.00%

\*(E)-1-(2-chlorothiazol-5-ylmethyl)-3-methyl-2-nitroguanidine

Contains 2.13 lbs active ingredient per gallon

**KEEP OUT OF REACH OF CHILDREN**

**CAUTION**

SEE NEXT PAGE FOR PRECAUTIONARY STATEMENTS

**NET WEIGHT**

EPA Reg. No. 59639-XXX  
EPA Est. No.

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

Harmful if swallowed.

**FIRST AID**

- 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 a poison control center or doctor.
  - Do not give anything by mouth to an unconscious person.

**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, shoes plus socks and chemical-resistant gloves made of any waterproof material.

Follow the manufacturer's instructions for cleaning/maintaining PPE. If no instructions for washables are available, 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 product is toxic to aquatic invertebrates. Do not apply when weather conditions favor drift from treated areas. Drift and runoff may be hazardous to aquatic organisms in neighboring areas. Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when cleaning equipment or disposing of equipment washwaters or rinsate.

This product is toxic to bees exposed to treatment and for more than 5 days following treatment. Do not apply this product to blooming, pollen-shedding or nectar-producing parts of plants if bees may forage on the plants during this time period, unless the application is made in response to a public health emergency declared by appropriate state or federal authorities.

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## **DIRECTIONS FOR USE**

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

## **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 any 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 on this label about personal protective equipment (PPE), notification to workers 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 entry into treated areas during the restricted entry interval (REI) of 12 hours.

PPE required for early entry into treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that involves contact with anything that has been treated, such as plants, soil or water is: coveralls, shoes plus socks, chemical resistant gloves made of any waterproof material.

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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 FULLEST EXTENT ALLOWED BY 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 fullest 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 FULLEST 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.



### RESISTANCE MANAGEMENT

V-10170 2.13 SC contains a Group 4A insecticide. Insect biotypes with acquired resistance to Group 4A insecticides may eventually dominate the insect population if Group 4A insecticides are 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 V-10170 2.13 SC or other Group 4A insecticides.

To delay insecticide resistance consider:

- Avoiding the consecutive use of V-10170 2.13 SC or other Group 4A insecticides that have a similar target site of action on the same insect species.
- Using tank mixtures or premixes with insecticides from a different target site of action Group as long as the involved products are all registered for the same use and have different sites of action.
- Basing insecticide use on a comprehensive Integrated Pest Management (IPM) program.
- Monitoring treated insect populations for loss of field efficacy.
- Contacting your local extension specialist, certified crop advisors and/or manufacturer for insecticide resistance management or IPM recommendations for the specific site and resistant pest problems.
- For further information or to report suspected resistance, you may contact Valent U.S.A. Corporation at 800-682-5368.

### GENERAL INFORMATION

V-10170 2.13 SC is an insecticide for broad spectrum control of insects infesting grape, pome fruit, potato and tobacco. When applied as directed, V-10170 2.13 SC provides excellent and long residual control.

- Do not use a foliar application of clothianidin (V-10170 2.13 SC) following a soil application of clothianidin.
- Regardless of formulation or type of application (soil or foliar), Do not apply more than a total of 0.2 lbs active ingredient clothianidin per acre per season for all crops.
- If the maximum season limit of clothianidin as mentioned above has been applied and pest populations require additional treatments, use another registered pesticide that is not in the neonicotinoid class of chemistry.
- Do not apply by air.

### PLANT TOLERANCE

Neither the manufacturer nor the seller has determined whether or not V-10170 2.13 SC can be used safely on all cultivars registered for use. V-10170 2.13 SC has been tested on many cultivars with no phytotoxicity observed at label rates. Since all plant species and their varieties and cultivars have not been tested for tolerance, it is recommended that a small number of plants be sprayed to make certain that no phytotoxicity occurs, prior to any large scale application to plants. The end user assumes all risks arising from application of V-10170 2.13 SC in a manner inconsistent with its labeling.

V-10170 2.13 SC can be tank mixed. However, all plant species and their varieties and cultivars have not been tested with possible tank mix combinations, sequential pesticide treatments and adjuvants and surfactants. The user should conduct a spray mix compatibility and phytotoxicity trial under local conditions to ensure compatibility prior to any large-scale use.

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## **MIXING INSTRUCTIONS**

1. Begin with clean equipment.
2. Add sufficient clean water to the spray tank for 1/2 of the mix load.
3. Start tank agitation.
4. Add and properly suspend the necessary amount of V-10170 2.13 SC before adding any other products. Agitate to ensure thorough mixing while adding the remaining required water. A high quality wetting agent or other spray adjuvant, approved for use on your crop, may be added to spray solutions according to the manufacturer's use instructions. V-10170 2.13 SC should be properly suspended and diluted prior to the addition of any adjuvant. Consult adjuvant label or manufacturer for crop tolerance and safety information when used with this product.
5. Maintain agitation during mixing and application.
6. Apply with properly calibrated spray equipment.

## **SPRAY DRIFT MANAGEMENT**

Do not allow this product to drift onto neighboring crops or non-crop areas or use in a manner or at a time other than in accordance with label directions because animal, plant or crop injury, illegal residues or other undesirable results may occur.

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 these factors when making decisions. Where states have more stringent regulations, they should be observed.

## **APPLICATION PROCEDURES**

### **Foliar Application**

Spray nozzles should be selected which will provide accurate and uniform spray deposition. Use spray nozzles which provide medium sized droplets and reduce drift. To help insure accuracy, calibrate sprayer before each use. For information on spray equipment and calibration, consult nozzle manufacturers and/or State and County Extension Service.

Apply V-10170 2.13 SC using sufficient water volume to provide thorough and uniform coverage. In situations where a dense canopy exists and/or pest pressure is high, use greater water volumes. The use of a spray adjuvant may improve spray coverage. Avoid making applications under conditions where uniform coverage cannot be obtained or where excessive spray drift may occur.

### **Application Through Irrigation Systems (Chemigation)**

V-10170 2.13 SC alone or in combination with other products which are registered for application through sprinkler irrigation may be applied through irrigation systems. Apply this product only through micro-irrigation (individual spaghetti tube), drip irrigation, overhead irrigation or motorized calibrated irrigation equipment. Do not apply through any other type of irrigation system. Lack of effectiveness can result from non-uniform distribution of treated water. If you have questions about calibration, you should contact your State Extension Service specialist, equipment manufacturer or other experts. 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.

## Using Water from Public Water Systems

- Do not apply V-10170 2.13 SC through any irrigation system physically connected to a public water system.

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 per year. V-10170 2.13 SC may be applied through irrigation systems which may be supplied by a public water system only if the water from the public water system is 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 to top or overflow rim of the reservoir tank of at least twice the inside diameter of the fill pipe. Before beginning chemigation, always make sure that the air gap exists and that there is no blockage of the overflow of the reservoir tank.

Any irrigation system using water supplied from a public water system must also meet the following requirements:

### Operating Instructions for All Recommended Types of Irrigation Systems

1. The system must be calibrated to uniformly apply the rates specified. If you have questions about calibration, you should contact your State Extension Service specialist, equipment manufacturer or other experts.
2. 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.
3. The pesticide injection pipeline must contain a functional, automatic, quick closing check valve to prevent the flow of fluid back toward the injection pump.
4. 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 shut down.
5. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.
6. 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.
7. 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.
8. Do not apply when wind speed favors drift beyond the area intended.

### Calibration and Application Instructions

V-10170 2.13 SC should be applied under the schedule specified in the specific crop use recommendations, not according to the irrigation schedule, unless the events coincide. In general, set the equipment to apply the minimum amount of water per acre. Run the system at 86 to 90% of the manufacturer's maximum rated travel speed.

The following calibration and application techniques are provided for user reference, but do not constitute a warranty of fitness for application through sprinkler irrigation equipment. Users should check with state and local regulatory agencies for potential use restrictions before applying any agricultural chemical through sprinkler irrigation equipment.

### Center Pivot Irrigation Equipment

1. Use only drive systems that provide uniform water distribution.
2. Do not use end guns when chemigating V-10170 2.13 SC through center pivot systems because of non-uniform application.
3. Plug the first nozzle closest to the well head to protect the water source.
4. Determine the size of the area to be treated.
5. Determine the time required to apply 0.1 to 0.25 inches of water over the area to be treated when the system and injection equipment are operated at normal pressures as recommended by the equipment manufacturer. Run the system at 80 to 95% of the manufacturer's rated maximum travel speed.
6. Using water, determine the injection pump output when operated at normal line pressure.
7. Determine the amount of V-10170 2.13 SC, and any tank mix partners, required to treat the area covered by the irrigation system.
8. Add the required amount of V-10170 2.13 SC, and any tank mix partners, and sufficient water to meet the injection time requirements to the solution tanks. (See "Mixing Instructions" section of this label.)
9. Make sure the system is fully charged with water before starting injection of the V-10170 2.13 SC solution. Time the injection to last at least as long as it takes to bring the system to full pressure.
10. Maintain constant agitation in the solution tank during the injection period.
11. Inject the specified amount of V-10170 2.13 SC per acre continuously for one complete revolution of the system.
12. Stop the injection equipment after treatment is complete. Continue to operate the system until the V-10170 2.13 SC solution has cleared all of the sprinkler heads.
13. Allow time for all lines to flush the pesticide through all nozzles before turning off irrigation water.

### Solid Set, Hand Move and Moving Wheel Irrigation Equipment

1. Determine the acreage covered by the sprinklers.
2. Fill injector solution tank with plain water and calibrate the flow rate of the system to deliver the contents of the tank over a 20 to 40 minute time interval.
3. Determine the amount of V-10170 2.13 SC required to treat the area covered by the irrigation system.
4. Add the required amount of V-10170 2.13 SC, and any other tank mix partners, into the same quantity of water used to calibrate the injection period. (See "Mixing Instructions" section of this label.)
5. Operate the system at the same pressure and time interval established during the calibration.
6. Inject specified amount of V-10170 2.13 SC per acre for either a 20 to 40 minute period at the end of a regular irrigation set, or as a 20 to 40 minute injection as a separate application not associated with a regular irrigation to maximize retention of the insecticide by the foliage.
7. Stop injection equipment after treatment is completed. Continue to operate the system until the V-10170 2.13 SC solution has cleared the last sprinkler head. To ensure lines are flushed and free from remaining pesticides, a dye indicator may be injected into the lines to mark the end of the application period.

## GRAPE

### RECOMMENDED FOLIAR APPLICATION RATE FOR USE ON GRAPE

Pests	V-10170 2.13 SC Application Rates	Special Instructions
Leafhoppers Grape Leaf Skelotimizer	1.9 to 3.8 fl oz/A (0.03 to 0.06 lb ai/A)	V-10170 2.13 SC should be applied when threshold populations are observed. Do not wait until large insect populations have been established. Apply V-10170 2.13 SC in sufficient water to ensure uniform and thorough coverage of foliage. Thorough coverage is required for optimum control
Sharpshooters	3.8 to 5.6 fl oz/A (0.06 to 0.09 lb ai/A)	
Grape Berry Moth Japanese Beetle	5.6 fl oz/A (0.09 lb ai/A)	
<ul style="list-style-type: none"><li>• Do not apply more than two (2) applications of V-10170 2.13 SC).</li><li>• Do not apply more than 12 fl oz of V-10170 2.13 SC per acre per season.</li><li>• Do not apply treatments less than 14 days apart.</li><li>• May be applied up to harvest (0 days PHI).</li><li>• Do not apply V-10170 2.13 SC following a V-10170 2.13 SC soil application.</li></ul>		

### RECOMMENDED SOIL APPLICATION RATE FOR USE ON GRAPE

RECOMMENDED SOLE-APPLY RATE FOR SOLE-ON GRAPE		
Pests	V-10170 2.13 SC Application Rates	Special Instructions
Leafhoppers Grape Mealybug Grape Phylloxera spp. (suppression only) Vine Mealybug	6 to 12 fl oz/A (0.1 to 0.2 lb ai/A)	V-10170 2.13 SC should be applied when threshold populations are observed. Do not wait until large insect populations have been established. Apply specified rate in sufficient carrier volume to insure uniform application and incorporate into the soil using drip or trickle irrigation water.  For Mealybug control, apply between bud break and pea-berry size.
Japanese Beetle	1.8 fl oz/A (0.03 lb ai/A)	
<ul style="list-style-type: none"><li>• Do not apply more than two (2) applications of V-10170 2.13 SC.</li><li>• Do not apply more than 12 fl oz of V-10170 2.13 SC (0.2 lb ai) per acre per season.</li><li>• Do not apply treatments less than 14 days apart.</li><li>• Do not apply within thirty (30) days of harvest.</li></ul>		

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## POME FRUIT

### RECOMMENDED FOLIAR POST BLOOM APPLICATION RATES FOR USE ON POME FRUIT

Crop	Pests	V-10170 2.13 SC Application Rates	Special Instructions
<b>Pome Fruit</b> including: Apple Crabapple Loquat Mayhew Pear Oriental Pear Quince	Aphids Leafhopper	3.8 to 5.6 fl oz/A (0.06 to 0.09 lb ai/A)	V-10170 2.13 SC should be applied when threshold populations are observed. Do not wait until large insect populations have been established.
	Apple Maggot Leafminers Plum Curculio	5.6 fl oz/A (0.09 lb ai/A)	
	Codling Moth Oblique-banded Leafrollers Oriental Fruit Moth Scale	5.6 to 11.3 fl oz/A (0.09 to 0.19 lb ai/A)	The amount of V-10170 2.13 SC per acre will depend on tree size and pest pressure. Choose lower rates for light infestation and/or small trees and the higher rates for heavy infestations and/or larger trees.
	Pear Psylla	7.5 to 11.3 fl oz/A (0.12 to 0.19 lb/A)	Apply by ground 100 to 400 gallons per acre as a full coverage spray. Spray volume will depend on tree size and density of canopy.  Applications may also be made as a concentrate spray. Maintain the same amount of product per acre as a dilute application using the appropriate amount of concentrate spray volume. Repeat applications as needed to maintain control but do not apply more often than every 10 days. A single application may result in suppression only.  For optimum control of Leafminers and Leafrollers, make the first application as soon as pollination is complete and bees are removed from the orchard.
<ul style="list-style-type: none"><li>Do not apply more than 12 fl oz of V-10170 2.13 SC (0.2 lb ai) per season.</li><li>Do not apply within 7 days of harvest.</li><li>Do not feed or allow livestock to graze on cover crops from treated orchards.</li></ul>			

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## POTATO

### RECOMMENDED FOLIAR APPLICATION RATES FOR USE ON POTATO

Pests	V-10170 2.13 SC Application Rates	Special Instructions
Aphids Colorado Potato Beetle Flea Beetle Leafhoppers	1.9 to 2.8 fl oz/A (0.03 to 0.05 lb ai/A)	V-10170 2.13 SC should be applied when threshold populations are observed. Do not wait until large insect populations have been established.
<ul style="list-style-type: none"> <li>Do not apply more than three (3) applications of V-10170 2.13 SC.</li> <li>Do not apply treatments less than 7 days apart.</li> <li>Do not apply within 14 days of harvest.</li> <li>Do not apply V-10170 2.13 SC following a V-10170 2.13 SC soil application. Apply when pest populations reach economic threshold.</li> </ul>		

### RECOMMENDED IN-FURROW OR SIDE DRESS APPLICATION RATES FOR USE ON POTATO

Pests	V-10170 2.13 SC Application Rates	Special Instructions
Aphids Colorado Potato Beetle Flea Beetle Leafhoppers Potato Psyllid (suppression only)	7.2 to 12.0 fl oz/A (0.1 to 0.2 lb ai/A)	<p><b>Timing of Application:</b> At planting or as a side-dress on both sides of the row at ground-crack during hilling. With ground-crack/hilling application make certain product is covered with at least 3 inches of soil.</p> <ol style="list-style-type: none"> <li>1. Apply specified rate in sufficient carrier volume to insure uniform application and incorporate into the soil using one of the following methods: In a narrow band centered on the plant row in the bedding operation just prior to planting.</li> <li>2. In-furrow spray at planting. Direct spray in the furrow on the seed pieces or potatoes.</li> <li>3. As a sidedress to both sides of the row or as a spray at ground crack directly over the row during hilling. Cover immediately with soil.</li> </ol>
<ul style="list-style-type: none"> <li>Do not apply more than one (1) soil application of V-10170 2.13 SC.</li> </ul>		

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## POTATO (continued)

### RECOMMENDED SEED-PIECE APPLICATION RATES FOR USE ON POTATO

Pests	V-10170 2.13 SC Rate in fluid ounces/100 lbs. seed	Special Instructions
Aphids Colorado Potato Beetle Flea beetles Potato Leafhoppers Potato psyllid Wireworms (seed-piece protection only)	.4 - .6 fl.oz.*	Seed-Piece Application: Apply specified dosage as a diluted, fine spray applied over the cut or whole seed tubers. A dilution rate of 1 part V10170 2.13 SC to 3 parts water, or less, is recommended. Maintain agitation of spray mixture during the application process. Use a spray system that is properly shielded to prevent any spray from moving off target. Liquid-based fungicides can be applied with V10170 2.13 SC; however check compatibility before use. If using inert dusts or dust- based fungicides, apply V10170 2.13 SC first, followed by dust application. Apply only in areas with adequate ventilation to accommodate dry-down and in areas equipped to remove mist or dust. Plant treated seed-pieces as soon as possible after treating.  *Based on seeding rate of 2000 lbs/acre, seed-piece application rate range equals in-furrow/sidedress per acre application rate range.
DISEASES SUPPRESSED		
Symptoms of: Potato leaf roll virus (PLRV) Potato yellows Net necrosis	.6 fl.oz.	
<ul style="list-style-type: none"><li>Do not use treated seed-pieces for food, feed or fodder.</li><li>Do not apply any subsequent application of V-10170 2.13 SC (in-furrow, side-dress) following a V-10170 2.13 SC seed piece treatment.</li></ul>		



## TOBACCO

### RECOMMENDATION FOLIAR APPLICATION RATES FOR USE ON TOBACCO

Pests	V-10170 2.13 SC Application Rates	Special Instructions
Aphids Fleabeetle	2.8 to 3.8 fl oz/A (0.05 to 0.06 lb ai/A)	V-10170 2.13 SC should be applied when threshold populations are observed. Do not wait until large insect populations have been established.
Tobacco Budworm (suppression only) Tobacco Hornworm (suppression only)	3.8 fl oz./A (0.06 lb ai/A)	Make application using equipment that delivers a coarse droplet spray and low pressure to prevent off target drift. Check calibration periodically to ensure that your equipment is working properly.  For suppression of budworms and hornworms, make the first application as soon as eggs hatch and repeat applications as necessary to maintain suppression.
<ul style="list-style-type: none"> <li>Do not apply more than 6.3 fl oz of V-10170 2.13 SC (0.2 lb ai) per acre per season.</li> <li>Do not apply treatments less than 7 days apart.</li> <li>Do not apply within 14 days of harvest.</li> </ul>		

### RECOMMENDATION SOIL APPLICATION RATES FOR USE ON TOBACCO (In Transplanted Water Application or Tray, or Flat Drench Application)

Pests	V-10170 2.13 SC Application Rates	Special Instructions
Fleabeetle	3.0 to 6.0 fl oz/A (0.05 to 0.1 lb ai/A)	V-10170 2.13 SC must be mixed with water prior to application. Keep the V-10170 2.13 SC solution agitated or mix regularly to avoid settling in the spray or transplant tank. Apply V-10170 2.13 SC at the specified dosage to the soil in transplant water or by drench to trays or flats prior to transplanting. Plants in flats or trays should be watered by overhead irrigation to wash V-10170 2.13 SC from foliage into the potting media. Failure to wash V-10170 2.13 SC from foliage may result in a reduction of control.  Soil applications may sometimes cause yellowing on the leaves present at the time of transplanting. This effect does not have any impact on plant growth and yields.
Aphids Tobacco Budworm (suppression only) Tobacco Hornworm (suppression only)	6.0 fl oz./A (0.1 lb ai/A)	
<ul style="list-style-type: none"><li>Do not apply more than 12 fl oz of V-10170 2.13 SC (0.2 lb ai) per acre per season.</li><li>Do not apply within 14 days of harvest.</li></ul>		

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## **STORAGE AND DISPOSAL**

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

### **PESTICIDE STORAGE**

Store in a dry place away from excessive heat.

Do not store near food or feed.

Store in original container only.

To close package, replace and tighten cap to form an airtight seal.

### **PESTICIDE DISPOSAL**

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

### **CONTAINER DISPOSAL**

Triple rinse (or equivalent), then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or (if allowed by State and local authorities) by burning. If burned, stay out of smoke.

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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-XXX

EPA Est. No.

059639-00XXX.20070709.V10170 2.13SC

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## [Sub Label 2]

V-10170 2.13 SC

FOR USE ON LANDSCAPE ORNAMENTALS, NON-BEARING FRUIT AND NUTS (IN LANDSCAPES), SOD FARMS AND TURFGRASS



GROUP 4A INSECTICIDE

## V-10170 2.13 SC INSECTICIDE

FOR SYSTEMIC CONTROL OF INSECTS ON ORNAMENTAL PLANTS GROWN IN FIELD NURSERY PLANTINGS, CONTAINER NURSERIES, FOREST NURSERIES, GREENHOUSES, LATH AND SHADE HOUSES, INTERIORSCAPES AND OTHER SITES WHERE PLANTS ARE GROWN FOR ORNAMENTAL, AESTHETIC AND CLIMATE MODIFICATION PURPOSES, NON-BEARING FRUIT AND NUTS AND TURFGRASS

Active Ingredient	By Wt.
*Clothianidin .....	23.60%
Other Ingredients .....	76.40%
Total .....	100.00%

\*(E)-1-(2-chlorothiazol-5-ylmethyl)-3-methyl-2-nitroguanindine

Contains 2.13 pound active ingredient per gallon

**KEEP OUT OF REACH OF CHILDREN**

### CAUTION

SEE NEXT PAGE FOR PRECAUTIONARY STATEMENTS

### NET WEIGHT

EPA Reg. No. 59639-XXX  
EPA Est. No.

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## PRECAUTIONARY STATEMENTS

### HAZARDS TO HUMANS & DOMESTIC ANIMALS

### CAUTION

Harmful if swallowed.

#### FIRST AID

- 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 a poison control center or doctor.
  - Do not give anything by mouth to an unconscious person.

#### 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, shoes plus socks and chemical-resistant gloves made of any waterproof material.

Follow the manufacturer's instructions for cleaning/maintaining PPE. If no instructions for washables are available, 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 product is toxic to aquatic invertebrates. Do not apply when weather conditions favor drift from treated areas. Drift and runoff may be hazardous to aquatic organisms in neighboring areas. Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when cleaning equipment or disposing of equipment washwaters or rinsate.

This product is toxic to bees exposed to treatment and for more than 5 days following treatment. Do not apply this product to blooming, pollen-shedding or nectar-producing parts of plants if bees may forage on the plants during this time period, unless the application is made in response to a public health emergency declared by appropriate state or federal authorities.

### **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 on this label about personal protective equipment (PPE), notification to workers 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 entry into treated areas during the restricted entry interval (REI) of 12 hours.

PPE required for early entry into treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that involves contact with anything that has been treated, such as plants, soil or water is: coveralls, shoes plus socks, chemical resistant gloves made of any waterproof material.

### **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, forest, nurseries or commercial greenhouses.

Keep children and pets off treated area until the sprays have dried.

### **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 any 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.

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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 FULLEST EXTENT ALLOWED BY 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 fullest 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 FULLEST 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.

### RESISTANCE MANAGEMENT

V-10170 2.13 SC contains a Group 4A insecticide. Insect biotypes with acquired resistance to Group 4A insecticides may eventually dominate the insect population if Group 4A insecticides are 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 V-10170 2.13 SC or other Group 4A insecticides.

To delay insecticide resistance consider:

- Avoiding the consecutive use of V-10170 2.13 SC or other Group 4A insecticides that have a similar target site of action on the same insect species.
- Using tank mixtures or premixes with insecticides from a different target site of action Group as long as the involved products are all registered for the same use and have different sites of action.
- Basing insecticide use on a comprehensive Integrated Pest Management (IPM) program.
- Monitoring treated insect populations for loss of field efficacy.
- Contacting your local extension specialist, certified crop advisors and/or manufacturer for insecticide resistance management or IPM recommendations for the specific site and resistant pest problems.
- For further information or to report suspected resistance, you may contact Valent U.S.A. Corporation at 800-682-5368.

### GENERAL INFORMATION

V-10170 2.13 SC is a broad spectrum insecticide, for control of a wide spectrum of insects infesting turfgrass, landscape ornamentals, interior plantscapes and non-bearing fruit (including apples and pears) and nut trees (in landscapes). When applied as directed, V-10170 2.13 SC provides excellent and long residual insect control.

### GENERAL RESTRICTIONS AND LIMITATIONS

- Do not use a foliar application of clothianidin (V-10170 2.13 SC) following a soil application of clothianidin.
- Regardless of formulation or type of application (soil or foliar), Do not apply more than a total of 0.2 lb active ingredient clothianidin per acre per season for all crops, except for Turf and Landscape Ornamental use, which is not to exceed 0.4 lb active ingredient.
- If the maximum season limit of clothianidin as mentioned above has been applied and pest populations require additional treatments, use another registered pesticide that is not in the neonicotinoid class of chemistry.
- Do not apply by air.

### PLANT TOLERANCE

Neither the manufacturer nor the seller has determined whether or not V-10170 2.13 SC can be used safely on all cultivars of plants listed on the label. V-10170 2.13 SC has been tested on many cultivars with no phytotoxicity observed at label rates. Since all plant species and their varieties and cultivars have not been tested for tolerance, it is recommended that a small number of plants be sprayed to make certain that no phytotoxicity occurs, prior to any large scale application to plants. The end user assumes all risks arising from application of V-10170 2.13 SC in a manner inconsistent with its labeling.



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V-10170 2.13 SC can be tank mixed. However, all plant species and their varieties and cultivars have not been tested with possible tank mix combinations, sequential pesticide treatments and adjuvants and surfactants. The user should conduct a spray mix compatibility and phytotoxicity trial under local conditions to ensure compatibility prior to any large-scale use.

### **MIXING INSTRUCTIONS**

1. Begin with clean equipment.
2. Add sufficient clean water to the spray tank for 1/2 of the mix load.
3. Start tank agitation.
4. Add and properly suspend the necessary amount of V-10170 2.13 SC before adding any other products. Agitate to ensure thorough mixing while adding the remaining required water. A high quality wetting agent or other spray adjuvant, approved for use on your crop, may be added to spray solutions according to the manufacturer's use instructions. V-10170 2.13 SC should be properly suspended and diluted prior to the addition of any adjuvant. Consult adjuvant label or manufacturer for crop tolerance and safety information when used with this product.
5. Maintain agitation during mixing and application.
6. Apply with properly calibrated spray equipment.

### **APPLICATION PROCEDURES**

#### **Foliar Application**

Spray nozzles should be selected which will provide accurate and uniform spray deposition. Use spray nozzles which provide medium sized droplets and reduce drift. To help insure accuracy, calibrate sprayer before each use. For information on spray equipment and calibration, consult nozzle manufacturers and/or State and County Extension Service.

Apply V-10170 2.13 SC using sufficient water volume to provide thorough and uniform coverage. In situations where a dense canopy exists and/or pest pressure is high, use greater water volumes. The use of a spray adjuvant may improve spray coverage. Avoid making applications under conditions where uniform coverage cannot be obtained or where excessive spray drift may occur.

#### **Application Through Irrigation Systems (Chemigation)**

V-10170 2.13 SC alone or in combination with other products which are registered for application through sprinkler irrigation may be applied through irrigation systems. Apply this product only through micro-irrigation (individual spaghetti tube), drip irrigation, overhead irrigation or motorized calibrated irrigation equipment. Do not apply through any other type of irrigation system. Lack of effectiveness can result from non-uniform distribution of treated water. If you have questions about calibration, you should contact your State Extension Service specialist, equipment manufacturer or other experts. 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.

#### **Using Water from Public Water Systems**

- Do not apply V-10170 2.13 SC through any irrigation system physically connected to a public water system.

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

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average of at least 25 individuals daily at least 60 days per year. V-10170 2.13 SC may be applied through irrigation systems which may be supplied by a public water system only if the water from the public water system is 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 to top or overflow rim of the reservoir tank of at least twice the inside diameter of the fill pipe. Before beginning chemigation, always make sure that the air gap exists and that there is no blockage of the overflow of the reservoir tank.

Any irrigation system using water supplied from a public water system must also meet the following requirements:

#### **Operating Instructions for All Recommended Types of Irrigation Systems**

1. The system must be calibrated to uniformly apply the rates specified. If you have questions about calibration, you should contact your State Extension Service specialist, equipment manufacturer or other experts.
2. 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.
3. The pesticide injection pipeline must contain a functional, automatic, quick closing check valve to prevent the flow of fluid back toward the injection pump.
4. 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 shut down.
5. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.
6. 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.
7. 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.
8. Do not apply when wind speed favors drift beyond the area intended.

#### **Calibration and Application Instructions**

V-10170 2.13 SC should be applied under the schedule specified in the specific crop use recommendations, not according to the irrigation schedule, unless the events coincide. In general, set the equipment to apply the minimum amount of water per acre. Run the system at 86 to 90% of the manufacturer's maximum rated travel speed.

The following calibration and application techniques are provided for user reference, but do not constitute a warranty of fitness for application through sprinkler irrigation equipment. Users should check with state and local regulatory agencies for potential use restrictions before applying any agricultural chemical through sprinkler irrigation equipment.

#### **Center Pivot Irrigation Equipment**

1. Use only drive systems that provide uniform water distribution.
2. Do not use end guns when chemigating V-10170 2.13 SC through center pivot systems because of non-uniform application.
3. Plug the first nozzle closest to the well head to protect the water source.
4. Determine the size of the area to be treated.

5. Determine the time required to apply 0.1 to 0.25 inches of water over the area to be treated when the system and injection equipment are operated at normal pressures as recommended by the equipment manufacturer. Run the system at 80 to 95% of the manufacturer's rated maximum travel speed.
6. Using water, determine the injection pump output when operated at normal line pressure.
7. Determine the amount of V-10170 2.13 SC, and any tank mix partners, required to treat the area covered by the irrigation system.
8. Add the required amount of V-10170 2.13 SC, and any tank mix partners, and sufficient water to meet the injection time requirements to the solution tanks. (See "Mixing Instructions" section of this label.)
9. Make sure the system is fully charged with water before starting injection of the V-10170 2.13 SC solution. Time the injection to last at least as long as it takes to bring the system to full pressure.
10. Maintain constant agitation in the solution tank during the injection period.
11. Inject the specified amount of V-10170 2.13 SC per acre continuously for one complete revolution of the system.
12. Stop the injection equipment after treatment is complete. Continue to operate the system until the V-10170 2.13 SC solution has cleared all of the sprinkler heads.
13. Allow time for all lines to flush the pesticide through all nozzles before turning off irrigation water.

#### **Solid Set, Hand Move and Moving Wheel Irrigation Equipment**

1. Determine the acreage covered by the sprinklers.
2. Fill injector solution tank with plain water and calibrate the flow rate of the system to deliver the contents of the tank over a 20 to 40 minute time interval.
3. Determine the amount of V-10170 2.13 SC required to treat the area covered by the irrigation system.
4. Add the required amount of V-10170 2.13 SC, and any other tank mix partners, into the same quantity of water used to calibrate the injection period. (See "Mixing Instructions" section of this label.)
5. Operate the system at the same pressure and time interval established during the calibration.
6. Inject specified amount of V-10170 2.13 SC per acre for either a 20 to 40 minute period at the end of a regular irrigation set, or as a 20 to 40 minute injection as a separate application not associated with a regular irrigation to maximize retention of the insecticide by the foliage.
7. Stop injection equipment after treatment is completed. Continue to operate the system until the V-10170 2.13 SC solution has cleared the last sprinkler head. To ensure lines are flushed and free from remaining pesticides, a dye indicator may be injected into the lines to mark the end of the application period.

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## ORNAMENTALS

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V-10170 2.13 SC is for use on ornamentals in commercial and residential landscapes and interior plantscapes. To assure optimum effectiveness, good spray coverage of the target plant is essential. Application can be made by foliar application or soil applications including soil injection, drenches and broadcast sprays. For optimum control, applications should be made prior to anticipated pest infestation.

V-10170 2.13 SC should be applied when threshold populations are observed. Do not wait until large insect populations have been established. Apply V-10170 2.13 SC in sufficient water to ensure uniform and thorough coverage of foliage. Thorough coverage is required for optimum control. To achieve adequate coverage, use proper spray pressures, nozzles, nozzle spacing, and water volume per acre.

Apply at planting or after planting to established plants. For optimum control on established plants, irrigate the treated area thoroughly but do not allow leaching and runoff from containers for at least 10 days.

Do not apply more than a total of 24 fl oz. of V-10170 2.13 SC (0.4 lbs. active ingredient) per acre per season.

Choose lower rates for light infestations and/or smaller plants and higher rates for heavy infestations and/or larger plants.

### RESTRICTIONS AND LIMITATIONS

- Do not apply more than a total of 24 fl oz of V-10170 2.13 SC (0.4 lb active ingredient clothianidin) per acre per season.
- Drench or broadcast applications will provide control of foliage feeding insects, however, control will not be achieved until the product has been taken up by the plant roots and translocated to the area where the insects are feeding.
- If making broadcast applications, water in with enough irrigation or rainfall to move the product into the zone where insects are active.
- For drench applications, use enough water to move the product into the zone where the insects are active.

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FOLIAR APPLICATION ON ORNAMENTALS			
Plants	Pests	V-10170 2.13 SC Application Rates (per 100 gals of water)	Special Instructions
Evergreens Flowers Foliage Plants Ground Covers Interior Plantscapes Shrubs Trees (including non- bearing fruit and nut)	Aphid	1.2 to 2.4 fl oz	Uniformly apply the spray solution to the point of drip. Reapply as needed but do not exceed a total of 24 fl oz of V- 10170 2.13 SC (0.4 lbs active ingredient clothianidin) per acre per season.  The amount of spray solution needed per acre will depend on the ornamental size and the density of the leaf canopy.
	Mealybug Whitefly	1.8 to 2.4 fl oz	

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DRENCH APPLICATION* ON ORNAMENTALS				
PLANTS IN CONTAINERS	PESTS	V-10170 2.13 SC APPLICATION RATES	CONTAINER SIZE (INCHES)	NUMBER OF POTS
Herbaceous Species (one or two plants per pot)	Aphid	1.2 to 2.4 fl oz	2	6000
			3	4000
	Mealybug Whitefly	1.8 to 2.4 fl oz	4	3000
			5	2400
			6	2000
			7	1700
			8	1500
			9	1350
			10	1200
			11	1100
			12	1000
Herbaceous Species (three or more plants per pot)  Woody Perennials	Aphid	1.2 to 2.4 fl oz	2	4000
			3	2680
	Mealybug Whitefly	1.8 to 2.4 fl oz	4	2000
			5	1600
			6	1320
			7	1120
			8	1000
			9	880
			10	800
			11	720
			12	640

\*The specified amount of product should be mixed with a sufficient volume of water to evenly disperse the solution into the pots and to thoroughly wet the planting medium, without resulting in overflow or leaching and the loss of product. When watering treated pots, avoid watering to the point of overflowing or leaching for 10 days after application.

DRENCH APPLICATION* PLANTS IN CONTAINERS	PESTS	V-10170 2.13 SC APPLICATION RATES
Ornamental plants grow in flats, benches or beds	Aphid	1.2 to 2.4 fl oz per 7500 sq ft
	Mealybug Whitefly	1.8 to 2.4 fl oz per 7500 sq ft

\*The specified amount of product should be mixed with a sufficient volume of water to evenly disperse the solution into the pots and to thoroughly wet the planting medium, without resulting in overflow or leaching and the loss of product. When watering treated pots, avoid watering to the point of overflowing or leaching for 10 days after application.

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**NON-BEARING FRUIT AND NUT TREES  
(IN LANDSCAPES WHICH ARE NOT INTENDED  
FOR USE IN COMMERCIAL PRODUCTION)**

V-10170 2.13 SC should be applied when threshold populations are observed. Do not wait until large insect populations have been established. Apply V-10170 2.13 SC in sufficient water to ensure uniform and thorough coverage of foliage. Thorough coverage is required for optimum control. To achieve optimum coverage, use proper spray pressures, nozzles, nozzle spacing and water volume per acre.

**RECOMMENDED APPLICATION RATES ON NON-BEARING FRUIT AND NUT TREES (Post-Bloom Application)**

PESTS	V-10170 2.13 SC APPLICATION RATES	SPECIAL INSTRUCTIONS
Aphid Apple Maggot Codling Moth Leafhopper Leafminers Oblique-Banded Leafroller Oriental Fruit Moth Plum Curculio Spotted Tentiform Leafminer Western Tentiform Leafminer	5.6 to 12 fl oz/A  1.4 to 3.0 fl oz/100 gals	<p>Non bearing fruit and nut trees in landscapes are only for ornamental use. Do not harvest fruit or nuts from treated trees within one year of application.</p> <p>The amount of V-10170 2.13 SC per acre will depend on tree size, pest pressure and the volume of foliage present. The rate of water carrier per acre is based on a standard of 400 gallons of dilute spray per acre for large trees.</p> <p>Apply V-10170 2.13 SC in a full coverage spray to the point of drip. The spray volume will depend on tree size and density of the canopy. Repeat applications as needed to maintain control but do not apply more often than every 10 days.</p> <p><b>For control of Codling Moth and Oriental Fruit Moth:</b> Apply V-10170 2.13 SC in a program of rotational sprays with other labeled insecticides. When using the 5.6 fl oz rate of V-10170 2.13 SC to control the Codling Moth and/or Oriental Fruit Moth, do not apply treatments less than a 14 day interval.</p> <p><b>For control of Leafminers and Leafrollers:</b> Make the first application as soon as pollination is complete and bees are no longer present. Repeat application as necessary to maintain control. A single application may result in suppression only.</p>
<ul style="list-style-type: none"> <li>• Do not apply more than 12 oz of V-10170 2.13 SC (0.2 lb ai) per acre per season.</li> <li>• Do not apply treatments less than a 10 day interval.</li> </ul>		

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## TURFGRASS

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V-10170 2.13 SC can be used as directed on grass grown in industrial, commercial and residential landscapes such as, but not limited to airports, athletic fields, cemeteries, commercial sod farms, golf courses, home lawns, parks and playgrounds.

V-10170 2.13 SC has sufficient residual activity to provide high levels of control when applications are made proceeding or during the egg laying activity of the target pests. The need for an application can be based on historical monitoring of the site, previous records or experiences, current season adult trapping or other methods. Optimum control will be achieved when applications are made to egg hatch of target pests, followed by sufficient irrigation or rainfall to move the active ingredient through the thatch.

V-10170 2.13 SC can be applied to turf at 12 to 24 fl oz per acre. The rate is dependent on the target pest(s), their stage of development and the desired level of control. Optimum results for grubs (larvae) will be achieved when applications are made just prior to or just after peak egg laying. Higher rates should be used when long residual control is desired or late season curative applications are made to turf already showing grub damage. Multiple applications can be made but do not exceed the maximum amount per year (24 fl oz per acre). Consult your local State Agricultural Experiment Station, State Extension Turf Specialists or other turf experts for specific information concerning the timing of application(s).

Apply V-10170 2.13 SC in sufficient water to provide optimal distribution in the treated area. The use of properly calibrated equipment normally used for the application of turfgrass insecticides is required. Use equipment which will produce a uniform, coarse droplet spray, using a low pressure setting to eliminate off target drift. Check calibration periodically to ensure that equipment is working properly.

Avoid mowing turfgrass until after irrigation or rainfall has occurred so that uniformity of application will not be affected.



RECOMMENDED APPLICATION RATES ON TURFGRASS	
PESTS	V-10170 2.13 SC APPLICATION RATES
Annual Bluegrass Weevil Billbugs Black Turfgrass Ataenius Cinch Bugs* Sod Webworms White Grubs Asiatic Garden Beetle European Chafer Green June Beetle Japanese Beetle Northern Masked Chafer Oriental Beetle Southern Masked Chafer	12 to 24 fl oz/A (0.2 to 0.4 lb ai/A)
Cutworms (suppression)* Mole Crickets (suppression)*	24 fl oz/A (0.4 lb ai/A)
• Do not apply more than a total of 24 fl oz of V-10170 2.13 SC (0.4 lb ai) per acre per season.	

\*Use the higher rate for control of these insects.

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## **STORAGE AND DISPOSAL**

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

### **PESTICIDE STORAGE**

Store in a dry place away from excessive heat.

Do not store near food or feed.

Store in original container only.

To close package, replace and tighten cap to form an airtight seal.

### **PESTICIDE DISPOSAL**

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

### **CONTAINER DISPOSAL**

Triple rinse (or equivalent), then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or (if allowed by State and local authorities) by burning. If burned, stay out of smoke.

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Manufactured for:

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