

Updated 10-2-89 per reregistration phase 2 (inerts)

**RESTRICTED USE PESTICIDE**  
**Due to very high acute toxicity to**  
**Humans and Birds**

For retail sale to and use only by certified applicator or persons under their direct supervision and only for those uses covered by the certified applicator's certification. Direct supervision for this product is defined as the certified applicator being physically present during application, mix., loading, repair and cleaning of application equipment. Commercial certified applicators must also ensure that all persons involved in these activities are informed of the precautionary statements.

**PARATHION 8 E**

**ACTIVE INGREDIENTS:**

Parathion (0,0-diethyl 0-p-nitrophenyl-phosphorothioate .....	76.35%
Related Compounds .....	3.65%
<b>INERT INGREDIENTS .....</b>	<b>20.00%</b>
<b>TOTAL .....</b>	<b>100.00%</b>

Product contains 8 pounds of Parathion per gallon.

**KEEP OUT OF REACH OF CHILDREN**  
**POISON**

**DANGER PELIGRO**

**PRECAUCION AL USUARIO:** Si usted no lee ingles, no use este producto hasta que la etiqueta haya sido explicada ampliamente.

**NOT FOR HOME USE**

**FIRST AID TREATMENT**

**STATEMENT OF PRACTICAL TREATMENT**

Call a doctor (physician), clinic or hospital immediately. Explain that the victim has been exposed to parathion and describe his condition. If doctor cannot come, take victim to clinic or hospital. Move victim immediately from the area where parathion is present.

**IF INHALED:** Remove victim to fresh air. If not breathing, immediately give artificial respiration, preferably mouth-to-

mouth, and maintain until doctor sees victim. If breathing is difficult, give oxygen.

**IF IN EYES OR ON SKIN:** Immediately flush with plenty of water for at least 15 minutes while removing contaminated personal clothing and shoes to avoid continued possible exposure to victim or persons in attendance.

**IF SWALLOWED:** Induce vomiting immediately by giving two glasses of water and by touching back of throat with finger. **DO NOT INDUCE VOMITING OR GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON.** Have victim lie down and keep quiet.

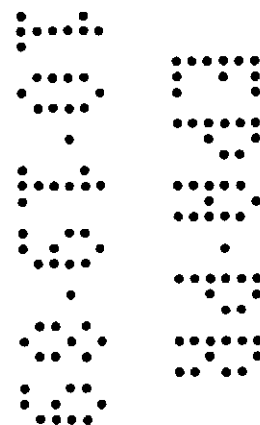
**SEE ADDITIONAL PRECAUTIONARY STATEMENTS ELSEWHERE ON LABEL**

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EPA Reg. No. 51036-162

EPA Est. No. 51036-GA-1

**Manufactured By  
MICRO FLO COMPANY  
P.O. BOX 5948  
LAKELAND, FL 33807**



**PRECAUTIONARY STATEMENTS**  
**Hazards To Humans and Domestic Animals**  
**DANGER**

**POISONOUS IF SWALLOWED, INHALED OR ABSORBED THROUGH SKIN. RAPIDLY ABSORBED THROUGH SKIN. REPEATED EXPOSURE MAY, WITHOUT SYMPTOMS, BE INCREASINGLY HAZARDOUS. Do not breathe vapors or dust. Do not get in eyes, on skin or on clothing.**

**POISON SIGNS (Symptoms)**

Parathion is a very dangerous poison. It rapidly enters the body on contact with all skin surfaces and eyes. Clothing wet with this material must be removed immediately. Exposed persons must receive prompt medical treatment or they may die.

Some of the signs and symptoms of poisoning are: Headaches, nausea, vomiting, cramps, weakness, blurred vision, pin-point pupils, tightness in chest, labored breathing, nervousness, sweating, watering of eyes, drooling or frothing of mouth and nose, muscle spasms and coma.

**NOTE TO PHYSICIAN**

Antidote - administer atropine sulfate in large doses, TWO to FOUR mg. intravenously or intramuscularly as soon as cyanosis is overcome. Repeat at 5 to 10 minute intervals until signs of atropinization appear. 2-PAM chloride is a pharmacologic antidote and may be administered as an adjunct to, but not a substitute for, atropine which is a symptomatic and often life saving antidote. DO NOT GIVE MORPHINE OR TRANQUILIZERS BECAUSE THESE ANTIDOTES MAY PRODUCE ADVERSE EFFECT ACCENTUATING THE PHARMACOLOGIC EFFECT OF THIS PRODUCT. This product is a strong cholinesterase inhibitor affecting the central and peripheral nervous systems and producing cardiac and respiratory depression. At first sign of pulmonary edema, the patient should be given supplemental oxygen and treated symptomatically. Continued absorption of the poison may occur and fatal relapses have been reported after initial improvements; VERY CLOSE SUPERVISION OF THE PATIENT IS INDICATED FOR AT LEAST 48 HOURS.

**ENVIRONMENTAL HAZARDS**

This pesticide is highly toxic to fish and wildlife. Birds in treated areas may be killed. Do not apply directly to water or wetlands (swamps, marshes, bogs, and potholes). Run-off and drift from target areas may be hazardous to aquatic organisms in adjacent aquatic sites. Do not contaminate water by cleaning of equipment or disposal of wastes.

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

#### PHYSICAL OR CHEMICAL HAZARDS

Do not use near heat or open flame.

In Case of:

**FIRE** - Use water spray, foam, dry chemical or CO2.

**SPILL or LEAK**, keep all unprotected persons away. Cover with absorbent such as ash, lime, clay or saw dust. Sweep up and bury. Wash area thoroughly with strong lye solution.

#### WORK SAFETY RULES

**REPEATED EXPOSURES TO CHOLINESTERASE INHIBITORS SUCH AS ARE CONTAINED IN THIS PRODUCT MAY, WITHOUT WARNING, CAUSE PROLONGED SUSCEPTIBILITY TO VERY SMALL DOSES OF ANY CHOLINESTERASE INHIBITOR.**

Persons working with this product should have frequent blood tests of their cholinesterase levels. If the cholinesterase level falls below a critical point, no further exposure should be allowed until it has been determined by means of blood tests that the cholinesterase level has returned to normal. Before using this product, consult the Agricultural Extension Service or Experimental Station for specific recommendations regarding such blood tests.

If handled indoors, provide mechanical exhaust ventilation.

Keep all unprotected persons and animals away from treated area or where there is danger of drift.

Do not rub eyes or mouth with hands. If you feel sick in any way, STOP work and get help right away. See First Aid (Practical Treatment) section.

#### PROTECTIVE CLOTHING STATEMENTS

**THIS PRODUCT MAY BE FATAL IF SWALLOWED, INHALED, OR IF ALLOWED TO CONTACT SKIN. FAILURE TO PROPERLY FOLLOW ALL INSTRUCTIONS FOR PROTECTIVE CLOTHING AND EQUIPMENT WILL INCREASE YOUR RISK.**

**USE ONLY WHEN WEARING THE FOLLOWING PROTECTIVE CLOTHING AND EQUIPMENT DURING MIXING/LOADING, APPLICATION, REPAIR AND CLEANING OF APPLICATION EQUIPMENT, DISPOSAL OF PESTICIDE, AND EARLY REENTRY INTO TREATED FIELDS:**

Waterproof pants and coat; heavy-duty chemical-resistant gloves; rubber boots or rubber overshoes; hood or wide-brimmed hat; safety goggles or face shield; NIOSH approved respirator. In addition, mixer/loaders must wear a chemical resistant apron

when using the concentrated product. During aerial application in enclosed cockpits, a helmet with a visor may be substituted for the hood or wide-brimmed hat and safety goggles or face shield requirements.

**IF MIXING/LOADING IS PERFORMED USING A CLOSED SYSTEM, THE FOLLOWING PROTECTIVE CLOTHING AND EQUIPMENT MAY BE WORN AS AN ALTERNATIVE:**

Heavy-duty chemical resistant gloves; chemical resistant apron, long-sleeved shirt (or gauntlets and short sleeve shirt) and long-legged pants; shoes and socks.

Safety goggles or a faceshield must be worn when the system is under pressure. All other protective clothing and equipment required for use with open systems must be available nearby.

**IF APPLICATION IS PERFORMED USING AN ENCLOSED CAB OR COCKPIT, THE FOLLOWING PROTECTIVE CLOTHING AND EQUIPMENT MAY BE WORN AS AN ALTERNATIVE:**

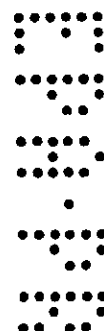
Clean long-sleeved shirt and long-legged pants. All other protective clothing and equipment required for use during application must be available in the cab and must be worn when exiting the cab into treated areas. If used for this purpose, contaminated clothing may not be brought back into the cab unless in an enclosure such as a plastic bag.

**REMEMBER! - THE CLOTHING IS NOT INTENDED TO PROTECT YOU DURING REPAIR AND CLEANING OF APPLICATION EQUIPMENT OR DURING EARLY REENTRY. REFER TO THE INSTRUCTION ABOVE.**

**HUMAN FLAGGERS ARE STRICTLY PROHIBITED DURING AERIAL APPLICATION.**

**IMPORTANT!** If pesticide comes in contact with skin, wash off with soap and water, and contact a physician immediately. Always wash hands, face, and arms with soap and water before smoking, eating, drinking, or toileting.

**AFTER WORK:** Wash gloves with soap and water before removing. Take off all work clothes and shoes. Store protective clothing separately from personal clothing. Launder protective clothing after each use. Shower using soap and water. Wear only clean clothes when leaving job. Do not wear contaminated clothing. Personal clothing worn during mixing/loading, application, repair and cleaning of application equipment, disposal of pesticide, and early reentry into treated fields must be stored and laundered separately from household articles. Clothing and equipment heavily contaminated or drenched with parathion must be destroyed according to state and local authorities.



**HEAVILY CONTAMINATED OR DRENCHED CLOTHING CANNOT BE ADEQUATELY DECONTAMINATED.**

**Respirators should be cleaned and cartridges replaced according to instructions included with respirators. Replace gloves frequently.**

**DIRECTIONS FOR USE**

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

**CHEMIGATION PROHIBITION**

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

**RE-ENTRY STATEMENT**

**Re-entry into treated fields before expiration of the re-entry interval specified on this label is prohibited, unless the protective clothing and equipment specified on this label are used.**

<b>CROP</b>	<b>RE-ENTRY INTERVAL</b>	<b>STATE(S)</b>
<b>Citrus</b>	<b>21 days</b> (less than 4 lb ai/A)	<b>CA, AZ, NV, NM, OK, TX, UT</b>
	<b>35 days</b> (between 4 and 8 lb ai/A)	<b>CA, AZ, NV, NM, OK, TX, UT</b>
	<b>45 days</b> (more than 8 lb ai/A)	<b>CA, AZ, NV, NM, OK, TX, UT</b>
	<b>5 days</b>	<b>All other states</b>
<b>Apples</b>	<b>6 days</b>	<b>All states</b>
<b>Peaches</b>	<b>6 days</b>	<b>All states</b>
<b>Grapes</b>	<b>Same as Citrus above</b>	
<b>Corn</b>	<b>6 days</b>	<b>All states</b>
<b>Olives</b>	<b>6 days</b>	<b>All states</b>
<b>Tree fruits</b>	<b>6 days</b>	<b>All states</b>
<b>Tree nuts</b>	<b>6 days</b>	<b>All states</b>
<b>Cotton</b>	<b>3 days</b>	<b>All states</b>
<b>All other crops</b>	<b>3 days</b>	<b>All states</b>

**Do not apply this product in such a manner as to directly or through drift expose workers or other persons. The area being treated must be vacated by unprotected persons. Because certain states may require more restrictive re-entry intervals for various crops treated with this product, consult your State Department of Agriculture for further information.**

**Written or oral warnings must be given to workers who are expected to be in a treated area or in an area about to be treated with this product.**

**ORAL WARNINGS shall inform workers of areas or fields that may not be entered, without protective equipment and clothing specified on this label, during treatment or for (see times**

specified above). Follow First Aid Treatment instructions shown on this label in case of accidental exposure.

When oral warnings are given, warnings shall be given in a language customarily understood by workers. Oral warnings must be given if there is reason to believe that written warnings cannot be understood by workers.

**WRITTEN WARNINGS** must include the following information.

**DANGER** - Area treated with parathion on (date of application). Do not enter without appropriate protective clothing for (see times specified above). Follow First Aid Treatment instructions shown on this product label in case of accidental exposure.

**ATTENTION**

To avoid excessive residues of parathion on food or forage crops always observe the statements found under "Directions for Use," limiting the time before harvest when parathion may be applied. Because this material is poisonous by skin contact, inhalation or swallowing it should not be used in such a manner or under weather conditions as will permit drift of the spray onto areas not intended to be treated. Do not apply or allow drift to areas occupied by unprotected humans or beneficial animals.

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**STORAGE AND DISPOSAL**

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

**STORAGE AND HANDLING:**

1. Handle container carefully so as to avoid damage and prevent spills.
2. Do not use or store in or around the home.
3. Store container in a well ventilated place.
4. Empty container retains vapor and product residue. Observe all labeled safeguards until container is cleaned, reconditioned or destroyed.
5. Keep out of reach of children and domestic animals.

**PESTICIDE DISPOSAL**

Wastes of this pesticide are acutely hazardous. Improper disposal of excess pesticide, spray mixtures, or rinsate is a violation of Federal law. If these wastes cannot be disposed of according to label use instructions, contact your state pesticide or Environmental Control Agency, or the Hazardous Waste Representative at the nearest EPA Regional Office for guidance.

**CONTAINER DISPOSAL**

Triple rinse (or equivalent). Then offer for recycling, or reconditioning, or puncture and dispose of in a sanitary landfill, or by other approved state and local procedures.

## RECOMMENDATION APPLICATIONS

This product is designed for application after dilution with water and for use by trained operators using airplane or power ground equipment. The hazards and precautions for handling the product in this container are equally applicable to it after dilution with water for spray application. Add the concentrate to the spray tank while filling with water, and mix thoroughly either by means of a tank agitator or pump by-pass. For best results, thoroughly cover all surfaces to be treated with spray. Rates of application given below should not be exceeded. Never apply later than indicated to assure residue levels at harvest are below tolerances established by the Food and Drug Administration.

Consult the State Agricultural Extension Service or Experiment Station for specific recommendations regarding application, dosage and timing of sprays. For application by ground equipment, add the desired amount of concentrate to sufficient water to apply at least 3 gallons of water per acre. For application by aircraft, add the amount of concentrate desired per acre to 1 to 3 gallons of water consistent with crop growth and good coverage. Greater quantities of water may be required to give sufficient coverage of orchard trees.

Observe days interval between last application and harvest indicated in ( ) following crop.

### FRUIT

**APRICOTS (14)** - To control aphids, mites, bud moths, peach tree borers, Japanese beetles and leaf rollers, use  $\frac{3}{8}$  pint per 100 gallons of water. Control of codling moths, lesser peach tree borers, grasshoppers, and tortrix requires  $\frac{1}{4}$  to  $\frac{7}{16}$  pint per 100 gallons of water at shuck split 10 to 12 days later and if needed 3 to 6 weeks before harvest. For peach tree borers and lesser peach tree borers, apply 2 to 3 sprays to trunk from ground to scaffold limbs timed with moth emergence. Use  $\frac{3}{16}$  pint in 100 gallons of water for control of Pandemis moths. Avoid injury to bees by delaying spray till after full bloom. Do not use more than  $1\frac{3}{4}$  quarts of this product per acre.

**APPLES (14)** - For control of, European sawflies, San Jose, Forbes or scurfy scales, mealybugs, European red and two-spotted mites,



bagworms, Japanese beetles, shot-hole borers, orange tortrix and apple lace bugs, dilute 1/4 pint in 100 gallons of water and spray to cover foliage thoroughly. For codling moths, use 1/4 pint in 100 gallons of water, 3 to 4 applications, 10 to 14 days apart, starting 10 to 14 days after petal fall; for second and third broods, spray 1 to 3 times at 10 to 14 day intervals. For fruit tree leaf rollers, use 1/4 pint per 100 gallons of water at petal fall and for red-banded leaf rollers, apply 1/4 pint per 100 gallons of water at petal fall and at first, fifth and sixth cover spray. For plum curculio, apply at 1/4 pint per 100 gallons of water at petal fall and 1 or 2 additional times each 7 to 10 days apart. For grasshoppers, use 3/8 pint in 100 gallons. For the following insects, 3/16 pint per 100 gallons of water is adequate: bud moths: clover, Pacific, Willamette or Schoenii mites; flea weevils, rosy, wooly and green apple aphids; leafhoppers; leaf miners; and red bugs. Certain insects, such as two-spotted Willamette mites, may require repeat treatments at 7 to 10 day intervals during the summer months. Parathion sprays may injure the foliage and fruit of McIntosh apples and related varieties, such as Cortland, Kendall, Macoun, Melba, etc., and Golden Delicious or Jonathan. Consult the State Agricultural Extension Service or Experiment Station for advice on possibility of injury and safening the spray by using activated carbon. Do not use more than 3/4 gallons of this product per acre.

**AVOCADO (21)** - To control banded cucumber beetles, grasshoppers, citrus root weevils, red-banded thrips, avocado lace bugs, pyriform scales, webbing worms, blossom anomala, little fire ants, greenhouse thrips and tortricids, use 3/16 pint in 100 gallons of water. To control whiteflies, use 3/16 pint in 1 gallon of emulsive oil concentrate in 100 gallons of water. To control Florida red scales, Florida wax scales, dictyospermum scales, and avocado leafhoppers, use 1/4 pint in 100 gallons of water. To control pumpkin bugs and mealy bugs, use 1/4 to 3/8 pint in 100 gallons of water. To control latania scales, use 3/8 pint in 100 gallons of water. Do not use more than 1 1/4 quarts of this product per acre.

**BLUEBERRIES (14)** - For thrips, maggots, curculio and tip borers, use 1/4 pint in 100 gallons of water. For lecanium scales, use 1/2 pint per 100 gallons of water. Use before fruit sets or after harvest. Use from 100 to 300 gallons of diluted spray per acre.

but do not apply more than 1/2 pint of this product to one acre of blueberries at any application.

**CANEBERRIES (15)** (Raspberries, Loganberries, Boysenberries and Blackberries) - For control of two-spotted spider mites, use 3/8 pint per acre. For control of obscure and woods weevils, use at 1/2 quart per acre as a post harvest application to the soil or ground cover over roots of plants. For crown borers, use at 1/2 quart per acre out apply to crown area and lower canes.

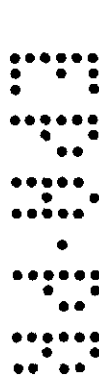
**CHERRIES (14)** - For aphids and mites, mix 3/16 pint in 100 gallons of water. For sawflies, use 3/16 to 1/4 pint in 100 gallons of water. Use 1/4 pint per 100 gallons for thrips, cherry fruitworms, pear slugs, Pandemis moths, bud moths, cankerworms, rose chafers, San Jose scale crawlers, fruit flies and tortrix. For fruit tree leaf rollers, use 1/4 pint per 100 gallons of water at petal fall or shuck split; for plum curculio, use 1/4 pint per 100 gallons of water, 2 or 3 applications, 8 to 10 days apart, beginning at petal fall or shuck split; for Oriental fruit moths, use 1/4 pint in 100 gallons of water at shuck split and 10 to 12 days later. For Japanese beetles, use 3/8 to 1/2 pint per 100 gallons. Do not use more than 1 quart of this product per acre.

**DO NOT USE TREATED CITRUS PEEL FOR FOOD PURPOSES.**

**CITRUS (California)** - Grapefruits, Kumquats, Lemons, Limes, Oranges, Tangeloes, and Tangerines.

**Scale** For purple, black, brown soft, California red, Citricola, Cottony-cushion and yellow scales, use 1/6 to 1/3 pint in 100 gallons of water applied at petal fall to prevent fruit scattering.

**Other insects** - Use 1/2 to 1 quart in 100 gallons of water for control of the following additional insects infesting citrus: climbing cutworms, fruit tree leaf rollers, katydids, omnivorous leaf rollers, Fuller rose beetles, pink scavenger caterpillars, orange tortrix, orangeworms and Western tussock moths. Do not use more than 1 1/4 gallons of this product per acre up to 30 days of harvest. Do not use more than 1/2 gallon of this product per acre from 30 days up to 15 days of harvest. Consult agricultural experimental authorities for specific recommendations in your area.



**CITRUS (Areas other than California) - Grapefruits, Kumquats, Lemons, Limes, Oranges, Tangeloes and Tangerines.**

Treat for mealybugs; chaff, cottony-cushion, Glover's purple, Florida red, yellow, snow scales; aphids; orange dog and plant bugs, using 1/4 to 5/16 pint in 100 gallons of water. For control of mites and whiteflies, use 1/4 to 3/8 pint with 1 gallon of emulsive oil concentrate in 100 gallons of water. For controlling grasshoppers, use 1/2 pint per acre. Thorough coverage is essential for best results. Do not use more than 1 1/4 gallons of this product per acre up to 30 days of harvest. Do not use more than 1/2 gallon of this product per acre from 30 days up to 15 days of harvest.

**CRANBERRIES (15) - For control of fireworms, fruitworms, tipworms and lecanium scales, use 3/4 pints per acre.**

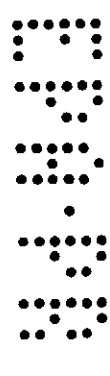
**CURRANTS (30) - For control of currant aphids, use 1/4 to 4/5 pint per acre. For control of two-spotted spider mites, use 1/2 to 4/5 pint per acre. For currant borers, use 4/5 pint per acre.**

**FIGS (30) - For two-spotted and Pacific mites, use 1/4 to 1/2 pint per 100 gallons of water. For fig scales, use 1/2 pint per 100 gallons of water. Do not use more than 1 1/4 quarts of this product per acre.**

**GOOSEBERRIES (15) - For control of currant aphids, use 1/4 to 4/5 pints per acre. For control of two-spotted spider mites, use 1/2 to 4/5 pints per acre. For currant borers, use 4/5 pints per acre.**

**GRAPES (14) - For mites, aphids, mealybugs and berry moths, use 3/16 pint per 100 gallons of water. For leaf rollers, Japanese beetles and leaf folders, use 1/2 pint per 100 gallons of water. For false chinch bugs, use 1/2 pint in 100 gallons of water per acre by ground equipment or in 10 gallons of water by aircraft. For consperse stink bugs, use 3/4 quarts per acre. For grape leafhoppers, use 3/4 to 1 1/4 quarts per acre. For black vine weevils, use 1 1/4 quarts per acre. Do not use more than 3/4 quarts of this product per acre after the fruit is the size of buckshot. Use 300 to 500 gallons of water per acre depending on age of vineyard and stage of plant growth.**

**DO NOT USE PARATHION ON OLIVES AFTER AUGUST 1**



OLIVES - For black, oleander and parlaloria scales, use 1/2 pint in 1 1/2 gallons light-medium grade summer oil emulsion, or 1 gallon light-medium grade summer emulsive oil in 100 gallons of water, post-bloom.

PEACHES AND NECTARINES (Areas other than California) (14) - For control of green peach aphids, use 3/16 pint in 100 gallons of water. For peach tree borers, leaf rollers, mites, catfacing insects, tarnished plant bugs, shot-hole borers, peach bark beetles, scales and bud moths, mix 1/4 pint per 100 gallons of water, and repeat if re-infestation occurs. For Oriental fruit moths, see under apricots. For plum curculio, use 1/4 pint per 100 gallons of water. In the South, treat at petal fall, 10 days later and repeat at 7 to 10 days up to 3 weeks before harvest. In the North, treat 3 to 4 times, 7 to 10 days apart, beginning at shuck-off. For lesser peach tree and American plum borers and grasshoppers, use 3/8 to 1/2 pint per 100 gallons. For peach tree borers and lesser peach tree borers, apply 2 to 3 sprays to trunk from ground to scaffold limbs timed with moth emergence. Do not apply more than 2 quarts of this material per acre at any application, and do not use more than 2 1/2 quarts per acre per year.

PEACHES AND NECTARINES (California) (21) - Do not apply within 21 days of harvest. Do not apply more than once after bloom. Do not apply more than 1 1/4 quarts of this product per acre at any application, and do not use more than 2 1/2 quarts per acre between January 1 and harvest.

PEARS (14) - For control of leaf miners, aphids, leaf rollers, grasshoppers, scales, mealybugs and certain mites, use the dosage described for those insects on apples. For pear psylla, use 3/16 pint per 100 gallons of water. For pear blister mites, pear slugs, green fruitworms and plant bugs, use 1/4 pint per 100 gallons of water. For codling moths, use 1/4 pint in 100 gallons of water in 2 to 4 cover sprays, beginning with the first cover. For plum curculio, apply 1/4 pint in 100 gallons of water at petal fall and 10 days later. Some injury may occur on Bosc pears, under some conditions. Do not use more than 1 4/5 quarts of this product per acre

PLUMS AND PRUNES (14) - Apply 1/4 to 5/16 pint per 100 gallons of water for control of these insects; pear thrips, flower thrips,

mites, aphids, leafhoppers, leaf rollers, peach tree borers, snor-hole borers, bud moths, tortrix, mealy plum lice and scales. Apply scale treatment when crawlers emerge. For plum curculio make 3 to 4 applications, beginning at petal fall, at rate of 1/4 pint in 100 gallons of water. For codling moths, use 1/4 to 1/2 pint per 100 gallons of water at petal fall and a summer application timed with moth emergence. For peach twig borers, use 1/2 pint per 100 gallons of water. Do not use more than 2 quarts of this product per acre.

**STRAWBERRIES (14)** - To control flower thrips, crickets, flea beetles, red spider mites, aphids, Lygus bugs, leafhoppers, whiteflies and leaf rollers, use 1/4 to 1/2 pint in 100 to 150 gallons of water per acre. To control weevils, crown borers and strawberry leaf beetles, use 3/8 pint in 100 to 150 gallons of water per acre. As a foliar treatment, do not use more than 4/5 pints of this product per acre. To control garden symphylans, use 2 1/2 quarts in 40 gallons of water per acre as a preplant soil treatment.

## NUTS

**DO NOT APPLY AFTER HULLS OR HUSKS BEGIN TO OPEN. DO NOT FEED TREATED HULLS OR HUSKS TO LIVESTOCK.**

**ALMONDS** - To control fruit tree leaf rollers, lent caterpillars and peach twig borers, use 1/2 pint per 100 gallons of water. As a dormant spray for parlatoria and San Jose scales, use 1/2 pint with 3 gallons dormant oil emulsion or 2 1/2 gallons dormant emulsive oil in 100 gallons of water. Do not use more than 1 1/4 quarts of this product per acre.

**FILBERTS** - For apple mealybugs, filbert aphids, bud moths and spider mites, use 1/4 pint per 100 gallons of water. Do not use more than 1 1/4 quarts of this product per acre.

**PECANS (15)** - For control of aphids, use 1/4 to 3/8 pint in 100 gallons of water. To control mites, pecan nut casebearers and pecan leaf casebearers, use 3/8 pint in 100 gallons of water. To control black and yellow pecan aphids, fall webworms and twig girdlers, use 1/2 quart per 100 gallons of water. Do not use more than 5 1/3 pints of this product.

1415

**WALNUTS** - To control aphids, lecanium scales and walnut husk flies, use 1/4 pint in 100 gallons of water. Do not use more than 1 1/4 gallons of this product per acre.

**VEGETABLES**

**ARTICHOKES (7)** - To control artichoke plume moths, use 1/2 quart per acre

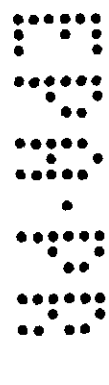
**BEANS (15)** - For control of bean leaf beetles and two-spotted mites, use 1/4 pint per acre. Use 1/4 to 3/8 pint per acre to control thrips and lima pod borers. To control stink bugs, plant bugs, Mexican bean beetles, leaf rollers, leaf miners, potato leafhoppers, aphids, red spider mites and armyworms up to third instar, use 1/2 pint per acre.

**BEETS (15)** - To control flea beetles and leaf miners, use 3/10 pint per acre. For aphids, blister beetles and webworms, use 1/2 pint per acre. If greens are used for food, do not use within 21 days of harvest.

**BLACKEYED PEAS (15)** - To control aphids, leaf miners, bean rollers and stink bugs, use 1/2 pint per acre.

**CABBAGE AND COLE CROPS (Broccoli, Brussels Sprouts, Cauliflower)** - To control aphids, thrips, diamondback moth larvae, imported cabbageworms, cabbage loopers and armyworms up to third instar, use 1/4 to 1/2 pint per acre. To control harlequin bugs, leafminers, vegetable weevils, climbing cutworms and flea beetles, use 1/2 pint per acre. Rates above 1/4 pint should not be applied to cabbage closer than 10 days until harvest. Do not apply within 7 days of harvest on Broccoli, Brussels Sprouts and Cauliflower...

**CARROTS (15)** - To control leaf miners, use 1/4 to 3/8 pint per acre. To control leafhoppers, use 3/8 pint per acre. Use 1/2 pint per acre to control aphids, vegetable weevils, stink bugs and petrobia mites. To control rust fly maggots (first brood), mix 1/2 pint with 100 gallons per acre and dribble into furrow at planting time. To control rust fly maggots (second brood), use 1/2 pint per acre as a foliage spray. Do not feed tops.



**CELERY (30)** - To control aphids, spider mites celery leaf tier and tarnished plant brgs, use 1/2 pint per acre. To control leaf

miners, whiteflies and leafhoppers, use  $3/4$  pints per acre, but do not use within 30 days of harvest.

**CUCUMBERS (15)** - For squash vine borers, aphids, cucumber beetles, leaf miners, pickleworms, mites and thrips, use  $1/4$  to  $1/2$  pint per acre. For squash bugs, stink bugs, flea beetles and leafhoppers, use  $1/2$  pint per acre. Do not apply prior to vining.

**EGGPLANT (15)** - To control thrips, leafminers, blister beetles, and flea beetles, use  $1/4$  to  $3/8$  pint per acre. To control Colorado potato beetles, use  $3/8$  pint per acre. To control spider mites and lace bugs, use  $3/8$  to  $1/2$  pint per acre. To control aphids, whiteflies and stink bugs, use  $1/2$  pint per acre.

**ENDIVE (21)** - To control green peach aphids and alfalfa loopers, use  $1/2$  pint per acre.

**GARLIC (15)** - To control onion thrips, use  $1/4$  pint per acre. To control leaf miners and petrobias mites, use  $1/2$  pint per acre.

**KOHLRABI (7)** - To control aphids, use  $1/2$  pint per acre.

**LETTUCE (Head) (7)** - To control aphids, cabbage loopers, imported cabbageworms, banded cucumber beetles, Lygus bugs, webworms and armyworms up to third instar, use  $1/4$  to  $1/2$  pint per acre. To control six-spotted leafhoppers, use  $3/8$  pint per acre. For harlequin bugs, vegetable weevils and leaf miners, use  $1/2$  pint per acre. To control garden symphylans, broadcast  $5/8$  gallons per acre just prior to planting and thoroughly incorporate into upper 6 to 9 inches of soil.

**LETTUCE (Leaf and Bibb) (21)** - For aphids, armyworms up to third instar, cabbage loopers, imported cabbageworms, banded cucumber beetles and Lygus bugs, use  $1/4$  to  $1/2$  pint per acre. To control six-spotted leafhoppers, use  $3/8$  pint per acre. For harlequin bugs and vegetable weevils, use  $1/2$  pint per acre. At the  $1/4$  pint rate, harvest can be made within 14 days of application.

**MANGOES:** For thrips use 3 ozs. per 100 gallons of water. Consult State Agricultural Authorities for proper timing (1,000 gallons maximum of spray per acre).

**MELONS (7)** - Do not apply before vining. For squash vine borers, leaf miners and false chinch bugs, use 1/4 pint acre. For aphids, melonworms, leafhoppers, cucumber beetles, pickleworms and spider mites, use 1/4 to 1/2 pint per acre. To control thrips, squash bugs and stink bugs, use 1/2 pint per acre.

**OKRA (21)** - To control leaf miners and spider mites, use 1/4 to 1/2 pint per acre. For aphids, blister beetles and stink bugs, use 1/2 pint per acre.

**ONIONS (15)** - To control onion thrips, use 1/4 pint per acre. To control onion maggot flies, use 3/8 pint per acre. To control aphids, stink bugs, leaf miners, and petrobia mites, use 1/2 pint per acre. To control brown wheat mites, use 5/8 pints per acre.

**PEAS (10)** - To control aphids, pea weevils, spider mites, stink bugs, thrips, armyworms up to third instar, climbing cutworms, leaf miners, alfalfa loopers and celery loopers, use 1/2 pint per acre. If vines are to be used for forage, do not harvest for 15 days after treatment.

**PEPPERS (15)** - To control thrips use 1/5 to 1/4 pint per acre. To control aphids, leaf miners and western potato flea beetles, use 1/2 pint per acre.

**POTATOES (15)** - To control aphids, blister beetles, Colorado potato beetles, leaf miners, mites, plant bugs, potato psyllid, thrips, vegetable weevils and grasshoppers, use 1/4 to 1/2 pint per acre. For armyworms up to third instar, cabbage loopers, and climbing cutworms, use 3/8 pint per acre. For leafhoppers, stink bugs and flea beetles, use 1/2 pint per acre.

**PUMPKINS (10)** - To control aphids, cucumber beetles, climbing cutworms, squash bugs and squash vine borers, use 1/4 to 1/2 pint per acre.

**RADISHES (15)** - To control aphids, false chinch bugs and harlequin bugs, use 1/4 to 1/2 pint per acre. To control cabbage loopers and diamondback moths, use 1/2 pint per acre.

**RUTABAGAS (7)** - To control aphids, cabbage loopers and climbing cutworms, use 1/2 pint per acre.



**SPINACH, COLLARDS, KALE AND MUSTARD GREENS (15)** - To control aphids, leaf miners, armyworms up to third instar, cabbage loopers, vegetable weevils, harlequin bugs, seed corn maggots, crown mites and leafhoppers, use 1/2 pint per acre.

**SQUASH (15)** - Do not apply before vining. To control beetles, aphids, spider mites, stink bugs, melonworms, pickleworms, and climbing cutworms, serpentine leaf miners and squash vine borers, use 1/4 to 1/2 pint per acre. To control squash bugs, flea beetles and leafhoppers, use 1/2 pint per acre.

**SWEET CORN (12)** - To control corn earworms, fall armyworms, aphids and wildflies, use 1/4 pint per acre. To control sap beetles and spider mites, use 1/2 pint per acre. To control chinch bugs, use 3/4 pints per acre.

**SWEET POTATOES (15)** - To control aphids, spider mites, leafhoppers and stink bugs, use 1/2 pint per acre. To control serpentine leaf miners and morning-glory leaf miners, use 1/2 to 3/4 pints per acre.

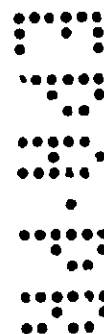
**SWISS CHARD (21)** - To control aphids and serpentine leaf miners, use 1/2 pint per acre.

**TOMATOES (10)** - To control blister beetles, use 1/4 pint per acre. To control hornworms, leafhoppers, and psyllids, use 3/8 pint per acre. For aphids, leaf miners, whiteflies, armyworms up to third instar, grasshoppers, spider mites, tomato russet mites, leaf-footed bugs, stink bugs, loopers and plant bugs, use 1/2 pint per acre.

**TURNIPS (10)** - To control aphids, cabbage webworms, climbing cutworms, vegetable weevils, false chinch bugs and harlequin bugs, use 1/4 to 1/2 pint per acre. To control cabbage loopers, use 1/2 pint per acre. If greens are used for food, do not apply within 21 days of harvest.

#### **FIELD AND FORAGE CROPS**

**ALFALFA, CLOVER, VETCH AND GRASS (15)** - For sweet clover aphids, three-cornered alfalfa hoppers, alfalfa caterpillars, and spittlebugs, use 1/4 pint per acre. For aphids, alfalfa weevil larvae, and adult weevils, armyworms, clover leaf weevils,



climbing cutworms, webworms, grasshoppers, crickets, spotted alfalfa aphids, leafhoppers, Lygus bugs, thrips and tortricid moths, use 1/4 to 1/2 pint per acre. For control of range caterpillar, use 1/2 pint per acre. For alfalfa seed chalcids control on alfalfa grown for seed, use 1/4 to 1/2 pint per acre. California and Nevada regulations limit the use of this material to not more than 3/4 pint per acre. For clover head weevils, spider mites, blister beetles, Asiatic garden beetles, sweet clover weevils, and green june beetles, use 1/2 pint per acre. For beet armyworms and during bloom period to avoid injury to honey bees.

**CORN (12)** - For control of European corn borers, use 1/2 pint per acre. Apply the first spray when 75% of the corn plants show "shot-hole" feeding and follow with two additional sprays at 5 to 7 day intervals. Use sufficient water per acre to provide complete coverage and be certain whorls of plant are well treated. For corn leaf aphids, and grasshoppers, use 1/4 to 1/2 pint per acre. For fall armyworms, corn earworms, corn rootworm adults, armyworms up to third instar, climbing cutworms, and Japanese beetles, use 3/8 pint per acre. To control stink bugs and spider mites, use 1/2 pint per acre. To control chinch bugs, use 3/4 pints per acre.

**COTTON (7)** - To control aphids, mites, cotton leafworms, cotton fleahoppers, garden webworms and thrips, use 1/4 pint per acre. For some spider mites, use 1/8 to 1/4 pint per acre. For cabbage loopers, use 3/8 to 1/2 pint per acre. For boll weevils and stink bugs, use 1/2 to 3/4 pint per acre. For salt-marsh caterpillars, use 1/2 to 1 pint per acre. For bollworms, cotton leaf perforators, Lygus bugs, false chinch bugs, serpentine leaf miners and southern garden leafhoppers, use 1/2 quart per acre. Use enough water for complete coverage. Make first application when insects appear and repeat at 7 day intervals if required. If desired, this formulation may be combined with other insecticides in a complete cotton spray program.

**PEANUTS (15)** - To control fall armyworms, climbing cutworm, corn earworm, grasshoppers, leafhoppers, red-necked peanutworms, saltmarsh caterpillar, three-cornered alfalfa hopper and webworm, use 1/2 pint per acre. To control lesser cornstalk borers, use 1/2 to 1 pint per acre, direct spray to soil surface and base of plants.



**SMALL GRAINS (Wheat, Oats, BARley) (15)** - To control armyworms up to third instar, aphids (greenbugs) and winter grain mites, use 1/4 pint per acre. For thrips, use 1/4 to 3/8 pint per acre. For Say's plant bugs, use 3/8 pint per acre. For black grass bugs, stink bugs, white spider mites, leafhoppers, climbing cutworms, grasshoppers and brown wheat mites, use 1/2 pint per acre. For chinch bugs, false chinch bugs and banks grass mites, use 3/4 pints per acre.

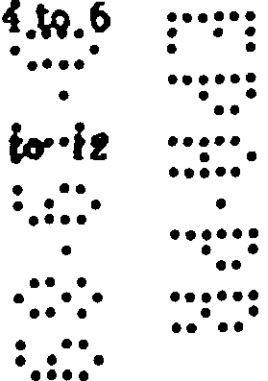
**SORGHUM (12)** - To control sorghum midge, apply at rate of 1/2 pint to 1/2 quart per acre, 2 applications 3 to 5 days apart when approximately 90% of the heads have completely emerged from the boot or not later than start of blooming. For corn leaf aphids and mites, use 1/4 pint per acre. For sorghum webworms, fall armyworms, armyworms up to third instar, and corn earworms, use 3/8 to 1/2 pint per acre. To control chinch bugs, use 3/4 pints per acre. Leaf injury may occur on some hybrid varieties of sorghum. Spray a few rows a week or so before booting to lest effects on plants.

**SOYBEANS (20)** - To control webworms, use 1/4 pint per acre. To control velvet bean caterpillars, grasshoppers, green cloverworms, two-spotted mites and stink bugs, use 1/2 pint per acre. To control corn earworms and fall armyworms, use 1/2 to 4/5 pints per acre. To control white grubs and wireworms, broadcast 1/2 gallon per acre just prior to planting and thoroughly incorporate into upper 4 to 6 inches of soil. Do not apply more than twice per growing season.

**SUGAR BEETS (15)** - For alfalfa loopers, aphids, armyworms up to third instar, leafhoppers, blister beetles, flea beetles, leaf miners, Lygus bugs, Stink bugs, Webworms, climbing cutworms and grasshoppers, use 1/2 pint per acre. For false celery leaf tiers, use 3/4 pints per acre. For beet crown borers, use 3/4 pints per acre, ground application over the row during seedling stage. To control white grubs and wireworms, broadcast 1/2 gallon per acre just prior to planting and thoroughly incorporate into upper 4 to 6 inches of soil.

**SUGARCANE (15)** - To control wireworms, use 1 quart in 10 to 12 inch band in the open furrow at time of planting.

**MISCELLANEOUS**



**CABBAGE** - For application to cabbage grown for seed only to control cabbage seed pod weevils, use 1/2 quart per acre.

**CHRISTMAS TREES** - To control aphids and mites, use 1/4 pint per 100 gallons of water.

**HOPS** - For control of hop aphids, use 1/2 to 4/5 pints per acre. For spider mites, use 4/5 pints per acre. Do not apply within 15 days of harvest.

**SAFFLOWERS (30)** - To control aphids, Lygus bugs and grasshoppers, use 1/2 pint per acre. Do not use parathion after flowering.

**SUNFLOWERS (30)** - To control sunflower moth, use 1/2 to 1 pint per acre with 2 to 3 repeat applications at 5 day intervals. Hybrid sunflowers completely bloom in 12 to 15 days thus the initial application should be made at onset of flowering or before 10% of plants begin to flower and moth and young larvae are present.

### SOIL INSECTS

Keep all persons and animals out of treated areas for (see specific times in re-entry section).

**WIREWORMS** - To control on:

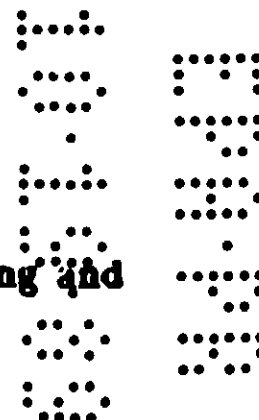
Beans, Beets, Broccoli, Brussels Sprouts, Cabbage, Cantaloupe, Carrots, Cauliflower, Celery, Corn, Endive, Egg Plant, Escarole, Kale, Lettuce, Onions, Peas, Peppers, Rutabagas, Soybeans, Sugar Beets, Sugarcane, Sweet Corn, Sweet Potatoes, Tomatoes, Turnips, Watermelon

Broadcast 1/4 to 1/2 gallon per acre on soil before planting and thoroughly work into upper 4 to 9 inches.

**WIREWORMS** - To control on:

Potatoes

Broadcast 1/2 to 3/4 gallon per acre on soil before planting and thoroughly work into upper 4 to 9 inches.



**CORN ROOTWORMS - To control on:**

**Peanuts**

Apply 1/4 to 1/3 gallon per acre as a row soil treatment at planting or pegging time, work lightly into soil.

**GARDEN SYMPHYLAN - To control on:**

**Beans, Corn, Lettuce, Potatoes, Sugar Beets, Tomatoes**

Apply 1/4 gallon per acre to soil surface before planting time and thoroughly work into upper 6 to 9 inches.

**CUTWORMS - To control on:**

**Corn, Cucumbers**

Broadcast 1/4 to 1/2 gallon per acre before planting and thoroughly work into upper 1 to 3 inches.

**WHITE GRUBS - To control on:**

**Corn, Cucumbers**

Broadcast 1/4 to 1/2 gallon per acre before planting and thoroughly work into upper 1 to 3 inches.

**WHITE GRUBS - To control on:**

**Corn, Soybeans, Sugar Beets**

Broadcast 1/4 to 1/2 gallon per acre before planting and thoroughly work into upper 4 to 6 inches.

**NOTE:** Consult the State Agricultural Extension Service or Experiment Station concerning specific usage, dosages and methods of application.

**CONDITIONS OF SALE**

All statements concerning the use of this product apply only when used as directed. THE MANUFACTURER MAKES NO WARRANTIES, EXPRESSED OR IMPLIED, CONCERNING THIS PRODUCT OR ITS USE, WHICH EXTEND BEYOND THE DESCRIPTION ON THE LABEL. Read all directions carefully.

