

57036-238

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

SEP 4 1999

OFFICE OF
PREVENTION, PESTICIDES AND
TOXIC SUBSTANCES

Mr. Lee Tharrington
Registrations Assistant
Micro Flo Co.
P.O. Box 5948
Lakeland, FL 33807

Dear Mr. Tharrington:

Subject: Maximum Use Rates
Acephate 90SP
EPA Registration No. 51036-238
Your Application Dated February 16, 1998

The labeling amendment referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide, and Rodenticide Act, As Amended (FIFRA), is acceptable, provided that you:

Submit one copy of your final printed label before you release the product for shipment.

If this condition is not complied with, the registration will be subject to cancellation in accordance with FIFRA sec. 6(e). Your release for shipment of the product bearing the amended label constitutes acceptance of this condition.

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

Sincerely,

Marilyn A. Mautz
Biologist
Insecticide-Rodenticide Branch
Registration Division (7504C)

ACEPHATE 90SP
INSECTICIDE

SEP 4 1999

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

51036-238

Active Ingredient	
*Acephate (O,S-Dimethyl acetylphosphoramidothioate)	90%
Inert Ingredients	10%
Total	100%

THIS PRODUCT MAY NOT BE REFORMULATED, REPACKAGED OR RELABELED.

KEEP OUT OF REACH OF CHILDREN

CAUTION

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.

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.

EPA Reg. No. 51036-238

EPA Est. No. 51036-GA-1

Manufactured by:
MICRO FLO CO.
P.O. BOX 5948
LAKELAND, FL 33807

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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.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Applicators and other handlers must wear:

Long-sleeved shirt and long pants

Waterproof gloves

Shoes plus socks

Chemical-resistant headgear for overhead exposure.

Mixers and Loaders must wear:

Long-sleeved shirt and long pants

Waterproof gloves

Shoes plus socks

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, 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 the treatment area.

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 foodstuffs. Do not store or transport near feed or food. For help with any spill, leak, fire or exposure involving this material, call 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.

CHEMIGATION PROHIBITION

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

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
- Chemical-resistant headgear for overhead exposure.

COTTON

PHI (pre-harvest interval) denotes number of days to harvest.

CROPS	INSECTS	AMOUNT* ACEPHATE 90SP PER ACRE	ACRES PER LB. ACEPHATE 90SP	FURTHER USE INSTRUCTIONS**	PHI
Cotton	Thrips	3.2 oz.	1 lb. to 5 acres	Apply in water at 1 to 3 gals. (AZ 3	21
	Plant bugs (Lygus)	0.25 to 1 lb.	1 lb. to 4 acres up to 1 lb. to 1 acre	to 5 gals.) spray per acre by air. Gallonage should be increased as plant size increases to ensure thorough coverage. (In CA apply a	
		CA, AZ ONLY 0.5 to 1 lb.	CA, AZ ONLY 1 lb. to 2 acres up to 1 lb. to 1 acre.	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. Lygus - Use higher rates for lygus adults that have migrated into cotton.	

CROPS	INSECTS	AMOUNT* ACEPHATE 90SP PER ACRE	ACRES PER LB. ACEPHATE 90SP	FURTHER USE INSTRUCTIONS**	PHI
Cotton (continued)	Flea-hopper	0.25 lb.	1 lb. to 4 acres	Do not apply more than 6.0 lbs. a.i. (6 2/3 lbs. product) per acre per crop cycle.	21
	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	
	Army-worms (excluding Beet Army-worm), Cabbage looper	1 lb.	1 lb. to 1 acre	insects first appear. Repeat as necessary to maintain control. Do not apply more than 6.0 lbs. a.i. (6 2/3 lbs. product) per acre per crop cycle.	

CROPS	INSECTS	AMOUNT* ACEPHATE 90SP PER ACRE	ACRES PER LB. ACEPHATE 90SP	FURTHER USE INSTRUCTIONS**	PHI
Cotton (conti nued)	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. 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 ACEPHATE 90SP in combination with insecticides (including synthetic pyrethroids in the following label section) registered for use on cotton at their recommended larvicidal label rates. Do not apply more than 6.0 lbs. a.i. (6 2/3 lbs. product) per acre per crop cycle.	21
	Eggs/ DEAD- HATCH	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	Pink Bollworm-Apply when insects appear and repeat at 5 to 7 day intervals. Do not apply more than 6.0 lbs. a.i. (6 2/3 lbs. product) per acre per crop cycle.	

CROPS	INSECTS	AMOUNT* ACEPHATE 90SP PER ACRE	ACRES PER LB. ACEPHATE 90SP	FURTHER USE INSTRUCTIONS**	PHI
Cotton (conti nued)	Stinkbug Cutworms	0.8 lb.	1 lb. to 1.25 acres	<p>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.</p> <p>Do not apply more than 6.0 lbs. a.i. (6 2/3 lbs. product) per acre per crop cycle.</p>	21

*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.

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COTTON TANK MIXES

PHI (pre-harvest interval) denotes number of days to harvest.

CROPS	INSECTS	AMOUNT ACEPHATE 90SP + Chlorpyrifos 4E PER ACRE	FURTHER USE INSTRUCTIONS	PHI
Cotton (CA, AZ)	Armyworms, Bollworms, Cabbage looper, Cotton Aphid, Cutworms, Flea- hopper, 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. Acephate 90SP can be mixed with Chlorpyrifos 4E provided those products do not prohibit tank mixes, provided the most restrictive of label limitations and precautions are observed, and provided no label dosage rates are exceeded. Do not apply more than 6.0 lbs. a.i. of Acephate 90SP (6 2/3 lbs. product) per acre per crop cycle.	21

COTTON TANK MIXES

PHI (pre-harvest interval) denotes number of days to harvest.

CROPS	INSECTS	AMOUNT ACEPHATE 90SP + **SYNTHETIC PYRETHROID (fl. oz.) PER ACRE	PYRETHROID MAXIMUM LBS. ACTIVE PER SEASON	FURTHER USE INSTRUCTIONS	PHI
Cotton	Bollworm, Tobacco Budworm, Cabbage Looper, Plant bugs, Thrips, Fleahoppers, Pink Bollworm (CA,AZ), Aphids, Whitefly, Cotton Leaf Perforator, Fall Armyworm, Cutworms, Stink Bugs, Sweet Potato Whitefly.	ACEPHATE 90SP 1 lb. to 2 acres up to 1 lb. to 1 acre		Begin applications when eggs or insects appear and apply as needed to maintain control.	21
		PYDRIN 2.4 EC, 5.3-10.67	2.0	Apply in 3 to 5 gals. of water with aerial equipment or in 10 to 25 gals. of water with ground equipment.	21
		or			
		ASANA 1.9 EC, 1.4 - 3.4*	0.5	Do not feed gin trash to livestock or allow animals to graze on treated areas.	21
		or			
		ASANA XL. 3.9 - 9.6*	0.5	Stinkbugs and Cutworms: Use ACEPHATE 90SP at 1 lb. to 1.25 acres. All applicable directions, restrictions and precautions on the EPA registered labels are to be followed.	21
		or			
		CAPTURE 2EC, 1.3 - 6.4	0.5		21
		or			
		BAYTHROID 2EC, 1.6 - 3.2	0.89		21
		or			
		KARATE 1E. 3.2 - 5.12 (except CA)	0.2	Acephate 90SP can be mixed with Pydrin 2.4EC, Asana 1.9EC, Asana XL, Capture 2EC, Baythroid 2EC, Karate 1E, Ambush 2EC, Pounce 3.2EC, Ammo 2.5EC, Cymbush 3EC, Scout 0.3EC, or Scout X-TRA, provided those products do not prohibit tank mixes, provided the most restrictive of label limitations and precautions are observed, and provided no label dosage rates are exceeded.	21
		or			
	AMBUSH 2EC, 6.4 - 12.8	3.0	Do not apply more than 6.0 lbs. a.i. of Acephate 90SP (6 2/3 lbs. product) per acre per crop cycle.	21	
	or				
	POUNCE 3.2EC 2 - 8*	3.0		21	
	or				
	AMMO 2.5EC, 2 - 5*	1.0		21	
	or				
	CYMBUSH 3EC 1.7 - 2.56*	1.0		21	
	or				
	SCOUT 0.3EC 6.4 - 8 (except CA)	0.19		28	
	or				
	SCOUT X-TRA 2.13 - 3.33 (Except CA)	0.19		28	

*Use low rate only for light 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)**

CROPS	INSECTS	AMOUNT ACEPHATE 90SP 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. ACEPHATE 90SP 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 ACEPHATE 90SP and mix thoroughly with a stick. Add the remainder of the seed to the planter box and the additional required amount of ACEPHATE 90SP followed by thorough mixing. For improved mixing, premix seed with ACEPHATE 90SP in a suitable container, then pour treated seed into planter box. Loss of ACEPHATE 90SP 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. Do not apply more than 6.0 lbs. a.i. (6 2/3 lbs. product) per acre per crop cycle.

COTTON IN-FURROW APPLICATION

CROPS	INSECTS	AMOUNT ACEPHATE 90SP PER ACRE	ACRES PER LB. ACEPHATE 90SP	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 ACEPHATE 90SP conversion chart before making product application. Do not apply more than 6.0 lbs. a.i. (6 2/3 lbs. product) per acre per crop season.

ACEPHATE 90SP CONVERSION CHART

LB. ACTIVE	LBS. ACEPHATE 90SP	OZ. ACEPHATE 90SP
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	17.5

Apply 0.56 to 1.1 lbs. ACEPHATE 90SP 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. ACEPHATE 90SP rate (17.6).

ACEPHATE 90SP 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 ensure good spray deposition in the seed furrow. Cone type nozzles may not provide a spray pattern that ensures 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 ensure that the tubing is properly positioned to deposit spray solution into the seed furrow.

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.

MICRO FLO WARRANTS THAT THIS PRODUCT CONFORMS TO THE CHEMICAL DESCRIPTION ON THE LABEL THEREOF AND IS REASONABLY FIT FOR THE PURPOSE STATED ON SUCH LABEL ONLY WHEN USED IN ACCORDANCE WITH THE DIRECTIONS FOR USE. IT IS IMPOSSIBLE TO ELIMINATE ALL RISKS INHERENTLY 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 MICRO FLO. IN NO CASE SHALL MICRO FLO BE LIABLE FOR THE CONSEQUENTIAL, SPECIAL OR INDIRECT DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT. ALL SUCH RISKS SHALL BE ASSUMED BY THE BUYER.

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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. 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.

®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.