

Drexel®

# Malathion 5EC

Insecticide / Miticide

**ACTIVE INGREDIENT:**

Malathion .....	57.0%
<b>OTHER INGREDIENTS:</b> .....	43.0%
<b>TOTAL:</b> .....	100.0%

This product contains 5 pounds of Malathion per gallon.  
Contains Petroleum distillate.

## KEEP OUT OF REACH OF CHILDREN WARNING / AVISO

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand the label, find someone to explain it to you in detail.)

See **FIRST AID** Below

EPA Reg. No. 19713-217  
EPA Est. No. 19713-GA-1

Net Content:  
2.5 Gals. (9.46 L)

### FIRST AID

**IF IN EYES:**

- Hold eye open and rinse slowly and gently with water for 15 to 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 SWALLOWED:**

- Immediately call a poison control center or doctor for treatment advice.
- Do not induce vomiting unless told to by a poison control center or doctor.
- Do not give any liquid to the person.
- Do not give anything by mouth to an unconscious person.

**IF ON SKIN OR CLOTHING:**

- Take off contaminated clothing.
- Rinse skin immediately with plenty of water for 15 to 20 minutes.
- Call a poison control center or doctor for treatment advice.

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also call CHEMTREC at 800-424-9300 for emergency.

**NOTE TO PHYSICIAN:** This product is a cholinesterase inhibitor. Atropine is antidotal. 2-PAM may be effective as an adjunct to atropine. Malathion is an Organophosphate. Contains Petroleum distillate. May pose an aspiration pneumonia hazard.

### PRECAUTIONARY STATEMENTS

#### HAZARDS TO HUMANS AND DOMESTIC ANIMALS

**WARNING:** Causes substantial but temporary eye injury. Harmful if swallowed. Harmful if absorbed through skin. Do not get in eyes or on clothing. Avoid contact with skin. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.

#### PERSONAL PROTECTIVE EQUIPMENT (PPE)

Some materials that are chemical-resistant to this product are barrier laminate or viton. If you want more options, follow the instructions for category G on an EPA chemical-resistance category selection chart.

(Continued)

#### PERSONAL PROTECTIVE EQUIPMENT (PPE) (Cont.)

**For All Formulations and Use Patterns – Mixers, loaders, applicators, flaggers and other handlers must wear:** Long-sleeved shirt and long pants, chemical-resistant gloves (pilots must wear chemical-resistant gloves only when entering or exiting the aircraft), shoes plus socks and protective eyewear such as safety glasses, face shield or goggles.

**For All Dip Applications – Mixers, loaders, and applicators must wear:** Long-sleeved shirt, long pants, shoes and socks, chemical-resistant gloves, chemical-resistant apron and protective eyewear such as safety glasses, face shield or goggles.

**For All Airblast Applications – Applicators must wear:** Long-sleeved shirt and long pants, shoes plus socks, chemical-resistant gloves (pilots must wear chemical-resistant gloves only when entering or exiting the aircraft), chemical-resistant apron and protective eyewear (goggles, safety glasses or face shield).

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

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

#### USER SAFETY RECOMMENDATIONS

**Users should:** 1) Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet. 2) Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. 3) 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.

#### ENGINEERING CONTROLS

Pilots must use an enclosed cockpit in a manner that is consistent with the WPS for Agricultural Pesticides [40CFR170.240(d)(6)]. Pilots must wear the PPE required on this labeling for applicators.

#### ENVIRONMENTAL HAZARDS

This pesticide is toxic to aquatic organisms, including fish and invertebrates. This product may contaminate water through drift of spray in wind. This product has a high potential for runoff after application. Use care when applying in or to an area which is adjacent to any body of water, and do not apply when weather conditions favor drift from target area. Poorly draining soils and soils with shallow water tables are more prone to produce runoff that contains this product.

A level, well maintained vegetative buffer strip between areas to which this product is applied and surface water features such as ponds, streams and springs will reduce the potential for contamination of water from rainfall runoff. Runoff of this product will be reduced by avoiding applications when rainfall is forecasted to occur within 48 hours.

Manufactured By:

**Drexel Chemical Company**

P.O. BOX 13327, MEMPHIS, TN 38113-0327

**SINCE 1972**

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 disposing of equipment washwater or rinsate. This pesticide is highly toxic to bees exposed to direct treatment 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.

**(For packaging in 5 gals. or more):** Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans or other waters unless in accordance with the requirements of a National Pollutant Discharge Elimination Systems (NPDES) permit and the permitting authority has been notified in writing prior to discharge. Do not discharge effluent containing this product to sewer systems without previously notifying the Local sewage treatment plant authority. For guidance, contact your State Water Board or Regional Office of the EPA.

#### PHYSICAL OR CHEMICAL HAZARDS

Combustible: Do not use or store near heat or open flame.

#### DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. Do not apply this product through any type of irrigation system. Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

#### AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard (WPS), 40 CFR Part 170. This standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, 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 (REI). The requirements in this box only apply to uses of this product that are covered by the WPS.

Do not enter or allow worker entry into treated areas during the REI. The REI for each crop is listed in the directions for use associated with each crop.

PPE required for early entry to treated areas that is permitted under the WPS and that involves contact with anything that has been treated, such as plants, soil or water is: Coveralls, chemical-resistant gloves made of any waterproof material and 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 (WPS) for Agricultural Pesticides (40 CFR Part 170). The WPS applies when this product is used to produce agricultural plants on farms, forests, or nurseries.

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

#### RESISTANCE MANAGEMENT

##### GROUP 1B INSECTICIDE

MALATHION 5EC contains a Group 1B insecticide or acaricide. Insect/mite biotypes with acquired resistance to Group 1B may eventually dominate the insect/mite population if Group 1B insecticides or acaricides are used repeatedly in the same field or in successive years as the primary method of control for targeted species. This may result in partial or total loss of control of those species by this product or other Group 1B insecticides or acaricides.

To delay insecticide or acaricide resistance, consider:

- Avoiding the consecutive use of this product or other Group 1B insecticides/acaricides that have similar target site of action on the same insect/mite species.
- Using tank-mixtures or pre-mixes with insecticides/acaricides from a different target site action Group as long as the involved products are all registered for the same use and have different sites of action.
- Basing insecticide/acaricide use on a comprehensive IPM program.
- Monitoring treated insect/mite populations for loss of field efficacy.
- Contact your Local extension specialist, certified crop advisors, and/or manufacturer for insecticide/acaricide resistance management and/or IPM recommendations for specific site and resistant pest problems.

#### PRECAUTIONS AND RESTRICTIONS

Do not allow spray to contact auto vehicles as paint finish could be permanently damaged. If vehicles come into contact with spray, wash immediately.

This product is not for use against Mosquitoes in the State of New York.

#### SPRAY DRIFT REQUIREMENTS

Observe the following requirements when spraying in the vicinity of aquatic areas such as, but not limited to lakes, reservoirs, rivers, permanent streams, marshes or natural ponds, estuaries and commercial fish ponds.

#### Droplet Size

Use the largest droplet size consistent with acceptable efficacy. Formation of very small droplets may be minimized by appropriate nozzle selection, by orienting nozzles away from the air stream as much as possible and by avoiding excessive spray boom pressure. For groundboom and aerial applications, use only medium or coarser spray nozzles according to ASAE (S572) definition for standard nozzles, or a Volume Mean Diameter (VMD) of 300 microns or greater for spinning atomizer nozzles. In conditions of low humidity and high temperatures, applicators should use a coarser droplet size.

#### Wind Direction and Speed

Make aerial or ground applications when the wind velocity favors on target product deposition (approximately 3 to 10 mph). Do not apply when wind velocity exceeds 15 mph. Avoid applications when wind gusts approach 15 mph. For all non-aerial applications, wind speed must be measured adjacent to the application site on the upwind side, immediately prior to application.

#### Temperature Inversion

Do not make aerial or ground applications into areas of temperature inversions. Inversions are characterized by stable air and increasing temperatures with increasing distance above the ground. Mist or fog may indicate the presence of an inversion in humid areas. Where permissible by local regulations, the applicator may detect the presence of an inversion by producing smoke and observing a smoke layer near the ground surface. In conditions of low humidity and high temperatures, applicators should use a coarser droplet size.

#### Additional Requirements for Ground Applications

For groundboom applications, apply with nozzle height no more than 4 feet above the ground or crop canopy. For airblast applications, turn off outward pointing nozzles at row ends and when spraying the outer two rows. To minimize spray loss over the top in orchard applications, spray must be directed into the canopy.

#### Additional Requirements for Aerial Applications

For aerial applications, the spray boom should be mounted on the aircraft as to minimize drift caused by wingtip or rotor vortices. The minimum practical boom length should be used and must not exceed 75% of wing span or 90% rotor diameter. Aerial applicators must consider flight speed and nozzle orientation in determining droplet size. When applications are made with a cross-wind, the swath will be displaced downwind. The applicator must compensate for this displacement at the downwind edge of the application area by adjusting the path of the aircraft upwind. Spray should be released at the lowest height consistent with pest control and flight safety. Applications more than 10 feet above the crop canopy should be avoided.

Apply only when weather conditions are favorable. Wind and rising air currents may cause undesirable spray drift and reduce insect control. Mist blowers and boom sprayers utilizing a controlled air flow to facilitate particle size and spray deposition may be used at a vehicle speed of 4 to 10 mph.

Mist blowers with a pump capable of producing 40 psi and blower speeds of 2,600 rpm are satisfactory. Use flat fan nozzles, 8001 to 8002, placed 30° into air blast, or rotary atomizers placed into the air blast that produce an efficient spray particle with a mass median diameter of 30 to 100 microns. Other similar application equipment which has demonstrated the capability to deliver even distribution of the labeled rate over the desired area may be used.

Boom sprayers with a filtered rotary air compressor, either PTO or gas engine driven or an air pump capable of producing at least 12 psi are satisfactory. Use air pressure on chemical tanks and an accurate metering valve to assure a calibrated flow of the pesticide. Air should be regulated with a relief valve and gauge for proper air and liquid mixture. Pneumatic-type spray nozzles, as suggested by equipment manufacturer, should be used for spray particles with mass median diameter of 30 to 100 microns.

## Buffer Zones for Aerial Application

When making a non-ULV application with aerial application equipment, a minimum buffer zone of 25 feet must be maintained along any water body.

## APPLICATION THROUGH IRRIGATION SYSTEMS (CHEMIGATION)

Apply this product only through sprinkler, including center pivot, lateral move, end tow, side (wheel) roll, traveler, big gun, solid set, hand move or drip irrigation systems. Do not apply this product through any other type of irrigation system.

Crop injury, lack of effectiveness or illegal pesticide residues in the crop can result from non-uniform distribution of treated water. If you have questions about calibration, you should 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 pesticide 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.

Mix in clean supply tank the specified amount of this product for acreage to be covered, and needed quantity of water.

This product should not be tank-mixed with other pesticides, surfactants or fertilizers unless prior use has shown the combination non-injurious under your conditions of use. Follow precautionary statements and directions for all tank-mix products.

On all crops, use sufficient gallonage of water to obtain thorough and uniform coverage, but not cause runoff or excessive leaching. This will vary depending on equipment, pest problem and stage of crop growth. Application of more or less than optimal quantity of water may result in decreased chemical performance, crop injury or illegal pesticide residues.

Meter this product into the irrigation water uniformly during the period of operation. Do not overlap application. Follow specified label rates, application timing and other directions and precautions for crop being treated. Continuous mild agitation of pesticide mixture may be needed to assure, a uniform application, particularly if the supply tank requires a number of hours to empty.

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

## Chemigation Systems Connected to Public Water Systems

Drexel Chemical Company does not encourage connecting chemigation systems to public water supplies. The following information is provided for users who have diligently considered all other application and water supply options before electing to make such a connection. Public water systems means a system for the provision to the public of piped water for human consumption if such system has at least 15 service connections or regularly serves an average of a least 25 individuals daily at least 60 days out of the year. Chemigation systems connected to public water systems must contain a functional, reduced-pressure zone, backflow preventer (RPZ) or the functional equivalent in the water supply line upstream from the point of pesticide introduction. As an option to the RPZ, the water from the public water system should be discharged into a reservoir tank prior to pesticide introduction. There shall be a complete physical break (air gap) between the flow outlet end of the fill pipe and the top or overflow rim of the reservoir tank of at least twice the inside diameter of the fill pipe. The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection.

The pesticide injection pipeline must 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 shutdown.

The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops or, in cases where there is no water pump, 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.

## Sprinkler Chemigation

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 which 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.

## Drip Chemigation

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 which 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.

## MIXING PROCEDURES

Fill the spray tank at least three-fourths full with water before this product is added. Mechanical agitation or recirculation through the pump bypass to the tank is usually sufficient for maintaining a good dispersion. Rinse empty container with water and drain into spray tank. Repeat two more times.

**PHI = Pre-Harvest Interval**

**REI = Restricted Entry Interval**

## AGRICULTURAL USES

Apply this product using a minimum of 10 gallons of water per acre by ground equipment or using minimum of 2 gallons of water per acre by air equipment unless otherwise specified. Best results are obtained with uniform coverage. Use higher rate when insect pressure is heavy.

## VEGETABLES

Vegetable Crop	Pest Controlled	Rate Per Acre	PHI (Days)
Asparagus (REI = 12 hrs.)	Asparagus aphids, Asparagus beetles	2 pts.	1
	Thrips	1.5 to 2 pts.	

**USE RESTRICTIONS:** The maximum application rate is 1.25 lbs. a.i. (2 pts. of this product) per acre; Maximum number of applications per year is 2; Minimum retreatment interval is 7 days.

Beets (Garden including Tops) (REI = 12 hrs.)	Aphids, Leafhoppers	1.5 to 2 pts.	7
	<b>SPECIFIC DIRECTIONS:</b> Do not apply within 7 days of harvest if tops are to be used as food or feed.		

(Continued)

<b>VEGETABLES (Cont.)</b>			
<b>Vegetable Crop</b>	<b>Pest Controlled</b>	<b>Rate Per Acre</b>	<b>PHI (Days)</b>
Beets (Cont.) <b>USE RESTRICTIONS:</b> The maximum application rate is 1.25 lbs. a.i. (2 pts. of this product) per acre; the maximum number of applications per year is 3; the minimum retreatment interval is 7 days. DO NOT apply to Sugarbeets.			
Broccoli, Chinese broccoli, Broccoli raab (REI = 48 hrs.)	Aphids, Cabbage loopers, Carrot weevils, Flea beetles, Imported cabbageworms	1 to 2 pts.	2
<b>USE RESTRICTIONS:</b> The maximum application rate is 1.25 lbs. a.i. (2 pts. of this product) per acre; the maximum number of applications per year is 2; and the minimum retreatment interval is 7 days.			
Brussels sprouts (REI = 48 hrs.)	Aphids, Cabbage loopers, Carrot weevils, Flea beetles, Imported cabbageworms	1 to 2 pts.	2
<b>USE RESTRICTIONS:</b> The maximum application rate is 1.25 lbs. a.i. (2 pts. of this product) per acre; the maximum number of applications per year is 2; and the minimum retreatment interval is 7 days.			
Cabbage, Chinese cabbage (REI = 48 hrs.)	Aphids, Cabbage loopers, Carrot weevils, Diamond-back moth, Flea beetles, Imported cabbageworms, Webworm	1 to 2 pts.	7
SPECIFIC DIRECTIONS: For Caterpillars on Summer and Fall plantings, begin when true leaves appear. On other plantings and for other insects, begin application when insects appear.			
<b>USE RESTRICTIONS:</b> The maximum application rate is 1.25 lbs. a.i. (2 pts. of this product) per acre; the maximum number of applications per year is 6; and the minimum retreatment interval is 7 days.			
Carrots (REI = 24 hrs.)	Aphids, Leafhoppers	1.5 to 2 pts.	7
<b>USE RESTRICTIONS:</b> The maximum application rate is 1.25 lbs. a.i. (2 pts. of this product) per acre; the maximum number of applications per year is 2; and the minimum retreatment interval is 7 days.			
Cauliflower (REI = 48 hrs.)	Aphids, Cabbage loopers, Carrot weevils, Diamond-back moth, Flea beetles, Imported cabbageworms, Webworm	1 to 2 pts.	2
<b>USE RESTRICTIONS:</b> The maximum application rate is 1.25 lbs. a.i. (2 pts. of this product) per acre; the maximum number of applications per year is 2; and the minimum retreatment interval is 7 days.			
Chayote fruits (REI = 24 hrs.)	Aphids, Cutworms, Darkling ground beetles, Leafhoppers, Pickleworms, Spider mites, Squash vine borers, Thrips	1.5 to 2.8 pts.	1
<b>USE RESTRICTIONS:</b> The maximum application rate is 1.75 lbs. a.i. (2.8 pts. of this product) per acre; the maximum number of applications per year is 2; and the minimum retreatment interval is 7 days.			
Chayote roots (REI = 24 hrs.)	Aphids, Cutworms, Darkling ground beetles, Leafhoppers, Pickleworms, Spider mites, Squash vine borers, Thrips	1.5 to 2.5 pts.	1
<b>USE RESTRICTIONS:</b> The maximum application rate is 1.56 lbs. a.i. (2.5 pts. of this product) per acre; the maximum number of applications per year is 2; and the minimum retreatment interval is 7 days.			
Celery (REI = 24 hrs.)	Aphids, Spider mites	2.4 pts.	7
<b>USE RESTRICTIONS:</b> The maximum application rate is 1.5 lbs. a.i. (2.4 pts. of this product) per acre; the maximum number of applications per year is 2; and the minimum retreatment interval is 7 days.			

(Continued)

<b>(Cont.)</b>			
<b>Vegetable Crop</b>	<b>Pest Controlled</b>	<b>Rate Per Acre</b>	<b>PHI (Days)</b>
Collards (REI = 12 hrs.)	Aphids, Harlequin cabbage bug, Leafhoppers, Leafminers, Smaller cabbage looper	1.5 pts.	7
<b>USE RESTRICTIONS:</b> The maximum application rate is 1 lb. a.i. (1.6 pts. of this product) per acre; the maximum number of applications per year is 3; and the minimum retreatment interval is 7 days.			
Cucumbers (REI = 24 hrs.)	Aphids, Cucumber beetles, Cutworms, Darkling ground beetles, Leafhoppers, Leafminers, Pickleworms, Spider mites, Squash vine borers, Thrips	1.5 to 2.8 pts.	1
<b>USE RESTRICTIONS:</b> The maximum application rate is 1.75 lbs. a.i. (2.8 pts. of this product) per acre; the maximum number of applications per year is 2; and the minimum retreatment interval is 7 days.			
Dandelions (REI = 24 hrs.)	Aphids	1.5 to 2 pts.	7
<b>USE RESTRICTIONS:</b> The maximum application rate is 1.25 lbs. a.i. (2 pts. of this product) per acre; the maximum number of applications per year is 2; and the minimum retreatment interval is 7 days.			
Eggplant (REI = 12 hrs.)	Aphids, Lace bugs, Spider mites	1.5 to 2.5 pts.	3
<b>USE RESTRICTIONS:</b> The maximum application rate is 1.56 lbs. a.i. (2.5 pts. of this product) per acre; the maximum number of applications per year is 4; and the minimum retreatment interval is 5 days.			
Endive (Escarole) (REI = 24 hrs.)	Aphids, Spider mites	1.5 to 2 pts.	7
<b>USE RESTRICTIONS:</b> The maximum application rate is 1.25 lbs. a.i. (2 pts. of this product) per acre; the maximum number of applications per year is 2; and the minimum retreatment interval is 7 days.			
Garlic, Shallots (REI = 24 hrs.)	Aphids, Thrips	1.5 to 2.5 pts.	3
<b>USE RESTRICTIONS:</b> The maximum application rate is 1.56 lbs. a.i. (2.5 pts. of this product) per acre; the maximum number of applications per year is 3 for Garlic and 2 for Shallots; and the minimum retreatment interval is 7 days.			
Horseradish (REI = 24 hrs.)	Aphids, Diamondback moth, Flea beetles, Leafhoppers	1.5 to 2 pts.	7
<b>USE RESTRICTIONS:</b> The maximum application rate is 1.25 lbs. a.i. (2 pts. of this product) per acre; the maximum number of applications per year is 3; and the minimum retreatment interval is 7 days.			
Kale (REI = 12 hrs.)	Aphids, Cabbage loopers, Imported cabbageworms	1 to 1.6 pts.	7
	Diamondback moth, Webworms	1.6 pts.	
<b>USE RESTRICTIONS:</b> The maximum application rate is 1 lb. a.i. (1.6 pts. of this product) per acre; the maximum number of applications per year is 3; and the minimum retreatment interval is 5 days.			
Kohlrabi (REI = 24 hrs.)	Aphids, Cabbage loopers, Carrot weevils, Diamond-back moth, Flea beetles, Imported cabbageworms, Webworms	1 to 2 pts.	7
<b>USE RESTRICTIONS:</b> The maximum application rate is 1.25 lbs. a.i. (2 pts. of this product) per acre; the maximum number of applications per year is 2; and the minimum retreatment interval is 7 days.			
Leek (REI = 24 hrs.)	Aphids, Onion maggots, Thrips	1.5 to 2.5 pts.	3
<b>USE RESTRICTIONS:</b> The maximum application rate is 1.56 lbs. a.i. (2.5 pts. of this product) per acre; the maximum number of applications per year is 2; and the minimum retreatment interval is 7 days.			

(Continued)

<b>VEGETABLES (Cont.)</b>			
<b>Vegetable Crop</b>	<b>Pest Controlled</b>	<b>Rate Per Acre</b>	<b>PHI (Days)</b>
Lettuce (Head, Leaf) (REI = 24 hrs.)	Aphids, Leafhoppers	2 to 3 pts.	14
	Cabbage loopers, Spider mites	2.5 to 3 pts.	
<b>USE RESTRICTIONS:</b> The maximum application rate is 1.88 lbs. a.i. (3 pts. of this product) per acre; the maximum number of applications per year is 2; and the minimum retreatment interval is 5 days for Leaf and 6 days for Head lettuce.			
Mushrooms (REI = 12 hrs.)	Mites, Phorid flies, Sciariid flies	2.7 pts./Ac. or 1 fl. oz. per 1,000 sq. ft. of bed	1
	<b>SPECIFIC DIRECTIONS:</b> Make thorough applications as soon as possible after picking. Repeat application as necessary at 3 day intervals for a maximum of 4 applications.		
<b>USE RESTRICTIONS:</b> The maximum application rate is 1.7 lbs. a.i. (2.7 pts. of this product) per acre (1 fl. oz. per 1,000 sq. ft. of bed); the maximum number of applications per year is 4; and the minimum retreatment interval is 3 days.			
Mustards (Mustard green, Mustard spinach, Chinese mustard, Mizuna) (REI = 12 hrs.)	Aphids, Cabbage loopers, Diamondback moth, Imported cabbageworms, Flea beetles, Webworms	1.6 pts.	7
<b>USE RESTRICTIONS:</b> The maximum application rate is 1 lb. a.i. (1.6 pts. of this product) per acre; the maximum number of applications per year is 3; and the minimum retreatment interval is 5 days.			
Okra (REI = 12 hrs.)	Aphids	1.5 pts.	1
	Japanese beetles	1.9 pts.	
<b>USE RESTRICTIONS:</b> The maximum application rate is 1.2 lbs. a.i. (1.9 pts. of this product) per acre; the maximum number of applications per year is 5; and the minimum retreatment interval is 7 days.			
Onions (Bulb, Green) (REI = 12 hrs.)	Onion maggots	1.5 to 2.5 pts.	3
	Onion thrips	1.5 to 2 pts.	
<b>USE RESTRICTIONS:</b> The maximum application rate is 1.56 lbs. a.i. (2.5 pts. of this product) per acre; the maximum number of applications per year is 2; and the minimum retreatment interval is 7 days.			
Parsley (REI = 7 days)	Aphids, Cabbage loopers, Carrot weevils, Diamondback moth, Flea beetles, Imported cabbageworms, Webworm	1.5 to 2.4 pts.	7
<b>USE RESTRICTIONS:</b> The maximum application rate is 1.5 lbs. a.i. (2.4 pts. of this product) per acre; the maximum number of applications per year is 2; and the minimum retreatment interval is 7 days.			
Parsnips (REI = 24 hrs.)	Aphids, Cabbage loopers, Carrot weevils, Diamondback moth, Flea beetles, Imported cabbageworms, Webworm	1.5 to 2 pts.	7
<b>USE RESTRICTIONS:</b> The maximum application rate is 1.25 lbs. a.i. (2 pts. of this product) per acre; the maximum number of applications per year is 3; and the minimum retreatment interval is 7 days.			
Peas (Dry, Succulent) (REI = 12 hrs.)	Aphids, Grasshoppers, Pea weevils	1.6 pts.	3
	Leafhoppers	1.25 to 1.6 pts.	
<b>USE RESTRICTIONS:</b> The maximum application rate is 1 lb. a.i. (1.6 pts. of this product) per acre; the maximum number of applications per year is 2; and the minimum retreatment interval is 7 days.			
Peppermint, Spearmint (REI = 12 hrs.)	Aphids, Caterpillars, Flea beetles, Leafhoppers, Spider mites	1.5 pts.	7

(Continued)

<b>(Cont.)</b>			
<b>Vegetable Crop</b>	<b>Pest Controlled</b>	<b>Rate Per Acre</b>	<b>PHI (Days)</b>
Peppermint, Spearmint (Cont.) <b>USE RESTRICTIONS:</b> The maximum application rate is 0.94 lb. a.i. (1.5 pts. of this product) per acre; the maximum number of applications per year is 3; and the minimum retreatment interval is 7 days.			
Peppers (REI = 12 hrs.)	Aphids	1 to 2.5 pts.	3
	Pepper maggots	2.5 pts.	
<b>USE RESTRICTIONS:</b> The maximum application rate is 1.56 lbs. a.i. (2.5 pts. of this product) per acre; the maximum number of applications per year is 2; and the minimum retreatment interval is 5 days.			
Potatoes (REI = 12 hrs.)	Aphids, Grasshoppers, Leafhoppers	2 pts.	0
	False chinch bugs	1.5 pts.	
	Mealybugs	2 to 2.5 pts.	
<b>USE RESTRICTIONS:</b> The maximum application rate is 1.56 lbs. a.i. (2.5 pts. of this product) per acre; the maximum number of applications per year is 2; and the minimum retreatment interval is 7 days.			
Pumpkin (REI = 12 hrs.)	Aphids, Cucumber beetles, Leafhoppers, Pickleworms, Spider mites, Squash vine borer	1.5 pts.	1
<b>USE RESTRICTIONS:</b> The maximum application rate is 1 lb. a.i. (1.6 pts. of this product) per acre; the maximum number of applications per year is 2; and the minimum retreatment interval is 7 days.			
Radish (REI = 12 hrs.)	Aphids	1.5 pts.	7
<b>USE RESTRICTIONS:</b> The maximum application rate is 1 lb. a.i. (1.6 pts. of this product) per acre; the maximum number of applications per year is 3; and the minimum retreatment interval is 7 days.			
Rutabagas (REI = 12 hrs.)	Aphids	1.5 pts.	7
<b>USE RESTRICTIONS:</b> The maximum application rate is 1 lb. a.i. (1.6 pts. of this product) per acre; the maximum number of applications per year is 3; and the minimum retreatment interval is 7 days.			
Salsify (REI = 24 hrs.)	Aphids, Cabbage loopers, Carrot weevils, Flea beetles, Imported cabbageworms, Leafhoppers, Spider mites, Thrips	1 to 2 pts.	7
<b>USE RESTRICTIONS:</b> The maximum application rate is 1.25 lbs. a.i. (2 pts. of this product) per acre; the maximum number of applications per year is 3; and the minimum retreatment interval is 7 days.			
Spinach (REI = 12 hrs.)	Aphids, Leafhoppers	1.6 pts.	7
<b>USE RESTRICTIONS:</b> The maximum application rate is 1 lb. a.i. (1.6 pts. of this product) per acre; the maximum number of applications per year is 2; and the minimum retreatment interval is 7 days.			
Squash (Summer) (REI = 24 hrs.)	Aphids, Cucumber beetles, Cutworms, Darkling ground beetles, Leafhoppers, Leafminers, Pickleworms, Spider mites, Squash vine borer, Thrips	2 to 2.8 pts.	1
<b>USE RESTRICTIONS:</b> The maximum application rate is 1.75 lbs. a.i. (2.8 pts. of this product) per acre; the maximum number of applications per year is 3; and the minimum retreatment interval is 7 days.			
Squash (Winter) (REI = 12 hrs.)	Aphids, Cucumber beetles, Leafminers, Pickleworms, Spider mites, Squash vine borer	1.6 pts.	1
<b>USE RESTRICTIONS:</b> The maximum application rate is 1 lb. a.i. (1.6 pts. of this product) per acre; the maximum number of applications per year is 3; and the minimum retreatment interval is 7 days.			

(Continued)

<b>VEGETABLES (Cont.)</b>			
<b>Vegetable Crop</b>	<b>Pest Controlled</b>	<b>Rate Per Acre</b>	<b>PHI (Days)</b>
Sweet potatoes (REI = 12 hrs.)	Leafhoppers, Morning glory leafminer	1.5 to 2.5 pts.	0
<b>USE RESTRICTIONS:</b> The maximum application rate is 1.56 lbs. a.i. (2.5 pts. of this product) per acre; the maximum number of applications per year is 2; and the minimum retreatment interval is 7 days.			
Swiss chard (REI = 12 hrs.)	Aphids	1.6 pts.	14
<b>USE RESTRICTIONS:</b> The maximum application rate is 1 lb. a.i. (1.6 pts. of this product) per acre; the maximum number of applications per year is 2; and the minimum retreatment interval is 7 days.			
Tomatillos	Aphids, Spider mites	1.5 pts.	1
Tomatoes, (REI = 12 hrs.)	Fruitworms (CA only), Armyworms, Drosophila	2.5 pts.	
<b>USE RESTRICTIONS:</b> The maximum application rate is 1.56 lbs. a.i. (2.5 pts. of this product) per acre; the maximum number of applications per year is 4; and the minimum retreatment interval is 5 days.			
Turnips (Greens, Roots) (REI = 12 hrs.)	Aphids, Cabbage loopers, Carrot weevils, Imported cabbageworms	1 to 2 pts.	1
<b>USE RESTRICTIONS:</b> The maximum application rate is 1.25 lbs. a.i. (2 pts. of this product) per acre; the maximum number of applications per year is 3; minimum retreatment interval is 5 days for Turnip greens and 7 days for Turnip roots.			
Watercress (REI = 12 hrs.)* (REI = 24 hrs.)**	Aphids	1.6 pts.* (2 pts.)**	3
<b>USE RESTRICTIONS:</b> *The REI is 12 hours if applied at the maximum rate of 1 lb. a.i. (1.6 pts. of this product) per acre. **The REI is increased to 24 hours if applied at the maximum rate of 1.25 lbs. a.i. (2 pts. of this product) per acre. The maximum number of applications per year is 5 and the minimum retreatment interval is 3 days.			
Yam (REI = 24 hrs.)	Leafhoppers	1.5 to 2.5 pts.	0
<b>USE RESTRICTIONS:</b> The maximum application rate is 1.56 lbs. a.i. (2.5 pts. of this product) per acre; the maximum number of applications per year is 2; and the minimum retreatment interval is 7 days.			

**FRUIT AND NUT CROPS**

<b>Fruit and Nut Crops</b>	<b>Pest Controlled</b>	<b>Rate Per Acre</b>	<b>PHI (Days)</b>
Apricots (REI = 12 hrs.)	Aphids, Codling moths, European fruit lecaniums, Orange tortrix, Soft brown scales, Terrapin scales	2 pts.	6
<b>USE RESTRICTIONS:</b> The maximum application rate is 1.5 lbs. a.i. (2.4 pts. of this product) per acre; the maximum number of applications per year is 2; and the minimum retreatment interval is 7 days.			
Avocado (REI = 48 hrs.)	Greenhouse thrips, Latania scales, Omnivorous loopers, Orange tortrix, Soft brown scales	7.5 pts.	7
<b>USE RESTRICTIONS:</b> The maximum application rate is 4.7 lbs. a.i. (7.5 pts. of this product) per acre; the maximum number of applications per year is 2; and the minimum retreatment interval is 30 days.			
Blackberries, Boysenberries, Dewberries, Gooseberries, Loganberries, Raspberries (REI = 12 hrs.)	Aphids, Japanese beetles, Leafhoppers, Mites, Rose scale chafers, Thrips	3 pts.	1
<b>USE RESTRICTIONS:</b> The maximum application rate is 2 lbs. a.i. (3.2 pts. of this product) per acre; the maximum number of applications per year is 3; and the minimum retreatment interval is 7 days.			
<b>(Continued)</b>			

<b>(Cont.)</b>			
<b>Fruit and Nut Crops</b>	<b>Pest Controlled</b>	<b>Rate Per Acre</b>	<b>PHI (Days)</b>
Blueberries (REI = 12 hrs.)	Blueberry maggots	1 pt. per 100 gals. + 1.5 qts. Staley Sauce Bait No. 7 (protein hydrolysate bait) or Nu-Lure®	1
	Blueberry maggots, Cherry fruit worms, Cranberry fruit worms	2 pts.	
	Japanese beetles	1.5 to 2 pts.	
<b>USE RESTRICTIONS:</b> The maximum application rate is 1.25 lbs. a.i. (2 pts. of this product) per acre; the maximum number of applications per year is 3; and the minimum retreatment interval is 5 days.			
Cantaloupe (REI = 12 hrs.)	Aphids, Cucumber beetles, Leafhoppers, Leafminers, Pickleworms, Spider mites, Squash vine borer	1.6 pts.	1
<b>USE RESTRICTIONS:</b> The maximum application rate is 1 lb. a.i. (1.6 pts. of this product) per acre; the maximum number of applications per year is 2; and the minimum retreatment interval is 7 days.			
Cherries (Sweet, Tart) (REI = 12 hrs.)	Black cherry aphids, Cherry fruitflies, Eyespotted bud moth, Fruittree leafrollers, Japanese beetles	2.8 pts.	3
<b>SPECIFIC DIRECTIONS:</b> Injury may occur on certain varieties of Sweet cherries.			
<b>USE RESTRICTIONS:</b> The maximum application rate is 1.75 lbs. a.i. (2.8 pts. of this product) per acre; the maximum number of applications per year is 4; and the minimum retreatment interval is 3 days.			
Chestnuts (REI = 24 hrs.)	Mites	1.5 to 4 pts.	2
	<b>SPECIFIC DIRECTIONS:</b> Apply when Mites appear in numbers and repeat in 7 to 10 days. Do not treat after shucks split.		
<b>USE RESTRICTIONS:</b> The maximum application rate is 2.5 lbs. a.i. (4 pts. of this product) per acre; the maximum number of applications per year is 3; and the minimum retreatment interval is 7 days.			
Citrus (Grapefruits, Lemons, Limes, Oranges, Tangelos, Tangerines) (CA Only) (REI = 12 hrs.)* (REI = 72 hrs.)**	Black scales (Single and Off-brooded), California red scales, Citricola scales, Florida purple scales, Florida red scales, Purple scales, Soft brown scales, Yellow scales	2.4 pts.* (12 pts.)**	7
	<b>SPECIFIC DIRECTIONS:</b> Do not apply when trees are in bloom.		
Citrus (Grapefruits, Lemons, Limes, Oranges, Tangelos, Tangerines) (All Other States; Except CA) (REI = 12 hrs.)* (REI = 72 hrs.)**	Citrus red mites, Thrips	2.4 pts.* (7.2 pts.)**	7
	<b>SPECIFIC DIRECTIONS:</b> Do not apply when trees are in bloom.		
Citrus (Grapefruits, Lemons, Limes, Oranges, Tangelos, Tangerines) (All Other States; Except CA) (REI = 12 hrs.)* (REI = 72 hrs.)**	Citrus red mites, Thrips	2.4 pts.* (7.2 pts.)**	7
	<b>SPECIFIC DIRECTIONS:</b> Do not apply when trees are in bloom.		
<b>(Continued)</b>			

FRUIT AND NUT CROPS (Cont.)			
Fruit and Nut Crops	Pest Controlled	Rate Per Acre	PHI (Days)
Citrus (All Other States Except CA) (Cont.) <b>USE RESTRICTIONS:</b> *The REI is 12 hours if applied at the maximum rate of 1.5 lbs. a.i. (2.4 pts. of this product) per acre; maximum number of applications per year is 3; and the minimum retreatment interval is 30 days. **However, the REI is increased to 72 hours if applied at the maximum rate of 4.5 lbs. a.i. (7.2 pts. of this product) per acre; only 1 application is allowed per year.			
Currants (REI = 12 hrs.)	Japanese beetles, Mites, Rose chafer	2 pts.	1
<b>USE RESTRICTIONS:</b> The maximum application rate is 1.25 lbs. a.i. (2 pts. of this product) per acre; the maximum number of applications per year is 3; and the minimum retreatment interval is 7 days.			
Figs REI = 12 hrs.* (REI = 24 hrs.)**	Dried fruit beetles, Vinegar flies	2.4 pts.* (3.2 pts.)**	5
<b>SPECIFIC DIRECTIONS:</b> Apply with 1 to 2 gals. of unsulfured molasses.			
<b>USE RESTRICTIONS:</b> *The REI is 12 hours if applied at the maximum rate of 1.5 lbs. a.i. (2.4 pts. of this product) per acre. **However, the REI is increased to 24 hours if applied at the maximum rate of 2 lbs. a.i. (3.2 pts. of this product) per acre. The maximum number of applications per year is 2; the minimum retreatment interval is 5 days.			
Grapes (REI = 72 hrs. for girdling and tying; 24 hrs. for all other activities)	Leafhoppers, Drosophila, European fruit lecanium, Japanese beetles, Spider mites, Terrapin scale	3 pts.	3
	Mealybugs	1.5 pts.	3
<b>SPECIFIC DIRECTIONS:</b> For European fruit lecaniums – Make full coverage applications when newly hatched nymphs are migrating over vines, usually shortly after bloom. Injury may occur on Grapes of Almeria, Cardinal, Italia and Ribier varieties when sprays containing this product are applied after clusters appear.			
<b>USE RESTRICTIONS:</b> The maximum application rate is 1.88 lbs. a.i. (3 pts. of this product) per acre; the maximum number of applications per year is 2; and the minimum retreatment interval is 14 days.			
Grape Vines (Over-wintering on nursery stocks) (REI = 24 hrs.)	Grape phylloxera	3 pts. per 100 gals.	—
	<b>SPECIFIC DIRECTIONS:</b> Remove excess soil from the roots and dip in solution of this product. Submerge the entire root system for 5 minutes. Keep the solution agitated at all times.		
<b>USE RESTRICTIONS:</b> The maximum application rate is 1.88 lbs. a.i. (3 pts. of this product) per acre; the maximum number of applications per year is 2; and the minimum retreatment interval is 14 days.			
Guava (REI = 12 hrs.)	Drosophila	1.5 to 2 pts.	2
	<b>SPECIFIC DIRECTIONS:</b> Apply this product with 1 lb. of partially hydrolyzed yeast protein or enzymatic yeast hydrolysate.		
<b>USE RESTRICTIONS:</b> The maximum application rate is 1.25 lbs. a.i. (2 pts. of this product) per acre; the maximum number of applications per year is 13; and the minimum retreatment interval is 3 days.			
Kumquat (REI = 48 hrs.)	Black scales (Single and Off-brooded), California red scales, Citricola scales, Florida purple scales, Florida red scales, Purple scales, Soft brown scales, Yellow scales	7.2 pts.	7
	<b>SPECIFIC DIRECTIONS:</b> Do not apply when trees are in bloom.		
	Citrus red mites, Thrips	7.2 pts.	7
	<b>USE RESTRICTIONS:</b> The maximum application rate is 4.5 lbs. a.i. (7.2 pts. of this product) per acre; only 1 application is allowed per year.		
Macadamia nuts (REI = 12 hrs.)	Green stink bugs	1.5 pts.	1

(Continued)

(Cont.)			
Fruit and Nut Crops	Pest Controlled	Rate Per Acre	PHI (Days)
Macadamia Nuts (Cont.) <b>USE RESTRICTIONS:</b> The maximum application rate is 0.94 lb. a.i. (1.5 pts. of this product) per acre; the maximum number of applications per year is 6; and the minimum retreatment interval is 7 days.			
Mangoes (REI = 12 hrs.)	Drosophila	1.5 pts.	1
<b>USE RESTRICTIONS:</b> The maximum application rate is 0.94 lb. a.i. (1.5 pts. of this product) per acre; the maximum number of applications per year is 10; and the minimum retreatment interval is 7 days.			
Melons (Other than Watermelon) (REI = 12 hrs.)	Aphids, Cucumber beetles, Leafhoppers, Leafminers, Pickleworms, Squash vine borers, Spider mites	1.6 pts.	1
<b>USE RESTRICTIONS:</b> The maximum application rate is 1 lb. a.i. (1.6 pts. of this product) per acre; the maximum number of applications per year is 2; and the minimum retreatment interval is 7 days.			
Nectarines (REI = 24 hrs.)	Plum curculios, Spider mites	1 to 4.8 pts.	7
	Aphids, Japanese beetles	4 to 4.8 pts.	
<b>SPECIFIC DIRECTIONS:</b> For use against Aphids and Japanese beetles, this product may be mixed with spray oil for dormant and delayed dormant applications. Follow spray oil manufacturer's directions. Application rates are based on a standard dilution rate of 300 (ground) gals. of water per acre. This product may cause spotting on Nectarines.			
<b>USE RESTRICTIONS:</b> The maximum application rate is 3 lbs. a.i. (4.8 pts. of this product) per acre; the maximum number of applications per year is 3; and the minimum retreatment interval is 7 days.			
Papayas (REI = 12 hrs.)	Aphids, Mealybugs	1.5 to 2 pts.	1
<b>USE RESTRICTIONS:</b> The maximum application rate is 1.25 lbs. a.i. (2 pts. of this product) per acre; the maximum number of applications per year is 8; minimum retreatment interval is 3 days.			
Passion fruit (REI = 12 hrs.)	Drosophila	1.5 pts.	3
	<b>SPECIFIC DIRECTIONS:</b> Apply this product with 1 lb. partially hydrolyzed yeast protein or enzymatic yeast hydrolysate.		
<b>USE RESTRICTIONS:</b> The maximum application rate is 1 lb. a.i. (1.6 pts. of this product) per acre; the maximum number of applications per year is 8; minimum retreatment interval is 7 days.			
Peaches (REI = 24 hrs.)	Black cherry aphids, Black peach aphids, European red mites, Green peach aphids, Japanese beetles, Rusty plum aphids, Spider mites	2.5 to 4.8 pts.	7
	Cottony peach scales, European fruit lecaniums, Oriental fruit moths, Plum curculios, Terrapin scales	4.8 pts.	
<b>USE RESTRICTIONS:</b> The maximum application rate is 3 lbs. a.i. (4.8 pts. of this product) per acre; the maximum number of applications per year is 3; and the minimum retreatment interval is 11 days.			
Pears (REI = 12 hrs.)	Aphids	1 pt.	1
	Mealybugs, Mites, Pear psylla	1 to 2 pts.	
	Codling moth, Fruittree leafroller, Plum curculio, Redbanded leafhopper	2 pts.	
<b>USE RESTRICTIONS:</b> The maximum application rate is 1.25 lbs. a.i. (2 pts. of this product) per acre; the maximum number of applications per year is 2; and the minimum retreatment interval is 7 days. Injury may occur on Bosc pears under certain conditions.			

(Continued)

FRUIT AND NUT CROPS (Cont.)			
Fruit and Nut Crops	Pest Controlled	Rate Per Acre	PHI (Days)
Pecans (REI = 24 hrs.)	Aphids, European red mites, Pecan leaf casebearers*, Pecan nut casebearers*, Pecan phylloxera**, Spider mites, Walnut aphids, Walnut huskflies*	1.5 to 4 pts.	7
	SPECIFIC DIRECTIONS: *Apply when first generation eggs begin to hatch. **Apply when buds begin to develop.		
<b>USE RESTRICTIONS:</b> The maximum application rate is 2.5 lbs. a.i. (4 pts. of this product) per acre; the maximum number of applications per year is 2; and the minimum retreatment interval is 7 days.			
Pineapple (REI = 24 hrs.)	Mealybugs	3.2 pts.	7
<b>USE RESTRICTIONS:</b> The maximum application rate is 2 lbs. a.i. (3.2 pts. of this product) per acre; the maximum number of applications per year is 3; and the minimum retreatment interval is 7 days.			
Strawberries (REI = 12 hrs.)	Aphids, Field crickets, Lygus bugs, Potato leafhoppers, Spider mites, Spittlebugs, Strawberry leafrollers, Strawberry root weevils, Thrips, Whiteflies	1.5 to 3.2 pts.	3
	SPECIFIC DIRECTIONS: For bait sprays, combine Staley's Sauce Bait No. 2 or No. 7 (protein hydrolysate bait) or Nu-Lure® at the rate of 2 qts. per acre.		
<b>USE RESTRICTIONS:</b> The maximum application rate is 2 lbs. a.i. (3.2 pts. of this product) per acre; the maximum number of applications per year is 4; and the minimum retreatment interval is 7 days.			
Walnuts (REI = 24 hrs.)	Aphids, European red mites, Walnut aphids, Walnut Huskflies	1.5 to 4 pts.	7
	SPECIFIC DIRECTIONS: For bait sprays, combine Staley's Sauce Bait No. 2 or No. 7 (protein hydrolysate bait) or Nu-Lure® at the rate of 2 qts. per acre.		
<b>USE RESTRICTIONS:</b> The maximum application rate is 2.5 lbs. a.i. (4 pts. of this product) per acre; the maximum number of applications per year is 3; and the minimum retreatment interval is 7 days.			
Watermelon (REI = 12 hrs.)	Aphids, Cucumber beetles, Leafhoppers, Leafminers, Pickleworms, Squash vine borers, Spider mites	1.5 to 2.5 pts.	1
<b>USE RESTRICTIONS:</b> The maximum application rate is 1.5 lbs. a.i. (2.6 pts. of this product) per acre; the maximum number of applications per year is 2; and the minimum retreatment interval is 7 days.			

#### FIELD CROPS, PASTURE AND RANGELAND

Field Crops	Pest Controlled	Rate Per Acre	PHI (Days)
Alfalfa (REI = 12 hrs.)	Alfalfa weevil larvae*, Aphids, Grasshoppers, Lygus bugs, Pea aphids, Potato leafhoppers, Spider mites, Spittlebugs, Stinkbugs	1.5 to 2 pts.	0
	Armyworms, Vetch buchid		
	Clover leaf weevils	1.5 pts.	
	SPECIFIC DIRECTIONS: Apply to Alfalfa in bloom only in the evening or early morning when bees are not working in the field or are not hanging on outside of hives. *Apply when day temperature is expected to be above 65°F and when 50 to 70% of the leaves show damage.		
<b>USE RESTRICTIONS:</b> The maximum application rate is 1.25 lbs. a.i. (2 pts. of this product) per acre; the maximum number of applications is 2 per cutting; minimum retreatment interval is 14 days.			
<b>(Continued)</b>			

(Cont.)				
Field Crops	Pest Controlled	Rate Per Acre	PHI (Days)	
Clovers (REI = 12 hrs.)	Alfalfa weevil larvae, Aphids, Grasshoppers, Lygus bugs, Pea aphids, Potato leafhoppers, Spider mites, Spittlebugs, Stinkbugs	1.5 to 2 pts.	0	
	Armyworms, Vetch buchid	2 pts.		
	Clover leaf weevils	1.5 pts.		
<b>USE RESTRICTIONS:</b> The maximum application rate is 1.25 lbs. a.i. (2 pts. of this product) per acre; the maximum number of applications is 2 per cutting; minimum retreatment interval is 14 days. Do not apply to Clover in bloom.				
Corn (Field) (REI = 72 hrs. for detasseling; 12 hrs. for all other activities)	Aphids, Armyworms, Corn earworms*, Corn rootworms (adults), Grasshoppers, Leafhoppers, Sap beetles*, Thrips	1.5 pts.	7	
	SPECIFIC DIRECTIONS: *Begin treatments when 10% of the ears show silk. Injury may occur in the whorl and silk stages with this product.			
<b>USE RESTRICTIONS:</b> The maximum application rate is 1 lb. a.i. (1.6 pts. of this product) per acre; the maximum number of applications per year is 2; and the minimum retreatment interval is 7 days.				
Corn (Pop, Sweet) (REI = 72 hrs. for detasseling; 12 hrs. for all other activities)	Aphids, Armyworms, Corn earworms*, Corn rootworms (adults), Grasshoppers, Leafhoppers, Sap beetles*, Thrips	1.6 pts.	5	
	SPECIFIC DIRECTIONS: *Begin treatments when 10% of the ears show silk. Injury may occur in the whorl and silk stages with this product.			
<b>USE RESTRICTIONS:</b> The maximum application rate is 1 lb. a.i. (1.6 pts. of this product) per acre; the maximum number of applications per year is 2; and the minimum retreatment interval is 5 days.				
Cotton (REI = 48 hrs.)	Brown cotton leafworms, Cotton aphids, Cotton leaf perforators, Cotton leafworms, Desert spider mites, Fall armyworms, Garden webworms, Grasshoppers, Leafhoppers, Lygus bugs, Thrips, Whiteflies	1.5 to 4 pts.	7	
	Boll weevil			2 to 4 pts.
	Cotton fleahoppers			1 to 1.5 pts.
	Lygus, Thrips			4 pts.
<b>USE RESTRICTIONS:</b> The maximum application rate is 2.5 lbs. a.i. (4 pts. of this product) per acre; the maximum number of applications per year is 3; and the minimum retreatment interval is 7 days.				
Grasses, Forage, Hay (Barnyardgrass, Canary grass, Fescue or Orchardgrass, Redtop, Timothy, Yellow foxtail) (REI = 12 hrs.)	Aphids, Armyworms, Cereal leaf beetles, Grasshoppers, Leafhoppers	2 pts.	0	
	SPECIFIC DIRECTIONS: Apply to Alfalfa in bloom only in the evening or early morning when bees are not working in the field or are not hanging on outside of hives. *Apply when day temperature is expected to be above 65°F and when 50 to 70% of the leaves show damage.			
<b>USE RESTRICTIONS:</b> The maximum application rate is 1.25 lbs. a.i. (2 pts. of this product) per acre; the maximum number of applications is 1 per cutting.				
<b>(Continued)</b>				



**FIELD CROPS, PASTURE AND RANGELAND (Cont.)**

Field Crops	Pest Controlled	Rate Per Acre	PHI (Days)
Lespedeza (REI = 12 hrs.)	Alfalfa caterpillars*, Alfalfa weevils (larva)**, Aphids, Grasshoppers, Leafhoppers, Lygus bugs	2 pts.	0
	<p><b>SPECIFIC DIRECTIONS:</b> Apply to Alfalfa in bloom only in the evening or early morning when bees are not working in the field or are not hanging on outside of hives.                      *Apply when larvae are small.                      **Apply when day temperature is expected to be above 65°F and when 50 to 70% of leaves show damage.</p>		
<b>USE RESTRICTIONS:</b> The maximum application rate is 1.25 lbs. a.i. (2 pts. of this product) per acre; the maximum number of applications is 2 per cutting; minimum retreatment interval is 14 days.			
Pasture and Rangeland (REI = 12 hrs.)	Aphids, Armyworms, Grasshoppers, Leafhoppers	1.4 pts.	0
<b>USE RESTRICTIONS:</b> The maximum application rate is 0.92 lb. a.i. (1.4 pts. of this product) per acre; the maximum number of applications per year is 1 per cutting.			
Rice, Wild rice (REI = 12 hrs.)	Rice leafminers*	2 pts.	7 days
	Rice stink bugs**	1 to 2 pts.	
<p><b>SPECIFIC DIRECTIONS:</b> *Make the first application shortly after the first Rice blades appear on the surface of the water. **Apply during early milk and dough stages using a minimum of 2 gals. of water per acre by air. Do not apply Propanil within 15 days of Malathion treatment. Broadcast use only over intermittently flooded areas. Application may not be made around bodies of water where fish or shellfish are grown and/or harvested commercially.</p>			
<b>USE RESTRICTIONS:</b> The maximum application rate is 1.25 lbs. a.i. (2 pts. of this product) per acre; the maximum number of applications per year is 2; and the minimum retreatment interval is 7 days.			
Small grains (Barley) (REI = 12 hrs.)	Cereal leaf beetles, English grain aphids, Grasshoppers, Greenbugs, Winter grain mites	1 to 2 pts.	7
<b>USE RESTRICTIONS:</b> The maximum application rate is 1.25 lbs. a.i. (2 pts. of this product) per acre; the maximum number of applications per year is 2; and the minimum retreatment interval is 7 days.			
Small grains (Oats) (REI = 12 hrs.)	Cereal leaf beetles, English grain aphids, Grasshoppers, Greenbugs, Winter grain mites	1.5 pts.	7
<b>USE RESTRICTIONS:</b> The maximum application rate is 1 lb. a.i. (1.6 pts. of this product) per acre; the maximum number of applications per year is 2; and the minimum retreatment interval is 7 days.			
Small grains (Rye) (REI = 12 hrs.)	Cereal leaf beetles	1 to 1.5 pts.	7
	English grain aphids, Grasshoppers, Greenbugs, Winter grain mites	1.5 pts.	
<b>USE RESTRICTIONS:</b> The maximum application rate is 1 lb. a.i. (1.6 pts. of this product) per acre; the maximum number of applications per year is 3; and the minimum retreatment interval is 7 days.			
Sorghum (REI = 12 hrs.)	Greenbugs	1.5 pts.	7
<b>USE RESTRICTIONS:</b> The maximum application rate is 1 lb. a.i. (1.6 pts. of this product) per acre; the maximum number of applications per year is 2; minimum retreatment interval is 7 days.			

(Continued)

**(Cont.)**

Field Crops	Pest Controlled	Rate Per Acre	PHI (Days)
Trefoil (Birdsfoot) (REI = 12 hrs.)	Alfalfa weevil larvae, Aphids, Grasshoppers, Lygus bugs, Pea aphids, Potato leafhoppers, Spider mites, Spittle bugs, Stink bugs	1 to 2 pts.	0
	Armyworms, Vetch bruchid	2 pts.	
	Clover leaf weevils	1.5 pts.	
<b>USE RESTRICTIONS:</b> The maximum application rate is 1.25 lbs. a.i. (2 pts. of this product) per acre; the maximum number of applications is 2 per cutting; minimum retreatment interval is 14 days.			
Vetch (REI = 12 hrs.)	Alfalfa weevil larvae, Aphids, Armyworms, Clover leaf weevils, Grasshoppers, Lygus bugs, Omnivorous leaf tiers, Pea aphids, Potato leafhoppers, Spider mites, Spittle bugs, Stink bugs, Vetch bruchid	1 to 2 pts.	0
<b>USE RESTRICTIONS:</b> The maximum application rate is 1.25 lbs. a.i. (2 pts. of this product) per acre; the maximum number of applications is 2 per cutting; minimum retreatment interval is 14 days.			
Wheat (Spring and Winter) (REI = 12 hrs.)	Cereal leaf beetles	1 to 1.5 pts.	7
	English grain aphids, Grasshoppers, Greenbugs, Winter grain mites	1.5 pts.	
<b>USE RESTRICTIONS:</b> The maximum application rate is 1 lb. a.i. (1.6 pts. of this product) per acre; the maximum number of applications per year is 2; and the minimum retreatment interval is 7 days.			

**HOPS**

Crop	Pest Controlled	Rate Per Acre	PHI (Days)
Hops (REI = 12 hrs.)	Aphids, Spider mites	1 pt.	10
<b>USE RESTRICTIONS:</b> The maximum application rate is 0.63 lb. a.i. (1 pt. of this product) per acre; the maximum number of applications per year is 3; and the minimum retreatment interval is 7 days.			

**SMALL GRAIN (Barley, Corn, Oats, Rye, Wheat) STORAGE FACILITIES (Grain Elevators/Silos)**

	Pest Controlled	Rate
Before Storing Grains (REI = 12 hrs.)	Cereal leaf beetles, Confused flour beetles, Flat grain beetles, Granary weevils, Indian meal moth, Khapra beetle, Lesser grain borers, Maize weevils, Red flour beetles, Rice weevils, Rusty grain beetles, Saw-toothed grain beetles	0.96 pt. per 1,000 sq. ft.
<p><b>SPECIFIC DIRECTIONS:</b> Mix in 2 to 3 gals. of water and apply on 1,000 sq. ft. area. Before applying the spray, clean thoroughly. Remove and burn all sweepings and debris. For a residual wall, floor and machinery spray in Grain elevators and silos, make thorough application before loading the Grain. In empty warehouse, spray thoroughly the interior including cracks and protected places with sufficient pressure.</p>		
<b>USE RESTRICTIONS:</b> Do not apply directly to Grain. The maximum application rate is 0.6 lb. a.i. (0.96 pt. of this product) per 1,000 sq. ft. Maximum number of applications is 1 per storage period.		

NON-AGRICULTURAL USE SITES

Site	Rate per Acre (fl. ozs.)	Maximum Single Application Rate	Use Limitations
Christmas tree plantations (REI = 12 hrs.)	82	3.2 lbs. a.i./ Ac.	Maximum of 2 applications per year.
Fence rows, Hedge rows	6	0.24 lb. a.i./ 1,000 sq. ft.	—
Ornamental and/or Shade trees (REI = 12 hrs.)	64	2.5 lbs. a.i./ 100 gals.	Maximum of 2 applications per year; 10 day minimum retreatment intervals.
Ornamental herbaceous plants (REI = 12 hrs.)	64	2.5 lbs. a.i./ 100 gals.	—
Ornamental non-flowering plants	64	2.5 lbs. a.i./ 100 gals.	—
Ornamental woody shrubs and vines (REI = 12 hrs.)	64	2.5 lbs. a.i./ 100 gals.	Maximum of 2 applications per year per growing cycle; 10 day minimum retreatment intervals.
Pine seed orchard (REI = 12 hrs.)	82	3.2 lbs. a.i./ Ac.	Maximum of 2 applications per year per growing cycle; 7 day minimum retreatment intervals.

FLY AND MOSQUITO CONTROL – OUTDOOR USE ONLY

Pest	Rate of This Product	Specific Directions
Adult flies	Straight Sprays: 5 tbsp. + 1 gal. of water or 1 cup + 2.5 gals. of water or 1 qt. + 12 gals. of water	Spray at the rate of 1 gal. per 1,000 sq. ft. on painted surfaces and 2 gals. per 1,000 sq. ft. on unpainted surfaces where Flies alight or congregate. Repeat applications as necessary. Avoid applying oil-based sprays to valuable Ornamental plants as injury may occur.
Mosquito adults*	1 part to 28 parts water, fuel oil or diesel oil	Spot treatment only (2 sq. ft.). Spray lower outside foundation of residence and spot treat shrubbery and vegetation where Mosquitoes may rest. Do not apply as a broadcast treatment to residential lawns.

\*Mosquito control is for localized applications only (not for wide area applications). Not for use in New York.

OUTDOOR USE SITES (SPOT TREATMENT ONLY)

Site	Pest(s)	Rate of This Product	Specific Directions
Gardens	Millipedes, Sawbugs, Springtails	1 tsp./gal. of water	Apply as spot treatment at the rate of 1.2 fl. ozs. per sq. ft. of soil where pest(s) congregate. Repeat at 7 to 10 day intervals as needed.
Lawns	Ant mounds (except Carpenter, Fire, Harvester or Pharaoh ants)	1.5 pts./ 100 gals. of water (1.4 tsp./gal. of water)	Spot treatment only. Spray Ant mounds thoroughly until well soaked. For other small Ants in flower beds, lawns, around trees, spray lightly infested areas. Repeat at 10 to 15 days if Ants return. Do not allow people or pets to enter treated area until sprays have dried.

CULL FRUITS AND VEGETABLES DUMP

Pest(s)	Rate of This Product	Specific Directions
Dried fruit beetles, Drosophila flies	1.5 gals./ 100 gals. of water	Apply as a drench using 8 to 10 gals. per 100 sq. ft. Do not use on dumps over 18" deep. Do not feed treated fruits and vegetables.

**STORAGE AND DISPOSAL**

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

**STORAGE:** Do not contaminate with other pesticides or fertilizers. The product should never be heated above 55°C (131°F) and should not be stored for long periods of time at a temperature in excess of 25°C (77°F). Storage should be under lock and key in a ventilated room and secure from access by unauthorized persons and children. Storage should be in a cool, dry area away from any heat or ignition source. Do not stack over 2 pallets high. Move containers by handles or case. Do not move containers from one area to another unless they are securely sealed. Keep container tightly sealed when not in use. Keep away from any puncture source. Do not store near water supplies, food, feed and fertilizer to avoid contamination. Store in original containers only. If the contents are leaking or material is spilled, follow these steps:

1. Contain spill. Absorb with a material such as sawdust, clay granules or dirt.
2. Collect and place in suitable containers for disposal.
3. Wash area with soap and water to remove remaining pesticide.
4. Follow washing with clean water rinse.
5. Place leaking container in a plastic tub and transfer contents, as soon as possible, to an empty, original container.
6. Do not allow runoff to enter sewer or contaminate water supplies.
7. Dispose of waste.

**PESTICIDE DISPOSAL:** To avoid wastes, use all materials in this container by application according to label directions. If wastes cannot be avoided, offer remaining product to a waste disposal facility or pesticide disposal program (often such programs are run by State or Local governments or by industry).

**CONTAINER HANDLING:**

**Nonrefillable Container (rigid material; less than 5 gals.):** Non-refillable container. Do not reuse or refill this container. Offer for recycling, if available. Clean container promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container one-fourth full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Dispose of empty container in a sanitary landfill or by incineration.

**Nonrefillable Container (rigid material; 5 gals. up to < 250 gals.):** Nonrefillable container. Do not reuse or refill this container. Offer for recycling, if available. Clean container promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container one-fourth full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. Dispose of empty container in a sanitary landfill or by incineration.

**Refillable Container (≥ 250 gals. & Bulk):** Refillable container. Refill this container with pesticide only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. To clean the container before final disposal, empty the remaining contents from this container into application equipment or mix tank. Fill the container about 10% full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times.

**WARRANTY—CONDITIONS OF SALE**

OUR DIRECTIONS FOR USE of this product are based upon tests believed reliable. Follow directions carefully. Timing and method of application, weather and crop conditions, mixtures with other chemicals not specifically recommended and other influencing factors in the use of this product are beyond the control of the Seller. To the extent consistent with applicable law, Buyer assumes all risks of use, storage and handling of this material not in strict accordance with directions given herewith. To the extent consistent with applicable law, in no case shall the Manufacturer or the Seller be liable for consequential, special or indirect damages resulting from the use or handling of this product when such use and/or handling is not in strict accordance with directions given herewith. The foregoing is a condition of sale by the Seller and is accepted as such by the Buyer.

The DREXEL logo is a registered trademark of Drexel Chemical Company. All other brand names, product names or trademarks belong to their respective holders.



# Malathion 5EC

Insecticide / Miticide

**FOR USE AGAINST MOSQUITOES (NOT FOR USE IN NEW YORK)**

**For Use Only by Federal, State, Tribal or Local Government Officials Responsible for Public Health or Vector Control or by Persons Certified in the Appropriate Category or Otherwise Authorized by the State or Tribal Lead Pesticide Regulatory Agency to perform Adult Mosquito Control Applications or by Persons Under Their Direct Supervision.**

**ACTIVE INGREDIENT:**

Malathion .....	57.0%
<b>OTHER INGREDIENTS:</b> .....	<b>43.0%</b>
<b>TOTAL:</b> .....	<b>100.0%</b>

This product contains 5 pounds of Malathion per gallon.  
Contains Petroleum distillate.

## KEEP OUT OF REACH OF CHILDREN WARNING / AVISO

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand the label, find someone to explain it to you in detail.)

**See FIRST AID Below**

**EPA Reg. No. 19713-217  
EPA Est. No. 19713-GA-1**

**Net Content:  
2.5 Gals. (9.46 L)**

FIRST AID
<p><b>IF IN EYES:</b></p> <ul style="list-style-type: none"> <li>• Hold eye open and rinse slowly and gently with water for 15 to 20 minutes.</li> <li>• Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>
<p><b>IF SWALLOWED:</b></p> <ul style="list-style-type: none"> <li>• Immediately call a poison control center or doctor for treatment advice.</li> <li>• Do not induce vomiting unless told to by a poison control center or doctor.</li> <li>• Do not give any liquid to the person.</li> <li>• Do not give anything by mouth to an unconscious person.</li> </ul>
<p><b>IF ON SKIN OR CLOTHING:</b></p> <ul style="list-style-type: none"> <li>• Take off contaminated clothing.</li> <li>• Rinse skin immediately with plenty of water for 15 to 20 minutes.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>
<p>Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also call CHEMTREC at 800-424-9300 for emergency.</p>
<p><b>NOTE TO PHYSICIAN:</b> This product is a cholinesterase inhibitor. Atropine is antidotal. 2-PAM may be effective as an adjunct to atropine. Malathion is an Organophosphate. Contains Petroleum distillate. May pose an aspiration pneumonia hazard.</p>

**PRECAUTIONARY STATEMENTS**

**HAZARDS TO HUMANS AND DOMESTIC ANIMALS**

**WARNING:** Causes substantial but temporary eye injury. Harmful if swallowed. Harmful if absorbed through skin. Do not get in eyes or on clothing. Avoid contact with skin. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.

**PERSONAL PROTECTIVE EQUIPMENT (PPE)**

Some materials that are chemical-resistant to this product are barrier laminate or viton. If you want more options, follow the instructions for category G on an EPA chemical-resistance category selection chart.

**For All Formulations and Use Patterns – Mixers, loaders, applicators, flaggers and other handlers must wear:** Long-sleeved shirt and long pants, chemical-resistant gloves (pilots must wear chemical-resistant gloves only when entering or exiting the aircraft), shoes plus socks and protective eyewear such as safety glasses, face shield or goggles.

**For All Airblast Applications – Applicators must wear:** Long-sleeved shirt and long pants, shoes plus socks, chemical-resistant gloves (pilots must wear chemical-resistant gloves only when entering or exiting the aircraft), chemical-resistant apron and protective eyewear (goggles, safety glasses or face shield).

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

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

**USER SAFETY RECOMMENDATIONS**

**Users should:** 1) Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet. 2) Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. 3) 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.

**ENGINEERING CONTROLS**

Pilots must use an enclosed cockpit in a manner that is consistent with the WPS for Agricultural Pesticides [40 CFR 170.240 (d)(6)]. Pilots must wear the PPE required on this labeling for applicators.

**ENVIRONMENTAL HAZARDS**

This pesticide is toxic to aquatic organisms, including fish and invertebrates. This product may contaminate water through drift of spray in wind. This product has a high potential for runoff after application. Use care when applying in or to an area which is adjacent to any body of water, and do not apply when weather conditions favor drift from target area. Poorly draining soils and soils with shallow water tables are more prone to product runoff that contains this product.

When applying as a wide area Mosquito adulticide, before making the first application in a season, it is advisable to consult with the State or Tribal agency charged with the primary responsibility for pesticide regulation to determine if other regulatory requirements exist.



Manufactured By:  
**Drexel Chemical Company**  
P.O. BOX 13327, MEMPHIS, TN 38113-0327  
**SINCE 1972**

This pesticide is highly toxic to bees exposed to direct treatment 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, except when applications are made to prevent or control a threat to public and/or animal health determined by a State, Tribal or Local public health or vector control agency on the basis of documented evidence of disease causing agents in vector Mosquitoes or the occurrence of Mosquito-borne disease in animal or human populations, or if specifically approved by the State or Tribe during a natural disaster recovery effort. When applying as a wide area Mosquito adulticide, do not apply over bodies of water (lakes, rivers, permanent streams, natural ponds, commercial fish ponds, swamps, marshes, estuaries), except when necessary to target areas where adult Mosquitoes are present, and weather conditions will facilitate movement of applied material away from the water in order to minimize incidental deposition into the water body.

Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans or other waters unless in accordance with the requirements of a National Pollutant Discharge Elimination Systems (NPDES) permit and the permitting authority has been notified in writing prior to discharge. Do not discharge effluent containing this product to sewer systems without previously notifying the Local sewage treatment plant authority. For guidance, contact your State Water Board or Regional Office of the EPA.

**PHYSICAL OR CHEMICAL HAZARDS**

Combustible: Do not use or store near heat or open flame.

**DIRECTIONS FOR USE**

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. For use by Federal, State, Tribal, or Local government officials responsible for public health or vector control, or by persons certified in the appropriate category or otherwise authorized by the State or Tribal lead pesticide regulatory agency to perform adult Mosquito control applications, or by persons under their direct supervision.

**RESISTANCE MANAGEMENT**

**GROUP 1B INSECTICIDE**

MALATHION 5EC contains a Group 1B insecticide or acaricide. Insect/mite biotypes with acquired resistance to Group 1B may eventually dominate the insect/mite population if Group 1B insecticides or acaricides are used repeatedly in the same field or in successive years as the primary method of control for targeted species. This may result in partial or total loss of control of those species by this product or other Group 1B insecticides or acaricides.

To delay insecticide or acaricide resistance, consider:

- Avoiding the consecutive use of this product or other Group 1B insecticides/acaricides that have similar target site of action on the same insect/mite species.
- Using tank-mixtures or pre-mixes with insecticides/acaricides from a different target site action Group as long as the involved products are all registered for the same use and have different sites of action.
- Basing insecticide/acaricide use on a comprehensive IPM program.
- Monitoring treated insect/mite populations for loss of field efficacy.
- Contact your Local extension specialist, certified crop advisors, and/or manufacturer for insecticide/acaricide resistance management and/or IPM recommendations for specific site and resistant pest problems.

**USE RESTRICTIONS AND PRECAUTIONS**

DO NOT retreat a site more than 3 times in any one week when Mosquitoes are swarming or biting. More frequent treatments may be made to prevent or control a threat to public and/or animal health determined by a State, Tribal or Local health or vector control agency on the basis of documented evidence of disease causing agents in vector Mosquitoes or the occurrence of Mosquito-borne diseases in animal or human populations, or if specifically approved by the State or Tribe during a natural disaster recovery effort.

**RESTRICTIONS**

- Apply when wind speed is greater than or equal to 1 mph.
- Do not apply more than 0.23 pound a.i. (6 fl. ozs. of this product) per acre per day.
- Do not apply by fixed wing aircraft at a height less than 100 feet, or by helicopter a height less than 75 feet unless specifically approved by the State or Tribe based on public health needs.

**PRECAUTIONS**

Before using, read the directions contained in this labeling for the proper methods and procedures which must be followed to achieve effective Mosquito control and avoid permanent damage to automobiles and other paint finishes. **IMPORTANT:** In areas where automobiles, trailers, trucks and pleasure boats are present, undiluted spray droplets of this product will permanently damage vehicle paint finishes unless the aircraft used for the ultra low volume application meets all of the specifications listed under the "AERIAL APPLICATION" section below.

**AERIAL APPLICATION**

Spray equipment must be adjusted so that the volume median diameter produced is less than 60 microns (Dv 0.5 < 60 um) and that 90% of the spray is contained in droplets smaller than 100 microns (Dv 0.9 < 100 um). The effects of flight speed and, for non-rotary nozzles, nozzle angle on the droplet size spectrum must be considered. Directions from the equipment manufacturer or vendor, pesticide registrant or a test facility using a wind tunnel and laser-based measurement instrument must be used to adjust equipment to produce acceptable droplet size spectra. Application equipment must be tested at least annually to confirm that pressure at the nozzle and nozzle flow rate(s) are properly calibrated.

**GROUND BASED APPLICATION**

Spray equipment must be adjusted so that the volume median diameter produced is less than 30 microns (Dv 0.3 < 30 um) and that 90% of the spray is contained in droplets smaller than 50 microns (Dv 0.9 < 50 um). Directions from the equipment manufacturer or vendor, pesticide registrant or a test facility using a laser-based measurement instrument must be used to adjust equipment to produce acceptable droplet size spectra. Application equipment must be tested at least annually to confirm that pressure at the nozzle and nozzle flow rate(s) are properly calibrated.

**Thermal Aerosol or Fogs**

For control of adult Mosquitoes with thermal aerosols or fogs, apply this product at the rate of 6 ounces actual per gallon (7.7 gals. of this product in 100 gals. finished solution\*) by ground equipment delivering 40 gallons per hour at vehicle speed of 5 miles per hour to treat a swath width of 300 to 400 feet.

\* There is a great variation in the chemical composition of fuel oils which may be used as thermal fog solvents. These differences may cause sludge and/or affect the solubility of this product.

**Non-thermal Aerosols**

**Adult Mosquito Control:** Control of adult Mosquitoes over a 300 foot swath can be obtained with non-thermal aerosols of this product using the following rates at the indicated vehicle speeds:

<b>Rates of This Product</b>					
<b>Undiluted – Apply as Follows</b>					
Lbs. A.I. per Acre	Application Rates (fl. ozs.) per Minute at Vehicle Speeds				This Product per Acre (fl. ozs.)
	5 mph	10 mph	15 mph	20 mph	
0.03 to 0.06	2.3 to 4.5	4.5 to 9	6.8 to 13.5	9 to 18	0.75 to 1.5
<b>1:2 Dilution</b>					
Mix 1 part of this product with 2 parts of suitable fuel oil or water. Apply as follows:					
Lbs. A.I. per Acre	Application Rates (fl. ozs.) per Minute at Vehicle Speeds				Finished Spray per Acre (fl. ozs.)
	5 mph	10 mph	15 mph	20 mph	
0.03 to 0.06	9 to 18	18 to 36	27 to 54	36 to 72	3 to 6

(Continued)

RATES OF THIS PRODUCT (Cont.)					
1:4 Dilution					
Mix 1 part of this product with 4 parts of suitable fuel oil or water. Apply as follows:					
Lbs. A.I. per Acre	Application Rates (fl. ozs.) per Minute at Vehicle Speeds				Finished Spray per Acre (fl. ozs.)
	5 mph	10 mph	15 mph	20 mph	
0.03 to 0.06	11.25 to 22.5	22.5 to 45	33.75 to 67.5	45 to 90	3.75 to 7.5

### OPERATING EQUIPMENT:

Each non-thermal aerosol generator used for dispersal of this product to control adult Mosquitoes must have the minimum capability of producing the droplet spectrum described under "GROUND BASED APPLICATION". The initial determination of droplet size is made after the unit is installed in a vehicle and prior to its use in Mosquito control operations. Recheck the unit as frequently as necessary to ensure that proper droplet size is maintained for each operation. Determination of droplet size annually is usually sufficient if the unit has been maintained in good operating conditions. If chemical flow rate or any changes or modifications are made to the equipment, recheck the calibration and droplet size characterization. The unit must be inspected before each operation to correct any leaks or obstructions in the spray system to detect whether the nozzle, hoses or other parts are worn and need replacement, to ensure that the flow meter is properly calibrated and to determine that the pressure recommended by the manufacturer is being maintained. Consult your equipment manufacturer's instructions for additional calibration and droplet size checks and requirements.

Nozzle Direction – Angled in a backwards direction out the side or rear of the vehicle.

– Angled in an upwards direction based on fogger characteristics.

Vehicle Speed – Allowable speed dictated by local policies and laws, as well as capabilities of the application equipment.

– Shut off spray equipment when vehicle is stopped.

### DILUTION RATES FOR THIS PRODUCT

**Mosquito control in populated and rural areas (adult Mosquito control over cities, towns, and other areas where automobiles, trailers, trucks, and pleasure boats are present):** Apply 5.1 to 6 fluid ounces of this product per acre. Apply only when weather conditions are favorable. Wind and rising air currents may cause undesirable spray drift and reduce Mosquito control.

Only treat when Mosquitoes are swarming or biting. Do not retreat a site more than 3 times in any one week. However, more frequent treatments may be made to prevent or control a threat to public and/or animal health determined by a State, Tribal or Local health or vector control agency on the basis of documented evidence of disease causing agents in vector Mosquitoes or the occurrence of Mosquito-borne diseases in animal or human populations, or if specifically approved by the State or Tribe during a natural disaster recovery effort.

**IMPORTANT:** Undiluted spray droplets of this product will permanently damage automobile paint unless all the conditions described and recommended in this label are met. If accidental exposure does occur, the vehicle should be washed at once.

**Adult Mosquitoes on Rangeland, Pasture and other uncultivated non-agricultural areas (Wasteland, Roadsides):** Apply this product at the rate of 4 to 6 fluid ounces in 2 to 8 quarts of water per acre to control adult Mosquitoes using ground or aerial equipment.

Only treat when Mosquitoes are swarming or biting. Do not retreat a site more than 3 times in any one week. However, more frequent treatments may be made to prevent or control a threat to public and/or animal health determined by a State, Tribal or Local health or vector control agency on the basis of documented evidence of disease causing agents in vector Mosquitoes or the occurrence of Mosquito-borne diseases in animal or human populations, or if specifically approved by the State or Tribe during a natural disaster recovery effort.

This product can be mixed with a synergized pyrethrin emulsifiable concentrate (such as 6 pyrethrin + 60% PBO) in accordance with the most restrictive of label limitations and precautions indicated on both this and the tank-mixed product. Label rates must not be exceeded. This product may not be mixed with any other product bearing a label which specifically prohibits such mixing. Prior to tank-mixing large

quantity, mix a small amount in a glass jar to verify that the products are physically compatible.

Depending upon your operational needs for knock down, the amount of synergized pyrethrin can be reduced or adjusted. Application rates of this product and droplet distribution requirements remain the same as for this product used alone.

## STORAGE AND DISPOSAL

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

**STORAGE:** Do not contaminate with other pesticides or fertilizers. The product should never be heated above 55°C (131°F) and should not be stored for long periods of time at a temperature in excess of 25°C (77°F). Storage should be under lock and key in a ventilated room and secure from access by unauthorized persons and children. Storage should be in a cool, dry area away from any heat or ignition source. Do not stack over 2 pallets high. Move containers by handles or case. Do not move containers from one area to another unless they are securely sealed. Keep container tightly sealed when not in use. Keep away from any puncture source. Do not store near water supplies, food, feed and fertilizer to avoid contamination. Store in original containers only. If the contents are leaking or material is spilled, follow these steps:

1. Contain spill. Absorb with a material such as sawdust, clay granules or dirt.
2. Collect and place in suitable containers for disposal.
3. Wash area with soap and water to remove remaining pesticide.
4. Follow washing with clean water rinse.
5. Place leaking container in a plastic tub and transfer contents, as soon as possible, to an empty, original container.
6. Do not allow runoff to enter sewer or contaminate water supplies.
7. Dispose of waste.

**PESTICIDE DISPOSAL:** To avoid wastes, use all materials in this container by application according to label directions. If wastes cannot be avoided, offer remaining product to a waste disposal facility or pesticide disposal program (often such programs are run by State or Local governments or by industry).

### CONTAINER HANDLING:

**Nonrefillable Container (rigid material; less than 5 gals.):** Non-refillable container. Do not reuse or refill this container. Offer for recycling, if available. Clean container promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container one-fourth full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Dispose of empty container in a sanitary landfill or by incineration.

**Nonrefillable Container (rigid material; 5 gals. up to < 250 gals.):** Nonrefillable container. Do not reuse or refill this container. Offer for recycling, if available. Clean container promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container one-fourth full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. Dispose of empty container in a sanitary landfill or by incineration.

**Refillable Container (≥ 250 gals. & Bulk):** Refillable container. Refill this container with pesticide only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. To clean the container before final disposal, empty the remaining contents from this container into application equipment or mix tank. Fill the container about 10% full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times.

**WARRANTY—CONDITIONS OF SALE**

OUR DIRECTIONS FOR USE of this product are based upon tests believed reliable. Follow directions carefully. Timing and method of application, weather and crop conditions, mixtures with other chemicals not specifically recommended and other influencing factors in the use of this product are beyond the control of the Seller. To the extent consistent with applicable law, Buyer assumes all risks of use, storage and handling of this material not in strict accordance with directions given herewith. To the extent consistent with applicable law, in no case shall the Manufacturer or the Seller be liable for consequential, special or indirect damages resulting from the use or handling of this product when such use and/or handling is not in strict accordance with directions given herewith. The foregoing is a condition of sale by the Seller and is accepted as such by the Buyer.

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