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United States Environmental Protection Agency
Office of Pesticide Programs (H7505C)
Washington, DC 20460

Application for Pesticide:

☐ Registration
☐ Amendment
☐ Other

OPP Identifier Number

167253

Section I

1. Company/Product Number 59639-33-AA	2. EPA Product Manager Robert A. Forrest	3. Proposed Classification <input type="checkbox"/> None <input type="checkbox"/> Restricted
4. Company/Product (Name) ORTHENE 90 S	PM# 14	
5. Name and Address of Applicant (Include ZIP Code) Valent U.S.A. Corporation 1333 N California Blvd. Walnut Creek, CA 94596 <input type="checkbox"/> Check if this is a new address	6. Expedited Review. In accordance with FIFRA Section 3(c)(3)(b)(i), my product is similar or identical in composition and labeling to: EPA Reg. No. 59639-33-AA Product Name ORTHENE 90 S	

Section II

<input type="checkbox"/> Amendment - Explain below	<input type="checkbox"/> Final printed labels in response to Agency letter dated _____
<input type="checkbox"/> Resubmission in response to Agency letter dated _____	<input type="checkbox"/> "Me Too" Application.
<input checked="" type="checkbox"/> Notification - Explain below.	<input type="checkbox"/> Other - explain below.

Explanation: Use additional page(s) if necessary. (For section I and Section II.)

We are submitting five copies of finished labeling complying with PR Notice 93-3 inserting "For terrestrial uses", under the Environmental Hazards **NOTIFICATION** the label.

**LABEL NOT REVIEWED
PER PR NOTICE 93-3**

DATE: 6/29/93

Section III

1. Material This Product Will Be Packaged In:				2. Type of Container	
Child-Resistant Packaging <input type="checkbox"/> Yes* <input type="checkbox"/> No	Unit Packaging <input type="checkbox"/> Yes <input type="checkbox"/> No	Water Soluble Packaging <input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Metal <input type="checkbox"/> Plastic <input type="checkbox"/> Glass <input type="checkbox"/> Paper <input type="checkbox"/> Other (Specify) _____		
* Certification must be submitted.		If "Yes," Unit Package wgt	No. per container	If "Yes," Package wgt.	No. per container
3. Location of Net Contents Information <input type="checkbox"/> Label <input type="checkbox"/> Container		4. Size(s) of Retail Container		5. Location of Label Directions <input type="checkbox"/> On Label <input type="checkbox"/> On Labeling accompanying product	
6. Manner In Which Label Is Affixed To Product <input type="checkbox"/> Lithograph <input type="checkbox"/> Paper glued <input type="checkbox"/> Stenciled		<input type="checkbox"/> Other (_____)			

Section IV

1. Contact Point (Complete items directly below for identification of individual to be contacted, if necessary, to process this application.)		
Name Mark Herbst	Title Registration Assistant	Telephone No. (Include Area Code) (510) 256-2745
Certification I certify that the statements I have made on this form and all attachments thereto are true, accurate and complete. I acknowledge that any knowingly false or misleading statement may be punishable by fine or imprisonment or both under applicable law.		6. Date Application Received (Stamped)
2. Signature 	3. Title Registration Assistant	
4. Typed Name Mark Herbst	5. Date June 18, 1993	



ORTHENE®

90 S

(INSECTICIDE)

Active Ingredient	By Wt.
*Acephate (O,S-Dimethyl acetylphosphoramidothioate)	90%
Inert Ingredients	10%
*ORTHENE®, Acephate U.S. Pat. No. 3,914,417	

KEEP OUT OF REACH OF CHILDREN
CAUTION
SEE SIDE PANEL FOR ADDITIONAL
PRECAUTIONARY STATEMENTS

Formulation for Eggs/DEADHATCH®

THIS PRODUCT MAY NOT BE REFORMULATED, REPACKAGED
OR RELABELED.

NET WEIGHT 20 POUNDS

Manufactured for
Valent U.S.A. Corporation © 1992
Walnut Creek CA 94596-8025
Made in U.S.A.
R Form 256-J
EPA Reg. No. 59639-33-AA

NOTIFICATION
LABEL NOT REVIEWED
PER PR NOTICE 88-8
DATE 6/29/93

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PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS & DOMESTIC ANIMALS

CAUTION

Harmful if swallowed. Causes eye irritation. Avoid contact with eyes, skin and clothing. Avoid breathing dust or spray mist. Wash hands thoroughly after handling.

STATEMENT OF PRACTICAL TREATMENT If swallowed drink 1 or 2 glasses of water (or milk) and induce vomiting by touching the back of the throat with finger. If possible contact a physician, Poison Control Center, or emergency center before inducing vomiting. Do not induce vomiting or give anything by mouth to an unconscious person. Take person and product container to the nearest emergency treatment center. In case of eye contact, wash eyes with fresh water for 15 minutes. If irritation continues, see a doctor. For skin contact, wash skin with plenty of soap and water. If inhaled, remove person from exposure area.

Note to Physicians: Emergency Information - call 1-800-892-0099. Acephate is a cholinesterase inhibitor. If signs of cholinesterase inhibition appear, atropine is antidotal. 2-PAM may also be used in conjunction with atropine but should not be used alone.

WORKER SAFETY

USE ONLY WHEN WEARING THE FOLLOWING PROTECTIVE CLOTHING AND EQUIPMENT DURING MIXING/LOADING, APPLICATION, REPAIR, AND CLEANING OF MIXING, LOADING, AND APPLICATION EQUIPMENT, DISPOSAL OF THE PESTICIDE, AND [areas for which a reentry interval has been established] **EARLY REENTRY INTO TREATED AREAS:** chemical-resistant gloves, long sleeved shirt, long legged pants, shoes, and socks. If overhead exposure is likely, such as during flagging, wear a hood or wide brimmed hat. **WORK SAFETY:** Always wash hands, face, and arms with soap and water before smoking, eating, drinking or toileting. **AFTER WORK:** Before removing gloves, wash them with soap and water. Take off all work clothes and shoes. Shower using soap and water. Wear only clean clothes when leaving job. Do not wear contaminated clothing. Personal and protective clothing worn during work must be laundered separately from household articles. Store protective clothing separately from personal clothing. Clean or launder protective clothing after each use.

ENVIRONMENTAL HAZARDS

This pesticide is toxic to birds. For terrestrial uses, do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark. Cover or soil-incorporate spills.

This product is highly toxic to bees exposed to direct treatment or residues on blooming crops or weeds. Do not apply this product or allow it to drift to blooming crops or weeds if bees are visiting treatment area.

DIRECTIONS FOR USE

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

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

REENTRY STATEMENT

Keep all unprotected persons out of operating areas or vicinity where there may be drift. Reentry into treated areas is prohibited for 24 hours after the end of application unless the protective clothing specified elsewhere on this label is worn.

Certain states may require more restrictive reentry intervals; consult your State Department or Agriculture for further information.

Written or oral warnings regarding use of protective clothing and accidental exposure must be given to workers who are expected to be in treated areas or in areas about to be treated.

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

COTTON

CROPS	INSECTS	AMOUNT* ORTHENE 90 S PER ACRE	ACRES PER LB ORTHENE 90 S	FURTHER USE INSTRUCTIONS**	DAYS TO HARVEST
Cotton	Thrips	3.2 oz	1 lb. to 5 acres	Apply in water at 1 to 3 gals. (AZ 3 to 5 gals) spray per acre by air. Cottonage should be increased as plant size increases to insure thorough coverage. (in CA apply a minimum of 5 gals. per acre by air; Apply 10 to 25 gals. spray per acre by ground. Apply when eggs or insects first appear. Repeat as necessary to maintain control.	21
	Plant bugs (Lygus)	0.25 to 1 lb.	1 lb. to 4 acres up to 1 lb. to 1 acre	Apply in water at 3 to 10 gals. spray per acre by air (minimum 5 gals. per acre in CA, AZ) or 10 to 25 gals. spray per acre by ground. Apply when eggs or insects first appear. Repeat as necessary to maintain control.	
		CA, AZ ONLY 0.5 to 1 lb.	CA, AZ ONLY 1 lb. to 2 acres up to 1 lb. to 1 acre		
	Flea hopper	0.25 lb.	1 lb. to 4 acres	Lygus - Use higher rates for Lygus adults that have migrated into cotton.	
	Cotton Aphid Whitefly	0.5 to 1 lb.	1 lb. to 2 acres up to 1 lb. to 1 acre	Apply in water at 3 to 10 gals. spray per acre by air (minimum 5 gals. per acre in CA, AZ) or 10 to 25 gals. spray per acre by ground. Apply when eggs or insects first appear. Repeat as necessary to maintain control.	
	Armyworms (including Beet Armyworms) Cabbage Loopers	1 lb.	1 lb. to 1 acre		
	Bollworm Tobacco Budworm	E. OF ROCKIES 0.5 to 1 lb. CA, AZ ONLY 1 lb.	E. OF ROCKIES 1 lb. to 2 acres up to 1 lb. to 1 acre CA, AZ ONLY 1 lb. to 1 acre	Apply in water at 3 to 10 gals. spray per acre by air (minimum 5 gals. per acre in CA, AZ) or 10 to 25 gals. spray per acre by ground. Bollworm - Budworm Larvae: Early season light infestation use 1 lb. to 2 acres. Mid and late season moderate to severe infestations use 1 lb. to 1 acre. Apply when eggs appear and repeat at a 3 to 7 day interval. Bollworm - Budworm Adults: Moths are controlled when they come in direct contact with spray particles during application. Moth kill is most likely to occur when application is made late in the evenings during periods of peak activity. Bollworm - Budworm Eggs: When spray particles come in direct contact with eggs, hatching larvae may be controlled as they consume and emerge from their egg casing. For DEADMATCH (contact ovicidal activity) and larval control, apply ORTHENE 90 S in combination with insecticides (including synthetic pyrethroids in the following label section) registered for use on cotton at their recommended larvicidal label rates. Pink Bollworm - Apply when insects appear and repeat at a 5 to 7 day interval.	
	Larvae Adults				
	Eggs/ DEADMATCH®	0.25 to 0.5 lb.	1 lb. to 4 acres up to 1 lb. to 2 acres		
	Pink Bollworm (CA, AZ)	1 lb.	1 lb. to 1 acre		
	Stinkbugs Cutworms	0.8 lb.	1 lb. to 1.25 acres	Cutworms - Control measures are most effective when ground applications are made in the evenings and the spray is directed toward the lower portion and base of the plant. Apply in water at 10 to 25 gals. spray per acre by ground. Aerial applications are not as effective in controlling cutworms. However, should aerial application be necessary apply in water at 3 to 10 gals. spray per acre (minimum 5 gals. per acre in CA, AZ). Apply when insects first appear or damage is first noted and repeat as necessary to maintain control.	

* Where a rate range is given, use the higher rate where heavy insect pressure exists
** Do not feed gin trash to livestock or allow animals to graze on treated area

COTTON TANK MIXES

Crops	Insects	AMOUNT ORTHENE 90 S + LOREBAK® 4E Per Acre	Further Use Instructions	Days to Harvest
Cotton (CA, AZ)	Armyworms, Bollworm, Cabbage Looper, Cotton Aphid, Cutworms, Flea hopper, Grasshoppers, Pink Bollworm, Plant Bugs (Lygus, Mirids), Soft Marsh Caterpillars, Thrips, Tobacco Budworm, Whitefly	4.44 oz. to 17.77 oz. 1 to 2 pts.	Do not feed gin trash or treated forage to livestock. Do not allow livestock to graze on treated areas	21

CROPS	INSECTS	AMOUNT ORTHENE 90 S (oz.) + **SYNTHETIC PYRETHROID (fl. oz.) PER ACRE	PYRETHROID MAXIMUM LBS. ACTIVE PER SEASON	FURTHER USE INSTRUCTIONS	DAYS TO HARVEST FOR EACH COMBINATION
Cotton	Bollworm Tobacco Budworm	ORTHENE 90 S 1 lb. to 2 acres up to 1 lb. to 1 acre		Begin applications when eggs or in- sects appear and repeat as needed to maintain control	21
	Cabbage Looper	PYDRIN® 2.4 EC, 5.3 - 10.67	2.0		
	Plant bugs	ASANA® 1.9 EC, 1.4 - 3.4*	0.5	Apply in 3 to 5 gals. of water with aerial equipment or in 10 to 25 gals. of water with ground equipment	21
	Thrips	ASANA® XL, 3.9 - 9.6*	0.5		21
	Flea hoppers	CAPTURE® 2 EC, 1.3 - 6.4	0.5	Do not feed gin trash to livestock or allow animals to graze on treated areas	21
	Pink Bollworm (CA, AZ)	BAYTHROID® 2 EC, 1.6 - 3.2	0.80		21
	Aphids Whitefly	KARATE® 1 E, 3.2 - 5.12	0.2		21
	Cotton Leaf Perforator	AMBUSH® 2 EC, 6.4 - 12.8	3.0		21
	Fall Armyworm	POUNCE® 3.2 EC, 2 - 8*	3.0	Stinkbugs and Cutworms: Use ORTHENE at 1 lb. to 1.25 acres	21
	Cutworms	AMMO® 2.5 EC, 2 - 5*	1.0	All applicable d rections restriction and precautions of the EPA registered labels are to be followed	21
	Stinkbugs	CRIMBUSH® 3 EC, 1.7 - 2.56*	1.0		21
	Sweet Potato Whitefly	SCOUT® 0.3 EC, 4.4 - 8 (Except CA) SCOUT® X-TRA, 2.13 - 3.33 (Except CA)	0.19 0.19		21 21

* Use low rate only for light insect infestations
** Synthetic pyrethroids should be used within the guidelines of state and/or regional resistance management programs and recommendations

COTTON SEED HOPPER BOX TREATMENT
(EXCEPT AZ, CA AND THE BLACK LANDS OF TEXAS)

Crop	Insects	Amount ORTHENE 90 S Per Acre	Further Use Instructions
Cotton	Thrips Cotton Aphids Black (Greasy) Cutworm	2.5 to 3.25 oz.	Apply 2.5 to 3.25 oz. ORTHENE 90 S per acre in the planter box as a dry powder. Even coverage is required for acceptable insect control. To obtain even coverage, fill planter box 1/2 full of seed, add the proper amount of ORTHENE 90 S and mix thoroughly with a stick. Add the remainder of the seed to the planter box and the additional required amount of ORTHENE 90 S followed by thorough mixing. For improved mixing, premix seed with ORTHENE 90 S in a suitable container, then pour treated seed into planter box. Loss of ORTHENE 90 S will occur if air planters are used. Plants grown from improperly covered seed will not exhibit insect control. Do not use treated seed for food or feed purposes or process for oil.

COTTON IN-FURROW APPLICATION

CROP	INSECTS	AMOUNT ORTHENE 90 S PER ACRE	ACRES PER LB. ORTHENE 90 S	FURTHER USE INSTRUCTIONS																		
Cotton	Aphids Thrips Black (Greasy) Cutworm	0.56 to 1.1 lbs. (.5 to 1 lb. active)	1 lb. to 1.8 up to 1 lb. to .9 acres	Refer to the ORTHENE 90 S conversion chart before making product application. ORTHENE 90 S CONVERSION CHART <table><thead><tr><th>LB. ACTIVE</th><th>ORTHENE 90 S LBS.</th><th>ORTHENE 90 S OZ.</th></tr></thead><tbody><tr><td>0.5</td><td>0.56</td><td>9.0</td></tr><tr><td>0.6</td><td>0.67</td><td>10.7</td></tr><tr><td>0.75</td><td>0.83</td><td>13.3</td></tr><tr><td>0.9</td><td>1.0</td><td>16.0</td></tr><tr><td>1.0</td><td>1.1</td><td>17.6</td></tr></tbody></table> <p>Apply 0.56 to 1.1 lbs. ORTHENE 90 S in 3 to 5 gals of water per acre as an in-furrow spray. NOTE: For the Blacklands of Texas use only the 1.1 lbs. ORTHENE 90 S rate (17.6 oz.). ORTHENE 90 S can be mixed with fungicides that are sprayed in-furrow for disease control. Flat-fan nozzles used for in-furrow application should be set so that the fanned spray pattern is aligned with the row to insure good spray deposition in the seed furrow. Cone type nozzles may not provide a spray pattern that insures maximum spray deposition in the seed furrow, and should be avoided. Spray systems that employ metal or plastic tubing for delivery of spray solution into the seed furrow should have tubing securely fastened to the furrow opener and should be checked frequently to insure that the tubing is properly positioned to deposit spray solution into the seed furrow.</p>	LB. ACTIVE	ORTHENE 90 S LBS.	ORTHENE 90 S OZ.	0.5	0.56	9.0	0.6	0.67	10.7	0.75	0.83	13.3	0.9	1.0	16.0	1.0	1.1	17.6
LB. ACTIVE	ORTHENE 90 S LBS.	ORTHENE 90 S OZ.																				
0.5	0.56	9.0																				
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0.75	0.83	13.3																				
0.9	1.0	16.0																				
1.0	1.1	17.6																				

Do not apply under conditions involving possible drift to food, forage or other plantings that might be damaged or the crops thereof rendered unfit for sale, use or consumption.
NOTE: This product is sold by weight and package is full when packed, but due to fluffy nature this material is inclined to settle.

STORAGE AND DISPOSAL

PROHIBITIONS

Do not contaminate water, food or feed by storage, disposal or cleaning of equipment.
Open dumping is prohibited.

STORAGE

Keep pesticide in original container.
Do not put concentrate or dilute into food or drink containers.
Store in cool, dry place. Protect from excessive heat.
Do not contaminate food or feedstuffs.
Do not store or transport near feed or food.
For help with any spill, leak, fire or exposure involving this material, call day or night 1-800-892-0099 or Chemtrec 1-800-424-9300.

PESTICIDE DISPOSAL

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

CONTAINER DISPOSAL

Completely empty bag into application equipment. Do not reuse container.
Dispose of empty bag in a sanitary landfill or by incineration, or, if allowed by State and local authorities, by burning.
If burned, stay out of smoke.

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IMPORTANT INFORMATION. READ BEFORE USING PRODUCT.

LIMITED WARRANTY: 1. Valent U.S.A. Corporation warrants that this product conforms to the chemical description on the label and is reasonably fit for use under average conditions when used strictly in accordance with the directions on the labeling. Valent does not make nor authorizes any agent or representative to make, any other warranty, guarantee or representation, express or implied, concerning this product. Specifically, **NO IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE IS MADE.**

2. Critical and unforeseeable factors beyond Valent's control prevent it from eliminating all risks in connection with the use of this product. Such risks include, but are not limited to, damage to plants and crops to which product is applied, lack of complete control over the handling and application of this product, and damage caused by drift to other plants or crops. Such risks occur even though the product is reasonably fit under average conditions for the uses stated on the labeling and even though label directions are followed. Buyer and user acknowledge and assume all risks and liability (except those assumed by Valent under 1 above) resulting from handling, storage, and use of the product.

3. Precautions stated on the labeling should be followed to avoid hazardous exposure to the product.

- AMBUSH® — Reg. TM of ICI Agricultural Products for permethrin insecticide.
- AMMO® — Reg. TM of FMC Agri Chemical Group for cypermethrin insecticide.
- ASANA® — Reg. TM of E. I. duPont de Nemours & Co., Inc. for estenvalerate insecticide.
- BAYTHROID® — Reg. TM of Mobay Corp. for cyfluthrin synthetic pyrethroid.
- CAPTURE® — Reg. TM of FMC Agri Chemical Group for bifenthrin insecticide miticide.
- CYMBUSH® — Reg. TM of ICI Agricultural Products for cypermethrin insecticide.
- KARATE® — Reg. TM of ICI Agrochemicals Co. U.K. for lambda-cyhalothrin insecticide.
- LORSBANE® — Reg. TM of Dow Chemical Company for chlorpyrifos insecticide.
- ORTHENE® — Reg. TM of Chevron Chemical Company for acephate insecticide.
- POUNCE® — Reg. TM of FMC Agri Chemical Group for permethrin insecticide.
- PYDRIN® — Reg. TM of E. I. duPont de Nemours & Co., Inc. for fenvalerate insecticide.
- SCOUT® — Reg. TM of Hoechst-Roussel Agri-Vet Co. for tralomethrin pyrethroid insecticide.