



U.S. ENVIRONMENTAL PROTECTION AGENCY

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

EPA Reg. Number:

60063-85

Date of Issuance:

9/18/19

NOTICE OF PESTICIDE:

Registration  
 Reregistration  
(under FIFRA, as amended)

Term of Issuance:

Unconditional

Name of Pesticide Product:

Propamocarb AG

Name and Address of Registrant (include ZIP Code):

Sipcam Agro USA, Inc.  
2525 Meridian Parkway  
Durham, NC 27713

**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 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 unconditionally registered in accordance with FIFRA section 3(c)(5) provided that you:

1. Submit and/or cite all data required for registration/reregistration/registration review 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:
  - Revise the EPA Registration Number to read, "EPA Reg. No. 60063-85."
3. Submit one copy of the revised final printed label for the record before you release the product for shipment.

Signature of Approving Official:

Shaja B. Joyner, Product Manager 20  
Fungicide-Herbicide Branch  
Registration Division 7505P

Date:

9/18/19

Should you wish to add/retain a reference to the company's website on your label, then please be aware that the website becomes labeling under the Federal Insecticide Fungicide and Rodenticide Act and is subject to review by the Agency. If the website is false or misleading, the product would be misbranded and unlawful to sell or distribute under FIFRA section 12(a)(1)(E). 40 CFR 156.10(a)(5) list examples of statements EPA may consider false or misleading. In addition, regardless of whether a website is referenced on your product's label, claims made on the website may not substantially differ from those claims approved through the registration process. Therefore, should the Agency find or if it is brought to our attention that a website contains false or misleading statements or claims substantially differing from the EPA approved registration, the website will be referred to the EPA's Office of Enforcement and Compliance.

If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA section 6. Your release for shipment of the product constitutes acceptance of these conditions. A stamped copy of the label is enclosed for your records. Please also note that the record for this product currently contains the following CSFs:

- Basic CSF dated 5/24/2019

If you have any questions, please contact Nathan Mellor by phone at 703-347-8562, or via email at [mellor.nathan@epa.gov](mailto:mellor.nathan@epa.gov)

Enclosure

Propamocarb Hydrochloride	Group	<b>28</b>	Fungicide
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# Propamocarb AG

**For Control of Fungal Diseases on [Cucurbits], [Lettuce, Head and Leaf],  
[Peppers], [Tomatoes]**

[Alternate Brand Name(s): Bruin, Bruin Fungicide]

<b>ACTIVE INGREDIENT:</b>	<b>% By Wt.</b>
Propamocarb hydrochloride* .....	66.8%
<b>OTHER INGREDIENTS</b> .....	<b>33.2%</b>
<b>TOTAL</b>	<b>100.0%</b>

Contains 6.0 lbs. active ingredient per gallon.

## KEEP OUT OF REACH OF CHILDREN CAUTION

FIRST AID	
<b>If swallowed:</b>	<ul style="list-style-type: none"> <li>• Call a poison control center or doctor for treatment advice.</li> <li>• Have person sip a glass of water if able to swallow.</li> <li>• Do not induce vomiting unless told to do so by the poison control center or doctor.</li> <li>• Do not give anything by mouth to an unconscious person.</li> </ul>
<b>If on skin or clothing:</b>	<ul style="list-style-type: none"> <li>• Take off contaminated clothing.</li> <li>• Rinse skin immediately with plenty of water for 15-20 minutes.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>
Have the product container or label with you when calling a poison control center or doctor, or going for treatment.	
Emergency phone numbers	(800) 222-1222 Poison Control Center (human health) (800) 424-9300 CHEMTREC (transportation and spills)

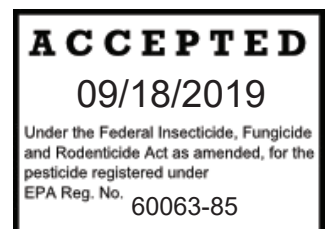
EPA Reg. No. 60063-85  
Net Contents: \_\_\_\_\_ [gallons] [gal.] [L]  
xx]  
[Lot number / Label Date Code]

EPA Est. No. \_\_\_\_\_  
[(Lot no. begins with

See additional **PRECAUTIONARY STATEMENTS** and **DIRECTIONS FOR USE** inside booklet.  
Read the [entire] label carefully before opening the container.

Manufactured for  
**Sipcam Agro USA, Inc.**  
2525 Meridian Parkway,  
Durham, NC 27713

**OPTIONAL LANGUAGE FOR LABEL**  
[Pull open here]



[Pull back [book] [label] here]  
[Application Type AG [Agriculture]]  
[Formulated in the United States of America, with U.S. and imported ingredients.]  
[Fungicide]

## **PRECAUTIONARY STATEMENTS**

### **HAZARDS TO HUMANS AND DOMESTIC ANIMALS**

**CAUTION.** Harmful if swallowed or absorbed through the skin. Avoid contact with skin or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet.

#### **PERSONAL PROTECTIVE EQUIPMENT (PPE)**

**Applicators and other handlers must wear:**

- Long-sleeved shirt and long pants
- Chemical resistant gloves made of any waterproof material.
- Shoes plus socks
- A chemical-resistant apron, **if** dipping cuttings

#### **User Safety Requirements**

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry.

#### **ENGINEERING CONTROLS STATEMENT**

Pilots must use an enclosed cab that meets the definition listed in the Worker Protection Standard for agricultural pesticides [40 CFR 170.305].

#### **USER SAFETY RECOMMENDATIONS**

**Users should:**

- 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.
- Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.

#### **ENVIRONMENTAL HAZARDS**

Do not apply directly to water, or to areas where surface water is present, or to intertidal areas below the mean highwater mark. Do not contaminate water when disposing of equipment washwaters or rinsate.

#### **DIRECTIONS FOR USE**

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

**DO NOT** apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency in your State responsible for pesticide regulation.

### **AGRICULTURAL USE REQUIREMENTS**

Use this product only in accordance with its labeling and with the Worker Protection Standard 40 CFR Part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas during the restricted-entry interval (REI) of 12 hours.

PPE required for early entry into treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil or water is:

- Coveralls
- Chemical resistant gloves made of any waterproof material
- Shoes plus socks

### **NON-AGRICULTURAL USE REQUIREMENTS**

The requirements in this box apply to uses of this product that are not within the scope of the Worker Protection Standard for agricultural pesticides (40 CFR Part 170). The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries, and greenhouses.

Do not enter or allow others to enter treated areas until spray deposit has dried completely.

### **PRODUCT INFORMATION**

This product is a completely water miscible fungicide concentrate. It is intended for use on [Cucurbits], [Lettuce, head and leaf], [Peppers], [Tomatoes]. Use Propamocarb Ag as a broadcast or over-the-top banded application alone or in tank mix combinations with other fungicides registered on these crops for the control of Downy mildew (*Bremia lactucae* and *Pseudoperonospera cubensis*), Pythium blight (*Pythium* spp.), Late blight (*Phytophthora infestans*) and Early blight (*Alternaria solani*). It is best to use a broad-spectrum fungicide if Pythium blight are found existing with other diseases.

For greenhouse applications, use this product on cucurbits, leaf lettuce, peppers, and tomatoes in rotation with other effective fungicides to control diseases caused by *Pythium* and *Phytophthora* spp. during plant propagation and greenhouse production.

### **Mandatory Spray Drift Directions**

#### Aerial Applications

- Do not release spray at a height greater than 10 ft above the vegetative canopy, unless a greater application height is necessary for pilot safety.
- For all applications, applicators are required to use a medium or coarser spray droplet size (ASABE S572.1).
- The boom length must not exceed 65% of the wingspan for airplanes or 75% of the rotor blade diameter for helicopters.
- Applicators must use ½ swath displacement upwind at the downwind edge of the field.
- Nozzles must be oriented so the spray is directed toward the back of the aircraft.
- Do not apply when wind speeds exceed 10 miles per hour at the application site.
- Do not apply during temperature inversions.

### Ground Applications

- Apply with the nozzle height recommended by the manufacturer, but no more than 3 feet above the ground or crop canopy.
- For all applications, applicators are required to use a medium or coarser spray droplet size (ASABE S572.1).
- Do not apply when wind speeds exceed 10 miles per hour at the application site.
- Do not apply during temperature inversions.

### Boom-less Ground Applications:

- Applicators are required to use a medium or coarser droplet size (ASABE S572.1) for all applications.
- Do not apply when wind speeds exceed 10 miles per hour at the application site.
- Do not apply during temperature inversions.

## **Spray Drift Advisories**

- THE APPLICATOR IS RESPONSIBLE FOR AVOIDING OFF-SITE SPRAY DRIFT.
- BE AWARE OF NEARBY NON-TARGET SITES AND ENVIRONMENTAL CONDITIONS.
- IMPORTANCE OF DROPLET SIZE  
An effective way to reduce spray drift is to apply large droplets. Use the largest droplets that provide target pest control. While applying larger droplets will reduce spray drift, the potential for drift will be greater if applications are made improperly or under unfavorable environmental conditions.  
Controlling Droplet Size - Ground Boom
  - Volume - Increasing the spray volume so that larger droplets are produced will reduce spray drift. Use the highest practical spray volume for the application. If a greater spray volume is needed, consider using a nozzle with a higher flow rate.
  - Pressure - Use the lowest spray pressure recommended for the nozzle to produce the target spray volume and droplet size.
  - Spray Nozzle - Use a spray nozzle that is designed for the intended application. Consider using nozzles designed to reduce drift.Controlling Droplet Size - Aircraft
  - Adjust Nozzles - Follow nozzle manufacturers recommendations for setting up nozzles. Generally, to reduce fine droplets, nozzles should be oriented parallel with the airflow in flight.
- BOOM HEIGHT - Ground Boom  
Use the lowest boom height that is compatible with the spray nozzles that will provide uniform coverage. For ground equipment, the boom should remain level with the crop and have minimal bounce.
- RELEASE HEIGHT - Aircraft  
Higher release heights increase the potential for spray drift. When applying aurally to crops, do not release spray at a height greater than 10 ft above the crop canopy, unless a greater application height is necessary for pilot safety.
- SHIELDED SPRAYERS  
Shielding the boom or individual nozzles can reduce spray drift. Consider using shielded sprayers. Verify that the shields are not interfering with the uniform deposition of the spray on the target area.
- TEMPERATURE AND HUMIDITY  
When making applications in hot and dry conditions, use larger droplets to reduce effects of evaporation.
- TEMPERATURE INVERSIONS  
Drift potential is high during a temperature inversion. Temperature inversions are characterized by increasing temperature with altitude and are common on nights with limited cloud cover and light to no wind. The presence of an inversion can be indicated by ground fog or by the movement of smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves

laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing. Avoid applications during temperature inversions.

- WIND  
Drift potential generally increases with wind speed. AVOID APPLICATIONS DURING GUSTY WIND CONDITIONS.  
Applicators need to be familiar with local wind patterns and terrain that could affect spray drift.
- Boom-less Ground Applications:  
Setting nozzles at the lowest effective height will help to reduce the potential for spray drift.
- Handheld Technology Applications:  
Take precautions to minimize spray drift.

### **RESISTANCE MANAGEMENT INFORMATION**

For resistance management, this product contains a Group 28 fungicide. Any fungal population may contain individuals naturally resistant to this product and other Group 28 fungicides. A gradual or total loss of pest control may occur over time if these fungicides are used repeatedly in the same fields. Appropriate resistance-management strategies should be followed.

Tank mixing this product with a labeled rate of protectant fungicide that has a different mode of action is required. The tank mix partner must be labeled for downy mildew or late blight control. This ensures optimum performance and reduces the potential for resistance development.

To delay fungicide/bactericide resistance, take one or more of the following steps:

- Rotate the use of this product or other Group 28 fungicides within a growing season sequence with different groups that control the same pathogens.
- Use tank mixtures with fungicide from a different group that are equally effective on the target pest when such use is permitted. Use at least the minimum application rate as labeled by the manufacturer.
- Adopt an integrated disease management program for fungicide use that includes scouting, uses historical information related to pesticide use, and crop rotation, and which considers host plant resistance, impact of environmental conditions on disease development, disease thresholds, as well as cultural, biological and other chemical control practices.
- Where possible, make use of predictive disease models to effectively time fungicide/bactericide applications. Note that using predictive models alone is not sufficient to manage resistance.
- Monitor treated fungal populations for resistance development.
- Contact your local extension specialist or certified crop advisor for any additional pesticide resistance-management and/or IPM recommendations for specific crops and pathogens.
- For further information or to report suspected resistance, contact your pesticide distributor or university extension specialist to report resistance.

### **TANK MIXING**

It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture..

### **MIXING PROCEDURES:**

- Prepare no more spray mixture than is needed for the immediate operation.
- Thoroughly clean spray equipment before using this product.
- Agitation is necessary for proper dispersal of the product.
- Maintain maximum agitation throughout the spraying operation.

- **DO NOT** let the spray mixture stand overnight in the spray-tank.
- Flush the spray equipment thoroughly following each use and apply the rinsate to a previously treated area.

#### **STAND-ALONE APPLICATIONS:**

- Add 1/2 of the required amount of water to the mix-tank.
- With the agitator running, add this product to the tank.
- Continue agitation while adding the remainder of the water.
- Begin application of the solution after the product has completely and uniformly dispersed into the mix water.
- Maintain agitation until all of the mixture has been applied.

#### **TANK MIXTURE APPLICATIONS:**

- Add 1/2 of the required amount of water to the mix-tank.
- Begin agitation.
- Add tank-mix partners in this order:
  - Products packaged in water-soluble packaging
  - Wettable powders
  - Wettable granules
  - Dry flowables
  - Liquid flowables
  - Liquids
  - Emulsifiable concentrates
- Always allow each tank-mix partner to become fully and uniformly dispersed before adding the next product.
- Provide sufficient agitation while adding the remainder of the water.
- Maintain agitation until all of the mixture has been applied.

### **COMPATIBILITY**

**This product** is compatible with most commonly used fungicide, herbicide, insecticide, and foliar nutrient products. However, the physical compatibility of this product with all potential tank-mix partners has not been fully investigated. If tank-mixing with other pesticides is desirable, conduct a jar test with the volumes and rates typically used in agricultural application. Using a small container of water, add the proportionate amounts of the products: wettable powders and water-dispersible granular products first, then liquid flowables and emulsifiable concentrates last. After thoroughly mixing, let stand for at least 15 minutes. Look for signs of separation, globules, sludge, flakes, or other precipitates. Physical compatibility is indicated if the combination remains mixed or can be remixed readily.

### **APPLICATION INFORMATION**

**BANDED APPLICATIONS:** Infected transplants or unusual weather conditions may increase the threat of disease when the plants are small. Apply this product as an early season post-emergence banded application. When making banded applications, **DO NOT** concentrate the dose rate in the banded area. Thorough coverage of the plants is essential for optimum disease control. Adjustment of the band width will be needed depending on plant height or size. Repeat applications to improved disease control.

The actual amount of a banded application is typically less than what would be applied with a broadcast spray. Use the following formula to calculate the amount of this product needed per crop acre when making band applications.

Apply band applications of this product in a minimum of 5 gallons of water per acre

Band width in inches

Row spacing in inches            X            Broadcast rate (pts./acre) = Amount needed per acre of field in  
pts./A



## **BROADCAST APPLICATIONS:**

### Ground Applications:

Apply this product at rates specified in the **CROP USE DIRECTIONS** below. Thorough uniform coverage is essential for disease control. Apply as a foliar spray in sufficient water to obtain thorough coverage or, if applying in a tank mixture, in a minimum of 15 gallons of water per acre. Use the shorter spray intervals when disease pressure is moderate to heavy. Consult with your local university or Cooperative Extension Service if you are unsure about whether these conditions exist.

### Aerial Applications:

Apply this product at rates specified in the **CROP USE DIRECTIONS** below using fixed wing or rotary aircraft equipment in a minimum of 5 gallons of water per acre or unless otherwise directed under specific crop labeling. Thorough uniform coverage is essential for disease control. Observe all spray drift requirements in the **SPRAY DRIFT ADVISORIES** section above.

## **APPLICATIONS THROUGH SPRINKLER IRRIGATION SYSTEMS (CHEMIGATION)**

Application through sprinkler irrigation systems is advised only for those specific crops for which chemigation is listed in the application directions in the crop charts.

Apply this product only through center pivot, motorized lateral move, traveling gun, solid set and portable (wheel move, side roll, end tow, or hand move) irrigation system(s). **DO NOT** apply this product through any other type of irrigation system.

Crop injury, lack of effectiveness, or illegal pesticide residues in the crop can result from non-uniform distribution of treated water. If you have questions about calibration, contact State Extension Service specialists, equipment manufacturers or other experts.

**DO NOT** apply this product through irrigation systems 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.

Controls for both irrigation water and pesticide injection systems must be functionally interlocked, so as to automatically terminate pesticide injection when the irrigation water pump motor stops. A person knowledgeable of the irrigation system and responsible for its operation shall be present so as to discontinue pesticide injection and make necessary adjustments, if the need arise.

The irrigation water pipeline must be fitted with a functional, automatic, quick-closing check valve to prevent the flow of treated irrigation water back toward the water source. The pipeline must also be fitted with a vacuum relief valve and low pressure drain, located between the irrigation water pump and the check valve, to prevent back-siphoning of treated irrigation water into the water source.

Always inject this product into irrigation water after it discharges from the irrigation pump and after it passes through the check valve. Never inject pesticides into the intake line on the suction side of the pump.

Pesticide injection equipment must be fitted with a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump. Interlock this valve to the power system, so as to prevent fluid from being withdrawn from the chemical supply tank when the irrigation system is either automatically or manually turned off.

The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.

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.

Spray mixture in the chemical supply tank must be agitated at all times, otherwise settling and uneven application may occur. **DO NOT** apply when wind speed favors drift beyond the area intended for treatment.

This product may be used through two basic types of sprinkler irrigation systems as outlined in Sections A and B below. Determine which type of system is in place, then refer to the appropriate directions provided for each type.

**A. Center Pivot, Motorized Lateral Move and Traveling Gun Irrigation Equipment**

For injection of pesticides, these continuously moving systems must use a metering pump, for example, a positive displacement injection pump of either diaphragm or piston type, constructed of materials that are compatible with pesticides, fitted with a system interlock, and capable of injection at pressures approximately 2 to 3 times those encountered within the irrigation water line. Venturi applicator units cannot be used on these systems.

Fill chemical supply tank of injection equipment with water. Operate system for one complete revolution or run across the field, measuring time required, amount of water injected, and acreage covered. Thoroughly mix directed amount of this product for acreage to be covered into same amount of water used during calibration and inject into system continuously for one revolution or run. Mixture in the chemical supply tank must be continuously agitated during the injection run. Shut off injection equipment after one revolution or run, but continue to operate irrigation system until this product has been cleared from last sprinkler head.

**B. Solid Set and Portable (Wheel Move, Side Roll, End Tow, or Hand Move) Irrigation Equipment**

With stationary systems, an effectively designed in-line venturi applicator unit is preferred which is constructed of materials that are compatible with pesticides; however, a positive-displacement pump can also be used.

Determine acreage covered by sprinkler. Fill tank of injection equipment with water and adjust flow to use contents over a thirty to forty-five-minute period. Mix desired amount of this product for acreage to be covered with water so that the total mixture of this product plus water in the injection tank is equal to the quantity of water used during calibration and operate entire system at normal pressures specified by the manufacturer of injection equipment used for amount of time established during calibration. No agitation will be required. This product can be injected at the beginning or end of the irrigation cycle or as a separate application. Stop injection equipment after treatment is completed and continue to operate irrigation system until this product has been cleared from last sprinkler head.

**DRIP IRRIGATION**

When applying through drip irrigation systems, introduce the product into irrigation solution for a period sufficient to distribute the product uniformly to the crop and near the end of the normal irrigation cycle so that subsequent watering will not flush the product from the root zone. Stop injection equipment with any system after treatment is completed and continue to operate irrigation system until this product has been cleared from last sprinkler head or drip irrigation line. Greenhouses must be constructed of materials that are compatible with pesticides.

**CROP ROTATION RESTRICTIONS**

<b>Crop</b>	<b>Replant/Rotational Interval (days)</b>
Crops on this label	0

Root and leafy vegetables	30
Winter wheat	120
All other crops	120

## CROP USE DIRECTIONS

Dosage rates on this label indicate pints of this product per acre, unless otherwise stated. Under conditions favoring disease development, use the high rate specified and shortest application interval.

For each listed crop, the maximum total amount of propamocarb active ingredient (lbs a.i./A) which may be applied per acre of that crop during each year is listed in the Use Restriction section for that crop. For each crop use situation listed below, the listed maximum individual and seasonal application rates must not be exceeded and the listed minimum retreatment intervals must not be decreased.

### CUCURBITS

Diseases	Rate Pints/A (lbs a.i./A)	Application Directions
Downy mildew ( <i>Pseudoperonospora cubensis</i> )  Suppression Phytophthora Blight ( <i>Phytophthora capsici</i> )	1.2 (0.9)  Or  0.6 – 1.2 (0.45 – 0.9) plus tank- mix partner	Begin applications when conditions are favorable for disease development and before infection. Repeat applications on a 7 - 14 day interval until disease abates.  For Phytophthora Blight suppression, make ground applications with a sprayer equipped with three nozzles per row with two nozzles directed to ensure thorough coverage of the lower portion of the plants  When applying this product at intervals longer than 7 days, alternate with an application of a contact fungicide midway between applications of this product. With moderate to heavy disease pressure, the shorter spray intervals may be used. Check with your local Cooperative Extension Service if you are unsure about whether these conditions exist.
Pythium root rots and seedling diseases ( <i>Pythium</i> spp.)	1.2 (0.9)	Apply this product by directed nozzles to the lower portion of the plants and surrounding soil, or via drip irrigation, transplant/setting water, or by sprinklers.
<b>USE RESTRICTIONS:</b>		
<ul style="list-style-type: none"> <li>• PHI: 2 days</li> <li>• <b>Maximum Product/Year:</b> 6 pints (4.5 lb total ai) per acre per year.</li> <li>• <b>Maximum Single Application Rate:</b> 1.2 pints/A (0.9 lbs ai/A)</li> <li>• <b>Maximum Number of Applications:</b> 5</li> <li>• <b>Maximum Retreatment Interval:</b> 14 days</li> </ul>		

**LETTUCE (HEAD and LEAF)**

Diseases	Rate Pints/A (lbs a.i./A)	Application Directions
Downy Mildew ( <i>Bremia lactucae</i> )	2.0 (1.5)  Or  1.33 – 2.0 (1.0 – 1.5) plus tank-mix partner	Begin applications when conditions are favorable for disease development, but before infection. Continue applications on a 7- to 10-day interval until threat of disease is over.  Use this product on a 5-day schedule if signs of infection are present and conditions are favorable for disease development. Check with your local Cooperative Extension Service if you are unsure about whether these conditions exist.  For aerial applications use a minimum of 10 gallons of spray.
Pythium root rots and seedling diseases ( <i>Pythium</i> spp.)	2.0 (1.5)	Apply this product by directed nozzles to the lower portion of the plants and surrounding soil, or via drip irrigation, transplant/setting water, or by sprinklers.

**USE RESTRICTIONS:**

- PHI: 2 days
- **Maximum Product/Year:** 8 pints (6 lb total ai) per acre per year.
- **Maximum Single Application Rate:** 2.0 pints/A (1.5 lbs ai/A)
- **Maximum Number of Applications:** 4
- **Maximum Retreatment Interval:** 10 days

**PEPPERS**

Diseases	Rate Pints/A (lbs a.i./A)	Application Directions
Suppression: Phytophthora Blight ( <i>Phytophthora capsici</i> )	1.2 (0.9)	<p>Begin applications when conditions are favorable for disease development, but before infection. Continue applications on a 7- to 14-day interval until threat of disease is over.</p> <p>When applying this product at intervals longer than 7 days, alternate with an application of a contact fungicide midway between Propamocarb AG applications.</p> <p>For Phytophthora Blight suppression, make ground applications with a sprayer equipped with three nozzles per row with two nozzles directed to ensure thorough coverage of the lower portion of the plants.</p> <p>With moderate to heavy disease pressure use shorter specified spray intervals. Contact your local Cooperative Service Extension Service if you are unsure about whether those conditions exist.</p>
Pythium root rots and seedling diseases ( <i>Pythium</i> spp.)		Apply this product by directed nozzles to the lower portion of the plants and surrounding soil, or via drip irrigation, transplant/setting water, or by sprinklers.

**USE RESTRICTIONS:**

- PHI: 5 days
- **Maximum Product/Year:** 6 pints (4.5 lb total ai) per acre per year.
- **Maximum Single Application Rate:** 1.2 pints/A (0.9 lbs ai/A)
- **Maximum Number of Applications:** 5
- **Maximum Retreatment Interval:** 14 days

## TOMATOES

Diseases	Rate Pints/A (lbs a.i./A)	Application Directions
Late Blight ( <i>Phytophthora infestans</i> )  Early Blight ( <i>Alternaria solani</i> )	0.7 - 1.5 (0.525 – 1.125) plus tank-mix partner	Begin applications when conditions are favorable for disease, but before infection.  Repeat applications on 7- to 10-day intervals until the threat of disease is over. Use the low rate and longer spray interval early in the season before canopy closure when disease pressure is light. After canopy closure switch to the higher rate and use the shorter interval.  Tank-mix combinations of this product and chlorothalonil ( <b>Echo</b> products), maneb, or mancozeb are advised for control of tomato Late Blight ( <i>Phytophthora infestans</i> ) and Early Blight ( <i>Alternaria solani</i> ).
Pythium root rots and seedling diseases ( <i>Pythium</i> spp.)	1.5 (1.125)	Apply this product by directed nozzles to the lower portion of the plants and surrounding soil, or via drip irrigation, transplant/setting water, or by sprinklers.
<b>USE RESTRICTIONS:</b> <ul style="list-style-type: none"> <li>• PHI: 5 days</li> <li>• <b>Maximum Product/Year:</b> 7.5 pints (5.6 lb total ai) per acre per year.</li> <li>• <b>Maximum Single Application Rate:</b> 1.5 pints/A (1.125 lbs ai/A)</li> <li>• <b>Maximum Number of Applications:</b> 5</li> <li>• <b>Maximum Retreatment Interval:</b> 10 days</li> </ul>		

## GREENHOUSE USE (CUCURBITS, LEAF LETTUCE, PEPPERS and TOMATOES)

<p>Applications of this product are advised for prevention of root rot and damping-off on cucurbits, leaf lettuce, peppers and tomatoes caused by <i>Pythium</i> spp. and <i>Phytophthora</i> spp.</p> <p>This product requires no agitation after initial mixing and is used at all stages of plant propagation and development including seeding, transplanting and potting. Use stock solutions of this product within one day of mixing. <b>DO NOT MIX WITH OTHER PRODUCTS.</b> Prevent intense sunlight after application by applying this product in the evening. <b>DO NOT</b> apply this product to dry rockwool or other growing media without first pre-wetting with water. Phytotoxicity may occur if this product is applied directly to dry growing media, especially in intense sunlight.</p>	
Use Pattern	Use Directions
<b>PRESEEDING AND/OR SEEDLING TREATMENT (before transplanting)<sup>1</sup></b>	<b>ROCK WOOL CUBE SATURATION:</b> Prepare a 1:1000 stock solution ( <i>for example - 12.8 fl oz product in 100 gallons water</i> ). Apply as a drench to pre-wet cubes at a rate of 3.4 fl oz (100 ml) to 6.8 fl oz (200 ml) stock solution per cube to saturate. ( <i>100 gallons applied properly will treat 3800 to 1900 plants, respectively</i> ). <b>SEED BEDS – SOIL or without SOIL:</b> In a minimum of 50 gallons water/1000 sq ft apply: At seeding – 32 fl oz product/1000 sq ft (1.5 lb ai/1000 sq ft). After emergence - 16 fl oz product/1000 sq ft (0.75 lb ai/1000 sq ft).

<b>GREENHOUSE TREATMENT (after transplanting)<sup>2</sup></b>	<p><b>DRIP SYSTEM or SOIL DRENCH:</b> Prepare a 1:1000 stock solution (<i>for example - 12.8 fl oz product in 100 gallons water</i>). For the first two weeks after transplanting, apply through drip system at a rate of 3.4 fl oz (100 ml) stock solution per cube to avoid runoff and cover root area. After 2 weeks, apply through drip system at a rate of 3.4 fl oz (100 ml) to 6.8 fl oz (200 ml) stock solution per cube. (<i>100 gallons applied properly will treat 3800 to 1900 plants, respectively</i>).</p> <p>Evening applications of this product by drip irrigation will reduce leaching or washing of the product from the root zone and may result in improved control. See above regarding potential phytotoxicity.</p> <p><b>FOLIAR TREATMENT (Leaf Lettuce only)<sup>3</sup>:</b> See field use directions. <b>DO NOT</b> harvest for 2 days after greenhouse foliar</p>		
		<b>NUMBERS OF PLANTS PER ACRE</b>	<b>AMOUNT PRODUCT PER APPLICATION PER ACRE</b>
<b>MAXIMUM USE RATES</b>	6,000	41.3 fl oz (1.94 lbs ai/A)	248 fl oz (11.6 lbs ai/A)
	10,000	68.8 fl oz (3.23 lbs ai/A)	413 fl oz (9.4 lbs ai/A)
	14,000	96.4 fl oz (4.52 lbs ai/A)	578 fl oz (27.1 lbs ai/A)
<p><b>USE RESTRICTIONS:</b> Up to 6 total applications are allowed as follows:  1 <b>DO NOT</b> apply more than 2 pre-seeding and/or seedling applications per cropping cycle*.  2 <b>DO NOT</b> apply more than 4 total applications after transplanting per cropping cycle*.  3 <b>DO NOT</b> apply more than 2 foliar applications per cropping cycle*.  *Applications are per cropping cycle where growing media is replaced at the end of harvest</p>			

<p><b>STORAGE AND DISPOSAL</b> <b>DO NOT</b> contaminate water, food or feed by storage and disposal.</p> <p><b>STORAGE:</b> Store in original container and keep tightly closed. Store in a cool, dry, secure place.</p> <p><b>PESTICIDE DISPOSAL:</b> Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.</p> <p><b>CONTAINER HANDLING:</b>  <b>[Containers &lt; 5 Gallons:] Nonrefillable container.</b> Do not reuse or refill this container. Triple rinse container (or equivalent) 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 ¼ 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. Offer for recycling, if available, or puncture and dispose of in a sanitary landfill, or by incineration.  <b>[Minibulk Containers: [greater than 5 gal.] Nonrefillable container.</b> Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follow: Empty the remaining contents into application equipment or a mix tank. Fill the container ¼ full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration.  <b>[Bulk Containers: [greater than 5 gal.] Refillable container.</b> Refill this container with pesticide only . Do not</p>
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reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. To clean the container before final disposal, empty the remaining contents from this container into application equipment or mix tank. Fill the container about 10 percent full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times. When the container is empty, replace the cap and seal all openings that have been opened during use; and return to the point of purchase, or to a designated location named at the time of purchase of this product. Prior to refilling, inspect carefully for damage cracks, punctures, abrasions, worn-out threads and closure devices. Check for leaks after refilling and before transporting. Do not transport if this container is damaged or leaking. If the container is damaged or leaking, call CHEMTREC. If the container is damaged and leaking or material has been spilled, follow these procedures:

- Cover spill with absorbent material.
- Sweep into disposal container.
- Wash area with detergent and water and follow with clean water rinse.
- Do not allow to contaminate water supplies.
- Dispose of according to instructions.

If not returned to the point of purchase or to a designated location, clean empty container as instructed above and offer for recycling. Disposal of this container must be in compliance with state and local regulations.

## **WARRANTY AND LIMITATION OF DAMAGES**

Conditions of sale: Sipcam Agro USA, Inc. warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated on the label when used in accordance with the directions under normal conditions of use. This warranty does not extend to the use of this product contrary to label instructions, or under conditions not reasonably foreseeable to Sipcam Agro USA, Inc. SIPCAM AGRO USA, INC. DISCLAIMS ALL OTHER WARRANTIES, EXPRESS OR IMPLIED. To the extent allowable by state law, SIPCAM AGRO USA, INC. SHALL NOT BE LIABLE FOR CONSEQUENTIAL, SPECIAL, OR INDIRECT DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, AND SIPCAM AGRO USA, INC.'S SOLE LIABILITY AND BUYER'S AND USER'S EXCLUSIVE REMEDY SHALL BE LIMITED TO THE REFUND OF THE PURCHASE PRICE. BUYER AND USER ACKNOWLEDGE AND ASSUME ALL RISKS AND LIABILITY RESULTING FROM HANDLING, STORAGE AND USE OF THIS PRODUCT. SIPCAM AGRO USA, INC. DOES NOT AUTHORIZE ANY AGENT OR REPRESENTATIVE TO MAKE ANY OTHER WARRANTY, GUARANTEE OR REPRESENTATION CONCERNING THIS PRODUCT.