



U.S. ENVIRONMENTAL PROTECTION AGENCY
Office of Pesticide Programs
Registration Division (H7505C)
401 "M" St., S.W.
Washington, D.C. 20460

EPA Reg. Number:

59639-86

Date of Issuance:

APR 19 1994

Term of Issuance: Conditional

Name of Pesticide Product:

Orthene 90 WSP

NOTICE OF PESTICIDE:

 X Registration
 Reregistration

(under FIFRA, as amended)

Name and Address of Registrant (include ZIP Code):

Valent U.S.A. Corporation
1333 N California Blvd., Suite 660
Walnut Creek, CA 94596

5452283 $\frac{160}{38}$ 5463032 $\frac{14}{18}$
5460487 $\frac{161}{18}$

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

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

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

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

1. Submit and/or cite all data required for registration/reregistration of your product under FIFRA sec. 3(c)(5) when the Agency requires all registrants of similar products to submit such data; and submit acceptable responses required for reregistration of your product under FIFRA section 4.

2. Make the following label changes before you release the product for shipment:

- a. Add the phrase, "EPA Registration No. 59639-86".
- b. Delete the separate personal protective equipment(PPE) statements for mixers and loaders. They are identical to the PPE statements for applicators and other handlers and do not need to be restated as separate mixer/loader PPE.
- c. On your individual unit package labeling, revise the statement, "Refer to outer container label for use directions" to read as follows:
"Refer to outer container label for use directions and precautions."

Signature of Approving Official:

KATE

Date:

APR 19 1994

3. Submit two copies of the revised final printed label before you release the product for shipment.

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

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

It should be noted for the record that the active ingredient in this product does not qualify for the formulator's exemption and that your Formulator's Exemption Statement submitted for the subject product was not considered in our evaluation of the subject product. Your submitted "Certification With Respect to Citation of Data" form citing the cite-all method of support submitted in conjunction with your citation of a registered similar product is considered sufficient to satisfy the requirements and procedures of 40 CFR Part 152 subpart E.

Sincerely yours,

Robert A. Forrest
Product Manager (14)
Insecticide-Rodenticide Branch
Registration Division (7504C)

ORTHENE® 90 WSP

(Insecticide in a Water Soluble Bag)

Active Ingredient	By Wt
*Acephate (O, S-Dimethyl acetylphosphoramidothioate)	90%
Inert Ingredients	10%

*ORTHENE®, Acephate U.S. Pat. No. 3,914,417

ACCEPTED
with COMMENTS
in EPA Letter Dated

KEEP OUT OF REACH OF CHILDREN

CAUTION
SEE SIDE PANEL FOR ADDITIONAL
PRECAUTIONARY STATEMENTS

APR 19 1994
Under the Federal Insecticide,
Fungicide, and Rodenticide Act
as amended, for the pesticide
registered under EPA Reg. No.
59639-86

Formulation for Eggs/DEADHATCH •

THIS PRODUCT MAY NOT BE REFORMULATED, REPACKAGED OR RELABELED.

**BAG NET WEIGHT 5 POUNDS
CARTON NET WEIGHT 10 POUNDS**

Manufactured for
Valent U.S.A. Corporation
Walnut Creek CA 94596-8025
Made in U.S.A.
Form R003A 10/11/93
EPA Reg. No. 59639-
EPA EST. No. 39578-TX-01

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: Acephate is an organophosphate, cholinesterase inhibitor.

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.

If in eyes: Wash eyes with fresh water for 15 minutes. If irritation continues, see a doctor.

If on skin: 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.

PERSONAL PROTECTIVE EQUIPMENT (PPE):

Applicators and other handlers must wear: long-sleeved shirt and long pants, waterproof gloves, shoes plus socks and chemical-resistant headgear for overhead exposure.

Mixers and Loaders must wear: long-sleeved shirt and long pants, waterproof gloves, shoes plus socks, and chemical-resistant headgear.

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them. Follow 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:

- * Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.
- * Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- * Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

ENVIRONMENTAL HAZARDS

This pesticide is toxic to birds. Do not apply directly to water, or 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.

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 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 (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 24 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: coveralls, waterproof gloves, shoes plus socks and chemical-resistant headgear for overhead exposure.

DIRECTIONS:

This package contains two water soluble packets of ORTHENE 90 WSP. Do not handle the packets with wet gloves or allow the packets to become wet prior to addition to the spray tank. If only one packet is used, close and reseal outer container to protect remaining packet.

To prepare spray solution, drop the unopened packet of ORTHENE 90 WSP into a spray tank containing at least one-half the desired total quantity of water. Continue to add water with the agitator running until the desired spray volume is reached. Depending on the water temperature and degree of agitation the packet should completely dissolve in approximately 5 minutes.

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

COTTON

Crop	Insects	Amount* ORTHENE 90 WSP Per Acre	Acres Per lb. ORTHENE 90 WSP	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.	21
	Plant bugs (Lygus)	0.25 to 1 lb.	1 lb. to 4 acres up to 1 lb. to 1 acre	Gallonage should be increased as plant size increases to insure thorough coverage. (In CA apply a minimum of 5 gals. per acre by air).	
		CA, AZ ONLY 0.5 to 1 lb.	CA, AZ ONLY 1 lb. to 2 acres up to 1 lb. to 1 acre	Apply 10 to 25 gals. spray per acre by ground. Apply when eggs or insects first appear. Repeat as necessary to maintain control.	
	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 (excluding Beet Armyworm) Cabbage Looper	1 lb.	1 lb. to 1 acre		
	Bollworm Tobacco Budworm Larvae Adults	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.	

(x.c. Inued)

COTTON (continued)

Crop	Insects	Amount* ORTHENE 90 WSP Per Acre	Acres Per lb. ORTHENE 90 WSP	Further Use Instructions**	Days To Harvest
Cotton	Eggs/ DEADHATCH®	0.25 to 0.5 lb.	1 lb. to 4 acres up to 1 lb. to 2 acres	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 DEADHATCH (contact ovicidal activity) and larval control, apply ORTHENE 90 WSP in combination with insecticides (including synthetic pyrethroids in the following label section) registered for use on cotton at their recommended larvicidal label rates.	21
	Pink Bollworm (CA, AZ)	1 lb.	1 lb. to 1 acre	Pink Bollworm - Apply when insects appear and repeat at a 5 to 7 day interval.	
	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 areas.

COTTON TANK MIXES

Crop	Insects	Amount ORTHENE 90 WSP + LORSBAN® 4E Per Acre	Further Use Instructions	Days to Harvest
Cotton (CA, AZ)	Armyworms Bollworm Cabbage Looper Cotton Aphid Cutworms Fleahopper Grasshoppers Pink Bollworm Plant Bugs (Lygus, Mirids) Salt Marsh Caterpillar 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

COTTON TANK MIXES (continued)

Crop	Insects	Amount ORTHENE 90 WSP (oz.) + ** Synthetic Pyrethroid (fl. oz.) Per Acre	Pyrethroid Maximum lbs. Active Per Acre	Further Use Instructions	Days To Harvest For Each Combination
Cotton	Bollworm	ORTHENE 90 WSP		Begin applications when eggs or insects appear and apply as needed to maintain control. Apply in 3 to 5 gals. of water with aerial equipment or in 10 to 25 gals. of water with ground equipment. Do not feed gin trash to livestock or allow animals to graze on treated areas. Stinkbugs and Cutworms: Use ORTHENE 90 WSP at 1 lb. to 1.25 acres. All applicable directions, restrictions and precautions on the EPA registered labels are to be followed.	21
	Tobacco	1 lb. to 2 acres up to			
	Budworm	1 lb. to 1 acre			
	Cabbage	PYDRIN® 2.4 EC, 5.3 - 10.67	2.0		
	Looper	or			
	Plant bugs	ASANA® 1.9 EC, 1.4 - 3.4*	0.5		
	Thrips	or			
	Flea-hoppers	ASANA® XL, 3.9 - 9.6*	0.5		
	Pink	or			
	Bollworm (CA, AZ)	CAPTURE® 2 EC, 1.3 - 6.4	0.5		
	Aphids	or			
	Whitefly	BAYTHROID® 2 EC, 1.6 - 3.2	0.89		
	Cotton Leaf	or			
	Perforator	KARATE® 1 E, 3.2 - 5.12	0.2		
	Fall Armyworm	(Except CA) or			
Cotton	Cutworms	AMBUSH® 2 EC, 6.4 - 12.8	3.0	Use ORTHENE 90 WSP at 1 lb. to 1.25 acres. All applicable directions, restrictions and precautions on the EPA registered labels are to be followed.	21
	Stinkbugs	or			
	Sweet Potato	POUNCE® 3.2 EC, 2 - 8*	3.0		
	Whitefly	or			
		AMMO® 2.5 EC, 2 - 5*	1.0		
		or			
		CYMBUSH® 3 EC, 1.7 - 2.56*	1.0		
		or			
Cotton		SCOUT® 0.3 EC, 6.4 - 8	0.19		28
		(Except CA) or			
Cotton		SCOUT® X-TRA, 2.13 - 3.33	0.19		28
		(Except CA)			

* 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 IN-FURROW APPLICATION

Crop	Insects	Amounts ORTHENE 90 WSP Per Acre	Acres Per lb. ORTHENE 90 WSP	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 WSP conversion chart before making product application. ORTHENE 90 WSP CONVERSION CHART <table><tr><th>LB. ACTIVE</th><th>ORTHENE 90WSP</th><th>ORTHENE 90WSP</th></tr><tr><td></td><td>LBS.</td><td>OZ.</td></tr><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></table> <p>Apply 0.56 to 1.1 lbs. ORTHENE 90 WSP in 3 to 5 gals. of water per acre as an in-furrow spray.</p> <p>NOTE: For the Blacklands of Texas use only the 1.1 lbs. ORTHENE 90 WSP rate (17.6 oz.).</p> <p>ORTHENE 90 WSP 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. A good spray deposition in the seed furrow. Cone type nozzles may not provide a spray pattern that is a 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 row 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 90WSP	ORTHENE 90WSP		LBS.	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 90WSP	ORTHENE 90WSP																							
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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.

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 foodstuffs.

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.

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.

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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 esfenvalerate 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.

LORSBAN® – 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.

ORTHENE® 90 WSP

CONTAINS ACEPHATE

CAUTION

KEEP OUT OF REACH OF CHILDREN

EPA REGISTRATION NO. 59639-_____

REFER TO OUTER CONTAINER LABEL FOR USE DIRECTIONS

IT IS A VIOLATION OF FEDERAL LAW TO USE THIS PRODUCT IN A MANNER
INCONSISTENT WITH ITS LABELLING