

Hopkins[®] MALATHION

57% Emulsifiable Liquid Insecticide-B



ACTIVE INGREDIENT:	
Malathion [®]	57.0%
INERT INGREDIENTS:	43.0%
TOTAL	100.0%

*0,0-dimethyl phosphorodithioate of diethyl mercaptosuccinate

This product contains xylene-range aromatic solvents.
One gallon contains 5 pounds of Malathion.

**KEEP OUT OF REACH OF CHILDREN
CAUTION**

See Back Panel for Additional Precautionary Statements.

NET CONTENTS 1 GALLON (3.785 LITERS)

STATEMENT OF PRACTICAL TREATMENT

If swallowed: Call a physician or Poison Control Center immediately. Gastric lavage may be indicated if material was taken internally. **DO NOT INDUCE VOMITING** unless other treatment is not available. Vomiting may cause aspiration pneumonia. If it is necessary to induce vomiting, give victim 1 or 2 glasses of water and insert finger in back of throat. Repeat until vomit fluid is clear. **DO NOT** induce vomiting or give anything by mouth to an unconscious person.

If on skin: Remove contaminated clothing and wash affected areas with soap and water.

If in eyes: Immediately flush eyes with plenty of water and get medical attention.

If inhaled: Remove victim to fresh air. Assist respiration as needed.

Note to Physician: Empty stomach if material was taken internally. Gastric lavage may be indicated. Xylene-range aromatic solvent is an aspiration hazard. This product may cause cholinesterase inhibition. Atropine is antidotal. 2-PAM may be effective as an adjunct to atropine.

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS

Harmful if swallowed, inhaled or absorbed through the skin. Avoid breathing spray mist. Do not get in eyes, on skin or on clothing. Wear clean synthetic rubber gloves. Wash skin thoroughly after handling. Remove and wash contaminated clothing before reuse. Use respirator jointly approved by the Mining Enforcement and Safety Administration (formerly the U.S. Bureau of Mines) and the National Institute of Occupational Safety and Health under the provisions of 30 CFR Part 11.

Do not apply this product in such a manner as to directly or through drift expose workers or other persons. The area being treated must be vacated by unprotected persons.

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.

ENVIRONMENTAL HAZARDS

"This pesticide is toxic to fish, aquatic invertebrates, and aquatic life stages of amphibians. Do not apply directly to water except as specified on this label. 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 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.

STORAGE AND DISPOSAL

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

STORAGE: Do not use or store near heat or open flame. Keep product in original container, tightly closed and store in a cool, dry place. High temperatures may shorten shelf life of product.

PESTICIDE DISPOSAL: Pesticide wastes are toxic. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

CONTAINER DISPOSAL: Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

See attached folder for additional Precautionary Statements, complete Directions for Use and Notice of Warranty. Do not use this product unless attached folder has been read.

EPA REG. NO. 2393-280
EPA EST. NO. 279-CA-1



MANUFACTURED FOR
HACO, inc.
MADISON, WISCONSIN 53707 U.S.A.

CODE 12.1484 12345(12/87)

Under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended, for this pesticide registered under EPA Reg. No. 2393-280

ACCEPTED

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Do not apply this product in such a manner as to directly or through drift expose workers or other persons. The area being treated must be vacated by unprotected persons.

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.

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"This pesticide is toxic to fish, aquatic invertebrates, and aquatic life stages of amphibians. Do not apply directly to water except as specified on this label. 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 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.

RE-ENTRY STATEMENT

Do not enter treated areas unless full protective clothing is worn and until sprays have dried. Applies to foliar applications to agricultural crops. Does not apply to use on livestock.

Because certain states may require more restrictive re-entry intervals for various crops treated with this product, consult your State Department of Agriculture for further information. Written or oral precautions must be given to workers who are expected to be in a treated agricultural crop area or in an agricultural crop area about to be treated with this product.

These precautions are: CAUTION; Area treated with malathion on (date of application). Do not enter unless full protective clothing is worn until spray has dried. For accidental exposure follow Statement of Practical Treatment on this label. Oral precautions must be given if there is reason to believe that written precautions cannot be understood by workers. When oral precautions are given, precautions shall be given in a language customarily understood by workers.

STORAGE AND DISPOSAL

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

STORAGE: Do not use or store near heat or open flame. Keep product in original container, tightly closed and store in a cool, dry place. High temperatures may shorten shelf life of product.

PESTICIDE DISPOSAL: Pesticide wastes are toxic. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

CONTAINER DISPOSAL: See Container Label.

DIRECTIONS FOR USE

Unless otherwise indicated, dosages are given in pints of HOPKINS MALATHION 57% Emulsifiable Liquid Insecticide—B in sufficient water to cover one acre. Thorough, full coverage application should be made. Begin application when insects first appear and repeat as necessary. For orchard pests such as Codling Moth, Apple Maggot, Oriental Fruit Moth or Plum Curculio, apply at petal fall and every 10 to 14 days thereafter until control is achieved.

CHEMIGATION:

Refer to supplemental labeling entitled "APPLICATION THROUGH IRRIGATION SYSTEMS - CHEMIGATION," for use directions for chemigation. Do not apply this product through an irrigation system unless the supplemental labeling on chemigation is followed.

Insect
CROP Control ad

Alfalfa

Weevil larvae
Aphids
Armyworms
Clover leaf weevil
Grasshoppers
Leafhoppers
Lygus bugs
Pea aphid
Spider mites
Spittlebug
Spotted alfalfa aphid

Almonds

Aphids
Peach twig borer
Red spiders

Apples

Aphids (Wooly Apple)
Rosy Apple
Bud moth
Codling moth
Forbes scale
Mealybug
Plum curculio
Red-banded leaf roller
Tent caterpillar

Apples (Dormant and sprays)

Aphids (Wooly Apple)
Rosy Apple

Plums

Red-banded leaf roller

*Make full coverage delayed dormant sprays

Apricots

Aphids
Codling moth
Orange tortrix
Soft brown scale
Terrapin scale

BEST

CROP	Insect Controlled	Dosage Amount	Days to Harvest	CROP	Insect Controlled	Dosage Amount	Days to Harvest
Mushrooms (continued)				Pasture and Range			
Phorid & scarid flies		2 1/2 pts per 100 gals of water OR 2 lbs per 3 gals of water per 1000 sq ft. of bed	1	Grass		Amount Per Acre	
				Aphids		1 1/2 pts OR 1 1/2 pts. in 1 gal. diesel fuel oil	0
				Armyworms		2 pts	0
				Grasshoppers		1 1/2-2 pts OR 1 1/2 pts in 1 gal diesel fuel oil	0
				Leafhoppers		1 1/2 pts OR 1 1/2 pts in 1 gal diesel fuel oil	0
Muskmelons				Peaches			
		Amount Per Acre				Amount Per 100 Gals.	
Aphids		1 1/2 pts	1	Aphids			
Cucumber beetles		2 pts	1	Green Peach			
Spider mites		1 1/2 pts.	1	Black Cherry			
				Black Peach			
				Rusty Plum		1 pt	7
				Cottony peach scale		2 pts	7
				Japanese beetle		1 pt	7
				Oriental Fruit moth		2 pts	7
				Plum curculio		2 pts	7
				Terrapin scale		2 pts	7
Mustard Greens				Peanuts			
		Amount Per Acre				Amount Per Acre	
Aphids		1-2 pts	7	Leafhoppers		1 1/2 pts	0
Cabbage loopers		1-2 pts	7	Thrips		1 1/2 pts	0
Flea beetles		1 1/2 pts	7				
Imported cabbage worm		1-2 pts	7				
Nectarines				Pears			
		Amount Per 100 Gals.				Amount Per 100 Gals.	
Mites		1-2 pts.	7	Codling moth		2 pts	1
Plum curculio		2 pts	7	Fruit tree leaf roller		2 pts	1
				Mealybugs		1-2 pts	1
				Mites		1-2 pts	1
				Pear psylla		1-2 pts	1
				Plum curculio		2 pts	1
				Red-banded leaf roller		2 pts.	1
Oats				Peas			
		Amount Per Acre				Amount Per Acre	
Armyworms		2 pts.	7	Aphids		1 1/2 pts	
Cereal leaf beetle		1-1 1/2 pts	7	Pea weevil		1 1/2 pts	
English grain aphid		1 1/2 pts	7				
Grasshoppers		1 1/2 pts	7				
Greenbugs		1 1/2 pts	7				
Okra				Peas (continued)			
		Amount Per Acre				Amount Per Acre	
Aphids		1 1/2 pts.	1				
Japanese beetle		2 pts.	1				
Onions				Pears (continued)			
		Amount Per Acre				Amount Per Acre	
Onion maggots		2 1/2 pts.	3				
		OR 1 1/2 pts per 1/2 acre					
Thrips		1 1/2 pts	3				
Papayas				Pecans			
		Amount Per Acre				Amount Per 100 Gals.	
Aphids		1 1/2 pts	0	Aphids		1-2 pts	0
Mealybugs		1 1/2 pts.	0	Mites		1-2 pts.	0
Parsley				Peas (continued)			
		Amount Per Acre				Amount Per Acre	
Aphids		1 1/2 pts	21				
Parsnips				Peas (continued)			
		Amount Per Acre				Amount Per Acre	
Aphids		1 1/2 pts	7				

*7 day interval if vines are used as animal feed. 3-day interval if vines are NOT used as animal feed

CROP	Insect Controlled	Dosage Amount	Days to Harvest	CROP	Insect Controlled	Dosage Amount	Days to Harvest
Peppers				Radishes			
		Amount Per Acre				Amount Per Acre	
Aphids		1 pt.	3	Aphids		1 1/2 pts	7
Maggots		2 1/2 pts.	3				
		OR 1 1/2 pts per 1/2 acre		Raisins			
Pineapple				(drying in field)			
		Amount Per Acre		Dried fruit beetle		1/4 oz per 144 sq ft of paper	
Mealybug		1 gal.	7	Raisin moth		1/4 oz per 144 sq ft of paper	
		OR 1 qt. per 1/2 acre		Vinegar flies		1/4 oz per 144 sq ft of paper	
Plums				Raspberries			
		Amount Per 100 Gals.				Amount Per 100 Gals.	
Mealy plum aphid		1 pt	3	Aphids		3 pts.	1
						OR 1 1/2 pts per 50 gals.	
Plums (Dormant and delayed dormant)*				Raspberries (continued)			
		Amount Per 100 Gals.		Japanese beetle		1 1/2 pts	1
Scale insects		1 pt + 1 gal oil		Leafhoppers		1 1/2 pts	1
				Mites		1 1/2 pts	1
*Make full coverage dormant or delayed dormant sprays only.				Rose scale		3 pts.	1
						OR 1 1/2 pts per 50 gals.	
Potatoes				Sap beetle			
		Amount Per Acre				1 1/2 pts	1
Aphids		1 pt	0	Thrips		1 1/2 pts	1
False chinch bug		1 1/2 pts	0				
Leafhoppers		1 pt.	0				
Mealybugs		1 pt.	0				
Prunes				Rice			
		Amount Per 100 Gals.		(grain form)		Amount Per Acre	
Bud moth		1 pt	3	Rice leaf miner		2 1/2 pts	7
Mealy plum aphid		1 pt	3	Rice stink bug		1-1 1/2 pts	7
				Tadpole shrimp* (Cal)		3 pts OR 1 1/2 pts per 1/2 acre	
Prunes (Dormant and delayed dormant)*				Rutabagas			
		Amount Per 100 Gals.				Amount Per Acre	
Scale insects		1 pt. + 1 gal. oil		Aphids		1 1/2 pts.	3
*Make full coverage dormant or delayed dormant sprays only.				Rye			
						Amount Per Acre	
Pumpkins				Safflower			
		Amount Per Acre				Amount Per Acre	
Aphids		1 1/2 pts.	3	Aphids		1 1/2 pts	3
Mites		1 1/2 pts	3	Grasshoppers		1 1/2 pts	3
Squash vine borers		3 pts	3	Lygus bugs		1 1/2 pts.	3
		OR 1 1/2 pts per 1/2 acre					
Do not apply unless plants are dry.				Salsify			
						Amount Per Acre	
Quinces				Aphids			
		Amount Per Acre				1 1/2 pts	7
Codling moth		2 pts	3				
Forbes scale		1 pt.	3				
Mites		1-2 pts	3				
Oriental fruit moth		2 pts	3				
Plum curculio		2 pts	3				

*Restrict water spill from the treated fields for 48 hours following application

COMMERCIAL GREENHOUSE USES

CROP	Insect Controlled	Dosage	Directions For Use	Days to Harvest
VEGETABLES				
Cucumbers	Aphids, Armyworms, Cabbage loopers, Caterpillars, Earwigs, Garden fleahoppers, Mealybugs, Spider mites, Thrips, Whiteflies	1½-2 pts per 100 gals	Spray plants thoroughly Repeat applications as necessary Do not apply to cucurbits unless plants are dry	1
Endive	Aphids, Armyworms, Cabbage loopers, Serpentine leafminers, Thrips, Whiteflies	1½-2 pts per 100 gals	Spray plants thoroughly Repeat applications as necessary	7
Lettuce	Aphids, Armyworms, Cabbage loopers, Caterpillars, Serpentine leafminers, Thrips, Whiteflies	1½-2 pts per 100 gals	Spray plants thoroughly Repeat applications as necessary	7 (head) 14 (leaf)
Radishes	Aphids, Flea beetles	1½-2 pts per 100 gals	Spray plants thoroughly Repeat applications as necessary	7
Tomatoes	Aphids, Armyworms, Cabbage loopers, Caterpillars, Cutworms, Drosophila, Garden fleahoppers, Mealybugs, Russet mites, Serpentine leafminers, Spider mites, Thrips, Whiteflies	1½-2 pts per 100 gals	Spray plants thoroughly Repeat applications as necessary	1
Watercress	Aphids, Serpentine leafminers, Thrips	1½-2 pts per 100 gals	Spray plants thoroughly Repeat applications as necessary	7

IN AND AROUND GREENHOUSES AND GARDENS

Insect Controlled	Dosage	Directions For Use
Millipedes, Sowbugs, Springtails	1 teaspoon per gal	Apply to 15ft square feet of soil surface or where insects congregate Repeat at 7 to 10 day intervals as needed

FOREST CROPS

CROP	Insect Controlled	Rate	Directions For Use
Deciduous Forest and Shade Trees	Tent caterpillar	2 pts /100 gals. water	Make thorough coverage application before larvae reach third instar.
Pines	Pine needlesheth miner	1½ pts per acre	Apply by ground or aircraft equipment in 25 gals of water Make application when air is calm and temperature is below 65°F Apply when 75% of larvae have left overwintering mines
Eastern Pines	Pine tortoise scale	1½ pts. per acre	Apply by aircraft in 2 gals of water per acre when crawlers emerge. Repeat application in 1 week under conditions of heavy infestation Make application when air is calm and temperature is below 66°F
Red Pine	Red headed pine sawfly	08 pts per acre	Apply by mist blower in 2 gallons of water per acre when egg hatch is complete.

FLY AND MOSQUITO CONTROL

FLY CONTROL: For use in and around buildings which house domestic animals, around yards, homes and meat and food processing plants Do not use in edible products areas of food processing plants, restaurants or other areas where food is commercially prepared or processed Do not use in serving areas while food is exposed

Insect Controlled	Dosage	Directions For Use
Adult flies	Straight Sprays: 5 Tblsps + 1 gal water OR 1 Cup + 2½ gals water OR 1 qt + 12 gals. water	Apply as a spray at the rate of 1 gallon per 1,000 sq ft on painted surfaces and 2 gals per 1,000 sq ft. on unpainted surfaces where flies alight or congregate, such as walls, ceilings, slatrons, windows in dairy barns, fences, around garbage cans, etc.
Adult flies, Fly maggots	Bait Sprays: 5 Tblsp + 7 Tblsp sugar or molasses (unsulfurized) or corn syrup + 1 gal water OR 1 cup + 1 cup sugar or molasses (unsulfurized) or corn syrup + 2½ gals water (continued)	Apply as a bait spray over the surface of manure or poultry droppings. In loafing sheds, spray the dry bedding within 18 inches of the walls and around upright braces For effective control in and around dairy barns, fly-breeding sites such as manure and other waste material, should be eliminated Do not apply to freshly whitewashed surfaces Wait 14 days before applying

LIVESTOCK

CATTLE (Beef and non-milking) and Horses

Insect Controlled	Dosage	Directions For Use
Horn fly	1 to 1½ gals. per 100 gals. OR 8½ to 10 oz. per 5 gals.	Apply complete coverage spray. Repeat at 2-week interval if needed.
Lice	1 gal. per 100 gals. OR 8½ oz. per 5 gals.	Apply complete coverage spray. One treatment may be sufficient. Repeat only if needed.
Ticks	1 to 2 gals. per 100 gals. OR 8½ to 13 oz. per 5 gals.	Apply complete coverage spray. Repeat at 2-week intervals if needed.
Back rubbing devices	2% mixture in fuel oil. (For example: 1 pt. per 4 gals. fuel oil.)	To reduce lice. May also reduce horn flies. Should be made continuously accessible, one to each 35 to 45 head of cattle and retreat every 2 to 3 weeks.

SHEEP AND GOATS*

Keds, Lice, Ticks	1 gal. per 100 gals. OR 8½ oz. per 5 gals.	Spray animals thoroughly
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*DO NOT APPLY TO MILK GOATS.

Repeat application after 2 or 3 weeks if needed. Do not treat animals under one month of age. Residue tolerance: 4 ppm in meat, fat and meat by-products.

HOGS*

Lice	1 gal. per 100 gals. OR 8½ oz. per 5 gals.	Apply complete coverage spray to animals, pens and litter. One treatment may be sufficient. Repeat only if needed.
Sarcoptic mange	1 gal. per 100 gals. OR 8½ oz. per 5 gals.	Apply complete coverage spray to all animals in herd, bedding and walls. Use extreme care to thoroughly cover all body surfaces of the animal, including inside of ears. One thorough spraying will usually control sarcoptic mange of swine, however, extensive cases will require second treatment about 10 days after first application.

*AFTER SPRAYING, SWINE SHOULD BE KEPT OUT OF SUN AND WIND FOR A FEW HOURS.

Residue tolerance: 4 ppm in meat, fat and meat by-products.

POULTRY (Chickens, Ducks, Geese & Turkeys)

Chicken red mite	2 lbs. per gal. per 100 to 150 birds	DIRECT APPLICATION: Repeat application in 4 to 8 weeks or when necessary. Use as a supplement to premise treatment for chicken red mite.
	2 to 7 oz. per gal.	ROOST PAINT: Brush on at rate of 1 pt. per 150 ft. of roost.

POULTRY, continued

Insect Controlled	Dosage	Directions For Use
Chicken red mite, continued	4 lbs. per gal.	PREMISE TREATMENT: Apply liberally to litter, walls, ceilings, roost nests and adjacent areas. Force spray into cracks and crevices.
Chiggers	1 to 1½ pt. per acre	RANGE TREATMENTS: Treat range thoroughly day before placing poultry on range. Repeat every 2 to 3 weeks.
Flies	4 lbs. per gal.	PREMISE TREATMENT: Apply liberally to litter, walls, ceilings, roost nests and adjacent areas. Force spray into cracks and crevices.
Lice, Northern louse mite	2 lbs. per gal. per 100 to 150 birds 8½ oz. per 15 gal. per 400 birds	DIRECT APPLICATION: Repeat application in 4 to 8 weeks or when necessary. TAIL-DIPPING: Hold bird by wings and dip 3 to 4 inches of tail into solution. Treat vent and surrounding areas. Repeat in 7 to 10 days if necessary.
	2 to 7 oz. per gal. of water or oil 4 lbs. per gal.	ROOST PAINT: Brush on at rate of 1 pt. per 150 ft. of roost. PREMISE TREATMENT: Apply liberally to litter, walls, ceilings, roost nests and adjacent areas. Force spray into cracks and crevices.
Ticks	6 to 7 oz. per gal.	PREMISE TREATMENT: Apply liberally to walls, ceilings and adjacent areas. Force spray into cracks and crevices.

Residue tolerance: 4 ppm in or on meat, fat or meat by-products.
0.1 ppm in eggs (from application to poultry)

NON-AGRICULTURAL LANDS

Insect Controlled	Dosage	Directions For Use
Grasshoppers	1½ to 3 pts. OR 1½ to 3 pts. in 1 gal. diesel fuel oil	

ORNAMENTALS: General Uses (Outdoor)

Injury may occur on ferns, hickory, viburnum, lantana, cressats and cannerd juniper following the use of MALATHION 57% E.L. Slight injury has also been reported on Boston, pieris, and maidenhair ferns, petunias, small-leaf spires, white pine and maples. Under extreme heat, drought and disease conditions the emulsifiable concentrate may cause slight damage to elms.

FLOWERS, SHADE TREES, SHRUBS

Insect Controlled	Dosage	Directions For Use
Aphids, Spidermies	1½ pts. per 100 gals. OR 2 tsps. per gal.	

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FLOWERS, SHADE TREES, SHRUBS, continued

Insect Controlled	Dosage	Directions For Use
Bagworms	2 pts. per 100 gals. OR 2 tsps. per gal	
Birch leafminer, Boxwood leafminer	2 pts. per 100 gals. OR 2 tsps. per gal	
European pine shoot moth, Four-lined leaf bug, Japanese beetle adult, Potato leathopper, Rose leathopper, Tarnished plant bug, Thrips	1½ pts. per 100 gals. OR 2 tsps. per gal	
Lace bug	1 pt. per 100 gals. OR 2 tsps. per gal	
Mealybugs, Whiteflies	1½ pts. per 100 gals. OR 2 tsps. per gal	
Oak kermes	2 pts. per 100 gals. OR 2 tsps. per gal	Apply when scale crawlers have settled on foliage
Tent caterpillar	2 pts. per 100 gals. OR 2 tsps. per gal	
SCALES		
Oyster shell	1 pt. per 100 gals. OR 2 tsps. per gal	Apply when scale crawlers have settled on foliage
Euonymus scurfy	1½ pts. per 100 gals. OR 2 tsps. per gal	
Azalea, Magnolia, Pine leaf	2 pts. per 100 gals. OR 2 tsps. per gal	
Fletcher	2 pts. per 100 gals. OR 2 tsps. per gal	Apply when scale crawlers have settled on foliage
Florida red, Juniper	2 pts. per 100 gals. OR 2 tsps. per gal	Apply when scale crawlers have settled on foliage
Black scale crawlers	2½ pts. per 100 gals. OR 2 tsps. per gal.	
Monterey pine, Soft	2½ pts. per 100 gals. OR 2 tsps. per gal	
Pine needle scale	4 pts. per 100 gals. OR 4 tsps. per gal	
Wax	4 pts. per 100 gals. OR 4 tsps. per gal	Apply in spring when crawlers are active. Repeat 1 or 2 full coverage applications at 10-day intervals

STORED PRODUCTS

BAGGED CITRUS PULP

Insect Controlled	Dosage	Directions For Use
Residual warehouse spray	1 pt. in sufficient water to make 2½ gals. of spray OR 1 gal. per 19 gals. of water.	Apply spray at the rate of 2 gals. per 1,000 sq. ft. of surface or to runoff. Before bagged citrus pulp is stored, thoroughly clean warehouses by removing and burning all debris and sweepings. Thoroughly spray with sufficient pressure interior of empty warehouse (including cracks and protected places), outside walls to a height of 6 to 8 ft. and ground to a distance of about 6 ft. from warehouse

Do not use treated burlap bags other than for dried citrus pulp.

GRAINS (Barley, Corn, Grain Sorghum, Oats, Rice, Rye, Wheat) and FIELD OR GARDEN SEEDS

Cereal leaf beetle, Confused flour beetle, Flat grain beetle, Granary weevil, Indian meal moth, Lesser grain borer, Maize weevil, Red flour beetle, Rice weevil, Rusty grain beetle, Sawtoothed grain beetle	1 gal. per 25 gals. of water OR 1 qt. per 6½ gals. of water	RESIDUAL SPRAY BEFORE STORING GRAINS: For a residual wall, flour and machinery spray in grain elevators, in treating truck beds, box cars and ships' holds, before loading grain make a thorough application. Before applying spray, clean elevators, box cars, etc. thoroughly. Remove and burn all sweepings and debris.
	1 pt. in 2 to 5 gals. of water per 1,000 bushels	GRAINS GOING INTO STORAGE: Apply as the grain is being loaded or turned into final storage
	½ pt. in 1 to 2 gals. of water per 1,000 sq. ft. of grain surface area.	AS A SURFACE TREATMENT AFTER GRAINS ARE STORED: Apply the spray evenly over the surface of the grain. Apply immediately after grain is loaded into storage and repeat if necessary.

NUTS

ALMONDS (In-Shell and Shelled)

Indian meal moth, Merchant grain beetle	4 fl. oz. in sufficient water to treat 10,000 lbs. of almonds	Use a suitable mechanical spray applicator that regulates the rate application to the flow of the almonds. Avoid spraying with a fine mist that drifts away. Shield the nozzle against wind and air currents
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PEANUTS

Insect Controlled

Confused flour beetle, Flat grain beetle, Granary weevil, Indian meal moth, Lesser grain borer, Red flour beetle, Rice weevil, Rusty grain beetle, Sawtoothed grain beetle

SUPPLEMENTAL SURF warehouse has been hit peanuts before sprays spray using 1½ cups of E.L. in 2 gallons of water rate of 2 gallons per 100. Apply first treatment as and leveled, but not late in October. Apply the second 1 month later, follow at 2 month intervals. Use sprayer equipped with capable of delivering a surface application 60 temperatures prevail. C this treatment until late

RAISINS (In Storage)

Insect Controlled

Indian meal moth, Sawtoothed grain beetle

RESIDUAL SPRAY—IN

AND PACKAGED CEP

Insect Controlled

Confused flour beetle, Flat grain beetle, Granary weevil, Indian meal moth, Lesser grain borer, Mite pests, Red flour beetle, Rice weevil, Rusty grain beetle, Sawtoothed grain beetle

*The deodorized kerosene plus one part aromatic

On and Around CULL FRUIT & VEGETABLE DUMPS

Insect Controlled	Dosage	Directions For Use
Drosophila flies	1½ gals. per 100 gals. water OR ¾ qt. per 12½ gals. water	Apply as a drench using 8 to 10 gals. of spray per 100 sq. ft. For best results, dumps should not be over 18 inches deep. DO NOT FEED TREATED FRUIT AND VEGETABLES.

In and Around WINERIES AND PROCESSING PLANTS

Insect Controlled	Dosage	Directions For Use
Drosophila flies	3½ oz. in 1 qt. water	Paint all doors and window screens. AVOID CONTAMINATION OF WINE, FOOD, UTENSILS, EQUIPMENT AND WATER.

PLANTS PROCESSING DRY MILK

Insect Controlled	Dosage	Directions For Use
Black carpet beetles, Trugoderm's species	1 pt. per 2½ gals.	Clean premises thoroughly before applying and maintain good sanitation at all times. Use spray equipment and nozzles that will produce a coarse spray. Application must be made only by an experienced or trained person. Apply as a residual spray to all sections of the plant and warehouses where insects hide or crawl such as cracks, corners, edges of floors, lower parts of walls, floors under storage platforms and underneath and behind protected places. Avoid contamination of milk, dry mix, equipment, utensils, work surfaces, containers and liners. Repeat application as necessary.

NOTICE OF WARRANTY

Seller makes no warranty, express or implied, concerning the use of this product other than indicated on the label. Buyer assumes all risk of use and/or handling of this material when such use and/or handling is contrary to the label instructions.



MANUFACTURED FOR

HACO, inc.

BOX 7190

MADISON, WISCONSIN 53707 U.S.A.

FOR USE ON THE FOLLOWING SITES NAMED IN DIRECTIONS FOR USE:

**Agricultural Crops
Commercial Greenhouse uses
In and Around Greenhouses and Gardens
Forest Crops
Ornamentals**

Apply this product only through sprinkler, including center pivot, lateral move, end tow, 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 nonuniform 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.

CHEMIGATION SYSTEMS CONNECTED TO PUBLIC WATER SYSTEMS

Note: Hopkins Agricultural 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 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, 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 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 noninjurious 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 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.

ALL APPLICABLE RESTRICTIONS, PRECAUTIONS, AND DIRECTIONS ON THE EPA REGISTERED PRODUCT LABEL MUST BE FOLLOWED.

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HOPKINS AGRICULTURAL CHEMICAL COMPANY, INC.
BOX 7532 • MADISON, WISCONSIN 53707