264-1159

4/30/2014



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY WASHINGTON, D.C. 20460

> OFFICE OF CHEMICAL SAFETY AND POLLUTION PREVENTION

April 30, 2014

Bayer Crop Science LP 1540 Drew Avenue Davis, California 95618 Attn: Tammy Zimmer

Subject: Notification to add a statement clarifying that all text in brackets is optional language for the final printed container label, consistent with PR Notice 98-10.

Product Brand Name: **QRD 452 (a.k.a. Requiem EC).** EPA Registration Number: **264-1159.** Your Submission dated February 28, 2014.

Dear Ms. Zimmer:

The Biopesticides and Pollution Prevention Division is in receipt of your application for Notification under Pesticide Registration Notice (PRN) 98-10 dated above. A screen of this request has been conducted for its applicability under PRN 98-10, and it has been determined that the action requested falls within the scope of this Notice. Our records have been duly noted, and the label submitted with this application has been stamped "Notification Accepted" and will be placed accordingly in our records.

Three (3) copies of final printed labeling must be submitted to the Agency before your product as modified, may be sold or distributed [PR Notice 82-2 and 40 CFR 156.10(a) (6)].

If you have any questions regarding this action, you may contact Mr. Sylvester George at (703) 603-0688 or via e-mail at george.sylvester@epa.gov.

Sincerely,

Linda A. Hollis

Linda A. Hollis, Chief Biochemical Pesticide Branch Biopesticides and Pollution Prevention Division (7511P)

Please read instructions of	reverse before completing t	form.		Form Approved.	<u>OMB No. 2070</u>	-0060	Print Form
United States Environmental Protection A Washington, DC 20460		otection Age	ncy		Registratio Amendme Other		OPP Identifier Number 2/  3
	Ар	plication for	Pesticid	e - Section	 		
1. Company/Product Numb 264-1159	ber		2. EPA Pr Linda Ho	oduct Manager ollis, Branch Chie	ef		bosed Classification
4. Company/Product (Nam Bayer CropScience / QI	•) RD 452 (a.k.a. Requiem EC)	)	PM# BPPD				None Restricted
5. Name and Address of Applicant (Include ZIP Code) Bayer CropScience LP 1540 Drew Avenue Davis, CA 95618 Check if this is a new address			<ul> <li>6. Expedited Review. In accordance with FIFRA Section 3(c)(3) (b)(i), my product is similar or identical in composition and labeling to:</li> <li>EPA Reg. No</li> <li>Product Name</li> </ul>				
		Sec	tion - II				<b>.</b>
Amendment - Explo	sponse to Agency letter date	d	- [] '	Final printed labels Agency letter date 'Me Too" Applica Other - Explain be	tion. N	otific	ation Accepted
Label Notification, per f -container label.	PR Notice 98-10, to add a s	tatement clarifyiı	ng that all t	text in brackets	is optional lan	guage f	or the final printed
		Sec	tion - III				
1. Material This Product V	/ill Be Packaged In:						
Child-Resistant Packaging Yes* No * Certification must be submitted	Yes* X No  * Certification must		Soluble Packaging     2. Type of Container       Yes     Metal       No     Plastic       Glass     Paper       ye wgt     container		ecify)		
3. Location of Not Content		iize(s) Retail Conta gallon	iner	5. Loc	ation of Label [ ] On Label On Labeling		s anying product
6. Manner in Which Label	B Affixed to Product	Lithograph Paper glued Stenciled		Other			· · ·
			tion - IV				້ວວັດເ,
1. Contact Point (Comple	te items directly below for id	lentification of indiv	ridual to be	contacted, if nece	ssary, to proce	ss this a	pplication.)
Name Tammy Zimmer		<b>Title</b> Regulat	ory Manag	ler			No. (Include Area Code)
	tements I have made on this any knowingly false or misle					-	3. Date Application ເລືອເຊຍິນອຸດ (Stamped)
2. Signature	Digitally signed by tammy zimmer@bayer.com DN: cn=tammy zimmer@bayer.com Date: 2014.02.28 12:11:27-08:00'	<b>3. Title</b> Regulat	ory Manag	er			
<b>4. Typed Name</b> Tammy Zimmer	4. Typed Name		ry 28, 2014		,		

EPA Form 8570-1 (Rev. 8-94) Previous editions are obsolete.

## Bayer CropScience



February 28, 2014

Mr. Chris Pfeifer, RAL Biopesticides and Pollution Prevention Division (BPPD) Document Processing Desk (NOTIF) Office of Pesticide Programs (7504P) U. S. Environmental Protection Agency Room S-4900, One Potomac Yard 2777 South Crystal Drive Arlington, VA 22202-4501

#### SUBJECT: Notification – QRD 452 (REQUIEM<sup>®</sup> EC and Metronome<sup>TM</sup> EC) – adding statement clarifying bracketed text EPA File Symbol 264-1159 (formerly 69592-25)

Dear Mr. Pfeifer:

Bayer CropScience is herein submitting the attached Master label dated February 28, 2014 via Notification, per our email discussion on 2/28/2014. Bayer CropScience does not believe that any data submittal or review is required to make these changes, nor are the minor changes subject to a PRIA registration fee.

The attached label has been revised from the current master label on file with the Agency, accepted on January 16, 2014, as described below.

1. A statement was added to clarify that all text in brackets is optional language for the final printed container label.

On behalf of Bayer CropScience LP, please find enclosed the following:

- \$ Completed and signed EPA Form 8570-1
- \$ Three copies of the amended QRD 452 Master label

\$ One copy of the amended QRD 452 Master label with the indicated changes shaded.

Please contact me if you have any questions regarding this submission.

Sincerely,

Tammy Zimmer Regulatory Manager Bayer CropScience LP, Biologics 530-746-3337 tammy.zimmer@bayer.com

Notification Accepted<sup>31</sup> Date: 4/30/2014 Reviewer: Sylvester Geog

. . ČCG

cièc

# QRD 452

### [Alternate Brand Names: REQUIEM<sup>®</sup> EC, METRONOME<sup>™</sup> EC]

Sub-Label A: Agricultural/Commercial Use Sub-Label B: Greenhouse & Nursery/Commercial Use

Active Ingredient:	
Terpene Constituents of the Extract of Chenopodiu	im ambrosioides near ambrosioides
as Synthetically Manufactured	
Other Ingredients	
Total:	100.00%
EPA Reg No.: 264-1159	EPA Establishment No.:

For MEDICAL And TRANSPORTATION Emergencies ONLY Call 24 Hours A Day 1-800-334-7577 For <u>PRODUCT USE</u> Information Call 1-800-331-2867

## KEEP OUT OF REACH OF CHILDREN CAUTION

[Note: All text in brackets is optional language for the final printed container label.]

ε ι ει ιι

• • • • •

. . . . .

ειιι ι ειιι Date:

(

QRD 452 [Alternate Brand Names: REQUIEM® EC]

Sub-Label A: Agricultural/Commercial Use

|3|

Not For Residential Use

# **REQUIEM® EC**

INSECTICIDE AND ACARICIDE FOR CONTROL OR SUPPRESSION OF APHIDS, THRIPS, WHITEFLIES, PLANT-FEEDING MITES, MEALY BUGS, LEAFMINERS, LYGUS BUGS, SCALE, LEAF HOPPERS, AND LEPIDOPTEROUS INSECTS IN AGRICULTURAL CROPS. NOT FOR RESIDENTIAL USE

#### Active Ingredient:

Terpene Constituents of the Extract of Chenopodium ambrosioides near ambrosioides	
as Synthetically Manufactured	
Other Ingredients	
Total:	100.00%

#### EPA Reg No.: 264-1159

**EPA Establishment No.:** 

0 0 0

## KEEP OUT OF REACH OF CHILDREN CAUTION

[USE OF PRODUCT INDICATES ACCEPTANCE OF "CONDITIONS FOR SALE AND WARRANTY"]

For\_MEDICAL And TRANSPORTATION Emergencies ONLY Call-24 Hours A-Day 1-800-334-7577 For <u>PRODUCT</u> <u>USE</u> Information Call 1-800-331-2867

	FIRST AID
IF IN EYES:	<ul> <li>Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.</li> <li>Call a poison control center or doctor for further treatment advice.</li> </ul>
IF ON SKIN OR CLOTHING:	<ul> <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 further treatment advice.</li> </ul>

See side/back panels for additional precautionary statements

## PRECAUTIONARY STATEMENTS



Avoid contact with skin, eyes or clothing. Wash thoroughly with soap and water after handling and before eating, diriking, chewing gum or using tobacco. Remove and wash contaminated clothing before reuse. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals. Wear the appropriate Personal Protective Equipment (PPE).

#### PERSONAL PROTECTIVE EQUIPMENT

Applicators mixers, loaders and other handlers must wear:

- Long-sleeved shirt and long pants
- · Chemical-resistant gloves made of any waterproof material such as polyethylene or polyvinyl chloride
- Shoes plus socks
- Protective eyewear
- Coveralls for high-pressure handwand and groundboom applicators.
- For overhead exposure wear chemical resistant headgear.
- For greenhouse uses, applicators and other handlers must wear a NIOSH-approved respirator with an organic vapor (OV) cartridge or canister with any R, P or HE filter.

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

Engineering Controls: When handlers use enclosed cabs in a manner that meets requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides

[40 CFR 170.240 (d) (4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.

#### USER SAFETY RECOMMENDATIONS

Users should:

6000 L LLCC

• 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. For terrestrial uses: 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 disposing of equipment washwater or rinsate.

Drift and runoff may be hazardous to aquatic organisms in water adjacent to treated areas. Do not apply when weather conditions favor drift or runoff from treated areas. Do not apply when a rain event is expected within 2 hours. Groundboom and air-blast applications must maintain a spray buffer of 15 feet from any water body. Aerial applications must maintain a spray buffer of 400 feet from any water body. See the Directions for Use for details.

## **DIRECTIONS FOR USE**

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

READ THE ENTIRE LABEL. USE STRICTLY IN ACCORDANCE WITH THE LABEL. FAILURE TO FOLLOW DIRECTIONS AND PRECAUTIONS ON THIS LABEL MAY RESULT IN CROP INJURY, POOR INSECT CONTROL, AND/OR ILLEGAL RESIDUES. [For use only as described on this label. Not for isolation or deformulation.]

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handiers that be in the area during application. For any requirements specific to your state or tribe, consult the State or Tribal 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, greenhouses and handlers of agricultural insecticides. It contains requirements for training, decontamination, notification and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE) and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

#### Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 4 hours.

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

- Long-sleeved shirt and long pants
- Chemical-resistant gloves made of any waterproof material such as polyethylene or polyvinyl chloride
- Shoes plus socks

#### SHAKE WELL BEFORE USE

#### **GENERAL INFORMATION**

REQUIEM® EC is a contact insecticide/acaricide for use in the control or suppression of many foliage feeding pests including aphids, thrips, plant-feeding mites, whiteflies, mealy bugs, leafminers, lygus bugs, scale, leaf hoppers, and lepidopterous insects infesting labeled crops. The emulsifiable concentrate of REQUIEM EC must be mixed with water and applied as a foliar spray with equipment equipped for conventional insecticide spraying.

REQUIEM EC is toxic to aquatic invertebrates. Users must maintain the buffer zones specified in the application instruction sections for ground and aerial applications. Do not apply when a rain event is expected within 2 hours.

Do not apply this product through any type of irrigation system.

IMPORTANT: READ CONDITIONS FOR SALE AND WARRANTY BEFORE USE

#### **APPLICATION INSTRUCTIONS**

#### General

Use REQUIEM EC early in the pest cycle when local thresholds are reached or before insects reach damaging levels. REQUIEM EC is a contact insecticide and thorough coverage is necessary for optimum control. Use appropriate nozzles and nozzle configurations, along with sufficient spray volume to achieve thorough coverage. Rates of REQUIEM EC may need to increase with increased insect populations and/or large plant canopies. It is not necessary to use a surfactant with REQUIEM EC.

When using REQUIEM EC with a new crop, test on a small area before applying to the entire field. Do not apply REQUIEM EC more than 10 times per crop production cycle.

#### **Spray Drift**

Avoiding spray drift at the application site is the responsibility of the applicator. The interaction of maxy equipment- and weatherrelated factors determine the potential for spray drift. The applicator and the grower/treatment coordinator are responsible for considering all of these factors when making decisions. Where states have more stringent regulations, they should be observed. Refer to the Aerial Drift Reduction Information section of this label for additional directions and precautions, they should be observed. ground and aerial applications.

۵ زرزرز د زرزژ زرژی This product can be applied by commonly used ground equipment, such as groundboom, hose-end, pressurized, air-blast, greenhouse and hand-held sprayers. Consult spray nozzle and accessory catalogues for specific information on proper equipment calibration. Maintain agitation during mixing and application to assure uniform product suspension. Thorough coverage of all foliage is essential for effective pest control or suppression. Use the application rate, indicated for the appropriate crop in the Application Rate tables of this label, in sufficient water to achieve thorough coverage. Overall, to achieve good coverage, use proper spray pressure, gallonage per acre, nozzles, nozzle spacing and ground speed.

Groundboom and air-blast spray applicators must not apply within 15 feet of aquatic habitats (such as, but not limited to, lakes, reservoirs, rivers, streams, marshes, ponds, estuaries, and commercial fish ponds). Groundboom and air-blast applicators must also account for wind direction and speed. Only apply this product if the wind direction favors on-target deposition. Do not apply when the wind velocity exceeds 10 mph.

Use of air-blast spray equipment may result in overhead exposure and requires the use of chemical-resistant headgear.

#### Aerial

This product can be applied by aerial application. Use the application rate indicated for the appropriate crop in the Application Rate tables of this label in sufficient water to achieve thorough coverage, typically between 2 – 20 gallons of water per acre depending upon the crop. Aerial applicators must not apply within 400 feet of aquatic habitats (such as, but not limited to, lakes, reservoirs, rivers, streams, marshes, ponds, estuaries, and commercial fish ponds).

#### **MIXING INSTRUCTIONS**

Shake container well before use. REQUIEM EC must be diluted with water for spray applications. Partially fill the spray tank with clean water and begin agitation. Add the specified amount of REQUIEM EC to the tank. Finish filling the tank to the proper volume to obtain the desired application rate per acre as specified in the crop and pest tables listed below. It is critical that the spray solution be agitated during mixing and application to ensure a uniform suspension. Do not allow spray mixture to stand overnight or for prolonged periods. When applying REQUIEM EC via ground application, use dilutions no more concentrated than 2% v/v. **Compatibility:** Do not combine REQUIEM EC in the spray tank with other pesticides, surfactants, adjuvants, or fertilizers if there has been no previous experience or use of the combination to show it is physically compatible, and non-injurious under your use conditions.

Do not use REQUIEM EC in tank mixes or in a program or in rotation with products containing captan (with REQUIEM EC either preceding or following captan applications) in any crop. Use of REQUIEM EC with captan-containing products may result in phytotoxicity.

Do not use REQUIEM EC in tank mixture combinations or in rotation with any product containing a label warning against using surfactants, methylated seed oils, oils or other adjuvants.

As with many Emulsifiable Concentrate (EC) formulations, certain combinations can exacerbate phytotoxicity problems. Products which are phytotoxic when used alone may be more phytotoxic when used with an EC formulation such as REQUIEM EC. Bayer CropScience has not tested all varieties and cultivars of all crops and potential tank-mix or rotational combinations.

To ensure crop safety, test REQUIEM EC in combination and in rotation with other products on a small portion of the crop. Wait at least 24-72 hours to evaluate results before applying to the entire field. If phytotoxicity is noted, and if it is determined that the level of phytotoxicity will result in economic losses to the crop, do not make the application to the crop.

To ensure physical compatibility of tank-mix combinations they must be evaluated prior to use. When products are physically compatible, a homogeneous solution is formed. To determine the physical compatibility of this product with other products, use a jar test. Using a grant jar add the proportionate amounts of the products to approximately one quart of water with agitation. Add dry formulations first them flowables, then emulsifiable concentrates last. After thorough mixing, allow this mixture to stand for 15 minutes? If the mixture in the test jar remains uniform for 15 minutes, the combination is incompatible and can be used. If separation occurs (e.g. oils float to top, clumps of solids form, etc.), the combination is incompatible and do not use the mixture. Once compatibility has been proven, use the same procedure for adding required ingredients to the spray tank.

#### ູະ Use of Adjuvants

The use of adjuvants with REQUIEM EC is not required.

#### **Biological Control Agents**

This product is compatible with the following biological control agents: *Encarsia formosa, Amblyseius fallacis, Phytoseiulus persimilis, Orius insidiosus, Aphidius colemani, Zetzellia mali, Neoseiulus fallacies, Typhlodromus pyri, Stethorus punctum, lacewings, syrphid fly larvae, phytoseiid mite predators, aphid midges, lady beetles, and other predacious mites.* Wait at least 2 hours after application before introducing new biological agents, or spray the evening before the day of introduction of new biological control agents.

Bayer CropScience is committed to the practice of sound resistance management programs that include rotation and tank mixing with other treatments having a variety of modes of actions.

#### PREHARVEST INTERVAL

REQUIEM EC can be applied up to and including the day of harvest. However, note that the restricted entry interval (REI) is 4 hours.

#### AERIAL DRIFT REDUCTION INFORMATION

Avoiding spray drift at the application site is the responsibility of the applicator. The interaction of many equipment- and weatherrelated factors determine the potential for spray drift. The applicator and the grower/treatment coordinator are responsible for considering all of these factors when making decisions. Where states have more stringent regulations, they should be observed. Note: This section is advisory in nature and does not supersede the mandatory label requirements.

All application equipment must be properly maintained and calibrated using appropriate carriers.

#### Information on Droplet Size

When used for aerial applications, the best drift management strategy is to apply the largest droplets that provide sufficient coverage and control. Applying larger droplets will reduce drift potential but will not prevent drift if applications are made improperly or under unfavorable environmental conditions (see Wind, Temperature and Humidity, and Temperature Inversions).

#### **Controlling Droplet Size**

Volume - Use high flow rate nozzles to apply the highest practical spray volume. Nozzles with higher rated flows produce larger droplets.

<u>Pressure</u> - Do not exceed the nozzle manufacturer's specified pressures. For many nozzle types, lower pressure produces larger droplets. When high flow rates are needed, use higher flow rate nozzles instead of increasing pressure.

Number of Nozzles - Use the minimum number of nozzles that provide uniform coverage.

<u>Nozzle Orientation</u> - Orienting nozzles, so that the spray is released parallel to the airstream, produces larger droplets than other orientations and is the recommended practice. Significant deflection from horizontal will reduce droplet size and increase drift potential.

Nozzle Type - Use a nozzle type that is designed for the intended application. With most nozzle types, narrower spray angles produce larger droplets. Consider using low-drift nozzles. Solid-stream nozzles that are oriented straight back produce the largest droplets and the lowest drift. Use medium or coarser spray according to the ASAE 572 definition for standard nozzles or VMD for spinning atomizer nozzles.

#### **Boom Width**

For aerial applications using fixed-wing aircraft, the boom width must not exceed 75% of the wingspan. For aerial applications using helicopters, the boom width must not exceed 90% of the rotary blade.

#### **Application Height**

Do not release spray at a height greater than 10 feet above the top of the ground or the crop canopy unless a greater height is required for aircraft safety. Making applications at the lowest height that is safe reduces exposure of croplets to evaporation and wind. If application includes a no-spray zone, do not release spray at a height greater than 10 feet above ground or canopy.

#### Swath Adjustment

Use upwind swath displacement. When applications are made with a crosswind, the swath will be displaced downward. Therefore, on the upwind and downwind edges of the field, the applicator must compensate for this displacement by adjusting the path of the aircraft upwind. Swath adjustment distance should increase with increasing drift potential (higher wind, smaller drops, etc.). Apply only when wind speed is 3 - 10 miles per hour as measured by an anemometer. Drift potential is lowest between wind speeds of 3 - 10 miles per hour. Many factors, however, including droplet size and equipment type, determine drift potential at any given speed. NOTE: Local terrain can influence wind patterns. Every applicator should be familiar with local wind patterns and how they affect spray drift.

#### **Temperature and Humidity**

When making applications in low relative humidity, set up equipment to produce larger droplets to compensate for evaporation. Droplet evaporation is most severe when conditions are both hot and dry.

#### **Temperature Inversions**

Do not apply during a temperature inversion because drift potential is high. Temperature inversions restrict vertical air mixing, which causes small, suspended droplets to remain in a concentrated cloud. This cloud can move in unpredictable directions due to the light, variable winds common during inversions. Temperature inversions are characterized by increasing temperatures with altitude and are common on nights with limited cloud cover and light to no wind. They begin to form as the sun sets and often continue into the morning. Their presence can be indicated by ground fog; however, if fog is not present, inversions can also be identified 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.

#### **Sensitive Areas**

The pesticide should only be applied when the potential for drift to adjacent, sensitive areas (e.g., residential areas, bodies of water, known habitat for threatened or endangered species, non-target crops) is minimal (e.g., when wind is blowing away from the sensitive areas). Do not allow spray to drift from the application site and contact people, structures people occupy at any time and the associated property, parks and recreation areas, nontarget crops, aquatic and wetland areas, woodlands, pastures, rangelands, or animals. Applicator must maintain the buffer zones specified in the application instruction sections for ground and aerial applications.

#### FOR USE ON THE FOLLOWING CROPS

## (REQUIEM EC has a 0-Day PreHarvest Interval (PHI) for all crops contained on this label. However, note that the restricted entry interval (REI) is 4 hours.)

#### ASPARAGUS

Pests		REQUIEM EC (qts/acre)	Remarks
Aphids Thrips		2 - 4	Begin applications when thresholds have been reached. The rate of REQUIEM EC will depend on plant size and pest pressure. Use a lower rate for light infestation and/or small plant canopy and a higher rate for heavy infestations and/or large plants.
6 C 6 C 6 C L 6 C L			
e	( ( ( ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) (		
۵۵۵۵ ۲ ۲ ۲ ۲ ۲ ۲ ۲ ۲ ۲ ۲ ۲ ۲ ۲ ۲ ۲ ۲ ۲	60000 800 800 800 800 800 800 800 800 80		· · · · · · · · · · · · · · · · · · ·
ο εις ο ιιιι	ţ		

orec JÕÕL

BRASSICA (COLE) LEAFY VEGETABLES Including Broccoli, Broccoli Raab; Brussels Sprouts, Cabbage, Chinese Cabbage (Bok Choy and Napa), Cauliflower, Cavalo, Collards, Kale, Kohlrabi, Mustard Greens, Rape Greens, and all other Brassica leafy vegetable crops.

#### Pests and Application Rates:

Pests	REQUIEM EC (qts/acre)	Remarks
Aphids: • Cabbage aphid • Green peach aphid • Turnip aphid	2 - 4	Begin treatments when thresholds have been reached.
Thrips		Begin applications as soon as thrips are seen in the crop. Continue applications as needed. Thrips will seek shelter in hard-to-reach parts of the plant. Use insecticide nozzles with sufficient water volume and spray pressure for thorough coverage.
Whiteflies: • Silverleaf whitefly		Apply before pests reach damaging levels. Repeat applications as needed to maintain control. Do not wait until heavy populations have become established. Use the high rate when conditions are favorable for heavy pressure.
Leafminers		For Suppression: Begin treatments before thresholds have been reached.

#### **BULB VEGETABLES**

Including Garlic, Leek, Onion (dry bulb, green, and Welch), and Shallot and other bulb vegetable crops.

#### Pests and Application Rates:

Pests	REQUIEM EC (qts/acre)	Remarks
Leafminer Maggots Mites	1.5 - 4	Apply before pests reach damaging levels. Repeat applications as needed to maintain control. The amount of REQUIEM EC per acre will depend on plant size, leaf canopy and pest pressure. Choose lower rates for light infestations and/or small plants and higher rates for heavy infestations and/or larger plants.
Thrips: • Onion thrips • Western flower thrips • Tobacco thrips		Begin applications as soon as thrips are seen in the crop. Continue applications as needed. Thrips will seek shelter hard- to-reach parts of the plant. Use insecticide nozzles with sufficient water volume and spray pressure for thorough coverage.

#### **BUSH BERRIES**

Including Blueberry, Currant, Gooseberry, Huckleberry, Elderberry, and other bush berry crops.

#### **Pests and Application Rates:**

Pests	REQUIEM EC (qts/acre)	Remarks
Aphids Leafhoppers Leafrollers Loopers Lygus Maggots Mites Plum curculio Thrips • Western flower thrips	2-4	Apply before pests reach damaging levels. Repeat $c_c c_c c_c$ applications as needed to maintain control The amount of REQUIEM EC per acre will depend on plant size, leaf canopy and pest pressure. Choose lower rates for light infestations and/or small plants and higher rates for heavy infestations and/or larger plants. Adjust equipment, water volume, and c spray pressure to ensure thorough coverage of infested parts of the crop.

#### CRANBERRY

#### Do not apply to flooded fields.

#### Pests and Application Rates:

Pests	REQUIEM EC (qts/acre)	Remarks
Aphids Leafhoppers Leafrollers Loopers Thrips Wireworms	2 - 4	Begin applications when thresholds have been reached. The rate of REQUIEM EC will depend on plant size and pest pressure. Use a lower rate for light infestation and/or small plant canopy and a higher rate for heavy infestations and/or large plants.

#### **CANE BERRIES**

Including Blackberry (including varieties, cultivars, and/or hybrids), Loganberry, Raspberry, and other cane berry crops.

#### Pests and Application Rates:

Pests	REQUIEM EC (qts/acre)	Remarks
Aphids	2 - 4	Apply before pests reach damaging levels. Repeat
Leafhoppers		applications as needed to maintain control. The amount of
Leafrollers		REQUIEM EC per acre will depend on plant size, leaf canopy
Loopers		and pest pressure. Choose lower rates for light infestations
Sawfly		and/or small plants and higher rates for heavy infestations
Whiteflies		and/or larger plants. Adjust equipment, water volume, and
Thrips		spray pressure to ensure thorough coverage of infested parts
	· - ·	of the crop.

#### **CITRUS FRUITS**

Including Grapefruit, Lemon, Lime, Orange, Tangerine, Citrus hybrids, Pummelo, and other citrus fruit crops. [DO NOT APPLY TO CITRUS FRUITS BY AERIAL APPLICATION]

#### Pests and Application Rates:

Pests	REQUIEM EC	Remarks
	(qts/acre)	
Asian citrus psyllid[*] Lepidoptera larvae: • Avocado leafroller • Citrus peelminer • Citrus Leafminer • Cutworms • Fruit tree leafroller • Orange tortrix Mites: • Broad mite	2 - 4	Treat when pests appear or in accordance with local economic thresholds. Repeat applications as needed to maintain control. The rate of REQUIEM EC will depend on tree size and pest pressure. Use a lower rate for light infestation and/or small trees and a higher rate for heavy infestations and/or large trees. When applying to large trees, use higher water volumes to ensure thorough coverage.
<ul> <li>Citrus flat mite</li> <li>Citrus bůd mite</li> <li>Citrus řtéd mite</li> <li>Citrus rust mite c c c c c c</li> <li>Six-spotted spidér mite</li> <li>Texas citrus mité c c c c c</li> <li>Yuná spider mite c</li> <li>Two-spotted spidér njité</li> <li>Rust finite</li> <li>Citrus thrips</li> <li>Citrus thrips</li> </ul>		
Frankliniella spp.     Beart thrips		
Scale		Begin applications when thresholds are reached. Treat for scale

when crawlers are present in the spring and fall.

[\*NOT REGISTERED FOR USE IN CALIFORNIA ON ASIAN CITRUS PSYLLID]

#### CUCURBIT VEGETABLES

Including Cucumber, Citron melon, Edible Gourds, Gherkin, Muskmelons (including hybrids and/or cultivars of Cucumis melo), Pumpkin, Summer and Winter Squash, Watermelon, Cantaloupe, and other cucurbit vegetable crops.

Use of REQUIEM EC in tank mixes with some products including, but not limited to, those containing strobilurins or chlorothalonil may result in phytotoxicity. Do not apply products containing chlorothalonil within 4 days after application of REQUIEM EC. Do not apply REQUIEM EC for 30 days following an application of chlorothalonil.

**Pests and Application Rates:** 

Pests	REQUIEM EC (qts/acre)	Remarks
Aphids <ul> <li>Green peach aphid</li> <li>Melon aphid</li> <li>Leafminers</li> <li>Mites</li> </ul>	2 - 4	Begin treatments when thresholds have been reached.
Thrips <ul> <li>Melon thrips</li> <li>Western flower thrips</li> </ul>		Begin applications as soon as thrips are seen in the crop. Continue applications as needed. Thrips will seek shelter in hard-to-reach parts of the plant. Use appropriate nozzles with sufficient water volume and spray pressure for thorough coverage.
Whiteflies: • Greenhouse_whitefly • Sweetpotato whitefly • Silverleaf whitefly		Apply before pests reach damaging levels. Repeat applications as needed to maintain controlDo.not.wait.until heavy populations have become established. Use the high rate when conditions are favorable for heavy pressure.

**FIGS** 

#### Pests and Application Rates:

Pests	REQUIEM EC (qts/acre)	Remarks
Mites Navel orangeworm Scale Vinegar flies	2-4	Begin applications when thresholds have been reached. The rate of REQUIEM EC will depend on plant size and pest pressure. Use a lower rate for light infestation and/or small plant canopy and a higher rate for heavy infestations and/or large plants.

#### **GLOBE ARTICHOKE**

#### **Pests and Application Rates:**

Pests	REQUIEM EC (qts/acre)	Remarks
Aphids Leafhoppers Plume moth	2 - 4	Begin applications when thresholds have been reached. The rate of REQUIEM EC will depend on plont size and pest pressure. Use a lower rate for light infestation and/or small plant canopy and a higher rate for heavy infestations and/or large plants.

υς τ τ.

#### **FRUITING VEGETABLES**

Including Eggplant, Ground Cherry, Pepino, Pepper, Tomatillo, Tomato, and other fruiting vegetable crops.

#### Pests and Application Rates:

Pests	REQUIEM EC (qts/acre)	Remarks
Aphids: • Green peach aphid • Potato aphid Leafhoppers Mites Tomato pinworm Thrips: • Western flower thrips • Onion thrips • Chili thrips • Melon thrips • Florida flower thrips	Begin applications as Continue applications hard-to-reach parts of	Begin treatments when thresholds have been reached. Begin applications as soon as thrips are seen in the crop. Continue applications as needed. Thrips will seek shelter in hard-to-reach parts of the plant. Use appropriate nozzles with sufficient water volume and spray pressure for thorough coverage.
<ul> <li>Eastern flower thrips</li> <li>Whiteflies:</li> <li>Silverleaf whitefly</li> <li>Greenhouse whitefly</li> <li>Bandedwinged whitefly</li> <li>Sweetpotato whitefly</li> </ul>		Apply before pests reach damaging levels. Repeat applications as needed to maintain control. Do not wait until heavy populations have become established. Use the high -rate when conditions are favorable for heavy pressure.
Leafminers (Liriomyza spp.)	3-4	For Suppression: Begin treatments before thresholds have been reached.

#### GRAPE

Do not use REQUIEM EC on grapes east of the Rockies. Use of REQUIEM EC on grapes after fruit set can diminish waxy bloom.

#### [DO NOT APPLY TO GRAPES BY AERIAL APPLICATION]

Pests and Application Rates:

Pests	REQUIEM EC (qts/acre)	Remarks
Leafhoppers: • Grape leafhopper • Variegated leafhopper	2 - 4	For Suppression: Begin treatments before thresholds have been reached.
Grape berry moth Western grape skeletonizer Mealy bug Mites: • Pacific spider mites • Willamette spider mite • Two-spotted spider mite		Begin applications when thresholds have been reached. The rate of REQUIEM EC will depend on plant size and pest pressure. Use a lower rate for light infestation and/or small plant canopy and a higher rate for heavy infestations and/or large plants. Adjust equipment, spray volume, and spray pressure to ensure thorough coverage of infested parts of the crop.

Including Allspice, Anise, Basil, Borage, Cardamom, Chive, Dill, Fennel (common), Juniper berry, Marjoram, Nutmeg, Pepper, Saffron, Sage, Tarragon, Vanilla, and other herb and spice crops.

#### Pests and Application Rates:

Pests	REQUIEM EC (qts/acre)	Remarks
Aphids Fleahoppers Leafhoppers Grasshoppers	2 - 4	Begin applications when thresholds have been reached. The rate of REQUIEM EC will depend on plant size and pest pressure. Use a lower rate for light infestation and/or small plant canopy and a higher rate for heavy infestations and/or large plants.
Leafminers (Liriomyza spp.)		For Suppression: Begin treatments before thresholds have been reached.

#### HOPS

#### **Pests and Application Rates:**

Pests	REQUIEM EC (qts/acre)	Remarks
Mites Aphids	2 - 4	Begin applications when thresholds have been reached. The rate of REQUIEM EC will depend on plant size and pest pressure. Use a lower rate for light infestation and/or small plant canopy and a higher rate for heavy infestations and/or large plants.

#### LEGUME VEGETABLES (SUCCULENT OR DRIED)

Including Beans, Green beans, Snap beans, Shell beans, Garbanzo beans, Lima beans, Peas, Chick peas, Split peas, Lentils and other legume vegetable crops.

#### Pests and Application Rates:

Pests	REQUIEM EC (qts/acre)	Remarks
Aphids Leafhoppers Lygus bugs Mites	2-4	Begin applications when thresholds have been reached. The rate of REQUIEM EC will depend on plant size and pest pressure. Use a lower rate for light infestation and/or small plant canopy and a higher rate for heavy infestations and/or large plant canopy.
Thrips: • Western Flower Thrips • Melon Thrips		Begin applications as soon as thrips are seen in the crop. Continue applications as needed. Thrips will seek shelter in hard-to-reach parts of the plant. Use insecticide nozzles with sufficient water volume and spray pressure for thorough coverage.
Whiteflies		Apply before pests reach damaging levels. Repeat applications as needed to maintain control. Do not wait until heavy populations have become established. Use the high rate when conditions are favorable for heavy pressure.
Leafminers ( <i>Liriomyza s</i> pp.)		For suppression: Begin treatments when leafminers are seen in the crop. Continue applications as needed.

#### MINT

#### Pests and Application Rates: CECO **REQUIEM EC** Remarks Pests .... (qts/acre) . . . . . 2-4 Begin applications when thresholds have been reached. The Mites rate of REQUIEM EC will depend on plant size and pest Aphids pressure. Use a lower rate for light infestation and/or small. Thrips plant canopy and a higher rate for heavy infestations an(i/or large plants.



#### LEAFY VEGETABLES

Including Lettuce, Arugula, Celery, Spinach, Parsley, Radicchio, Florence Fennel, Romaine, Swiss Chard, and other leafy vegetable crops.

#### Pests and Application Rates:

Pests	REQUIEM EC (qts/acre)	Remarks
Aphids: • Foxglove aphid • Lettuce aphid • Lettuce root aphid • Cabbage aphid • Turnip aphid • Potato aphid • Green peach aphid Leafhoppers Lygus bugs Mites (except bulb mite) Psyllid	2 - 4	Begin treatments when thresholds have been reached.
Thrips Whiteflies:	_	Begin applications as soon as thrips are seen in the crop. Continue applications as needed. Thrips will seek shelter in hard-to-reach parts of the plant. Use appropriate nozzles with sufficient water volume and spray pressure for thorough coverage. Apply before pests reach damaging levels. Repeat
Silverleaf whitefly		applications as needed to maintain control. Do not wait until heavy populations have become established. Use the high rate when conditions are favorable for heavy pressure.
Leafminers ( <i>Liriomyza spp</i> .)	3-4	For Suppression: Begin treatments before thresholds have been reached.

#### OLIVES

#### Pests and Application Rates:

e

¢

сc

cicei

6000 6 6 6 6 сссссс с с с с

**εεεει** ε ει ει ε

Pests	REQUIEM EC (qts/acre)	Remarks
Mites Scale Thrips	2 - 4	Begin applications when thresholds have been reached. The rate of REQUIEM EC will depend on plant size and pest pressure. Use a lower rate for light infestation and/or small plant canopy and a higher rate for heavy infestations and/or large plants.

### OKRA[\*]

#### [\*NOT REGISTERED FOR USE ON OKRA IN CALIFORNIA]

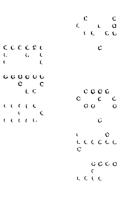
Pests	REQUIEM EC (qts/acre)	Remarks
Aphids Leafhoppers Mites Tomato pinworm	2 - 4	Begin treatments when thresholds have been reached.
<ul> <li>Thrips:</li> <li>Melon thrips</li> <li>Western Flower thrips</li> <li>Chili thrips</li> <li>Florida Flower thrips</li> </ul>		Begin applications as soon as thrips are seen in the crop. Continue applications as needed. Thrips will seek shelter in hard-to-reach parts of the plant. Use insecticide nozzles with sufficient water volume and spray pressure for thorough coverage.
Whiteflies		Apply before pests reach damaging levels. Repeat applications as needed to maintain control. Do not wait until heavy populations have become established. Use the high rate when conditions are favorable for heavy pressure.
Leafminers ( <i>Liriomyza spp.</i> )	3-4	For Suppression: Begin treatments before thresholds have been reached.

#### LEAVES OF ROOT AND TUBER VEGETABLES

Including Carrot, Sweet Potato, Cassava, Beets, Celeriac, Radish, Turnip, Parsnip, and other leaves of root and tuber crops.

#### Pests and Application Rates:

Pests	REQUIEM EC (qts/acre)	Remarks
Aphids	2-4	Begin treatments when thresholds have been reached.
Leafhoppers		
Mites	ļ	
Psylla		
Thrips		Begin applications as soon as thrips are seen in the crop.
		Continue applications as needed. Thrips will seek shelter in
		hard-to-reach parts of the plant. Use appropriate nozzles with
		sufficient water volume and spray pressure for thorough
		coverage.
Whiteflies		Apply before pests reach damaging levels. Repeat
		applications as needed to maintain control. Do not wait until
		heavy populations have become established. Use the high rate
		when conditions are favorable for heavy pressure.
Leafminers (Liriomyza spp.)		For Suppression; Begin treatments before thresholds have
		been reached.



### PEANUTS

#### Pests and Application Rates:

Pests	REQUIEM EC (qts/acre)	Remarks
Thrips: • Tobacco thrips	1-4	Begin applications as soon as thrips are seen in the crop. Continue applications as needed. Thrips will seek shelter in hard-to-reach parts of the plant. Use appropriate nozzles with sufficient water volume and spray pressure for thorough coverage.
Whiteflies Silverleaf whitefly		Begin applications as soon as whiteflies are seen in the crop or reach economic treatment levels. Continue applications as needed. Use appropriate nozzles with sufficient water volume and spray pressure for thorough coverage.

**POME FRUITS** Including Apple, Crabapple, Loquat, Mayhaw, Pear, Quince, and other pome fruit crops.

#### Pests and Application Rates:

Pests	REQUIEM EC (qts/acre)	Remarks
Aphids: Green apple aphid Wooly apple aphid Cotton aphid Bean aphid Rosy apple aphid Spirea aphid Green peach aphid Mites: Brown mite Pear rust mite Pear rust mite Pear leaf blister mite European red mite Two-spotted spider mite Pacific spider mite McDaniel spider mite Leafhoppers Mealy bugs Pear psyllid Plum curculio Scale Codling moth Codling moth Codling moth Codling moth Green pear teaffor if there Golding moth Codling moth Codling moth Codling moth Codling moth Codling moth Codling moth Codling moth Codling moth Plum curculio Scale Codling moth Codling m	2-4	Begin applications when thresholds have been reached. The rate of REQUIEM EC will depend on plant size and pest pressure. Use a lower rate for light infestation and/or small plant canopy and a higher rate for heavy infestations and/or large plant canopy.

#### **ROOT / TUBER AND CORM VEGETABLES**

Including Carrot, Potato, Sweet Potato, Cassava, Beets, Ginger, Horseradish, Radish, Ginseng, Turnip, True Yam, and other root/tuber and corm crops.

Pests and Application Rates:

Pests	REQUIEM EC (qts/acre)	Remarks
Aphids: • Potato aphid • Green peach aphid Leafhoppers Mites Psylla: • Potato psyllid <b>[*]</b>	1 - 4	Begin treatments when thresholds have been reached.
Thrips		Begin applications as soon as thrips are seen in the crop. Continue applications as needed. Thrips will seek shelter in hard-to-reach parts of the plant. Use appropriate nozzles with sufficient water volume and spray pressure for thorough coverage.
Whiteflies: • Silverleaf whitefly		Apply before pests reach damaging levels. Repeat applications as needed to maintain control. Do not wait until heavy populations have become established. Use the high rate when conditions are favorable for heavy pressure.
Leafminers ( <i>Liriomyza</i> spp.)		For Suppression: Begin treatments before thresholds have been reached.

[\*NOT REGISTERED FOR USE ON POTATO PSYLLID IN CALIFORNIA]

#### **STONE FRUITS**

Including Apricot, Cherry, Nectarine, Peach, Plum, Plumcot, Prune, and other stone fruit crops

Do not use of REQUIEM in tank mixes with chlorothalonil. Do not apply products containing chlorothalonil or captan within 30 days after application of REQUIEM. Do not apply REQUIEM for 30 days following an application of chlorothalonil or captan.

[DO NOT APPLY TO STONE FRUITS BY AERIAL APPLICATION]

Pests and Application Rates:

Pests	REQUIEM EC (qts/acre)	Remarks	
Aphids Cherry fruit fly Leafhoppers Leafminers Mites: • Two-spotted spider mite • Pacific spider mite Plum curculio Scale Western cherry fruit fly Thrips	2 - 4	Begin applications when thresholds have been reached. The rate of REQUIEM EC will depend on plant size and pest pressure. Use a lower rate for light infestation and/or small placanopy and a higher rate for heavy infestations and/or large plant canopy. Adjust equipment, spray pressure, and spray volumes to ensure thorough coverage.	
Leafrollers Leafminers Peach twig borer		Monitor the moth flights and the infestation (lérésities of the larval stages. Repeat applications as necessary to maintain control.	
		ις εξέφ ειτικό εξά είται το είται το ε	

....

٤ ίτιτα LCCC ccéc

### **TROPICAL FRUITS**

Including Avocado, Banana, Kiwi, Mango, Papaya, Plantains, Pineapple, and other tropical fruits.

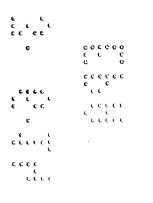
#### Pests and Application Rates:

Pests	REQUIEM EC (qts/acre)	Remarks
Avocado leafroller Citrus peelminer Cutworms Fruit tree leafroller Naval orange worm Orange tortrix Western tussock moth Mites Thrips Scale	2 - 4	Begin applications when thresholds have been reached. The rate of REQUIEM EC will depend on plant size and pest pressure. Use a lower rate for light infestation and/or small plant canopy and a higher rate for heavy infestations and/or large plants.

#### **STRAWBERRY**

#### Pests and Application Rates:

Pests	REQUIEM EC (qts/acre)	Remarks
Aphids: Green peach aphid Melon aphid Potato aphid Strawberry aphid Leafhoppers Lygus bug Mites: Two-spotted spider mite Carmine spider mite Cyclamen mite Pacific spider mite Thrips: Western flower thrips	1-4	Begin applications when thresholds have been reached. The rate of REQUIEM EC will depend on plant size and pest pressure. Use a lower rate for light infestation and/or small plant canopy and a higher rate for heavy infestations and/or large plants.
Whiteflies: • Silverleaf whitefly • Greenhouse whitefly • Strawberry whitefly		Apply before pests reach damaging levels. Repeat applications as needed to maintain control. Do not wait until heavy populations have become established. Use the high rate when conditions are favorable for heavy pressure.



#### TREE NUTS

Including Almond, Beech nut, Cashew, Chestnut, Filbert, Hickory nut, Pecan, Pistachio, Walnut, and other tree nut crops.

Do not use of REQUIEM EC in tank mixes with chlorothalonil. Do not apply products containing chlorothalonil within 30 days after application of REQUIEM EC. Do not apply REQUIEM EC for 30 days following an application of chlorothalonil. [DO NOT APPLY TO TREE NUTS BY AERIAL APPLICATION]

#### Pests and Application Rates:

Pests	REQUIEM EC (qts/acre)	Remarks
Aphids: • Walnut aphid • Dusky-veined aphid • Rosy apple aphid • Green peach aphid • Spirea aphid • Yellow aphid • Black pecan aphid • Black-margined aphid • Black-margined aphid • Black-margined aphid • Strawberry spider mite • Citrus flat mite • European red mite • Strawberry spider mite	2-4	Begin applications when thresholds have been reached. The rate of REQUIEM EC will depend on plant size and pest pressure. Use a lower rate for light infestation and/or small plant canopy and a higher rate for heavy infestations and/or large plant canopy.
Leafminers Leafrollers Peach twig borer Pecan nut case bearer		Monitor the moth flights and the infestation densities of the larval stages. Repeat applications as necessary to maintain control.

#### **CEREAL GRAINS**

Including Corn (fresh sweet corn and dried field corn).

#### Pests and Application Rates:

Pests	REQUIEM EC (qts/acre)	Remarks	
Corn silk fly	0.5 - 2	Begin applications 4 days before tasselling and repeat on 4-day schedule until silking is completed. For ear protection: begin applications at time of silking. Direct application to the ear zone to obtain thorough coverage of the corn silk. Subsequent of applications should be made at 4 day intervals until silking is completed.	
		( ( C C C C G C	

#### OILSEED CROPS

Cotton; Includes cultivars, varieties, and/or hybrids for oil and/or fiber production.

#### Pests and Application Rates:

0.5 – 4	Begin applications when thresholds have been reached. The
	rate of REQUIEM EC will depend on plant size and pest pressure. Use a lower rate for light infestation and/or small plant
	canopy and a higher rate for heavy infestations and/or large plant canopy. Adjust equipment, spray pressure, and spray volumes to ensure thorough coverage.

[Canola[\*], Castor[\*], Flax[\*], Rapeseed[\*], Safflower[\*], Sesame[\*], Sunflower[\*] and other oilseed crops (except cotton) [\*]

(including those grown for seed or oil production). ]

## ["NOT REGISTERED FOR USE ON OILSEED CROPS (WITH THE EXCEPTION OF COTTON) IN CALIFRONIA]

Pests	REQUIEM EC (qts/acre)	Remarks
Mites: • Two-spotted spider mite Aphids	0.5 - 4	Begin applications when thresholds have been reached. The rate of REQUIEM EC will depend on plant size and pest pressure. Use a lower rate for light infestation and/or small plant canopy and a higher rate for heavy infestations and/or large
Cotton aphid		plant canopy. Adjust equipment, spray pressure, and spray volumes to ensure thorough coverage.
<ul><li>Whiteflies</li><li>Silver leaf whitelfly</li></ul>		

## STORAGE AND DISPOSAL

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

#### **Pesticide Storage**

Store in a cool dry place. Avoid freezing.

#### **Pesticide Disposal**

To avoid wastes, use all material in this container by application according to label directions. If wastes cannot be avoided, offer remaining product to a waste disposal facility or pesticide disposal program (often such programs are run by state or local governments or by industry).

Do ກໍ່ດໍt contaminate water when disposing of equipment washwater or rinsate. Pesticide wastes may be toxic. Improper disposal contained pesticide, washwater or rinse water is a violation of federal law.

#### **Container Disposal**

Non-refillable containing? 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. Then offer for technique if available, or puncture and dispose of in a sanitary landfill or by incineration. Do not burn unless allowed by state and local ordinances.

#### IMPORTANT: READ BEFORE USE

Read the entire Directions for Use, Conditions, Disclaimer of Warranties and Limitations of Liability before using this product. If terms are not acceptable, return the unopened product at once for a refund of the purchase price. By using this product, user or buyer accepts the following Conditions, Disclaimer of Warranties, and Limitations of Liability. These terms may only be modified by a written document signed by a duly authorized representative of Bayer CropScience LP.

**CONDITIONS:** The directions for use of this product are believed to be adequate and must be followed carefully. However, it is impossible to eliminate all risks associated with the use of this product. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as weather conditions, presence of other materials, or the manner of use or application, all of which are beyond the control of Bayer CropScience LP. All such risks shall be assumed by the user or buyer.

DISCLAIMER OF WARRANTIES: TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, BAYER CROPSCIENCE LP MAKES NO OTHER WARRANTIES, EXPRESS OR IMPLIED, OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE OR OTHERWISE, THAT EXTEND BEYOND THE STATEMENTS MADE ON THIS LABEL. No agent of Bayer CropScience LP is authorized to make any warranties beyond those contained herein or to modify the warranties contained herein. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, BAYER CROPSCIENCE LP DISCLAIMS ANY LIABILITY WHATSOEVER FOR SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT.

LIMITATIONS OF LIABILITY: TO THE EXTENT CONSISTENT WITH APPLICABLE LAW THE EXCLUSIVE REMEDY OF THE USER OR BUYER FOR ANY AND ALL LOSSES, INJURIES OR DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, WHETHER IN CONTRACT, WARRANTY, TORT, NEGLIGENCE, STRICT LIABILITY OR OTHERWISE, SHALL NOT EXCEED THE PURCHASE PRICE PAID, OR AT BAYER CROPSCIENCE LP'S ELECTION, THE REPLACEMENT OF PRODUCT.

εεεεε

CCCC

NET-CONTENTS:

#### PRODUCED FOR

Bayer CropScience

Bayer CropScience LP P.O. Box 12014, 2 T.W. Alexander Drive Research Triangle Park, North Carolina 27709 1-866-99BAYER (1-866-992-2937)

# QRD 452

0000 1 1

LUCCE

ειες ι ι ι ι εεςες ιιιιι

[Alternate Brand Names: METRONOME<sup>™</sup> EC]

Sub-Label B: For Greenhouse & Nursery / Commercial Use Only

/31

Not For Residential Use

# METRONOME<sup>™</sup> EC

### **Insecticide and Acaricide**

FOR USE ON NON-FOOD ORNAMENTALS (TREES, SHRUBS, AND BEDDING PLANTS) NOT FOR RESIDENTIAL USE

#### **Active Ingredient:**

Terpene Constituents of the Extract of Chenopodium ambrosioides	near ambrosioides
as Synthetically Manufactured	
Other Ingredients	
Total:	100.0%

#### EPA Reg No. 264-1159

#### EPA Establishment No.

εοος ο ο ο ο ο ο ο ο ο ο ο ο ο ο ο ο ο

60000 60000 60000 υ ε. ι ειτειε τ ειτε

For MEDICAL And TRANSPORTATION Emergencies ONLY Call 24 Hours A Day 1-800-334-7577 For <u>PRODUCT USE</u> Information Call 1-800-331-2867

## KEEP OUT OF REACH OF CHILDREN CAUTION

----

[USE OF PRODUCT INDICATES ACCEPTANCE OF "CONDITIONS FOR SALE AND WARRANTY"]

FIRST AID			
lf in Eyes	<ul> <li>Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.</li> <li>Call a poison control center or doctor for further treatment advice.</li> </ul>		
In On Skin Or Clothing	<ul> <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 further treatment advice.</li> </ul>		

going for treatment.

See side/back panels for additional precautionary statements

#### **PRECAUTIONARY STATEMENTS**

## HAZARD TO HUMANS AND DOMESTIC ANIMALS CAUTION

Avoid contact with skin, eyes or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum or using tobacco. Remove and wash contaminated clothing before reuse. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals. Wear the appropriate Personal Protective Equipment (PPE).

#### PERSONAL PROTECTIVE EQUIPMENT

Applicators mixers, loaders and other handlers must wear:

- Long-sleeved shirt and long pants
- Chemical-resistant gloves made of any waterproof material
- Shoes plus socks
- Protective evewear
- Coveralls for high-pressure handwand and groundboom applicators.
- For greenhouse uses, applicators and other handlers must wear a NIOSH-approved respirator with an organic vapor (OV) cartridge or canister with any R, P or HE filter.

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

#### USER SAFETY RECOMMENDATIONS

```
Users should:
```

• 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. For terrestrial uses: 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 disposing of equipment washwater or rinsate.

Drift and runoff may be hazardous to aquatic organisms in water adjacent to treated areas. Do not apply when weather conditions favor drift or runoff from treated areas. Do not apply when a rain event is expected within 2 hours. Air blast applications must maintain a spray buffer of 15 feet from any waterbody. See the Directions for Use for details.

## **DIRECTIONS FOR USE**

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. [For use only as described on this label. Not for isolation or deformulation.]

READ THE ENTIRE LABEL. USE STRICTLY IN ACCORDANCE WITH THE LABEL. FAILURE TO FOLLOW DIRECTIONS AND THE CAUTIONS ON THIS LABEL MAY RESULT IN CROP INJURY, POOR INSECT CONTROL, AND/OR ILLEGAL RESIDUES.

Demetrapply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handless may be in the area during application. For any requirements specific to your state or tribe, consult the State or Tribal agency respensible for pesticide regulation.

ι ιιιι ιιι

#### 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, greenhouses and handlers of agricultural insecticides. It contains requirements for training, decontamination, notification and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE) and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

#### Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 4 hours.

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

- Long-sleeved shirt and long pants
- Chemical-resistant gloves made of any waterproof material
- Shoes plus socks

#### NON-AGRICULTURAL USE REQUIREMENTS

The requirements in this box apply to uses 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, nurseries or green houses.

Do not enter treated areas without protective clothing until spray has dried. Refer to Personal Protective Equipment section under the Precautionary Statements section.

#### SHAKE WELL BEFORE USE

#### GENERAL INFORMATION

METRONOME<sup>™</sup> EC is an Emulsifiable Concentrate (EC) Insecticide and Acaricide for Use on Field and Container-grown Non-Food Ornamental Plants in Commercial Nurseries, Greenhouses, and Lath- and Shade-houses. Not For Residential Use.

METRONOME EC is a contact insecticide/acaricide for use in the control of aphids, plant-feeding mites, whiteflies, mealy bugs, leafminers, thrips, fungus gnats, and tarnished plant bugs. METRONOME EC can be applied to field and containergrown non-food ornamentals – trees, Christmas trees, shrubs, flowers, annual and perennial bedding plants, potted flowers, and tropical plants.

IMPORTANT: READ CONDITIONS FOR SALE AND WARRANTY BEFORE USE

#### MIXING AND APPLICATION INSTRUCTIONS

Do not apply this product through any type of irrigation system.

METRONOME EC is toxic to aquatic invertebrates. Users must maintain the following buffer zones: Airblast spray, applicators must not apply within 15 feet of aquatic habitats (such as, but not limited to, lakes, reservoirs, rivers, streams, marshes, ponds, estuaries, and commercial fish ponds). Groundboom and airblast applicators must also account for wind direction and speed. Only apply this product if the wind direction favors on-target deposition. Do not apply when the wind velocity exceeds 10 mph. Do not apply when a rain event is expected within 2 hours.

Shake container well before use. METRONOME EC must be diluted with water for spray applications. Partially fill the spray tank with clean water and begin agitation. Add the specified amount of METRONOME EC to the tank (see table below). Finish filling the tank to the desired volume to obtain the proper spray concentration for the desired application rate per acre. It is critical that the spray solution be agitated during mixing and application to ensure a uniform suspension. Concentration for the desired application of the desired application of allow spray mixture to stand overnight or for prolonged periods

cito

Gallons Water per Acre	METRONOME EC gallons 0.5% solution	METRONOME EC gallons 1% solution		
25	0.12 (16 fl oz)	0.25 (32 fl oz)		
50	0.25 (32 fl oz)	0.5 (64 fl oz)		
75	0.37 (48 fl oz)	0.75 (96 fl oz)		
100	0.5	1		
For smaller quantities, mix at a rate of 0.65 – 1.3 fl. oz. METRONOME EC per 1 gallon of water.				

Apply on a 7- to 14-day schedule as necessary. Apply METRONOME EC at first sign of insect pressure or plant-feeding mite infestation. Use higher application rate under conditions of heavy pest pressure. Uniform coverage of both upper and lower leaves is critical for effective pest control. Avoid overspraying to the point of excessive runoff. Do not apply METRONOME EC more than 10 times per year.

METRONOME EC can be applied with commonly used ground equipment, hose-end, pressurized, greenhouse, and handheld sprayers.

#### **Biological Control Agents**

This product is compatible with the following biological control agents: Encarsia formosa, Amblyseius fallacis, Phytoseiulus persimilis,\_Orius insidiosus,\_Aphidius colemani, Žetzellia mali, Neoseiulus fallacies, Typhlodromus pyri, Stethorus punctum, lacewings, syrphid fly larvae, phytoseiid mite predators, aphid midges, lady beetles, and other predacious mites. Wait at least 2 hours after application before introducing new biological agents, or spray the evening before the day of introduction of new biological control agents.

Bayer CropScience is committed to the practice of sound resistance management programs that include rotation and tank mixing with other treatments having a variety of modes of actions.

#### Compatibility

Do not combine METRONOME EC in the spray tank with other pesticides, surfactants, adjuvants, or fertilizers if there has been no previous experience or use of the combination to show it is physically compatible, and non-injurious under your use conditions.

Do not use METRONOME EC in tank mixes or in a program or in rotation with products containing captan (with METRONOME EC either preceding or following captan applications) in any crop. Use of METRONOME EC with captancontaining products may result in phytotoxicity.

Do not use METRONOME EC in tank mixes or in a program or in rotation with products containing chlorothalonil in any crop. Do not apply products containing chlorothalonil within 4 days after application of METRONOME EC. Do not apply METRONOME EC for 30 days following an application of chlorothalonil Use of METRONOME EC with chlorothalonilcontaining products may result in phytotoxicity.

 $D^{\circ}$  not use METRONOME EC in tank mixture combinations or in rotation with any product containing a label warning against using sliffactalits, methylated seed oils, oils or other adjuvants.

As with many Emulsinable Concentrate (EC) formulations, certain combinations can exacerbate phytotoxicity problems. Preducts which are phytotoxic when used alone may be more phytotoxic when used with an EC formulation such as METRONOME EQueaver CropScience has not tested all varieties and cultivars of all crops and potential tank-mix or rotational combinations.

To ensure physical compatibility of tank-mix combinations they must be evaluated prior to use. When products are physically compatible, a homogeneous solution is formed. To determine the physical compatibility of this product with other products, use a jar test. Using a quart jar, add the proportionate amounts of the products to approximately one quart of water with agitation. Add dry formulations first, then flowables, then emulsifiable concentrates last. After thorough mixing, allow this mixture to stand for 15 minutes. If the mixture in the test jar remains uniform for 15 minutes, the combination is compatible and can be used. If separation occurs (e.g. oils float to top, clumps of solids form, etc.), the combination is incompatible and do not use the mixture. Once compatibility has been proven, use the same procedure for adding required ingredients to the spray tank. Test the combination on a small number of plants to check for phytotoxicity before treating large areas. Do not use the combination if adverse effects are observed.

#### PLANTS EVALUATED FOR PHYTOTOXICITY

METRONOME EC has been evaluated alone in a wide range of crops and ornamentals. However, since testing on all varieties of all ornamentals is not feasible, testing a small portion of the area to be treated for phytotoxicity is required before treating the entire area. Further, all possible combinations or sequences of pesticide sprays, including other fertilizers, surfactants, adjuvants and other pesticides, have not been tested, thus testing for compatibility and phytotoxicity of spray mixtures is required. Use the product in accordance with all label use directions. It is further required that spray equipment used to apply METRONOME EC be thoroughly cleaned before use.

Phytotoxicity has occasionally been observed following the use of this product on flowers of Cyclamen, Gerbera, Begonia, and Impatiens. Do not use METRONOME EC on flowering Cyclamen, Gerbera, Begonia, and Impatiens.

## STORAGE AND DISPOSAL

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

#### Pesticide Storage

Store in a cool dry place. Avoid freezing.

#### Pesticide Disposal

To avoid wastes, use all material in this container by application according to label directions. If wastes cannot be avoided, <u>offer remaining product to a waste disposal facility or pesticide disposal program (often such programs are run by state or local governments or by industry).</u>

Do not contaminate water when disposing of equipment washwater or rinsate. Pesticide wastes may be toxic. Improper disposal of unused pesticide, washwater or rinse water is a violation of federal law.

#### Container Disposal

Non-refillable container. 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. Then offer for recycling if available, or puncture and dispose of in a sanitary landfill or by incineration. Do not burn unless allowed by state and local ordinances.

#### IMPORTANT: READ BEFORE USE

Read the entire Directions for Use, Conditions, Disclaimer of Warranties and Limitations of Liability before using this product. If terms are not acceptable, return the unopened product at once for a refund of the purchase price. By using this product, user or buyer accepts the following Conditions, Disclaimer of Warranties, and Limitations of Liability. These terms may only be modified by a written document signed by a duly authorized representative of Bayer CropScience LP.

**CONDITIONS:** The directions for use of this product are believed to be adequate and must be followed carefully. However, it is impossible to eliminate all risks associated with the use of this product. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as weather conditions, presence of other materials, or the manner of use or application, all of which are beyond the control of Bayer CropScience LP. All such risks shall be assumed by the user or buyer.

DISCLAIMER OF WARRANTIES: TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, BAYER CROPSCIENCE LP MAKES NO OTHER WARRANTIES, EXPRESS OR IMPLIED, OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE OR OTHERWISE, THAT EXTEND BEYOND THE STATEMENTS MADE ON THIS LABEL. No agent of Bayer CropScience LP is authorized to make any warranties beyond those contained herein or to modify the warranties contained herein. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, BAYER CROPSCIENCE LP DISCLAIMS ANY LIABILITY WHATSOEVER FOR SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT.

LIMITATIONS OF LIABILITY: TO THE EXTENT CONSISTENT WITH APPLICABLE LAW THE EXCLUSIVE REMEDY OF THE USER OR BUYER FOR ANY AND ALL LOSSES, INJURIES OR DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, WHETHER IN CONTRACT, WARRANTY, TORT, NEGLIGENCE, STRICT LIABILITY OR OTHERWISE, SHALL NOT EXCEED THE PURCHASE PRICE PAID, OR AT BAYER CROPSCIENCE LP'S ELECTION, THE REPLACEMENT OF PRODUCT.

#### **NET CONTENTS:**

#### **PRODUCED FOR**

Bayer CropScience

Bayer CropScience LP P.O. Box 12014, 2 T.W. Alexander Drive Research Triangle Park, North Carolina 27709 1-866-99BAYER (1-866-992-2937)

QRD 452 (PENDING) 02-28-14

ć	ιίζζι ι ι ι ι ι
eecc	ίί <b>ιι</b> ί ί ίί
е с с с с с с	ιιιι ί ί . ιιιι
ι ι ιιιι ι	
<b>ιιι</b> ι ιιι	