

BONIDE®

CYTHON® PREMIUM GRADE
 MALATHION
 50% EC

ACCEPTED
 OCT 17 1989
 4-99

FOR FLOWERS, EVERGREENS, SHRUBS,
 SHADE TREES, HOUSEPLANTS, THE
 LISTED FRUITS AND VEGETABLES,
 MOSQUITOES, SMALL FLYING INSECTS,
 AND FLY CONTROL.

EPA Est. No. 4-NY-1 EPA Reg. No. 4-99

ACTIVE INGREDIENT

Malathion: 0,0-dimethyl phosphorodithioate of
 diethyl mercaptosuccinate 50%

INERT INGREDIENTS: 50%

Contains Xylene.

Cythion® is a registered trademark of
 the American Cyanamid Co., Inc., New York

KEEP OUT OF REACH OF CHILDREN
CAUTION
 See side panel for additional
 precautionary statements.

NET CONTENTS:

BONIDE MALATHION 50% EC, EPA Reg. No. 4-99PRECAUTIONARY STATEMENTSHAZARDS TO HUMANS AND DOMESTIC ANIMALS - CAUTION

Harmful if swallowed or inhaled. Avoid breathing spray mist or contact with skin, eyes or clothing. May be absorbed through skin. Do not use on humans.

When used indoors use only with adequate ventilation. After using this product indoors, ventilate thoroughly before occupying enclosed spaces. Do not allow contact with treated surface until sprays have dried.

STATEMENT OF PRACTICAL TREATMENT

If swallowed: Do not induce vomiting. Get medical attention.
 If inhaled: Remove victim to fresh air and apply respiration if indicated.
 If on skin: Wash promptly with soap and water. Rinse thoroughly. Remove contaminated clothing and shoes. Wash clothing before reuse.
 If in eyes: Immediately flush eyes with plenty of water for at least 15 minutes. Call a physician.

Note to Physician: This product may cause cholinesterase inhibition. Atropine is antidotal. 2-PAM may be effective as an adjunct to atropine.

ENVIRONMENTAL HAZARDS

This pesticide is toxic to fish, aquatic invertebrates, and aquatic life stages of amphibians. Do not apply directly to water or wetlands (i.e., swamps, bogs, marshes, and potholes). Drift and runoff may be hazardous to aquatic organisms in areas near the application site. Do not contaminate water when disposing of equipment washwaters.

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 if bees are visiting the treatment area.

PHYSICAL HAZARDS

Do not use, pour, spill or store near heat or open flame.

DIRECTION FOR USE

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

STORAGE AND DISPOSAL

Keep container tightly closed to prevent evaporation. Do not store near nor contaminate feed, or foodstuffs. Do not reuse container. Wrap container and put in trash collection.

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BONIDE MALATHION 50% EC, EPA Reg. No. 4-99

BONIDE MALATHION 50% EC controls a great diversity of insects; including aphid, spider mites, scales, as well as a wide range of other sucking and chewing insects attacking listed fruits, and vegetables, ornamentals, houseplants; controls flies mosquitoes, and small flying insects; for protection of stored grains.

DIRECTIONS

For proper mixing, the spray tank should be at least 3/4 filled with water before MALATHION 50% E is added. Shake sprayer occasionally or agitate to keep spray particles in suspension during application. Follow spray schedule given in SPRAY CHART below.

CROP	INSECTS	WHEN TO APPLY	AMOUNT
ASPARAGUS	asparagus beetle, asparagus aphid	Make 2 or more applications as needed up to 1 day of harvest.	2 1/2 tsp./gal. water or 2 1/2 pts. in 25/50 gals. water per acre
	thrips		2 tsp./gal. water, or 2 pts. / 25/50 gals. water per acre
BEANS (Lima, Green, Snap, Navy, Red, Kidney, Wax, Cowpeas, Blackeye Peas)	Mexican bean beetle, spider mites, Japanese beetle, aphids, cucumber beetle	Make 2 or more applications as needed up to 3 days of harvest *Make full coverage applications weekly to stems and vines at base of plants. Consult Cooperative Agricultural Extension Service for proper timing.	1 1/2 tsp./gal. water, or 1 1/2 pts. in 25/50 gals. water per acre.
TOMATOES	spider mites, aphids		3 tsp./gal. water, or 3 pts. in 25/50 gals. water per acre.
PUMPKINS	aphids, mites, squash vine borers*	Make 2 or more applications as needed up to 3 days of harvest *Make full coverage applications weekly to stems and vines at base of plants. Consult Cooperative Agricultural Extension Service for proper timing.	4 tsp./gal. water, or 4 pts. in 25/50 gals. water per acre.
EGGPLANT	aphids, spider mites		2 1/2 tsp./gal. water, or 2 1/2 pts. in 25/50 gals. water per acre.
ONIONS	thrips, onion maggots	Make 2 or more applications as needed up to 3 days of harvest.	1 1/2 tsp./gal. water, or 1 1/2 pts. in 25/50 gals. water per acre.
PEPPERS	aphids		3 tsp./gal. water, or 3 pts. in 25/50 gals. water per acre.
	pepper maggots	Make 2 or more applications as needed up to 3 days of harvest.	1 1/2 tsp./gal. water, or 1 1/2 pts. in 25/50 gals. water per acre.
RUTABAGAS	aphids		3 tsp./gal. water, or 3 pts. in 25/50 gals. water per acre.
SWEET POTATO	leafhoppers, morning glory leafminer	Make 2 or more applications as needed up to 3 days of harvest.	1 1/2 tsp./gal. water, or 1 1/2 pts. in 25/50 gals. water per acre.
POTATOES (White or Irish)	false chinch bugs, aphids, leaf hoppers, weevils	Make 2 or more applications as needed up to 3 days of harvest.	4 tsp./gal. water, or 4 pts. in 25/50 gals. water per acre.
LETTUCE	leafhoppers, aphids, cabbage looper	Make 2 or more applications as needed up to 3 days of harvest on head lettuce (14 days on leaf lettuce).	2 tsp./gal. water, or 2 pts. in 25/50 gals. water per acre.
CORN (Field, Sweet and Pop)	aphids, sap beetle, thrips	Make 2 or more applications as needed up to 5 days of harvest. Do not apply in the whorl or silk stage as injury may occur.	3 tsp./gal. water, or 3 pts. in 25/50 gals. water per acre.
	grasshoppers	Make full coverage application to foliage when nymphs are young.	
	corn rootworm adults (for protection of silks)	Make full coverage application when adult beetles become abundant.	
MELONS (Cant.oupes, Casabas, Greenhaws, Ho. cukes, Honey Balls, Muskmelons, Persian, Watermelons and hybrids of these)	aphids, spider mites, cucumber beetles	Make 2 or more applications as needed up to 3 days of harvest. Do not apply unless plants are dry.	2 1/2 tsp./gal. water, or 2 1/2 pts. in 25/50 gals. water per acre.
SQUASH	aphids, spider mites, pickleworm, squash vine borers*, cucumber beetles	Make full coverage applications weekly to stems and vines at base of plants. Consult Agricultural Cooperative Extension Service for proper timing.	
CUCUMBER	aphids, spider mites, cucumber beetles		
COLE CROPS AND LEAFY VEGETABLES Broccoli, Bruss. is sprouts, Cabbage, Collards, Dandelions, Kale, Kohlrabi, Must. Green, Parsley, Swiss Chard, T. Turn, Watercress, Cauliflower	aphids, flea beetles (on mustard greens only) diamond back moth caterpillars (on cauliflower, collards, brussels sprouts and broccoli only), harlequin cabbage bug (on collards only)	Make 2 or more applications as needed up to 7 days of harvest (Turnips (including tops) & Broccoli - 3 days, parsley - 21 days)	
CILERY	spider mites, aphids		
SPINACH	aphids		
CARROTS	aphids, leafhoppers		
BEETS	aphids, leafhoppers		2 1/2 tsp./gal. water, or 2 1/2 pts. in 25/50 gals. water per acre.
INDIVE	aphids, mites		1 1/2 tsp./gal. water or 1 1/2 pts. in 25/50 gals. water per acre.
APPLES	wooly apple aphid, bud moth, furze scale, green apple aphid, rose apple aphid, mealybug, codling moth, plum curculion, red banded leaf roller, tent caterpillar	Start to spray when leaves first start to appear. Repeat at 10 day intervals until bloom. Do not spray during blossom period. Repeat at 14 day intervals after bloom, up to 3 days before harvest. May cause injury to McIntosh and Cortland varieties of apple.	Apply at the rate of 2 tsp./gal. water, or 2 pts./100 gals. water.

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APRICOTS	codling moth, orange tortrix, terra pin scale, soft brown scale, aphids	Start to spray early in season. Repeat at 10 day intervals until bloom. Do not spray during blossom period. Repeat at 14 day intervals after bloom, up to 7 days of harvest.	Apply at the rate of 1½-2 tsp./gal. water or 1½-2 pts./100 gals. water.
CHERRIES, PLUMS, PRUNES	black cherry aphid, fruit tree roller, cherry fruit fly, bud moth, mealy plum aphid.	Spray as for apricots, up to 3 days of harvest.	Apply at the rate of 1½ tsp./gal. water, or 1½ pts./100 gals. water.
PEACHES	oriental fruit moth, plum curculio, green peach, black cherry, black peach, rusty plum aphids and Japanese beetle, letrapsin, cottony peach scales.	Spray as for apricots, up to 7 days of harvest.	Apply at the rate of 2 tsp./gal. water, or 2 pts./100 gals. water.
CITRUS — grapefruit, lemons, limes, oranges, tangelos, tangelos, kumquats	California red, yellow, purple, black (single and off brooded), soft, citricola scales, Florida red and purple scales (light & medium infestations), thrips		
PEARS	mealybugs, mites, pear psylla, codling moth, plum curculio, fruit tree & red banded leaf rollers	Spray as for apricots, up to 1 day of harvest.	
BLACKBERRIES, BOYSENBERRIES, DEWBERRIES, LOGANBERRIES, RASPBERRIES	mites, thrips, leafhoppers, Japanese beetles, aphids, rose scale, sap beetle	Make 2 or more applications up to day of harvest.	3 tsp./gal. water, or 3 pts./100 gals. water per acre.
BLUEBERRIES	Japanese beetle		1½ tsp./gal. water, or 1½ pts./100 gals. water per acre.
STRAWBERRIES	aphids, spider mites, lygus bug, spittlebugs, field crickets, thrips, potato leafhopper, strawberry leaf-roller, whiteflies	Make 2 or more applications up to 3 days of harvest.	1½ tsp./gal. water, or 1½-3 pts./100 gals. water per acre.
	strawberry root weevil	Apply to soil surface before planting and work into top 6 to 8 inches of soil.	
ORNAMENTALS	aphids, mealybugs, spider mites, whitefly, four-lined plant bug, Japanese beetle, potato leafhopper, tarnished plant bug, thrips, rose leafhoppers, European pine shoot moth, birch leaf miner, boxwood leaf miner, bagworms, tent caterpillar	Spray thoroughly both top and under-sides of leaves until slightly dripping as soon as insects appear. Repeat as needed. Injury may occur on ferns, hickory, viburnum, lantana, crassula and cannerli juniper.	2 tsp./gal. water, or 2 pts./100 gals. water per acre.
	oak kermes, azalea, pine leaf, magnolia, Fletcher, Florida red, juniper black, curly, Euonymus, oyster shell, monterey pine, soft, pine needle scales		4 tsp./gal. water, or 4 pts./100 gals. water per acre.
ORNAMENTAL GREENHOUSE (in and around greenhouses and flower gardens)	millipedes, springtails, sowbugs	Apply when insects appear. Repeat at 7-10 day intervals as needed.	1 tsp./gal. water, and apply to 150 sq. ft. of soil surface.
ROSES, CHRYSANTHEMUMS, CARNATIONS	aphids, whiteflies, mealybugs, thrips, two spotted mite	Spray thoroughly both top and under-sides of leaves until slightly dripping as soon as insects appear. Repeat as needed.	2 tsp./gal. water.

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INSTRUCTIONS FOR USE ON HOUSEPLANTS IN HOMES, GREENHOUSES, LATHHOUSES, COMMERCIAL AND INSTITUTIONAL BUILDINGS AND FOR INDOOR LANDSCAPING.

Prior to spray application, remove infested plants from living and eating areas, and place in an area not likely to come in contact with pets, children or food. Plants can be returned to original location when leaves dry.

If plant removal is not possible, remove or cover exposed food and food handling surfaces, including utensils, and remove animals. Shut off ventilating system, air ducts, and air conditioning equipment. Avoid spray contact with surrounding areas.

Amount to Use: Mix 2 tsp. per gal. and apply to the point of run-off.

Insects Controlled

This product may be used for control of aphids, fungus gnats, leafhoppers, mealybugs, plant bugs, spider mites, spittlebugs, thrips, and whiteflies in greenhouses, lathhouses, homes, commercial and institutional buildings, and for indoor landscaping.

Apply the spray to the upper and lower surfaces of plant foliage to the point of run-off. Avoid wetting blossoms if possible. For best results, spray in the late afternoon or evening when temperatures are lower and plants are not in direct sunlight. Repeat applications weekly if necessary. Use on the following ornamental plants:

Plants Protected

ageratum, aluminum plant, arrowhead vine, aster, azalea, Baby's Tears, begonia, black-eyed Susan, bridal veil, broadleaf acacia, calendula, carnations, Christmas cactus, chrysanthemum, coleus, daisy, daphne, dracaena, dumbcane, Easter lily, fatshedera, ferns: asparagus, Boston, sword; ficus, fuchsia, gardenia, geranium, heliotrope, hibiscus, hoye, ice plant, inch plant, ivy: German, grape, Swedish, English; marigold, Moses in Cradle, nasturtium, nephthytis, palms, pansy, peperomia, petunia, philodendron, piggy-back plant, poinsettia, pothos, prayer plant, purple waffles, roses, rubber plant, salvia, sedum, shamrock, snake plant, snapdragon, Star-of-Bethlehem, verbena, wandering Jew, wax plant, zebra plant, zinnia.

USE WITH CAUTION: On African violet, azalea, Reiger begonia, browallia, Tahitian bridal veil, caenothus, camellia, plumosa, fern, gloxinia, impatiens, geranium, oxalis, jade, primrose, cyclamen, wax begonia, spider plant, chrysanthemum, Boston fern, and friendship plant.

As with all plants listed above, especially carnations, chrysanthemums and roses, there exists a wide variety of species and cultivars, and therefore a wide range of susceptibility to injury. To ascertain possible phytotoxicity, spray a few plants as described, wait 24 hours, and check for possible injury.

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FOR FLY CONTROL

HOUSE FLIES: Dairy Barns, Hog Barns, Poultry Houses, Calf Pens, Manure Piles, Garbage Cans, Yards and Around Meat Processing Plants. (Do Not Use Around Edible Products Areas). Dilute 8 ozs. of Malathion in 3 gals. of water (1 gal. to 50 gals.) Use 1 qt. of spray to cover 200 square feet. For prolonged action add 3-4 cups of sugar to each 3 gals. of spray. Do not contaminate food, water, food containers, or cooking utensils.

FOR HOUSEHOLD INSECTS

ROACHES, ANTS, SPIDERS, SILVERFISH, CRICKETS, CLOVER MITES, EAR WIGS: Dilute 3 tablespoons in 1-qt. of water. Apply as a coarse spray or brush onto window sills, baseboards, drainboards, under sinks, cracks and crevices, stoves or other areas frequented by such insects. Repeat applications as necessary. Do not contaminate food or cooking utensils.

DOGS & CATS — FLEAS: Dilute 1 oz. (2 tablespoons) in 1 gal. of water. Spray or sponge to wet pet thoroughly. Repeat every second or third week as required. Do not treat animals under one month of age.

FLEAS IN KENNELS, PENS, YARDS, LAWN AND UNDER HOUSES: Use a spray containing 5 oz. (10 tablespoons) of Malathion in 1 gal. (1 gal. to 25 gals.) Use one gal. of spray per 1000 square feet. Use a garden sprayer or sprinkling can. Remove manure and debris before spraying.

MOSQUITOES AND SMALL FLYING INSECTS

NOTE: MALATHION 50% EC MAY CAUSE SPOTTING ON AUTOMOBILE PAINT FINISH. CARS SHOULD NOT BE SPRAYED DIRECTLY. IF ACCIDENTIAL EXPOSURE OCCURS, THE CAR SHOULD BE WASHED IMMEDIATELY.

Outdoors: Use a Bonide Malathion 2% to 5% area spray, fog or aerosol. As a 2% area or patio spray, dilute 50% emulsifiable liquid 1 part to 25 parts water or 5 oz. to 1 gallon water. When using kerosene type solvents, such as fuel oil or diesel oil, as carriers, dilute 1 part 50% emulsifiable liquid in 25 parts of a mixture consisting of 4 parts kerosene type solvent and 1 part aromatic hydrocarbon type solvent. For 5%, dilute 1-11 using similar solvents. Repeat applications as necessary. Avoid applying oil-based formulations to plants as injury may occur.

EPA approved
9/29/82

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STORED GRAINS — For the protection of stored grains (wheat, oats, rice, corn, rye, barley, grain sorghum), and field or garden seeds against accessible exposed stages of confused flour beetle, rice weevil, granary weevil, saw-toothed grain beetle, flat grain beetle, red flour beetle, rusty grain beetle, lesser grain borer, Indian meal moth, and for control of cereal leaf beetles, if they are present, apply as follows:

RESIDUAL SPRAY — BEFORE STORING GRAINS: For a residual wall, floor, and machinery spray in grain elevators, in treating truck beds, box cars, and ships' holds before loading grain, apply 1 gallon per 25 gallons of water making thorough application. Before applying spray, clean elevators, box cars, etc., thoroughly. Remove and burn all sweepings and debris. Wear respirator. Wear protective clothing to minimize skin exposure.

GRAINS GOING INTO STORAGE: Apply 1 pint in 2-5 gallons of water per 1,000 bushels. Apply as the grain is being loaded or turned into final storage.

AFTER GRAINS ARE STORED: To protect stored grains from attack by Indian meal moth, apply to the surface of clean or uninfested grain at the rate of 1/2 pint in 1-2 gallons of water per 1,000 square feet of grain surface area. Apply the spray evenly over the surface of the grain. Apply immediately after grain is loaded into storage and repeat if necessary.

RESIDUAL SPRAY — BOX CARS FOR LOADING AND TRANSPORTING BAGGED FLOUR AND PACKAGED CEREALS. For the control of confused flour beetle, rice weevil, granary weevil, saw-toothed grain beetle, flat grain beetle, red flour beetle, rusty grain beetle, lesser grain borer, Indian meal moth and mite pests infesting empty box cars into which bagged flour and packaged cereals are to be loaded and transported, apply as follows:

1. Clean the box cars thoroughly, then remove and burn all sweepings and debris.
2. Spray walls and floor to the point of run-off with either 1 gallon of MALATHION 50%E in 25 gallons of water, or one gallon of MALATHION 50%E in 19 gallons of deodorized kerosene. (The deodorized kerosene solution should be made up of 4 parts kerosene type solvent plus one part aromatic hydrocarbon type solvent.)
3. Let the sprayed box car stand empty with the doors open until the spray has thoroughly dried.

Buyer's Guarantee Limited to Label Claims
Mfg. by BONIDE CHEMICAL CO., INC., YORKVILLE, NY 13495

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This page represents the amendment for the Pesticap labels accepted October 5, 1988, with the Pesticap instructions.

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INSTRUCTIONS FOR USE ON HOUSEPLANTS IN HOMES, GREENHOUSES, LATHHOUSES, COMMERCIAL AND INSTITUTIONAL BUILDINGS AND FOR INDOOR LANDSCAPING.

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If plant removal is not possible, remove or cover exposed food and food handling surfaces, including utensils, and remove animals. Shut off ventilating system, air ducts, and air conditioning equipment. Avoid spray contact with surrounding areas.

Insects Controlled

This product may be used for control of aphids, fungus gnats, leafhoppers, mealybugs, plant bugs, spider mites, spittlebugs, thrips, and whiteflies in greenhouses, lathhouses, homes, commercial and institutional buildings, and for indoor landscaping.

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Plants Protected

ageratum, aluminum plant, arrowhead vine, aster, azalea, Baby's Tears, begonia, black-eyed Susan, bridal veil, broadleaf acacia, calendula, carnations, Christmas cactus, chrysanthemum, coleus, daisy, daphne, dracaena, dumbcane, Easter lily, fatshedera, ferns: asparagus, Boston, sword; ficus, fuchsia, gardenia, geranium, heliotrope, hibiscus, hoya, ice plant, inch plant, ivy: German, grape, Swedish, English; marigold, Moses in Cradle, nasturtium, nephthytis, palms, pansy, peperomia, petunia, philodendron, piggy-back plant, poinsettia, pothos, prayer plant, purple waffles, roses, rubber plant, salvia, sedum, shamrock, snake plant, snapdragon, Star-of-Bethlehem, verbena, wandering Jew, wax plant, zebra plant, zinnia.

USE WITH CAUTION: On African violet, azalea, Reiger begonia, biowallia, Tahitian bridal veil, caenothus, camellia, plumosa, fern, gloxinia, impatiens, geranium, oxalis, jade, primrose, cyclamen, wax begonia, spider plant, chrysanthemum, Boston fern, and friendship plant.

As with all plants listed above, especially carnations, chrysanthemums and roses, there exists a wide variety of species and cultivars, and therefore a wide range of susceptibility to injury. To ascertain possible phytotoxicity, spray a few plants as described, wait 24 hours, and check for possible injury.

Amount to Use: 1 cap per 500 ml. of water

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