# Malathion

## Liquid Concentrate

**KILLS:** Flies, Mosquitoes and Other Listed Insect Pests

**FOR USE ON:** Gardens, Lawns, Outdoor Ornamentals and Listed Crops

# SPECIMEN LABEL

## ACTIVE INGREDIENT:

| | |
|---|---|
| Malathion 0,0-dimethyl phosphorodithioate of diethyl mercaptosuccinate | 57% |
| **OTHER INGREDIENTS*** | 43% |
| **TOTAL:** | 100% |

*Contains Xylene Range Aromatic Solvent
This product contains 5 lbs malathion per gallon.

## KEEP OUT OF REACH OF CHILDREN

## WARNING - AVISO

Si usted no entiende la etiqueta, busque a alguien para quese la explique a usted en detalle.(If you do not understand this label, find someone to explain it to you in detail.) See inside booklet for additional Precautionary Statements and complete Directions for Use.

EPA Reg.No. 89459-36
EPA Est. No. 39578-TX-1

### 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.

| FIRST AID ORGANOPHOSPHATE | |
|---|---|
| **If swallowed** | • Immediately call a Poison Control Center or doctor.<br>• Do not induce vomiting unless told to by a Poison Control Center or doctor.<br>• Do not give **any** liquid to the person.<br>• Do not give anything by mouth to an unconscious person. |
| **If on skin or clothing** | • Take off contaminated clothing.<br>• Rinse skin immediately with plenty of water for 15-20 minutes.<br>• Call a Poison Control Center or doctor for treatment advice. |
| **If inhaled** | • Move person to fresh air.<br>• If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth, if possible.<br>• Call a Poison Control Center or doctor for further treatment advice. |
| **If in eyes** | • Hold eye open and rinse slowly and gently with water for 15-20 minutes.<br>• Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.<br>• Call a Poison Control Center or doctor for treatment advice. |

*(continued)*

Have the product container or label with you when calling a poison control center or physician, or going for treatment. You may contact 1-800-248-7763 for emergency medical treatment information. You may also contact the National Pesticide Telecommunications Network at 1-800-858-7378 for information including health concerns, medical emergencies, or pesticide incidents.

**NOTE TO PHYSICIAN:** This product is an organophosphate insecticide. If symptoms of cholinesterase inhibition are present, atropine sulfate by injection is antidotal. 2-PAM is also antidotal and may be administered, but only in conjunction with atropine. Contains petroleum distillates. May pose an aspiration pneumonia hazard. Gastric lavage may be indicated if product was taken internally.

**Personal Protective Equipment:** Some materials that are chemical-resistant to this product are barrier laminate, butyl rubber, nitrile rubber or viton. If you want more options, follow the instructions for category F on an EPA chemical resistance category selection chart.

For all formulations and all use patterns – mixers, loaders, applicators, flaggers and other handlers must wear:

- long-sleeved shirt and long pants
- shoes and socks
- chemical-resistant gloves
- protective eyewear (goggles, safety glasses, face shield)

For all dip applications – mixers, loaders, and applicators must wear:

- long-sleeved shirt and long pants
- shoes and socks
- chemical-resistant gloves
- protective eyewear (goggles, safety glasses, face shield)
- chemical resistant apron

For all air blast applications – applicators must wear:

- long-sleeved shirt and long pants
- shoes and socks

- chemical-resistant gloves
- protective eyewear (goggles, safety glasses, face shield)
- chemical-resistant head gear

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

**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 product 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.

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 product 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.

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 System (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 any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

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.

### Agricultural Use Requirements

Use this product only in accordance with the labeling and with the Worker Protection Standard, 40 CFR Part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and the handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE), and restricted-entry interval.

The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas during the restricted-entry interval (REI). 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 Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water, is: coveralls, chemical-resistant gloves, such as barrier laminate, nitrile rubber, neoprene rubber or viton, shoes plus socks, and protective eyewear.

### Non-Agricultural Use Requirements

The requirements in this box apply to uses of this product that are NOT within the scope of the Worker Protection Standard for agricultural pesticides (40 CFR Part 170). The WPS applies when this product is used to produce agricultural plants on farms, forests or nurseries. Do not enter or allow others to enter until sprays have dried.

## PRECAUTIONS AND RESTRICTIONS

Use only with adequate ventilation. After using this product in stored grain facilities (grain elevators/silos), ventilate thoroughly. Any ULV end use product formulated for use for aerial application, other than those with Directions for Use in Wide Area Mosquito Adulticide applications, must be packaged in closed mixing and loading systems.

## CHEMIGATION

Apply Malathion Liquid Concentrate only through sprinkler, including center pivot, lateral move end low, side (wheel) roll, traveler, big gun, solid set or hand move irrigation system(s). 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 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.

CHEMIGATION SYSTEMS CONNECTED TO PUBLIC WATER SYSTEMS: Central Garden & Pet Company does not encourage connecting chemigation systems to public water suppliers. The following information is provided for users who have diligently considered all other application and water supply actions before electing to make such a connection.

Public water system 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 at least 25 individuals daily at least 60 days out of the year.

Chemigation systems connected to public water systems must contain a functional, reduce-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 pump.

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 shut down.

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.

Mix in clean supply tank the recommended 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 shape 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 recommended 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.

**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.

When making a ULV application with aerial application equipment, a minimum buffer zone of 50 feet must be maintained along any water body.

**Spray Drift Instructions:** 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 Application:** 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.

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.**

**ALL RESTRICTIONS, PRECAUTIONS AND DIRECTIONS ON THIS LABEL MUST BE FOLLOWED.**

## CROP USE SITES

Application to agricultural sites should be made in a minimum of 30 gallons of water by ground equipment or 5 gallons of water by air equipment unless otherwise specified. Best results are obtained with uniform converage. Use higher rate when foliage is heavy or infestation is severe.

## VEGETABLES

| Crop | Pests Controlled | Maximum Single Application Rate (lb ai/A) | Actual Rate/A | Maximum Number Applications Per Year | Minimum Application Interval (days) | Minimum Prehavest Interval (days) | Restricted Entry Interval (days) | Restrictions/ Remarks |
|---|---|---|---|---|---|---|---|---|
| Beets (Garden) | Aphids, Leafhoppers | 1.25 | 1.5 - 2 pt | 3 | 7 | 7 | 12 hrs | Do not apply within 7 days of harvest if tops are to be used as food or feed. Do not apply to sugar beets. |
| Broccoli | Aphids, Cabbage loopers, Imported cabbageworms | 1.25 | 1-2 pt | 2 | 7 | 2 | 2 | |
| Brussels Sprouts | Aphids | 1.25 | 1-2 pt | 2 | 7 | 7 | 2 | |
| Cabbage | Aphids, Cabbage loopers, Imported cabbageworms | 1.25 | 1-2 pt | 6 | 7 | 7 | 2 | For control of caterpillars on summer and fall plantings, begin when true leaves appear. On other plantings, and for control of other insects, begin when insects appear. |
| | Diamondback moths, Webworms | | 2 pt | | | | | |
| Cauliflower | Diamondback moths | 1.25 | 2 pt | 2 | 7 | 2 | 2 | |
| | Aphids | | 1-2 pt | | | | | |
| Celery | Aphids, Spider mites | 1.5 | 1.5 pt | 2 | 7 | 7 | 24 hrs | To be applied to fresh leaves and stalks only. Do not use on crops grown for seed and oil. |
| Collards | Aphids | 1.0 | 1.5 pt | 3 | 7 | 7 | 12 hrs | For control of caterpillars on summer and fall plantings, begin when true leaves appear. On other plantings, and for control of other insects, begin when insects appear. |
| | Harlequin cabbage bugs | | 1 pt | | | | | |
| Corn (Sweet) | Japanese beetles | 1.0 | 1.6 pt | 2 | 5 | 5 | 3 days for detasseling 12 hrs for all other activities. | Injury may occur in the whorl or to the silks. |
| Cucumber | Aphids, Pickleworms, Spider mites | 1.75 | 1.5-2 pt | 2 | 7 | 7 | 24 hrs | Do not apply to cucumbers unless plants are dry. |
| | Squash vine borers | | 2.8 pt | | | | | |
| | Cucumber beetles, Leafminers | | 2 pt | | | | | |
| Dandelion | Aphids | 1.25 | 1.5-2 pt | 2 | 7 | 7 | 24 hrs | |
| Parsley | Aphids | 1.5 | 1.5-2 pt | 2 | 7 | 2 | 24 hrs | |
| Parsnip | Aphids | 1.25 | 1.5-2 pt | 3 | 7 | 7 | 24 hrs | |
| Swiss Chard | Aphids | 1.0 | 1.5-2 pt | 2 | 7 | 14 | 12 hrs | |
| Watercress | Aphids | 1.25 (foliar ground) | 1.5-2 pt | 5 | 3 | 3 | 24 hrs | |
| | | 1.0 (aerial) | | | | | 12 hrs | |
| Eggplant | Aphids, Spider mites | 1.56 | 1 pt | 4 | 5 | 3 | 12 hrs | |
| | Lace bugs | | 2.5 pt | | | | | |
| Endive | Aphids, Spider mites | 1.25 | 1.5-2 pt | 2 | 7 | 7 | 24 hrs | |
| Garlic, Shallots | Aphids, Thrips | 1.56 | 1.5-2 pt | 3 | 7 | 3 | 24 hrs | |
| Hops | Aphids, Spider mites | 0.63 | 1 pt | 3 | 7 | 10 | 12 hrs | |

| Crop | Pests Controlled | Maximum Single Application Rate (lb ai/A) | Actual Rate/A | Maximum Number Applications Per Year | Minimum Application Interval (days) | Minimum Prehavest Interval (days) | Restricted Entry Interval (days) | Restrictions/ Remarks |
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| **CONTINUED FROM PREVIOUS PAGE** | | | | | | | | |
| Kale | Aphids, Cabbage loopers, Imported cabbageworms | 1.0 | 1-1.6 pt | 3 | 5 | 7 | 12 hrs | For control of caterpillars on summer and fall plantings, begin when true leaves appear. On other plantings, and for control of other insects, begin when insects appear. |
| | Webworm, Diamondback moths | | 1.6 pt | | | | | |
| Kohlrabi | Aphids | 1.25 | 1-2 pt | 2 | 7 | 7 | 24 hrs | |
| | Cabbage loopers, Diamondback moths, Imported cabbageworms, Webworms | | 2 pt | | | | | |
| Leeks | Aphids | 1.56 | 1.5-2 pt | 2 | 7 | 3 | 24 hrs | |
| | Onion maggot flies | | 2.5 pt | | | | | |
| | Thrips | | | | | | | |
| Lettuce | Aphids, Leafhoppers, Spider mites | 1.88 | 2 pt | 2 | 6 (Head) 5 (Leaf) | 14 | 24 hrs | |
| | Cabbage loopers | | 3 pt | | | | | |
| Melons (Cantaloupe, Casaba, Crenshaw, Honey Balls, Honey Dew Melons, Muskmelons, Persian Melons and hybrids of these) | Aphids, Spider mites | 1.0 | 1.5 pt | 2 | 7 | 1 | 12 hrs | Do not apply to melons unless plants are dry. |
| | Cucumber beetles | | | | | | | |
| | Leafminers | | | | | | | |
| | Leafhoppers | | | | | | | |
| | Pickleworms | | | | | | | |
| | Squash vine borers | | | | | | | |
| Watermelons | Aphids, Spider mites | 1.5 | 1.5-2 pt | 4 | 7 | 1 | 12 hrs | Do not apply to melons unless plants are dry. |
| | Cucumber beetles | | 2-2.4 pt | | | | | |
| | Leaf miners | | 2 pt | | | | | |
| | Leafhoppers | | 1.5-2 pt | | | | | |
| | Pickleworms | | 2 pt | | | | | |
| | Squash vine borers | | 2.4 pt | | | | | |
| Mushrooms | Mites, Phorid and Sciarid flies | 1.7 | 2.5 pt in 130 gal water; or 2 TBS in 3 gal water per 1,000 sq ft of bed | 4 | 3 | 1 | 12 hrs | Make thorough applications as soon after picking as possible. Repeat applications as necessary, usually twice a week. |
| Mustard Greens | Aphids, Cabbage loopers, Imported cabbageworms | 1.0 | 1.6 pt | 3 | 5 | 7 | 12 hrs | For control of caterpillars on summer and fall plantings, begin when true leaves appear. On other plantings, and for control of other insects, begin when insects appear. |
| | Flea beetles | | 1.5 pt | | | | | |
| Okra | Aphids | 1.2 | 1.5-1.92 pt | 5 | 7 | 1 | 12 hrs | Make no application after pods start to form. |
| | Japanese beetles | | 1.92 pt | | | | | |
| Onions (Bulb and Green) | Onion maggots | 1.56 | 1.5-2.5 pt | 2 | 7 | 3 | 12 hrs | |
| | Onion thrips | | 1.5-2 pt | | | | | |
| Peas (Green) | Aphids | 1.0 | 1.5 pt | 2 | 7 | 3 | 12 hrs | Grazing/feeding of treated crop foliage is prohibited. |
| | Grasshoppers | | 1.6 pt | | | | | |
| | Leafhoppers | | 1.25-1.6 pt | | | | | |
| Peas (Dried) | Aphids | 1.0 | 1.5 pt | 2 | 7 | 3 | 12 hrs | Grazing/feeding of treated crop foliage is prohibited. |
| | Grasshoppers | | 1.6 pt | | | | | |
| | Leafhoppers | | 1.25-1.6 pt | | | | | |
| Peppermint, Spearmint | Aphids, Flea beetles, Leafhoppers, Spider mites | 0.94 | 1.5 pt | 3 | 7 | 7 | 12 hrs | |
| Peppers (Bell) | Aphids | 1.56 | 1-2.5 pt | 2 | 5 | 3 | 12 hrs | |
| | Pepper maggots | | 2.5 pt | | | | | |

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| Potatoes (White) | Aphids, Grasshoppers, Leafhoppers | 1.56 | 2 pt | 2 | 7 | 0 | 12 hrs | |
| | False chinch bugs | | 1.5 pt | | | | | |
| | Mealybugs | | 2-2.5 pt | | | | | |
| Pumpkins | Aphids, Pickleworms, Spider mites | 1.0 | 1.6 pt | 2 | 7 | 1 | 12 hrs | Do not apply to pumpkins unless plants are dry. |
| | Leafhoppers | | 1.5 pt | | | | | |
| | Cucumber beetles, Squash vine borers | | 1.6 pt | | | | | |
| Radish | Aphids | 1.0 | 1.5 pt | 3 | 7 | 7 | 12 hrs | |
| Horseradish | Aphids | 1.25 | 1.5-2 pt | 3 | 7 | 7 | 12 hrs | |
| Rice | Rice leaf miner | 1.25 | 2 pt | 2 | 7 | 7 | 12 hrs | 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. Make first application shortly after the first blades appear on the surface of the water and repeat as necessary. |
| | Rice stink bugs | | 1-1.5 pt | | | | | 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. Apply by airplane in 2 gallons of water per acre during the early milk and dough stage of growing rice. Repeat application as necessary. This is a ULV application and must be in a closed mixing and loading system. |
| Rutabaga | Aphids | 1.0 | 1.5 pt | 3 | 7 | 7 | 12 hrs | |
| Spinach | Aphids, Leafhoppers | 1.0 | 1.6 pt | 2 | 7 | 7 | 12 hrs | |
| Squash (Summer) | Aphids, Leafminers, Spider mites, Pickleworms | 1.75 | 2 pt | 3 | 7 | 1 | 24 hrs | Do not apply to squash unless plants are dry. |
| | Cucumber beetles, Squash vine borers | | 2.8 pt | | | | | |
| Squash (Winter) | Aphids, Leafminers, Spider mites, Pickleworms | 1.0 | 2 pt | 3 | 7 | 1 | 12 hrs | Do not apply to squash unless plants are dry. |
| | Cucumber beetles, Squash vine borers | | 2.8 pt | | | | | |
| Strawberries | Aphids, Spider mites | 2.0 | 1.5 pt | 4 | 7 | 3 | 12 hrs | |
| | Field crickets, Lygus bugs, Spittlebugs, Thrips | | 1.5-3 pt | | | | | |
| | Potato leafhoppers, Strawberry leafrollers, Strawberry root weevils, Whiteflies | | 1.5-2.5 pt | | | | | |
| Sweet Potatoes | Leafhoppers | 1.56 | 1.5-2 pt | 2 | 7 | 0 | 12 hrs | |
| | Morninglory leafminers | | 2.5 pt | | | | | |

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| Tomatoes | Aphids | 1.56 | 1.5 pt | 4 | 5 | 1 | 12 hrs | |
| | Drosophila | | 2.5 pt | | | | | |
| | Spider mites | | 1.5 pt | | | | | |
| | Armyworms, Fruitworms (California only) | | 2.25 qt | | | | | |
| Turnip | Aphids, Cabbage loopers, Imported Cabbageworms | 1.25 | 1-2 pt | 3 | 5 (turnip greens)<br>7 (turnip root) | 7 | 24 hrs | For control of caterpillars on summer and fall plantings, begin when true leaves appear. On other plantings, and for control of other insects, begin when insects appear. |

## FIELD CROPS AND PASTURE AND RANGE GRASSES

| Crop | Pests Controlled | Maximum Single Application Rate (lb ai/A) | Actual Rate/A | Maximum Number Applications Per Year | Minimum Application Interval (days) | Minimum Preharvest Interval (days) | Restricted Entry Interval (days) | Restrictions/ Remarks |
|---|---|---|---|---|---|---|---|---|
| Alfalfa | Alfalfa weevil larvae, Aphids, Grasshoppers Lygus bugs, Potato leafhoppers, Spider mites, Spittlebugs, Stink bugs | 1.25 | 1.5-2 pt | 2 per cutting | 14 | 0 | 12 hrs | 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. |
| | Armyworms | | 2 pt | | | | | |
| | Clover leaf weevil | | 1.5 pt | | | | | |
| | Vetch bruchid | | 2 pt | | | | | |
| Clover | Alfalfa weevil larvae, Aphids, Grasshoppers, Lygus bugs, Potato leafhoppers, Spider mites, Spittlebugs | 1.25 | 1.5-2 pt | 2 per cutting | 14 | 0 | 12 hrs | Do not apply to the bloom. |
| | Armyworms | | 2 pt | | | | | |
| | Clover leaf weevil | | 1.5 pt | | | | | |
| Corn (Field) | Aphids, Corn earworm, Corn rootworm adults, Grasshoppers, Sap beetle, Thrips | 1.0 | 1.5 pt | 2 | 7 | 7 | 3 days for tasseling<br>12 hrs for all other activities | For control of corn earworm and sap beetles, begin treatments when 10% of the ears show silk. Repeat applications at 7 day intervals for a total of 2 applications. Injury may occur in the whorl and silk stages with MALATHION. |
| | Armyworms | | 1.5 pt | | | | | |
| Cotton | Brown cotton leafworm, Cotton aphid, Cotton leafworm, Cotton leafperforator, Desert spider mite, Leafhoppers, Lygus bugs, Thrips, Whiteflies | 2.5 | 0.5-2 pt | 3 | 7 | 7 | 2 | Consult local agricultural authorities for exact time of application.<br>Grazing/feeding of treated crop foliage is prohibited. |
| | Boll weevil | | 2-4 pt | | | | | |
| | Aphids, Cotton fleahoppers, Spider mites | | 1-1.5 pt | | | | | |
| | Fall armyworms, Garden webworms, Grasshoppers | | 1.5-3 pt | | | | | |
| Grasses (Barnyardgrass, Canarygrass, Fescue, Orchardgrass, Red top, Timothy, Yellow foxtail) | Cereal leaf beetle | 1.25 | 1-1.5 pt | 1 per cutting | NA | 0 | 12 hrs | |
| Pasture and Rangeland | Aphids, Grasshoppers, Leafhoppers | 1.25 | 1.5-2 pt OR 1.5 pt in 1 gal diesel fuel oil/A | 1 per cutting | NA | 0 | 12 hrs | ULV applications only – use closed mixing and loading systems. |
| | Armyworms | | 2 pt OR 1.5 pt in 1 gal diesel fuel oil/A | | | | | |
| Small Grains (Barley) | Cereal leaf beetle | 1.25 | 1-1.5 pt | 2 | 7 | 7 | 12 hrs | |
| | Winter grain mite | | 2 pt | | | | | |
| Small Grains (Oats, Wheat) | Cereal leaf beetle | 1.0 | 1-1.5 pt | 3 | 7 | 7 | 12 hrs | |
| | English grain aphids, Grasshoppers, Greenbugs | | 1.5 pt | | | | | |
| | Winter grain mite | | 1.6 pt | | | | | |
| Small Grains (Rye) | Cereal leaf beetle | 1.0 | 1-1.5 pt | 3 | 7 | 7 | 12 hrs | |
| | English grain aphids, Grasshoppers, Greenbugs | | 1.5 pt | | | | | |
| | Winter grain mite | | 1.6 pt | | | | | |
| Sorghum | Greenbugs | 1.0 | 1.5 pt | 2 | 7 | 7 | 12 hrs | Grazing/feeding of treated crop foliage is prohibited. |
| Vetch | Omnivorous leaf tier, Pea aphid, Vetch bruchid | 1.25 | 1.5-2 pt | 2 per cutting | 14 | 0 | 12 hrs | |

## FLY AND MOSQUITO CONTROL - Outdoor Use Only

| Pests Controlled | Rate | Directions For Use |
|---|---|---|
| Adult flies | Straight Sprays: 5 Tablespoons + 1 gal water OR 1 cup + 2½ gal water OR 1 quart + 12 gals water | Apply as a spray at the rate of 1 gallon per 1,000 sq ft on painted surfaces and 2 gal per 1,000 sq ft on unpainted surfaces where flies alight or congregate, such as on fences and around garbage cans.<br>Repeat applications as necessary. Avoid applying oil-based formulations to valuable ornamental plants as injury may occur. |
| Mosquito larvae | 13 fl oz per acre | 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. For use in standing water (intermittently flooded areas, stagnant water, temporary rain pools). Mix in sufficient water or oil when applied by air or ground equipment. |
| **Pests Controlled** | **Rate** | **Directions For Use** |
| CONTINUED FROM PREVIOUS PAGE | | |
| Mosquito adults | 1 part to 28 parts water, fuel oil or diesel oil | Spray lower outside house foundations, shrubs, low trees and lawn areas (Spot treatment only). Do not apply as a broadcast treatment to residential lawns. |

## OUTDOOR ORNAMENTALS

**Ornamental and/or shade trees, ornamental herbaceous plants, ornamental non-flowering plants, ornamental woody shrubs and vines, pine seed orchards, uncultivated non-agricultural areas, and Christmas tree plantations.**

Injury may occur on Ferns, Hickory, Viburnum, Lantana, Crassula and Canareti Juniper following the use of MALATHION LIQUID CONCENTRATE. Slight injury has also been reported on Boston, Pteris, and Maidenhair Ferns, Petunias, Small-Leaf Spirea, White Pine and Maples. Under extreme heat, drought and disease conditions, the emulsifiable concentrates may cause slight damage to elms. For small areas, mix the appropriate amount of this product per gallon of water and apply with hand-pump sprayer.

| Pests | Rate | Restrictions/Remarks |
|---|---|---|
| Aphids, Spider mites | 1½ pts per 100 gals OR 2 teaspoons per gal | Maximum 2 applications per year/growing cycle. 10 day minimum retreatment interval. 12 hour REI. |
| Bagworms, Birch leafminers, Boxwood leafminers | 2 pts per 100 gal OR 2 teaspoons per gal | Maximum 2 applications per year/growing cycle. 10 day minimum retreatment interval. 12 hour REI. |
| European pine shoot moths, Four-lined leaf bugs, Japanese beetles adult, Potato leafhoppers, Rose leafhoppers, Tarnished plant bugs, Thrips | 1.5 pts per 100 gal OR 2 teaspoons per gal | Maximum 2 applications per year/growing cycle. 10 day minimum retreatment interval. 12 hour REI. |
| Lace bugs | 1 pt per 100 gal OR 2 teaspoons per gal | Maximum 2 applications per year/growing cycle. 10 day minimum retreatment interval. 12 hour REI. |
| Mealybugs, Whiteflies | 1.5 pts per 100 gal OR 2 teaspoons per gal | Maximum 2 applications per year/growing cycle. 10 day minimum retreatment interval. 12 hour REI. |
| Oak kermes | 2 pts per 100 gals OR 2 teaspoons per gal | Apply when scale crawlers have settled on foliage. Maximum 2 applications per year/growing cycle. 10 day minimum retreatment interval. 12 hour REI. |
| Tent caterpillars | 2 pts per 100 gal OR 2 teaspoons per gal | Maximum 2 applications per year/growing cycle. 10 day minimum retreatment interval. 12 hour REI. |

| Pests | Rate | Restrictions/Remarks |
|---|---|---|
| **CONTINUED FROM PREVIOUS PAGE** | | |
| Oyster shell scales | 1 pt per 100 gals OR 2 teaspoons per gal | Apply when scale crawlers have settled on foliage. Maximum 2 applications per year/growing cycle. 10 day minimum retreatment interval. 12 hour REI. |
| Euonymus scales, Scurfy scales | 1.5 pts per 100 gal OR 2 teaspoons per gal | Maximum 2 applications per year/growing cycle. 10 day minimum retreatment interval. 12 hour REI. |
| Azalea scales, Magnolia scales, Pine leaf scales | 2 pts per 100 gals OR 2 teaspoons per gal | Maximum 2 applications per year/growing cycle. 10 day minimum retreatment interval. 12 hour REI. |
| Fletcher scales | 2 pts per 100 gals OR 2 teaspoons per gal | Apply when scale crawlers have settled on foliage. Maximum 2 applications per year/growing cycle. 10 day minimum retreatment interval. 12 hour REI. |
| Florida red scales, Juniper scales | 2 pts per 100 gals OR 2 teaspoons per gal | Apply when scale crawlers have settled on foliage. Maximum 2 applications per year/growing cycle. 10 day minimum retreatment interval. 12 hour REI. |
| **Pests** | **Rate** | **Restrictions/Remarks** |
| **CONTINUED FROM PREVIOUS PAGE** | | |
| Black scale crawlers, Soft brown scales | 2.25 pts per 100 gal OR 2 teaspoons per gal | Maximum 2 applications per year/growing cycle. 10 day minimum retreatment interval. 12 hour REI. |
| Monterey pine scales | 2.5 pts per 100 gal OR 2 teaspoons per gal | Maximum 2 applications per year/growing cycle. 10 day minimum retreatment interval. 12 hour REI. |
| Pine needle scales | 4 pts per 100 gal OR 4 teaspoons per gal | Maximum 2 applications per year/growing cycle. 10 day minimum retreatment interval. 12 hour REI. |
| Wax scales | 4 pts per 100 gal OR 4 teaspoons per gal | Apply in spring when crawlers are active. Repeat 1 or 2 full coverage applications at 10 day intervals. Maximum 2 applications per year/growing cycle. 10 day minimum retreatment interval. 12 hour REI. |

## OUTDOOR USE SITES

| Site | Pests | Rate | Restrictions/Remarks |
|---|---|---|---|
| Gardens | Millipedes, Sawbugs, Springtails | 1 tsp/gal of water | Apply as a spot treatment at a rate of 1.2 fluid ounces per square foot of soil where insects congregate. Repeat at 7 to 10 day intervals as needed. |
| Lawns (spot treatment only) | Ant mounds – Do not use on Fire ants or Harvester ants | 1.5 pts/100 gals of water (1.44 tsp/gal of water) | Spray ant hills thoroughly so that they are well soaked. For other small ants in flower beds, lawns, around trees, spray lightly in the infested areas. Repeat in 10 to 15 days if ants return.<br>Do not allow people or pets in treated areas until sprays have dried. |

## ON AND AROUND CULL FRUIT AND VEGETABLE DUMPS

| Pest | Rate | Remarks |
|---|---|---|
| Drosophila flies, Dried fruit beetles | 1.5 gal per 100 gals of water | Apply as a drench using 8 to 10 gals of spray per 100 sq ft. Do not use on dumps should not be over 18 inches deep. DO NOT FEED TREATED FRUIT AND VEGETABLES. |

## STORAGE AND DISPOSAL

Do not contaminate water, food or feed by storage or disposal. Open dumping is prohibited.

**PESTICIDE STORAGE:** Malathion Liquid Concentrate should be stored in the original, unopened container in a secure, dry place. Do not contaminate other pesticides or fertilizers. This 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). Store in cool, dry area. If container is damaged, stop any leaks by repositioning the container or by patching or otherwise repairing the leaks. Take care to avoid contact with pesticide and wear protective gear. On cleanup of spilled liquids, wear protective equipment as required to prevent contact with the product or its vapors. Cover the spilled areas with generous amounts of absorbent material, such as clay, diatomaceous earth, sand or sawdust. Sweep the contaminated absorbent onto a shovel and put the sweepings into a salvage drum. Apply liquid household bleach to contaminated area. Scrub thoroughly using long handled brush. Let stand for 15 minutes. Wash area thoroughly with water. Place leaking container into a similar drum or glass container. Mark the container with name of product, ingredient statement, precautionary statements, and signal word. Contact us for replacement label. Do not store, use, pour or spill near heat or open flame.

**PESTICIDE DISPOSAL:** To avoid wastes, use all material 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 DISPOSAL:** Nonrefillable container. Do not reuse or refill this container. Offer for recycling, if available. Clean container promptly after emptying. [**5 gallons or under**] 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 ¼ 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. [**Over 5 gallons**] Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container ¼ 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.

ZOËCON® Professional Products

**Central Garden & Pet Company**, 1501 East Woodfield Road, 200W, Schaumburg, Illinois 60173

**NOTE:** This specimen label is for informational purposes only. All uses may not be approved in all states. See product labeling for use directions.



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