

81964-3

01/25/2006

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U.S. ENVIRONMENTAL PROTECTION AGENCY

Office of Pesticide Programs
Registration Division (7505C)
Ariel Rios Building
1200 Pennsylvania Ave., NW
Washington, D.C. 20460

EPA Reg. Number:
81964-3

Date of Issuance:
JAN 25 2006

NOTICE OF PESTICIDE:

- x Registration
Reregistration
(under FIFRA, as amended)

Term of Issuance: conditional

Name of Pesticide Product:
Acephate 90% SP

Name and Address of Registrant (include ZIP Code):

ChemStar LLC
21 Hubble
Irvine, CA 92618

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 of your product when the Agency requires all registrants of similar products to submit such data.

Since the Interim Reregistration Eligibility Decision (IRED) and the accompanying Data Call Ins (DCIs) have been issued for acephate and you have referenced a registered acephate product in support of your product, the registration issued for your product is conditioned on acceptable data being submitted for the supporting product in response to the DCI or new data being submitted to replace any unacceptable data. If the data are unacceptable and will not be replaced, the supporting product registration will be subject to being suspended. In that event, you will become subject to providing these data or being suspended.

Data requirements for the reregistration of acephate products were issued to acephate registrants in December of 2002 (product specific) and in January of 2003 (generic) in conjunction with the acephate IRED. A copy of the data requirements list taken from the IRED is enclosed.

- 2. Submit the data listed below within 18 months from the date of the issuance of this Notice.

One-year storage stability study (guideline no. 830.6370) and corrosion characteristics study (830.6320). Observations are recommended at 0, 3, 6, 9 and 12 months and the studies may be conducted simultaneously.

Signature of Approving Official:

Handwritten signature of Marilyn A. Monty

Date:

JAN 25 2006

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EPA Reg. No. 81964-3

3. Make the following label changes:

a. Add the designation, EPA Reg. No. 81964-3.

b. As indicated in item 20 of our previous letter dated December 22, 2005, the directions for all uses must reflect the fact that the product is contained in pre-measured water soluble packaging (WSP). Clarification of the application rates for the uses listed below is needed. For some cases, clarification of the rates may be accomplished by expanding on the current table of equivalents located on pages 6 and 7 of the label.

- The commercially treated cotton seed use on page 14
- The rates given in terms of tablespoons in the float bed and plant bed tobacco uses on page 24.

- The wasteland (non-crop) use on page 27.
- Several of the tree and shrub rates on pages 30 and 31.
- Some of the rates for golf course and sod farm turfgrass on pages 32 and 33.
- The out door and perimeter spray use on page 34.
- The outdoor floral and ground cover use for Japanese beetle on page 35.
- Some of the greenhouse rates on page 37.

c. On page 3, correct the bee caution statement by replacing "is" with "are" so that it reads as follows: " __ and its degradate are __ ".

d. Qualify the claims for use on container grown nursery stock; and trees and shrubs so that it is clear they are ornamental uses; i.e. "container grown ornamental nursery stock" and "ornamental trees and shrubs".

e. As specified in item 21 of our letter dated December 22, 2005, the advisory statements must be distinguished from the mandatory statements. Please refer to PR Notice 2000-5, a copy of which was enclosed with our above mentioned letter for guidance regarding such statements. The statements identified in that letter as examples have been corrected but the following statements remain to be corrected to be consistent with the Notice:

-The following statement on page 38 in the directions for use on green house floral and foliage plant crops: "Do not apply to Chrysanthemums and Roses with open flowers." An example of a corrected statement to reflect the advisory nature of this use instruction would be as follows: "Application to Chrysanthemums and Roses with open flowers will cause injury to the flowers".

-The following statement on pages 25 and 28 in the directions for ant mound treatments: "Do not apply under prolonged hot and dry conditions." An acceptable advisory statement (as it appears on the supporting product label) would be as follows: "Application under prolonged hot and dry conditions may be ineffective due to the location of the ants deep within the nest."

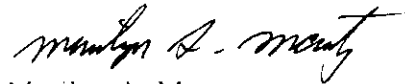
On page 29 in the container grown nursery stock use section, remove the redundant statement "Allow a minimum of seven days between applications" which appears under the "General Instructions" heading. This use restriction already appears in this section under the more appropriate heading "Use Precautions".

It is understood that the Confidential Statement of Formula (CSF) dated November 15, 2005 replaces all other CSFs submitted for the product. It is further understood that the data matrix dated January 5, 2006 replaces all other data matrices submitted for the product.

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.



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

Enclosures: Stamped label
Appendices E and F from acephate IRED

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[Water Soluble Film Label]

Acephate 90% SP INSECTICIDE

ACTIVE INGREDIENT:	By Wt.
Acephate (<i>O,S</i> -Dimethyl acetylphosphoramidothioate).....	90.0%
OTHER INGREDIENTS:	<u>10.0%</u>
TOTAL:	100.0%

**KEEP OUT OF REACH OF CHILDREN
CAUTION**

For First Aid, Precautionary Statements and Directions for Use, refer to the complete product labeling located on the outer container.

EPA Reg. No. 81964-

ACCEPTED
with COMMENTS
in EPA Letter Dated:

JAN 25 2006

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

81964-3

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[Main Label]

Acephate 90% SP INSECTICIDE

ACTIVE INGREDIENT:	By Wt.
Acephate (<i>O,S</i> -Dimethyl acetylphosphoramidothioate).....	90.0%
OTHER INGREDIENTS:	10.0%
TOTAL:	100.0%

KEEP OUT OF REACH OF CHILDREN CAUTION

FIRST AID	
Acephate is an organophosphate, cholinesterase inhibitor	
If swallowed:	<ul style="list-style-type: none"> • Call a poison control center or doctor immediately for treatment advice. • Have person sip a glass of water if able to swallow. • Do not induce vomiting unless told to do so by the poison control center or doctor. • Do not give anything by mouth to an unconscious person.
If in eyes:	<ul style="list-style-type: none"> • 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. • Call a poison control center or doctor for treatment advice.
If on skin or clothing:	<ul style="list-style-type: none"> • Take off contaminated clothing. • Rinse skin immediately with plenty of water for 15-20 minutes. • Call a poison control center or doctor for treatment advice.
If inhaled:	<ul style="list-style-type: none"> • Move person to fresh air. • If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. • Call a poison control center or doctor for further treatment advice.
HOT LINE NUMBER	
Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-949-679-3535 for emergency medical treatment information.	
NOTE TO PHYSICIAN	
Acephate is a cholinesterase inhibitor. Measurement of blood cholinesterase activity may be useful in monitoring exposure but decisions regarding treatment will usually need to be made before test results are available. If signs of cholinesterase inhibition appear, atropine sulfate is antidotal. 2-PAM (PROTOPAM) is also antidotal and may be used in conjunction with atropine but should not be used alone.	

EPA Reg. No. 81964-
EPA Est. No.

Manufactured for:
ChemStarr LLC
21 Hubble
Irvine, CA 92618

Net Weight:

**PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS AND DOMESTIC ANIMALS
CAUTION**

Harmful if swallowed or inhaled. Causes moderate eye irritation. Avoid contact with eyes, skin or clothing. Avoid breathing dust or spray mist. Wash thoroughly with soap and water after handling and before eating, drinking, or using tobacco. Remove and wash contaminated clothing before reuse. Do not allow children or pets to come into contact with treated areas until sprays have dried.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Some materials that are chemical-resistant to this product are barrier laminate, butyl rubber ≥ 14 mils, nitrile rubber ≥ 14 mils, neoprene rubber ≥ 14 mils and natural rubber ≥ 14 mils. If you want more options, follow the instructions for category A on an EPA chemical-resistance category selection chart.

Mixers, loaders, applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Socks and shoes
- Chemical-resistant gloves for all mixers and loaders and for applicators using hand-held application equipment.

In addition, applicators using low-pressure hand wand application equipment must wear:

- A NIOSH-approved dust mist filtering respirator with MSHA/NIOSH approval number prefix TC-21C or a NIOSH-approved respirator with any N, R, P, or HE filter.

See engineering controls for additional requirements.

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

Engineering Controls

Water-soluble packets when used correctly qualify as a closed mixing/loading system under the Worker Protection Standard for Agricultural Pesticides [40 CFR 170.240(d)(4)]. Mixers and loaders using water-soluble packets must:

- Wear the personal protective equipment required above for mixers/loaders, and
- Be provided, and must have immediately available for use in an emergency, such as a broken package, spill, or equipment breakdown the following PPE: coveralls, chemical-resistant footwear and a NIOSH-approved dust mist filtering respirator with MSHA/NIOSH approval number prefix TC-21C or a NIOSH-approved respirator with any N, R, P, or HE filter.

Pilots must use an enclosed cockpit in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240(d)(6)].

The use of human flaggers is prohibited.

User Safety Recommendations

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

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ENVIRONMENTAL HAZARDS

This pesticide is toxic to birds. 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 cleaning equipment or disposing of equipment washwaters.

Exposed treated seed may be hazardous to birds and other wildlife. Dispose of all excess treated seed and seed packaging by burial away from bodies of water.

This product and its degradate 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 while bees are actively visiting the treatment area.

GENERAL INFORMATION

Acephate 90% SP is a soluble powder used as an insecticide for control of pests on selected agricultural crops and in certain non-crop areas. The active ingredient in Acephate 90% SP is absorbed by plants via the roots and foliage to provide systemic control of feeding insects.

Because it is impossible to test this product for every combination of cultivar, soil and horticultural practice, it is the responsibility of the user to ensure that Acephate 90% SP is compatible with the variety or cultivar of the ornamental crop to which you are making an application under your specific conditions. Test the product on a limited scale and observe for phytotoxicity over a two-week period prior to making large-scale applications.

FAILURE TO FOLLOW THE INSTRUCTIONS IN THIS LABEL MAY RESULT IN POOR INSECT CONTROL, CROP INJURY, AND/OR ILLEGAL RESIDUES.

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 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.

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

NON-AGRICULTURAL USE REQUIREMENTS

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

Do not enter or allow others to enter until sprays have dried.

GENERAL USE GUIDELINES

- Insect pests are generally controlled more effectively by Acephate 90% SP through ingestion than by contact.
- Make repeat applications of Acephate 90% SP to maintain control only as directed.
- Do not apply in conditions that may result in possible drift to food, forage or other plantings that could be damaged, or the crops thereof rendered unfit for sale, use or consumption.
- Acephate 90% SP is NOT for indoor residential use.

TANK MIXES

- When tank mixing Acephate 90% SP with other products, read the entire label of each product being added to the mix and follow the most restrictive guidelines applicable to your situation.
- The user, applicator and/or application advisor accepts full responsibility for using this product with any other product or application method not expressly authorized by this label.

CHEMIGATION

- Only cranberries can have this product applied by chemigation (sprinkler irrigation) system.
- Do not apply to cranberries using any other type of irrigation system.

HAND WAND RESTRICTIONS

- Agricultural Uses - Low-pressure hand wand equipment may *only* be used for mound treatment to control fire ants.
- Non-Agricultural Uses - Low-pressure hand wand equipment may *only* be used for mound treatment to control fire ants and on ornamental trees, shrubs and floral plants only when grown for non-agricultural or non-commercial use.

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- Low-pressure hand wand equipment may *not* be used for perimeter control or wasp treatments.

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WATER SOLUBLE PACKAGING

NOTE: Refer to the Table of Equivalents below to calculate the number of packets to use.

MULTIPLE PACKAGING

This container holds water-soluble packets of Acephate 90% SP. Do not puncture or rupture the packets or expose them to any moisture, including handling with wet gloves, before placing the packets into the spray tank. To protect any remaining unused packets, be sure to store them in the original outer container.

PREPARATION OF SPRAY SOLUTION

1. Drop the unopened packet(s) of Acephate 90% SP into a spray tank containing at least one-half the total quantity of water required.
2. Start the agitator and continue adding water until the desired volume is reached by spraying directly at the packet(s) in order to dissolve the packet(s) and release the Acephate 90% SP.
3. Do not add any partners (such as liquid fertilizers, micronutrients or adjuvants) to the tank mix until *after* the packet(s) and its / their contents have completely dissolved.

NOTE: The water-soluble packet(s) should completely dissolve in approximately five minutes. The timing may be impacted (slowed) by insufficient agitation, cold water, or water containing high concentrations of sulfur or boron.

TABLE OF EQUIVALENTS

Acephate 90% SP Application Rate (per Acre)	Acres Treated by a Single ½ lb. Water Soluble Packet
2.5 oz.	3.2
3.2 oz.	2.5
3.25 oz.	2.46
0.25 lb.	2.0
0.28 lb.	1.8
0.5 lb.	1.0
0.56 lb.	0.9
0.8 lb.	0.6
1.0 lb.	0.5
1.1 lbs.	0.46

Acephate 90% SP Application Rate (per Acre)	Acres Treated by a Single 1 lb. Water Soluble Packet
2.5 oz.	6.4
3.2 oz.	5.0
3.25 oz.	4.92
0.25 lb.	4.0
0.28 lb.	3.6
0.5 lb.	2.0
0.56 lb.	1.8
0.8 lb.	1.2
1.0 lb.	1.0
1.1 lbs.	0.92

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Acephate 90% SP Application Rate (per Acre)	Acres Treated by a Single 2.5 lb. Water Soluble Packet
2.5 oz.	16
3.2 oz.	12.5
3.25 oz.	12.3
0.25 lb.	10
0.28 lb.	8.9
0.5 lb.	5
0.56 lb.	4.5
0.8 lb.	3.1
1.0 lb.	2.5
1.1 lbs.	2.3

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SPRAY DRIFT MANAGEMENT

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.

For ground boom applications, apply with nozzle height no more than 4 feet above the ground or crop canopy and when wind speed is 10 mph or less at the application site as measured by an anemometer. Use fine or coarser spray according to ASAE 572 definition for standard nozzles or VMD for spinning atomizer nozzles.

For airblast applications, direct spray above foliage and turn off outward pointing nozzles at row ends and outer rows. Apply only when wind speed is 3-10 mph at the application site as measured by an anemometer outside of the treated area on the upwind side.

For aerial applications, the boom width must not exceed 75% of the wingspan or 90% of the rotary blade. Use upwind swath displacement and apply only when wind speed is 3-10 mph as measured by an anemometer. Use fine or coarser spray according to ASAE 572 definition for standard nozzles or VMD for spinning atomizer nozzles. If application includes a no-spray zone, do not release spray at a height greater than 10 feet above the ground or the crop canopy.

For overhead chemigation, apply only when wind speed is 10 mph or less.

The applicator also must use all other measures necessary to control drift.

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BEANS AND LIMA BEANS
Dry and Succulent Forms

USE PRECAUTIONS:

- Do not feed treated vines to livestock.
- Do not apply more than 2.2 lbs./acre (2 lbs. AI) per season.
- Do not harvest snapbeans (succulent or dry beans) for at least 14 days after last application.
- Lima beans may be harvested 24 hours after the last application (1 day preharvest interval)

GENERAL INSTRUCTIONS:

- Apply when eggs or insects first appear.
- Use the higher rates listed for severe infestations.

FOLIAR APPLICATIONS:

By Ground: Apply using 20 to 100 gals/A of spray.

By Air: Apply in a minimum of 2 gals/A of spray.

PESTS CONTROLLED	ACEPHATE 90% SP APPLICATION RATE (PER ACRE)	SPECIFIC INSTRUCTIONS
Fleahoppers Grasshoppers	0.25 to 0.5 lb. (4.5 to 8 oz.)	To maintain control, repeat at 3 day spray intervals as necessary.*
Aphids (excluding Black Bean Aphid) Bean Leaf Beetle Bean Leafroller Cabbage Looper Cutworms Green Cloverworms Leathoppers Mexican Bean Beetle Plantbugs (Lygus) Soybean Looper Thrips Whitefly (except Sweet Potato or Silverleaf Whitefly)	0.5 to 1.1 lbs. (8 to 17.6 oz.)	To maintain control: When applying 0.5 lbs. of active ingredient per acre, repeat at 3 day spray intervals as necessary.* When applying more than 0.5 lbs. of active ingredient per acre, repeat at 7 day spray intervals as necessary.*
Armyworms (excluding Beet Armyworm) Corn Earworm European Corn Borer	0.8 to 1.1 lbs. (12.8 to 17.6 oz.)	
*Do not apply more than 2.2 lbs./acre (2 lbs. AI) per season.		

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CELERY

USE PRECAUTIONS:

- Trim and remove all celery tops before shipment for use.
- Do not use trimmed tops for feed or food.
- Do not apply more than 2.2 lbs. per acre (2 lbs. active ingredient) per season.
- Do not harvest celery for at least 21 days after last application.

GENERAL INSTRUCTIONS:

- Apply when eggs or insects first appear.
- Use the higher rates listed for severe infestations.

FOLIAR APPLICATIONS:

Ground: Apply using 50 to 100 gallons / acre of spray.

By Air: Apply in a minimum of 5 gallons / acre of spray.

PESTS CONTROLLED	ACEPHATE 90% SP APPLICATION RATE (PER ACRE)	SPECIFIC INSTRUCTIONS
Green Peach Aphid	0.5 to 1.1 lbs. (8 oz. to 17.6 oz.)	To maintain control: For applications of 0.5 lbs. active ingredient per acre, make repeat applications at 3 day intervals as necessary.* For applications greater than 0.5 lbs. active ingredient per acre, make repeat applications at 7 day intervals as necessary.*
Cabbage Looper Fall Armyworms	1.1 lbs. (17.6 oz.)	
*Do not apply more than 2.2 lbs. per acre (2 lbs. active ingredient) per season.		

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COLE CROPS
Brussels Sprouts & Cauliflower

USE PRECAUTIONS:

- Do not feed trimmings to livestock or allow animals to graze in treated areas.
- Do not apply more than 2.2 lbs./A (2 lbs. a.i.) per season.
- Do not harvest for at least 14 days after last application.

GENERAL INSTRUCTIONS:

- Apply when eggs or insects first appear.
- Use the higher rates listed for severe infestations.

FOLIAR APPLICATIONS:

By Ground: Apply using 25 to 150 gallons/acre of spray.

By Air: Apply in a minimum of 5 gals/A of spray.

PESTS CONTROLLED	ACEPHATE 90% SP APPLICATION RATE (PER ACRE)	SPECIFIC INSTRUCTIONS
Green Peach Aphid	0.5 to 1.1 lbs. (8 to 17.6 oz.)	To maintain control: For applications of 0.5 lbs. active ingredient per acre, make repeat applications at 3 day intervals as necessary.* For applications greater than 0.5 lbs. active ingredient per acre, make repeat applications at 7 day intervals as necessary.* NOTE: Diamondback Moth Larvae have been found to develop resistance to various insecticides. Consult your local Agricultural Extension Agent for the current recommended best practices for dealing with this insect.
Cabbage Looper Diamondback Moth Larvae Imported Cabbage Worm	1.1 lbs. (17.6 oz.)	
*Do not apply more than 2.2 lbs./A (2 lbs. a.i.) per season.		

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COTTON

USE PRECAUTIONS:

- Do not use treated seed for food or feed purposes or process for oil.
- Do not feed gin trash or treated forage to livestock.
- Do not allow animals to graze on treated areas.
- Do not harvest cotton for at least 21 days after last application.
- Do not apply more than 4 lbs. a.i. per season. This includes all uses of Acephate products and Acephate 90% SP on cotton.
- For aerial application in California and Arizona, application is limited to 1.0 lb. a.i./acre. For all other areas of the U.S., application is limited to 0.75 lb. a.i./acre by air.

GENERAL INSTRUCTIONS:

- Use the higher rates listed for severe infestations.
- Apply when eggs or insects first appear.

IN-FURROW (AT-PLANTING) APPLICATION:

By Ground: Apply using 3 to 5 gallons of spray per acre.

PESTS CONTROLLED	ACEPHATE 90% SP APPLICATION RATE (PER ACRE)	SPECIFIC INSTRUCTIONS
Aphids (excluding Cotton Aphids in AZ and CA) Black (Greasy) Cutworm (Except CA) Thrips (including Western Flower Thrips)	0.56 to 1.1 lbs. NOTE: For the Blacklands Region of Texas, use the 1.1 lbs./acre application rate	Use only flat-fan nozzles. Verify that the nozzles are aligned to maximize spray deposition into the seed furrow. Securely fasten spray-system tubing to furrow opener and check frequently to ensure proper positioning and operation. Acephate 90% SP can be mixed with fungicides that are sprayed in-furrow for disease control.

FOLIAR APPLICATION:

By Ground: Apply using 10 to 25 gallons of spray per acre.

By Air: Apply using 3 to 10 gallons of spray per acre. In Arizona and California, apply in a minimum of 5 gallons of spray per acre.

PESTS CONTROLLED	ACEPHATE 90% SP APPLICATION RATE (PER ACRE)	SPECIFIC INSTRUCTIONS
Thrips (including Western Flower Thrips)	0.25 lb.	To maintain control, repeat applications at 3-day spray intervals as necessary.*
Plantbugs (Lygus)	0.25 to 1.0 lb. (AZ & CA) 0.5 to 1.0 lb.	Use the highest rate listed for Lygus adults that have migrated into cotton. To maintain control: For applications of 0.5 lbs. or less active ingredient per acre, repeat applications at 3-day spray intervals as necessary.* For applications greater than 0.5 lbs. active ingredient per acre, repeat applications at 7-day spray intervals as necessary.*
Fleahopper	0.25 lb.	To maintain control, repeat applications at 3 day intervals as necessary.*

PESTS CONTROLLED	ACEPHATE 90% SP APPLICATION RATE (PER ACRE)	SPECIFIC INSTRUCTIONS
Cotton Aphids (excluding AZ and CA)	0.5 to 1.0 lb.	Cotton Aphids have been found to develop resistance to various insecticides. Consult your local Agricultural Extension Agent for the current recommended best practices for dealing with this insect. To maintain control: For applications of 0.5 lbs. or less active ingredient per acre, repeat applications at 3-day spray intervals as necessary.* For applications greater than 0.5 lbs. active ingredient per acre, repeat applications at 7-day spray intervals as necessary.*
Whitefly (excluding Sweetpotato Whitefly / Silverleaf Whitefly)	0.5 to 1.0 lb.	To maintain control: For applications of 0.5 lbs. or less active ingredient per acre, repeat applications at 3-day spray intervals as necessary.* For applications greater than 0.5 lbs. active ingredient per acre, repeat applications at 7-day spray intervals as necessary.*
Armyworms (excluding Beet Armyworm) Cabbage Looper	1.0 lb.	Apply when eggs appear and repeat applications using 7-day spray intervals.*
Bollworm Tobacco Budworm (Adults, Larvae) Eggs/ DEADHATCH®	0.5 to 1.0 lb. (East of Rockies) 1.0 lb. (AZ & CA) 0.25 to 0.5 lb.	Moths of budworm larvae are controlled by direct contact with spray. Death is most likely to occur when late evening applications are made. Use 0.5 lbs./acre for mild infestations. Use 0.8 to 1.0 lbs./acre for moderate to severe infestations. To maintain control: For applications of 0.5 lbs. or less active ingredient per acre, repeat applications at 3-day spray intervals as necessary.* For applications greater than 0.5 lbs. active ingredient per acre, repeat applications at 7-day spray intervals as necessary.* DEADHATCH®: Control of emerging larvae by consumption of treated egg casings.
Stinkbugs	0.8 lb.	Apply when eggs appear and repeat applications using 7-day spray intervals.*
Pink Bollworm (AZ & CA)	1.0 lb.	Apply when insects appear and repeat applications using 7-day spray intervals.*
Cutworms	0.8 lb.	Apply by ground application; aerial applications are less effective, but may be also used. For best results when making ground applications: <ul style="list-style-type: none"> • Apply in the evening • Direct spray to the lower portion and base of plant. Begin applications when the insects first appear or damage is first noted. To maintain control, repeat applications using 7-day spray intervals as necessary.*
*Do not apply more than 4 lbs. a.i. per season. This includes all uses of Acephate products and Acephate 90% SP on cotton.		

**COMMERCIALLY TREATED COTTONSEED
(FOR USE BY COMMERCIAL SEED TREATERS ONLY)**

Use Acephate 90% SP to reduce injury to cotton seedlings caused by the insects listed in the table below.

USE PRECAUTIONS:

- Acephate 90% SP does not contain a dye. The Federal Seed Act and 21 CFR Chapter 1 Section 2.5 requires that all seed treated with this product must be colored to distinguish from, and prevent subsequent inadvertent use as food for man or feed for animals.
- Treated seed must not be used for, or mixed with food or animal feed, or processed for oil. Seed treated with Acephate 90% SP may be considered adulterated under state and federal laws if sold or shipped as food or feedstuffs. Seed commercially treated with Acephate 90% SP must be labeled as follows: "TREATED SEED. DO NOT USE FOR FOOD, FEED OR OIL."
- Observe all precautions and limitations on labeling of all products used in mixtures.

PESTS CONTROLLED	ACEPHATE 90% SP (PER 100 LBS. COTTONSEED)	EFFICACY	SPECIFIC INSTRUCTIONS
Thrips Cotton Aphids	7.1 oz.	Provides protection against Thrips and Cotton Aphids for up to three weeks after planting.	Acephate 90% SP can be tank mixed with most fungicide seed treatments commonly used. This product may also be applied as a separate treatment. When preparing the Acephate 90% SP, use sufficient water to provide complete seed coverage.
Black (Greasy) Cutworm	7.1 oz.	Provides protection against Black (Greasy) Cutworm from planting through the 3 rd to 4 th leaf stage of development.	

COTTON TANK MIXES

USE PRECAUTIONS:

- Always read all label directions when using any pesticide alone or in tank mix combinations. Follow the most restrictive labeling when using a tank mix.
- Do not use treated seed for food or feed purposes or process for oil.
- Do not feed gin trash or treated forage to livestock.
- Do not allow animals to graze on treated areas.
- Do not harvest cotton for at least 21 days after last application.
- Do not apply more than 4.4 pounds per acre (4 lbs. of active ingredient) per season. This includes all uses of Acephate 90% SP on cotton.
- For aerial application in California and Arizona, application is limited to 1.0 lbs. of active ingredient per acre. For all other areas of the U.S., application is limited to 0.75 lbs. of active ingredient per acre by air.

COTTON PEST CONTROL RESISTANCE MANAGEMENT

Consult your local agricultural extension agent for current best practices when controlling cotton pests, and in particular, when dealing with silverleaf whitefly control.

GENERAL INSTRUCTIONS:

- Use the higher rates listed for severe infestations.
- Apply when insects first appear or when damage is first noted.

FOLIAR APPLICATIONS:

By Ground: Apply using 10 to 25 gallons per acre of spray.

By Air: Apply using 3 to 10 gallons per acre of spray (minimum 5 gallons per acre in CA).

TANK MIXING:

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- This product may be tank mixed with registered cotton herbicides under the following conditions:
 - The tank mix partners do not prohibit tank mixes;
 - The most restrictive of label limitations and precautions are observed; and,
 - No label dosage rates are exceeded.
- To determine physical compatibility of potential tank-mix partners with Acephate 90% SP:
 1. In a pesticide-safe container, pour the recommended proportions of each chemical with the same proportion of water as will be present in the chemical supply tank. NOTE: When mixing wettable powder or dry flowable formulations, add and disperse these first, then add liquid pesticides.
 2. Mix thoroughly and allow to stand for five minutes.
 3. If the combination remains mixed, or can be readily remixed, the mixture is considered physically compatible.

PESTS CONTROLLED	ACEPHATE 90% SP AND TANK MIX PARTNER	ACEPHATE 90% SP + TANK MIX PARTNER (PER ACRE)	SPECIFIC INSTRUCTIONS
Sweetpotato Whitefly (Silverleaf Whitefly)	Acephate 90% SP + Danitol® 2.4 EC Spray	0.5 to 1.0 lb. + 10 2/3 to 16 fl. oz.	For applications of 0.5 lbs. or less active ingredient per acre, repeat applications at 3-day spray intervals as necessary.* For applications greater than 0.5 lbs. active ingredient per acre, repeat applications at 7-day spray intervals as necessary.*
Armyworms (excluding Beet Armyworm) Bollworm Cabbage Looper Cotton Aphid Cutworms Fleahopper Grasshoppers Pink Bollworm Plantbugs (Lygus, Mirids) Salt Marsh Caterpillar Thrips (including Western Flower Thrips) Tobacco Budworm Whitefly (excluding Sweetpotato Silverleaf Whitefly)	Acephate 90% SP + Lorsban® 4E	0.28 to 1.1 lbs. + 1 to 2 pts.	To maintain control: For applications of 0.5 lbs. or less active ingredient per acre, repeat applications at 3-day spray intervals as necessary.* For applications greater than 0.5 lbs. active ingredient per acre, repeat applications at 7-day spray intervals as necessary.* Special Instructions for Cutworms: Use 0.8 lb. / acre of Acephate 90% SP Apply by ground application; aerial applications are less effective, but may be also used. For best results when making ground applications: <ul style="list-style-type: none"> • Apply in the evening • Direct spray to the lower portion and base of plant.
*Do not apply more than 4.4 pounds per acre (4 lbs. of active ingredient) per season. This includes all uses of Acephate 90% SP on cotton.			

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COTTON TANK MIXES WITH PYRETHROIDS

USE PRECAUTIONS:

- Always read and follow all label directions when using any pesticide alone or in tank mix combinations. Observe all restrictions and precautions that appear on all product labels. The most restrictive labeling applies when using a tank mix.
- Do not use treated seed for food or feed purposes or process for oil.
- Do not feed gin trash or treated forage to livestock.
- Do not allow animals to graze on treated areas.
- Do not harvest cotton for at least 21 days after last application EXCEPT when applying with Scout X-TRA. When tank mixing with Scout X-TRA, do not harvest cotton for at least 28 days after last application.
- Do not apply more than 4.4 lbs./A (4 lbs. a.i.) per season. This includes all uses of Acephate 90% SP on cotton.
- For aerial application in California and Arizona, application is limited to 1.0 lbs. of active ingredient per acre. For all other areas of the U.S., application is limited to 0.75 lbs. of active ingredient per acre by air.

COTTON PEST CONTROL RESISTANCE MANAGEMENT

Consult your local agricultural extension agent for current best practices when controlling cotton pests, and in particular when dealing with silverleaf whitefly control.

GENERAL INSTRUCTIONS:

- Use the higher rates listed for severe infestations.
- Apply when insects first appear or when damage is first noted.

FOLIAR APPLICATIONS:

By Ground: Apply using 10 to 25 gallons per acre of spray.

By Air: Apply using 3 to 10 gallons per acre of spray (minimum 5 gallons per acre in CA).

TANK MIXING:

- This product may be tank mixed with registered cotton herbicides under the following conditions:
 - The tank mix partners do not prohibit tank mixes;
 - The most restrictive of label limitations and precautions are observed; and,
 - No label dosage rates are exceeded.
- To determine physical compatibility of potential tank-mix partners with Acephate 90% SP:
 1. In a pesticide-safe container, pour the recommended proportions of each chemical with the same proportion of water as will be present in the chemical supply tank. NOTE: When mixing wettable powder or dry flowable formulations, add and disperse these first, then add liquid pesticides.
 2. Mix thoroughly and allow to stand for five minutes.
 3. If the combination remains mixed, or can be readily remixed, the mixture is considered physically compatible.

PESTS CONTROLLED	ACEPHATE 90% SP AND TANK MIX PARTNER	ACEPHATE 90% SP + TANK MIX PARTNER (PER ACRE)	SPECIFIC INSTRUCTIONS
<p>Aphids Bollworm Cabbage Looper Cotton Leaf Perforator Cutworms Fall Armyworms Fleahoppers Pink Bollworm (AZ & CA) Plantbugs Stinkbugs Sweetpotato/Silverleaf Whitefly Thrips (including Western Flower Thrips) Tobacco Budworm Whitefly</p>	<p>Acephate 90% SP + one of the following:</p>	<p>0.5 to 1.0 lb. + one of the following:</p>	<p>To maintain control: For applications of 0.5 lbs. or less active ingredient per acre, repeat applications at 3-day spray intervals as necessary.* For applications greater than 0.5 lbs. active ingredient per acre, repeat applications at 7-day spray intervals as necessary.* For Stinkbugs and Cutworms: Use 0.8 lb. / acre of Acephate 90% SP Special Instructions for Cutworms: Apply by ground application; aerial applications are less effective, but may be also used. For best results when making ground applications:</p> <ul style="list-style-type: none"> • Apply in the evening • Direct spray to the lower portion and base of plant.
	<p>Ammo® 2.5 EC*</p>	<p>Refer to the Ammo® 2.5 EC approved label for use instructions.</p>	
	<p>Asana® XL*</p>	<p>Refer to the Asana® XL approved label for use instructions.</p>	
	<p>Baythroid® 2 EC</p>	<p>Refer to the Baythroid® 2 EC approved label for use instructions.</p>	
	<p>Capture® 2 EC</p>	<p>Refer to the Capture® 2 EC approved label for use instructions.</p>	
	<p>Karate® 1E (except CA)</p>	<p>Refer to the Karate® 1E approved label for use instructions.</p>	
	<p>Scout X-TRA® (except CA)</p>	<p>Refer to the Scout X-TRA® approved label for use instructions.</p>	

*Do not apply more than 4.4 lbs./A (4 lbs. a.i.) per season. This includes all uses of Acephate 90% SP on cotton.

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CRANBERRIES

USE PRECAUTIONS:

- Limit to one application per growing season.
- Do not apply more than 1.1 lbs. / acre (1 lb. a.i.) per season.
- Do not apply from start of bloom until all berries set.
- Do not harvest cranberries for at least 90 days after last application.
- Do not apply when wind speed may cause spray drift beyond the desired treatment area.

FOLIAR APPLICATIONS:

By Ground or Sprinkler: Use sufficient water to give thorough coverage.

By Air: Minimum of 2 gallons per acre of spray

PESTS CONTROLLED	ACEPHATE 90% SP APPLICATION RATE (PER ACRE)
Cranberry Blossom Worm Cranberry Cutworm Gypsy Moth False Armyworm Fireworms Spanworms Sparganothis	1.1 lbs. (17.6 oz.)

USE PRECAUTIONS FOR SPRINKLER IRRIGATION APPLICATION TO CRANBERRIES:

Acephate 90% SP may only be applied through sprinkler irrigation systems including center pivot, lateral move, end tow, side (wheel) roll, travelers, big gun, solid set, or hand move. Do not apply this product through any other type of irrigation system.

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

Do not connect an irrigation system (including greenhouse systems) used for pesticide application to a public water system unless the label-prescribed safety devices for public water systems are in place.

A person knowledgeable of the chemigation system and responsible for its operation, or under the supervision of the responsible person, shall shut the system down and make necessary adjustments should the need arise.

The system must contain a functional check valve, vacuum relief valve, and low-pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from backflow.

The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump. The pesticide injection pipeline must also contain a functional, normally closed solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.

The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops. The irrigation line or water pump must include a functional pressure switch that will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.

Systems must use a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.

Do not apply when wind speed favors drift beyond the area intended for treatment.

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Solid Set System: Apply specified dosage for the entire length of the irrigation period or for a 30 to 60 minute period at the end of a regular irrigation set or as a 30 to 60 minute injection as a separate application not associated with a regular irrigation. Allow time for all lines to flush the pesticide through all nozzles before turning off irrigation water. To ensure the lines are flushed and free of remaining pesticide, a dye indicator may be injected into the lines to mark the end of the application period. See **NOTE**.

Center Pivot Systems: Inject the specified dosage per acre continuously for one complete revolution of the system. See **NOTE**.

NOTE: Constant agitation must be maintained in the chemical supply tank during the entire period of insecticide application. Inject the product with a positive displacement pump into the main line ahead of a right turn to ensure adequate mixing.

Application of more than label-recommended quantities of irrigation water per acre may result in decreased product performance by removing the chemical from the zone of effectiveness.

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HEAD LETTUCE – Crisphead Type Only

USE PRECAUTIONS:

- Do not feed trimmings to livestock or allow animals to graze on treated areas.
- AZ & CA, Desert Areas: Do not apply after first head begins to form in crops that germinate from mid-September through November.
- Do not apply more than 2.2 lbs./A (2 lbs. a.i.) per season.
- Do not harvest lettuce for at least 21 days after last application.

FOLIAR APPLICATIONS:

By Ground: Apply using 10 to 60 gallons per acre of spray.

By Air: Apply using a minimum of 5 gallons per acre of spray

PESTS CONTROLLED	ACEPHATE 90% SP APPLICATION RATE (PER ACRE)	SPECIFIC INSTRUCTIONS
Aster Leafhopper Green Peach Aphid	0.5 to 1.1 lbs. (8 to 17.6 oz.)	To maintain control: For applications of 0.5 lbs. or less active ingredient per acre, repeat applications at 3-day spray intervals as necessary.*
Armyworms (excluding Beet Armyworm) Cabbage Looper	1.1 lbs. (17.6 oz.)	For applications greater than 0.5 lbs. active ingredient per acre, repeat applications at 7-day spray intervals as necessary.*
*Do not apply more than 2.2 lbs./A (2 lbs. a.i.) per season.		

**MINT
(PEPPERMINT AND SPEARMINT)**

USE PRECAUTIONS:

- Do not graze treated areas.
- Do not apply more than 2.2 lbs./A (2 lbs. a.i.) per season.
- Do not harvest mint for at least 14 days after last application.

APPLICATION METHOD	PESTS CONTROLLED	ACEPHATE 90% SP APPLICATION RATE (PER ACRE)	SPECIFIC INSTRUCTIONS
<p>FOLIAR By Ground: Apply using 20 to 100 gallons per acre</p> <p>By Air: Apply using 5 to 10 gallons per acre</p>	<p>Alfalfa Looper Aphids Cutworms</p>	<p>1.1 lbs. (17.6 oz.)</p>	<p>Apply when eggs or insects first appear. To maintain control: One repeat application can be made. Allow 7 days between applications.</p>
<p>FOLIAR By Ground: 40 to 100 gallons per acre</p>	<p>Strawberry Root Weevil (Adult) Black Vine Weevil (Adult)</p>	<p>1.1 lbs. (17.6 oz.)</p>	<p>For control, good coverage and canopy penetration is essential. In areas of tall or dense canopies, increase spray pressure and / or volume to ensure adequate canopy penetration.</p> <p>For best results: Apply after adult emergence is complete but prior to egg laying. Apply at dusk or during the night on a warm still evening. Two applications 7 days apart may be necessary to reduce heavy infestations.</p>

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PEANUTS

USE PRECAUTIONS:

- Do not feed treated forage or hay to livestock.
- Do not allow animals to graze on treated areas.
- Do not apply more than 4.4 lbs. per acre (4 lbs. a.i.) per crop cycle.
- Do not harvest (dig) peanuts for 14 days after last application.

FOLIAR APPLICATIONS:

By Ground: Apply using 10 to 50 gallons per acre.

By Air: Apply using 5 to 10 gallons per acre.

TANK MIXING:

- This product may be tank mixed with registered at-cracking and early postemergence peanut herbicide under the following conditions:
 - The tank mix partners do not prohibit tank mixes;
 - The most restrictive of label limitations and precautions are observed; and,
 - No label dosage rates are exceeded.
- To determine physical compatibility of potential tank-mix partners with Acephate 90% SP:
 1. In a pesticide-safe container, pour the recommended proportions of each chemical with the same proportion of water as will be present in the chemical supply tank. NOTE: When mixing wettable powder or dry flowable formulations, add and disperse these first, then add liquid pesticides.
 2. Mix thoroughly and allow to stand for five minutes.
 3. If the combination remains mixed, or can be readily remixed, the mixture is considered physically compatible.
- Combinations should be kept agitated and applied immediately. Do not allow combinations to set in the supply tank for prolonged periods of time.

PESTS CONTROLLED	ACEPHATE 90% SP APPLICATION RATE (PER ACRE)	SPECIFIC INSTRUCTIONS
Grasshoppers	0.25 to 0.5 lb. (4 to 8 oz.)	Apply when eggs or insects first appear.
Thrips	0.4 to 0.8 lb. (6.4 to 12.8 oz.)	To maintain control:
Corn Earworm Fall Armyworm Leafhoppers Loopers Velvetbean Caterpillar	0.8 to 1.1 lbs. (12.8 to 17.6 oz.)	For applications of 0.5 lbs. or less active ingredient per acre, repeat applications at 3-day spray intervals as necessary.* For applications greater than 0.5 lbs. active ingredient per acre, repeat applications at 7-day spray intervals as necessary.*
*Do not apply more than 4.4 lbs. per acre (4 lbs. a.i.) per crop cycle.		

PEPPERS, BELL

USE PRECAUTIONS:

- Do not apply more than 2.2 pounds per acre (2 lbs. of active ingredient.) per season.
- Do not harvest peppers for at least 7 days after last application.

USE PRECAUTIONS:

- Apply when eggs or insects first appear.

FOLIAR APPLICATIONS:

By Ground: Apply using 25 to 150 gallons per acre of spray.

By Air: Apply using a minimum of 3 gallons per acre of spray (except in CA where a minimum of 5 gallons per acre is required)

PESTS CONTROLLED	ACEPHATE 90% SP APPLICATION RATE (PER ACRE)	SPECIFIC INSTRUCTIONS
Grasshoppers	0.25 to 0.5 lb. (4 to 8 oz.)	To maintain control: For applications of 0.5 lbs. or less active ingredient per acre, repeat applications at 3-day spray intervals as necessary.* For applications greater than 0.5 lbs. active ingredient per acre, repeat applications at 7-day spray intervals as necessary.*
Cabbage Looper Green Peach Aphid Tobacco Hornworm	0.5 to 1.1 lbs. (8 to 17.6 lbs.)	
European Corn Borer	0.8 to 1.1 lbs. (12.8 to 17.6 oz.)	
*Do not apply more than 2.2 pounds per acre (2 lbs. of active ingredient.) per season.		

PEPPERS, NON-BELL

FOR USE IN MIDWESTERN STATES, EASTERN STATES AND PUERTO RICO ONLY)

USE PRECAUTIONS:

- Do not apply more than 1.1 pounds per acre (1 lbs. of active ingredient.) per season.
- Do not harvest peppers for at least 7 days after last application.

FOLIAR APPLICATIONS:

By Ground: Apply using 40 to 150 gallons per acre of spray.

PESTS CONTROLLED	ACEPHATE 90% SP APPLICATION RATE (PER ACRE)	SPECIFIC INSTRUCTIONS
Aphids	0.5 lb. (8 oz.)	To maintain control, make repeat applications using 3-day spray intervals.*
*Do not apply more than 1.1 pounds per acre (1 lbs. of active ingredient.) per season.		

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TOBACCO

USE PRECAUTIONS:

- Do not apply more than 0.8 lb. Acephate 90% SP per acre as a transplant-water application as phytotoxicity may occur.
- Do not apply more than 4.4 lbs of Acephate 90% SP per acre (4 lbs. active ingredient) per season. This includes the use of Acephate 90% SP in transplant water, plant bed, soil, float bed, (greenhouse), and foliar applications.
- Do not harvest tobacco for at least 3 days after last application.

FOLIAR APPLICATIONS:

By Ground: Apply using 10 to 50 gallons per acre of spray.

By Air: Apply using a minimum of 3 gallons per acre of spray (except in CA where a minimum of 5 gallons per acre is required)

APPLICATION METHOD	PESTS CONTROLLED	ACEPHATE 90% SP APPLICATION RATE (PER ACRE)	SPECIFIC INSTRUCTIONS
FLOATBED Foliage: Use 1 tablespoon in 3 gallons of water per every 1,000 sq. ft. of bed.	Cutworm Flea Beetle Green Peach Aphid Tobacco Aphid	0.8 lb. (12.8 oz.)	Apply evenly to ensure thorough coverage. Allow 7 days between applications.* NOTE: Floatbed water should be disposed of in the transplanted field as transplant water or foliar spray.
PLANT BED Foliage: Use 1 tablespoon in 1 gallon of water per every 1,000 sq. ft. of bed.	Cutworm Flea Beetle Green Peach Aphid Tobacco Aphid	0.8 lb. (12.8 oz.)	Apply evenly to ensure thorough coverage. Allow 7 days between applications.*
TRANSPLANT Apply in a minimum of 100 gallons. of transplant water per acre.	Cutworms Flea Beetle Green Peach Aphid Potato Tuberworm Tobacco Aphid Tobacco Thrips	0.8 lb. (12.8 oz.)	Provides control for approximately 3 to 4 weeks after transplanting. For late season control, use foliar sprays. Make transplant water applications using mechanical transplant equipment only. Using such equipment, the insecticide/water mixture is mechanically applied directly into the soil along with the transplanted plants.

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APPLICATION METHOD	PESTS CONTROLLED	ACEPHATE 90% SP APPLICATION RATE (PER ACRE)	SPECIFIC INSTRUCTIONS
<p>FOLIAR</p> <p>By Ground: Apply using 10 to 50 gallons per acre</p> <p>By Air: Apply using a Minimum of 3 gallons per acre</p>	Grasshoppers	0.25 to 0.5 lb. (4 to 8 oz.)	To maintain control: Repeat applications at 3-day spray intervals as necessary.*
	Flea Beetle Green Peach Aphid Hornworm Tobacco Thrips	0.5 lb. (8 oz.)	To maintain control: Repeat applications at 3-day spray intervals as necessary.*
	Stinkbugs Tobacco Aphid Vegetable Weevils	0.5 to 0.8 lb. (8 to 12.8 oz.)	To maintain control: For applications of 0.5 lbs. or less active ingredient per acre, repeat applications at 3-day spray intervals as necessary.* For applications greater than 0.5 lbs. active ingredient per acre, repeat applications at 7-day spray intervals as necessary.*
	Budworm Cabbage Looper Cutworm Japanese Beetle	0.8 lb. (12.8 oz.)	To maintain control: Repeat applications at 7-day spray intervals as necessary.*
<p>SOIL MOUND TREATMENT</p> <p>DRENCH METHOD</p>	Ants (including Imported Fire Ants and Harvester Ants)	0.5 lb. per 50 gallons of water	<p>Apply 1 gallon of mix to each mound area by sprinkling the mound until it is wet.</p> <p>Treat all areas within four feet of the mound.</p> <p><i>Treat a maximum of 13 mounds per acre.</i></p> <p><i>Do not treat more than once per season.</i></p> <p>For best results: Apply in the early morning or late afternoon, when ants are most active.</p> <p>Do not apply under prolonged hot and dry conditions.</p>
<p>*Do not apply more than 4.4 lbs of Acephate 90% SP per acre (4 lbs. active ingredient) per season. This includes the use of Acephate 90% SP in transplant water, plant bed, soil, float bed, (greenhouse), and foliar applications.</p>			

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NON-BEARING CITRUS

USE PRECAUTIONS

- Do not graze treated areas.
- Do not harvest citrus for one year after treatment.

GENERAL INSTRUCTIONS

- Spray individual juvenile or non-bearing trees for coverage with total application not to exceed specified rate in lbs. per acre.
- The length of residual activity will depend upon spray coverage and the amount of precipitation following the application.

APPLICATION METHOD	PESTS CONTROLLED	ACEPHATE 90% SP APPLICATION RATE (PER ACRE)	SPECIFIC INSTRUCTIONS
FOLIAR By Ground: Apply using 100 to 200 gallons/acre of spray	Aphids Grasshoppers Katydid Mealybugs Orangedogs Plantbugs Thrips Whiteflies (except Sweetpotato/Silverleaf)	0.5 lb. (8 oz.)	To maintain control: Reapply using 3-day spray intervals as necessary.
	Citrus Blackfly	0.5 to 0.8 lb. (8 to 12.8 oz.)	Apply when eggs or insects first appear. To maintain control: For applications of 0.5 lbs. or less active ingredient per acre, repeat applications at 3-day spray intervals as necessary. For applications greater than 0.5 lbs. active ingredient per acre, repeat applications at 7-day spray intervals as necessary.
	Ants (including Imported Fire Ants and Harvester Ants)	0.8 lb. (12.8 oz.)	Repeat application at 7 day spray intervals as necessary to maintain control.
SOIL MOUND TREATMENT DRENCH METHOD	Ants (including Imported Fire Ants and Harvester Ants)	0.5 lb. per 50 gallons of water	Apply 1 gallon of mix to each mound area by sprinkling the mound until it is wet. Treat all areas within four feet of the mound. Repeat applications may be made as necessary to maintain control.

NON-CROP AREAS

FIELD BORDERS, FENCEROWS, ROADSIDES, DITCHBANKS, BORROW PITS

USE PRECAUTIONS:

- Do not graze or feed vegetation cut from treated areas.

GENERAL INSTRUCTIONS

- Make applications only early to mid-season.
- Use the higher application rates when applying to dense foliage.

FOLIAR APPLICATIONS:

By Ground: Apply using 10 to 20 gallons per acre.

By Air: Apply using 1 to 5 gallons per acre (except in CA where a minimum of 5 gallons per acre must be used)

PESTS CONTROLLED	ACEPHATE 90% SP APPLICATION RATE (PER ACRE)	SPECIFIC INSTRUCTIONS
Grasshoppers	0.25 lb. (4 oz.)	Use of an approved drift retardant to assist in controlling drift and reducing evaporation is acceptable.

WASTELAND (NON-CROP AREAS)

USE PRECAUTIONS:

- Do not make more than one application per season.
- Do not graze or feed vegetation cut from treated areas.
- Do not allow animals to graze on treated areas.

GENERAL INSTRUCTIONS

- Use the higher application rates when applying to dense foliage.

FOLIAR APPLICATIONS:

By Ground: Apply using 10 to 20 gallons per acre.

By Air: Apply using ½ gallon per acre (except in CA where a minimum of 5 gallons per acre must be used)

PESTS CONTROLLED	ACEPHATE 90% SP APPLICATION RATE (PER ACRE)	SPECIFIC INSTRUCTIONS
Black Grass Bugs Grasshoppers Mormon Crickets	1.6 to 2.2 oz.	If necessary/desired, add an approved drift retardant to assist in controlling drift and reducing evaporation.

SPECIALTY USES -- NON CROP AREAS

USE PRECAUTIONS:

- Do not treat mound more than once per season.
- Grass in treated area may be injured.

PEST CONTROLLED	ACEPHATE 90% SP APPLICATION RATE (PER ACRE)	SPECIFIC INSTRUCTIONS
Ants (including Imported Fire Ants and Harvester Ants)	Drench Method: Mix 0.5 lb. in 50 gallons of water.	Apply 1 gallon. of mix to each mound area by sprinkling the mound until it is wet. Treat all areas within four feet of the mound. <i>Treat a maximum of 13 mounds per acre.</i> <i>Do not treat more than once per season.</i> For best results: Apply in the early morning or late afternoon, when ants are most active. Do not apply under prolonged hot and dry conditions.

SPECIALTY USES – CONTAINER GROWN NURSERY STOCK

USE PRECAUTIONS:

- When used on greenhouse and outdoor ornamentals, do not apply more than 1.0 pound of active ingredient / acre per 100 gallons of water.
- Do not exceed 0.75 pounds of active ingredient / acre for cut flowers and 1.0 pound of active ingredient / acre for all other ornamentals.
- Allow a minimum of 7 days between applications.

GENERAL INSTRUCTIONS:

- Allow a minimum of seven days between applications.
- Apply the specified amount of Acephate 90% SP per 100 gals. of solution so as to thoroughly drench the root system.

PLANTS	PESTS CONTROLLED	ACEPHATE 90% SP APPLICATION RATE (PER ACRE)	APPLICATION TIMING
Container Grown Nursery Stock (Arborvitae, Azalea, Camellia, Rhododendron, Roses, Viburnum, Yew)	Black Vine Weevil Strawberry Root Weevil	0.8 lb. (12.8 oz.)	Application should be made by mid-September for greenhouse stock and by mid-October for outdoor stock. Consult your local county extension agent for information on the identification and control of root weevils on ornamentals.
	Ants (including Imported Fire Ants and Harvester Ants)		Apply as needed for control.

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TREES AND SHRUBS

USE PRECAUTIONS:

- When used on nursery crops, spray several sample plants and observe for signs of phytotoxicity for a minimum of two weeks before applying to all plants.
- Avoid applying to Huckleberry, Balm of Gilead, Cottonwood, Lombardy Poplar and Viburnum suspensum as phytotoxicity may be observed.
- Do not exceed 0.75 pounds of active ingredient / acre for cut flowers and 1.0 pound of active ingredient / acre for all other ornamentals.

GENERAL INSTRUCTIONS:

- Unless otherwise noted, apply the specified amount of Acephate 90% SP per 100 gallons of water using a hydraulic sprayer.

PLANTS	PESTS CONTROLLED	ACEPHATE 90% SP APPLICATION RATE (PER 100 GALLONS)	APPLICATION TIMING	SPECIFIC INSTRUCTIONS
Trees and Shrubs (Except Flowering Crabapple, see below)	Aphids Bagworms Birch Leafminer Tent Caterpillars* Lace Bugs Leafrollers	0.28 lb. (4.5 oz.)	Upon appearance of the insects.	To maintain control: For applications of 0.5 lbs. or less active ingredient per acre, repeat applications at 3-day spray intervals as necessary.
	Douglas Fir Tussock Moth Larvae Gypsy Moth Larvae* Webworms	0.5 lb. (8 oz.)	Upon appearance of the insects.	For applications greater than 0.5 lbs. active ingredient per acre, repeat applications at 7-day spray intervals as necessary.
	Scales (Crawlers)	0.5 lb. (8 oz.)	As crawlers begin to appear.	Use of a compatible sticker will improve control of Gypsy Moth larvae.
	Ponderosa Pine Needle Miner	0.5 lb. (0.8 oz.)	Consult your local County Extension Agent for optimal application timing.	
	Grasshoppers	0.5 lb. (0.8 oz.)	Upon appearance of grasshoppers.	Mist blower application: Adjust rates to 1 1/3 lbs. per 100 gals. water for Gypsy Moth control and 1.0 lb. per 100 gals. water for Tent Caterpillar control.
	California Oakworm Cankerworms (Spring and Fall)	0.28 to 0.5 lb. (4.5 to 8 oz.)	Upon appearance of the insects. Use the higher amounts listed when larger larvae are present.	
	Nantucket Pine Tip Moth Larvae	0.8 lb. (12.8 oz.)	Consult your local County Extension Agent for optimal application timing.	
	Root Weevil Adults	0.8 lb. (12.8 oz.)	Apply as soon as damage is observed.	
	Box Elder Bugs Sawflies Budworms Leafhoppers	0.8 lb. (12.8 oz.)	Upon appearance of the insects.	

PLANTS	PESTS CONTROLLED	ACEPHATE 90% SP APPLICATION RATE (PER 100 GALLONS)	APPLICATION TIMING	SPECIFIC INSTRUCTIONS
	Japanese Beetle	1.1 lbs. (17.6 oz.)	Apply as soon as insects are observed.	
	Elm Leaf Beetle (larvae)	1.1 lbs. (17.6 oz.)	As the larvae begin to appear. Acephate 90% SP will not prevent Elm Leaf Beetle eggs from hatching.	
Douglas Fir (Christmas Trees)	Douglas Fir Needle Midge	0.5 lb. (8 oz.) (0.5 lb. per acre)	Application should be made within two weeks bud burst. For current best practices information, consult your County Extension Service.	Apply the specified amount of Acephate 90% SP in not less than 2 gals. of spray per acre by air or in 100 gals. of spray per acre by ground.
Flowering Crabapples	Aphids Tent Caterpillars Leafrollers	0.28 lb. (4.5 oz.)	Upon appearance of the insects.	Do not apply more often than 3 times in a growing season (using a minimum of 4-week intervals). Phytotoxicity has been documented on the following crabapple varieties: Hopa, Ichonoski, Malusfloribunda, Pink Perfection, Red Wine and Snow Cloud.

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GOLF COURSE AND SOD FARM TURFGRASS

USE PRECAUTIONS:

- Do not allow livestock to graze in treated areas.
- Do not feed grass clippings to livestock.
- Use is limited to sod farms and golf courses, except when applying by mound or spot treatment for fire ant and harvester ant control.
- Aerial application to turf is prohibited.
- Wait at least 3 days following the last Acephate 90% SP application prior to harvesting sod.
- *The maximum application rate is 3 lbs. a.i./acre for sod farms and 4 lbs. a.i./acre for golf courses.*

GENERAL INSTRUCTIONS:

- Apply as soon as insects or damage caused by the insects first appears.
- To maintain control, repeat applications using a minimum of one-week intervals as necessary.

Turfgrass (Golf Courses and Sod Farms only)

PESTS CONTROLLED	ACEPHATE 90% SP APPLICATION RATE (PER 1000 SQ. FT.)	APPLICATION INSTRUCTIONS	SPECIFIC INSTRUCTIONS
Fall Armyworm Yellow Striped Armyworm Southern Armyworm	0.4 to 1 oz. (1.1 to 2.75 lbs. / acre)	Use a minimum of 5 gals. of water per 1,000 sq. ft. as necessary to obtain good coverage.	To maintain control, repeat applications at 7-day intervals may be necessary.
Cutworm	1 to 1.6 oz. (2.75 to 4.4 lbs. / acre)		
Chinch Bugs	1 to 1.6 oz. (2.75 to 4.4 lbs. / acre)	Use 1 to 15 gals. of water per 1,000 sq. ft. as necessary to obtain good coverage.	Use the higher amount when quick knockdown is needed or with heavy infestations. To maintain control, repeat applications at 7-day intervals may be necessary.
Fleas	1 to 1.6 oz. (2.75 to 4.4 lbs. / acre)		
Sod Webworm (Crambus spp.)	0.4 to 0.83 oz. (1.1 to 2.25 lbs. / acre)		
Leafhopper	0.83 oz. (2.25 lbs. / acre)		

PESTS CONTROLLED	ACEPHATE 90% SP APPLICATION RATE (PER 1000 SQ. FT.)	APPLICATION INSTRUCTIONS	SPECIFIC INSTRUCTIONS
Mole Crickets (except CA) Spittlebug (except CA)	0.83 to 1.6 oz. (2.25 to 4.4 lbs. / acre)	Use 1 to 15 gals. of water per 1,000 sq. ft. as necessary to obtain good coverage.	For best results, apply after irrigating in the late afternoon or early evening. Do not irrigate after application. A lemon fragrance substance may be added to the spray mix as a flushing agent, potentially providing increased mole cricket contact with Acephate 90% SP. The following products have been shown to be effective flushing agents: Lemon Palmolive, Lemon Joy, and Mighty Myrt Products Manufacture-Base Pure Lemon Fragrance. Use 2-teaspoons per gallon of water for small mix volumes or 6 fl. oz. per 50 gallons of water for large mix volumes. More than one application may be required for knockdown of existing populations. Allow at least 7 days between applications. For heavy infestations, use the higher dosage rate.
Greenbug (<i>Schizaphis graminum</i>) Grasshoppers	0.4 oz. (1.1 lbs. / acre)	Use 4 gals. of water per 1,000 sq. ft.	Do not mow turfgrass for at least 24 hours after application.
Black Turfgrass Ataenius (except CA)	1.25 to 1.6 oz. (3.4 to 4.4 lbs. / acre)	Use a minimum of 5 gallons water per 1,000 sq. ft.	Irrigate lightly after application (not more than ½ inch). Use the higher rate for severe infestations.

Dichondra

(Plant Site for Golf Course and Sod Farm Turfgrass only)

PESTS CONTROLLED	ACEPHATE 90% SP APPLICATION RATE (PER 1000 SQ. FT.)	APPLICATION INSTRUCTIONS	SPECIFIC INSTRUCTIONS
Cutworm Flea Beetle Southern Armyworm Yellow Striped Armyworm	0.83 to 1.6 oz. (2.25 to 4.4 lbs. / acre)	Use a minimum of 15 gals. of water per 1,000 sq. ft. to obtain good coverage.	

MOUND TREATMENT OF FIRE ANTS AND HARVESTER ANTS IN TURFGRASS

USE PRECAUTIONS:

- Grass in treated areas may be injured.
- Applications made under prolonged hot and dry conditions may be ineffective due to the location of the ants deep within the nest.

ACEPHATE 90% SP APPLICATION RATE	APPLICATION INSTRUCTIONS	SPECIFIC INSTRUCTIONS
Mound Treatment Drench Method: Mix 1/2 lb. in 50 gals. of water.	For best results, apply when the ants are most active (in the early morning or late afternoon).	Apply 1 gallon of mix to each mound area by sprinkling the mound until it is wet. Treat all areas within four feet of the mound. Do not treat mound more than once per season.

OUTDOOR AND PERIMETER SPRAY

USE PRECAUTIONS:

- Not for use on residential turfgrass.

GENERAL INSTRUCTIONS:

- Apply as soon as insects appear.

PEST CONTROLLED	ACEPHATE 90% SP APPLICATION RATE (PER GALLON)	SPECIAL INSTRUCTIONS	APPLICATION INSTRUCTIONS
Wasps	1.3 oz. (0.08 lb.)	Treat when wasps are less active (early or late in the day).	Apply as a spot treatment to the nest, nest entrance, and surrounding areas where the wasps may land.
Ants (including Imported Fire Ants and Harvester Ants) Crickets Cockroaches Earwigs Pillbugs	1.3 oz. (0.08 lb.)		Apply to the ground within 6 to 10 feet of the structure and to a height of 2 to 3 feet on the foundation. Apply using spray or with a paint brush to surfaces of buildings, window frames, shutters, entryways, screens, eaves, patios, garages, carports, around garage areas and other areas where the insects may occur.

USE PRECAUTIONS:

- When used on greenhouse and outdoor ornamentals, application is limited to 1.0 lb. of active ingredient per 100 gallons of water.
- Do not exceed 0.75 pounds of active ingredient / acre for cut flowers and 1.0 pound of active ingredient / acre for all other ornamentals.
- Multiple applications may cause slight tip burn or marginal leaf necrosis on some varieties. A test should be made on a sample plant to determine if unacceptable damage occurs prior to application to all plants.

GENERAL INSTRUCTIONS:

- Apply as insects begin to appear.
- Apply as a full coverage spray using a hydraulic sprayer.

PLANTS	PESTS CONTROLLED	ACEPHATE 90% SP APPLICATION RATE (PER 100 GAL.)	APPLICATION TIMING
Chrysanthemums Daisies Dahlias Easter Lily Gladioli Gypsophila Pachysandra Pansy Peony Roses Sedum Statice Strawflower Yarrow Zinnia	Aphids Thrips Lygus	0.5 lb. (8 oz.)	To maintain control repeat applications may be necessary. Allow a minimum of 3 days between applications.
Roses Boston Ivy	Japanese Beetle	1.1 lbs. (17.6 oz.)	To maintain control, repeat applications may be necessary. Allow a minimum of 7 days between applications.

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GREENHOUSE FLORAL AND FOLIAGE PLANT CROPS

USE PRECAUTIONS:

- When used on greenhouse and outdoor ornamentals, application is limited to 1.0 lb. of active ingredient per 100 gallons of water.
- Do not exceed 0.75 pounds of active ingredient / acre for cut flowers and 1.0 pound of active ingredient / acre for all other ornamentals.
- Multiple applications may cause slight tip burn or marginal leaf necrosis on some varieties. A test should be made on a sample plant to determine if unacceptable damage occurs prior to application to all plants.
- Phytotoxicity has occurred on the following foliage plants:

- Blechnum gibbum
- Cissus Antarctica
- Ficus triangularis
- Fittonia verschaffelti
- Maranta leuconeura kerchoveana
- Pachystachya lutea
- Plectranthus australis
- Polypodium aureus
- Polystichum
- Pteris ensiformis
- Tolmiea menziesii

Before treating large plantings, spray a test sample of plants and observe for 2-weeks for varietal phytotoxicity.

- Acephate 90% SP applications on certain varieties of Poinsettias after bract formation may result in phytotoxicity.
- Phytotoxicity has occurred on the following Chrysanthemum varieties:

- Albatross
- Bonnie Jean
- Dixie
- Garland
- Gem
- Iceberg
- Pride
- Showoff
- Statesman
- Tally Ho
- Westward Ho
- Wild Honey.

Before treating large Chrysanthemum plantings, spray a test sample of plants and observe for 2-weeks for varietal phytotoxicity.

GENERAL INSTRUCTIONS:

- Apply as insects begin to appear.
- Unless otherwise instructed, apply as a full coverage spray using a hydraulic sprayer.

PLANTS	PESTS CONTROLLED	ACEPHATE 90% SP APPLICATION RATE (PER 100 GAL.)	APPLICATION INSTRUCTIONS	SPECIFIC INSTRUCTIONS
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PLANTS	PESTS CONTROLLED	ACEPHATE 90% SP APPLICATION RATE (PER 100 GAL.)	APPLICATION INSTRUCTIONS	SPECIFIC INSTRUCTIONS
Roses	Leafrollers	0.5 to 0.8 lb. (8 to 12.8 oz.)	<p>Apply with a hydraulic sprayer as a full coverage spray.</p> <p>To maintain control: For applications of 0.5 lbs. or less active ingredient per acre, repeat applications at a 3-day minimum spray interval. For applications greater than 0.5 lbs. active ingredient per acre, repeat applications at a 7-day minimum spray interval.</p>	Use the higher amount listed when large larvae are present.
Foliage Plants Anthuriums Cacti Orchids Poinsettia	Aphids	0.28 lb. (4.5 oz.)	<p>Apply with a hydraulic sprayer as a full coverage spray. Allow a minimum of 3 days between applications.</p>	A wetting agent may be necessary when applying to difficult to wet foliage.
	Mealybugs Thrips Whiteflies	0.5 lb. (8 oz.)	<p>To maintain control of mealybugs and whiteflies, repeat applications at a minimum of 3-day spray intervals.</p>	
	Scales (Crawlers)	0.5 lb. (8 oz.)	<p>To maintain control when there is continuous crawler production, repeat applications at a minimum of 3-day spray intervals.</p>	
	Sweet Potato Whiteflies (except CA)	0.28 lb. (4.5 oz.) + Tame® 2.4 EC Spray 10 2/3 fl. oz. (0.2 lb. a.i.)	<p>Allow a minimum of 3 days between applications. If a population is well established, make one application of the tank mix and follow in 5 to 7 days with Tame® alone at 16 fl. oz./100 gals. (See Tame® label for instructions).</p>	

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PLANTS	PESTS CONTROLLED	ACEPHATE 90% SP APPLICATION RATE (PER 100 GAL.)	APPLICATION INSTRUCTIONS	SPECIFIC INSTRUCTIONS
Roses Carnations Chrysanthemums	Aphids Thrips	0.5 lb. (8 oz.)	Apply with a hydraulic sprayer as a full coverage spray. Apply as insects appear or at the tight flower bud stage. To maintain control, repeat applications may be necessary using the following restrictions: A minimum of 3 days between applications to roses. A minimum of 28 days between applications to Carnations and Chrysanthemums.	Do not apply to Chrysanthemums and Roses with open flowers.

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.

STORAGE AND DISPOSAL

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

PESTICIDE STORAGE: Keep pesticide in original container. Store in a cool, dry place away from excessive heat. Do not put concentrate or dilute into food or drink containers.

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: Do not reuse the outer bag. Dispose of outer bag in a sanitary landfill or by incineration, or if allowed by State and local authorities, by burning. If burned, stay out of smoke.

LIMITED WARRANTY AND DISCLAIMER

Our recommendations for use of this product are based upon tests believed to be reliable. The use of this product being beyond control of the manufacturer, no guarantee, expressed or implied, is made as to the effects of such use or the results to be obtained if not used in accordance with printed directions and established safe practice. Buyer's exclusive remedy and manufacturer's or seller's exclusive liability for any and all claims, losses, damages or injuries resulting from the use or handling of this product, whether or not based in contract, negligence, strict liability in tort or otherwise shall be limited, at the manufacturer's option to replacement of, or the repayment of the purchase price for, the quantity of product with respect to which damages are claimed.

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