

45385-43

04/10/1989

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**ACCEPTED**

APR 10 1989

Under the Federal Insecticide, Fungicide, and  
Rodenticide Act, as amended, for the  
pesticide registered under  
EPA Reg. No. 45385-43

REREGISTRATION - MALATHION

FOR: CHEM-TOX, INC., Barrington, IL 60010

DATE: 10/10/88

(( ( FRONT PANEL )))

Net Contents: pt. quart:  
1/2 gal. 1 gal. 5 gal.  
30 gal. 55 gal.

**CHEM-TOX  
MAL-50%-E.C.**

contains CYTHION\* Emulsifiable Liquid

FOR GARDEN-HOME-FARM

**ACTIVE INGREDIENTS:**

Malathion (O,O-dimethyl phosphorodithioate of diethyl mercaptosuccinate).....	50.00%
**INERT INGREDIENTS.....	50.00%
Total:	100.00%

\*\* contains Aromatic Petroleum Distillate (44%)

\* Trademark of American Cyanamid

**KEEP OUT OF REACH OF CHILDREN  
CAUTION (18 FT)**

See Side Panel for Additional Precautionary Statements.

Chem-Tox, Inc.  
Barrington, IL 60010

EPA Reg. No. 45385-43  
EPA Est. No. 45385-IL-01

NET: \_\_\_\_\_

Order Code: EC-534

CHEM-TOX MAL 50%-E.C.

((SIDE PANEL))

**PRECAUTIONARY STATEMENTS**

**HAZARDS TO HUMANS & DOMESTIC ANIMALS.**

**CAUTION:** Harmful if swallowed. Avoid contact with skin. Avoid breathing of spray mist. Wash skin thoroughly after using. Avoid contamination of feed and foodstuff.

**STATEMENT OF PRACTICAL TREATMENT**

If swallowed - call a physician or Poison Control Center immediately. Drink one or two glasses of water and induce vomiting by touching the back of the throat with finger. Repeat until vomit fluid is clear. Do not induce vomiting or give anything by mouth to an unconscious person.

If inhaled - remove victim to fresh air. Apply artificial respiration if indicated.

If on skin - remove contaminated clothing and wash affected areas with soap and water.

If in eyes - flush eyes with plenty of water. Call a physician immediately.

**Note to Physician:** Malathion, upon repeated, prolonged, careless use, may cause cholinesterase inhibition. Atropine is antidotal.

**ENVIRONMENTAL HAZARDS** This product is toxic to fish, birds, and other wildlife. Do not apply directly to water or wetlands (i.e., swamps, bogs, marshes, and potholes). Drift and runoff maybe hazardous to aquatic organisms in areas near the application site. Do not contaminate water when disposing of equipment wash waters. 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 areas. Protective information may be obtained from your Agricultural Extension Service. **Indoors:** Use only with adequate ventilation. After using this product, ventilate thoroughly before occupying enclosed spaces. Do not allow contact with treated surface until sprays have dried.

**PHYSICAL AND CHEMICAL HAZARDS**

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

**DIRECTION FOR USE**

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

**STORAGE & DISPOSAL (12 PT)**

Do not contaminate water, food, or feed by storage or disposal. Open dumping is prohibited. Store in original container and place in a cool, dry, locked or secured storage area. **PESTICIDE DISPOSAL:** Pesticide wastes are toxic. Wastes resulting from the use of this product may be disposed of on site at an approved waste disposal facility.

**CONTAINER DISPOSAL:** 1. Household(All)- Do not reuse empty container (bottle, can, bucket). Wrap container and put in trash collection. 2. Metal (All Sizes)- Triple rinse (or equivalent) and offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities. 3. Plastic Containers - Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or incinerate, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

CHEM-TOX MAL-50X-E.C.

((Back Panel))

Terms of Sale or Use on purchase of use of this product:

**WARRANTY:** Manufacturer and seller warrants that this product, as of the time of sale conforms to the ingredient statement on the label, and is reasonably fit for the purpose set forth in the Directions for Use. Except as so warranted the product is sold as is. Manufacturer makes no other warranty express or implied. EXCUSE FROM NON-CONTROLLABLE CONDITIONS: Because of certain critical conditions created or incurred by buyer or user or over which manufacturer has no control, buyer and user as a condition of purchase or use, assume responsibility for and release manufacturer from liability arising out of handling or use of the product attributable to such causes. No person is authorized to vary or waive any statement contained herein.

**HOUSEHOLD INSECTS:** For ANTS, BROWN DOG TICKS, CARPET BEETLE, CENTIPEDES, CLOTHES MOTHS, CLOVER MITE, COCKROACHES, CRICKETS, EARWIGS, FLEAS, FLIES, MOSQUITOES, MOTHS, SCORPIONS, SILVERFISH, SPIDERS, STORED PRODUCT INSECTS: Dilute 3 tbs. per quart (1 quart per 5 gal.) of water. Apply as a coarse spray or with paint brush to window sills, screens, cracks, and crevices, around doors, baseboards, storage areas, bookcases, undersinks, and other areas frequented by or where pests are noticed.

**FLIES & MOSQUITOES:** Use at a rate of 2 quarts per 25 gal. (1 pint to 6 gal. of water). For best results add 1 pound of sugar to each gal. of finished spray. Mix well. Spray all surfaces and places where flies and mosquitoes congregate. Use a wetting spray to the point of run-off. Use around buildings, stockyards, dairy barns, poultry houses, garbage cans, and manure piles. Repeat as necessary.

**CATTLE:** (beef & non-milking)- (No preslaughter interval through 1.27% finished spray for animal treatment). For HORN FLY dilute 1-1 1/2 gal. per 100 gal of water (6 1/2 - 10 oz per 5 gal). Apply as a complete coverage spray and repeat at 2 week intervals if needed. LICE: dilute 1 gal. per 100 gals. of water (6 1/2 oz per 5 gals.). Apply as a complete coverage spray. One treatment may suffice. Repeat only if needed. TICKS: use 1-2 gals. per 100 gal. of water. (6 1/2-13 oz per 5 gals.) Apply a complete coverage spray and repeat at 2 week intervals if needed. **BACK RUBBING DEVICE:** (No preslaughter interval through approximately 2% finished spray). For HORN FLY and LICE use a 2% mixture in fuel oil. To be used in all types of backrubbers and face oilers. Do not over saturate. Backrubbers and oilers should be made continuously accessible to the animals. Use one backrubber/34-45 animals. Recharge every 14 to 21 days. Note: Do not treat young animals under 3 months of age. Do not spray or make accessible (back rubbing devices) to lactating dairy animals.

**HORSES - HORNFLIES:** Dilute 1 1/2 gals. per 30 gals. of water (1/2 - 10 oz per 5 gals.). Apply as a complete coverage spray and repeat at 2 weeks intervals if needed. LICE: Use 1 gal. per 100 gals. of water (6 1/2 oz per 5 gals.). Apply as a complete coverage spray. One treatment may suffice. Repeat only if needed. TICKS: Use 1-2 gals. per 100 gals. of water (6 1/2 oz per 5 gals.). Apply as a complete coverage spray and repeat at 2 weeks intervals if needed. For GULF COAST TICK and SPINOSE EAR TICK, apply at low pressure to each ear and to head, neck and shoulder areas.

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((BACK PANEL))

**POULTRY -**

**CHICKENS, DUCKS, GEESE, TURKEYS:** No preslaughter interval through 1 to 1.5 gallons of 0.6% finished spray per 100 birds for animal treatment. For **CHICKEN RED MITE, CHEWING LICE, NORTHERN FOWL MITE:** Dilute 2 tbs. per gal. per 100 to 150 birds. Spray birds directly. Repeat in 4 to 6 weeks or when necessary. Treatment is supplemental to premise treatment. **CHICKEN BODY LOUSE, NORTHERN FOWL MITE, SHAFT LOUSE:** Dilute 8 1/2 oz. per 15 gals. per 400 birds. **TAIL DIPPING:** (no preslaughter interval through 3.75 gal. of 0.267% finished spray per 100 birds for tail dipping). Hold bird by wings and dip 3 to 4 inches of tail into emulsion. Treat vent and surrounding areas. Repeat in 7 to 10 days if needed. **POULTRY HOUSES:** For **CHEWING LICE, CHICKEN RED MITE, NORTHERN FOWL MITE, FLIES:** Dilute 4 tbs. per gallon and apply liberally to litter, walls, ceiling, roost nests, and adjacent areas. Apply with a high pressure sprayer. Force spray into cracks and crevices. The soluble concentrate/liquid is diluted in kerosene or other distillates. **ROOST PAINT TREATMENT -** For **CHEWING LOUSE, CHICKEN RED MITE:** Dilute 2-7 oz. per gal. of water or oil and apply with a brush to all possible roosting places. One application is usually sufficient. Control should be achieved in 4 to 7 days. Examine birds 14 to 21 days after treatment. Make the second application if needed. **FOWL TICK:** Dilute 6-7 oz per gal. and apply liberally to walls, ceiling, roost nests, and adjacent areas. Apply with a high pressure sprayer and force spray into cracks and crevices. **CHIGGER MITES:** Apply 1-1 1/2 pints per acre as a range treatment. Treat the range thoroughly 24 hours prior to placing poultry on range. Repeat at 14 to 21 day intervals.

**DOGS, CATS:** For **FLEAS, ITCH MITE FAMILY, LICE, TICKS** (including **BROWN DOG TICK**): Do not treat puppies or kittens under 4 weeks of age. Dilute 1 oz (2 tbs.) in 1 gal. of water and using a hand sprayer, wet the animal thoroughly. If necessary, repeat treatment in 7 days. If animals run freely treatments may be required every 14 to 21 days. **ANIMAL QUARTERS:** (kennels, pens, yards, lawns and under houses). Dilute 5 oz (10 tbs.) in 1 gal. to 25 gals.) Apply to pet quarters. Spray bedding, cracks, crevices and flooring thoroughly as often as needed.

**GOATS - SHEEP:** No preslaughter interval through 0.65% finished spray for animal treatment. Do not treat animals under 1 month of age. For **SHEEP KED** - dilute 1 gal. per 100 gals of water (6 1/2 oz per 5 gals.) For **LICE** - dilute 64 pints per 100 gals. of water (5 oz per 5 gal.) Spray animals thoroughly. **TICKS** - dilute 1-2 gals. per 100 gals. of water (6 1/2 oz per 5 gals.) Apply complete coverage spray. **DO NOT APPLY TO MILK GOATS.** Repeat after 14 to 21 days if needed.

**HOGS:** No preslaughter interval through 0.65% finished spray for animal treatment. Do not treat animals under 1 month of age. After treatment, hogs should be kept out of the sun or wind for a few hours. Avoid contamination of feed, feed containers and watering troughs. For **ITCH MITE family and LICE** dilute 1 gal. per 100 gals of water (6 1/2 oz per 5 gals.). Apply for complete coverage to animals, pens, and litter. One treatment is usually sufficient. Repeat if needed. For **itch mite family**, treat the entire herd. A second treatment may be required 10 days after the first treatment.

CHEM-TOX MAL SCX-E.C.

((Back Pane:))

OUTDOOR APPLICATION:

Plant:	Pests:	Dilution Rate	Pre-harvest interval days
Ornamentals/ Flowering Plants/ Ornamental Wood plants:	Do not allow spray to contact ferns hickory viburnum, lantana, crassula, or canaena juniper as injury may result to plants. Do not apply to elms under conditions of drought, heat or disease.	1 1/2 pts/100 gal. or 2 tsp/gal.	

APHIDS (including cherry aphid, green apple aphid, rosy apple aphid, snowball aphid, and woolly apple aphid), BAGWORMS, BIRCH LEAFMINER, BOX ELDER BUG, BOXWOOD LEAFMINER, CHRYSANTHEMUM LEAFMINER, ELM LEAFMINER, EUROPEAN PINE SHOOT MOTH, FLOURINRD LEAF BUG, JAPANESE BEETLE (adults), LACE BUGS, LEAFHOPPERS (including rose leafhopper), LOCUST LEAFMINER, MEALYBUGS (including citrus mealybug), MITES (including boxwood mite, European red mite, gallmite, honey locust mite, oak mite, red spider mite, southern red mite, spruce mite, and twospotted spider mite), POTATO LEAFHOPPER, PSYLLIDS (including boxwood psylla), SCALES (including azalea scale, bean scale, black scale, euonymus scale, fletcher scale, Florida red scale, juniper scale, magnolia scale, Monterey pine scale, oak kernes, oyster shell scale, needle scale, scurfy scale, soft brown scale, and wax scale), TARNISHED PLANT BUG, TENT CATERPILLAR, THRIPS, WHITEFLIES.

For PINE NEEDLE SCALE:

For scales, apply when crawlers have settled. May be applied by mist blower. Repeat at 5 to 7 day intervals as needed.	2 1/2 pts/100 gal. or 4 tsp/gal.	
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FRUIT CROPS:

Apples:	APHIDS (incl. apple-, green peach-, rosy apple-, woolly apple aphid), APPLE MAGGOT, BAGWORMS, COILING MOTH, EYESPOTTED BUD MOTH, FLOURLINED PLANT BUG, JAPANESE BEETLE (adults), LEAFHOPPERS, LEAFROLLERS (incl. fruittree-, redbanded leafroller), MEALYBUGS, MITES (incl. spider mites, such as brown mite, European red mite, twospotted spider mite, Willamette spider mite),	1-2 pts/100 gal. or 2 tsp/gal.	3 days
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((BACK PANEL))

ORANGE TORTRIX, ORIENTAL FRUIT MOTH, PEAR PSYLLA, PLUM CURCULIO, SCALES (incl. cottony cushion-, Forbes-, Putnam-, San Jose scale), TARNISHED PLANT BUG, TENT CATERPILLARS (incl. eastern tent caterpillar), TENTIFORM LEAFMINERS, THRIPS, UNSPOTTED TENTIFORM LEAFMINER, YELLOWNECKED CATERPILLAR.

May cause fruit injury to McIntosh and Cortland varieties if applied with 28 days of harvest.

Delayed dormant and foliar application. For codling moth, oriental fruit moth, and plum curculio, apply at petal fall and repeat at 10 to 14 day intervals as needed. For scales (crawlers), apply when crawlers are present approximately second, fifth, sixth and seventh cover sprays. For spider mites, make at least 2 applications at 10 to 12 days intervals in summer months.

Cherry APHIDS (incl. black cherry, black peach green peach aphid), CHERRY FRUIT FLY, CODLING MOTH, EYESPOTTED BUD MOTH, 1.5 pts./100 gal. 3 days

FRUITTREE LEAFROLLER, JAPANESE BEETLE (adults), LEAFHOPPERS, LESSER PEACHTREE BORER, MITES (incl. spider mites such as brown mite, European red mite, and twospotted spider mite), ORANGE TORTRIX, ORIENTAL FRUIT MOTH, PLUM CURCULIO, REDBANDED LEAFROLLER, SCALES (including Forbes scale and San Jose scale) THRIPS. or 2 tsp./gal.

Foliar application. For cherry fruit fly, repeat at 10 day intervals. For Forbes scale and San Jose scale, apply 21 days before harvest.

Peach: APHIDS (incl. black cherry, black peach green peach, rusty plum aphid), CODLING MOTH, COTTONY PEACH SCALE, EUROPEAN FRUIT LECANIUM, EYESPOTTED BUD MOTH, JAPANESE BEETLE (adults), LEAFHOPPERS, LYGUS BUGS, YEALYBUGS, MITES (including spider mites such as brown mite, European red mite, twospotted spider mite), ORANGE TORTRIX, ORIENTAL FRUIT MOTH, PEACH TWIG BORER, PLUM CURCULIO, REDBANDED LEAFROLLER, 2 pts./100 gal. or 2 tsp./gal. 7 days

Foliar application. For peach fruit fly, repeat at 10 day intervals. For Forbes scale and San Jose scale, apply 21 days before harvest.

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TERRAPIN SCALE, THRIPS,

CHEM-TOX MAL 50% - E.C.

Delayed dormant and foliar application. For scale and peach twig borer, make full coverage application at completion of hatching, approx. the last of June. For oriental fruit moth and plum curculio, apply at petal fall and repeat at 10 to 14 day intervals.

Pear:	APHIDS (including apple, apple grain, rosy apple, woolly apple aphid), CODLING MOTH, EYESPOTTED BUD MOTH, FORBES SCALE (incl. crawlers), FOURLINED PLANT BUG, JAPANESE BEETLE (adults), LEAFHOPPERS, LEAFROLLERS (incl. fruittree, redbanded leafroller), MEALYBUGS, MITES (incl. spider mite such as brown, European red, Pacific spider, twospotted spider, Willamette spider mite), ORANGE TORTRIX, ORIENTAL FRUIT MOTH, PEAR PRYLLA, PLUM CURCULIO, SAN JOSE SCALE (incl. crawlers) TARNISHED PLANT BUG, THRIPS	1-2 pts./100 gal. or 2 tsp./gal.	1 day
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Injury may occur under certain conditions in the Northeast or BOSC variety of pears. Delayed dormant and foliar application. For codling moth, oriental fruit moth, and plum curculio, apply at petal fall and repeat at 10 to 14 day intervals. For scales, apply when crawlers are present, approx. first or second cover and last half of July. For spider mites, make at least 2 application at 10 to 12 day intervals in summer months.

BERRIES:

Blackberry, Boysenberry, Cewberry, Loganberry, Raspberry,	APHIDS, BLACK SCALE, EUROPEAN FRUIT LEC- ANIUM, HEMISPHERICAL SCALE, JAPANESE BEETLE, (adults), LEAFHOPPERS, LEAFROLLERS, MITES, (including spider mites such as twospotted spider mite), PLUM CURCULIO, PSYLLIDS, RAS- BERRY FRUITWORMS, ROSE SCALE, ROSE CHAFER, SAP BEETLES (raspberry only), SPITTLEBUGS, THRIPS, WHITEFLIES.	1-2 pt/100 gal. or 2 tsp/gal	1 day
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Foliar application.

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Strawberry:      APHIDS, FIELD CRICKETS, LEAFHOPPERS (incl. potato leafhopper), LEAFROLLERS (incl. strawberry leafroller), MITES (incl. spider mites such as twospotted spider mite), ROSE SCALE, SPITTLEBUGS, STRAWBERRY ROOT WEEVIL, THRIPS, WHITEFLIES,      3 days

1.5 pts/100 gal  
or  
2 tsp/gal.

Foliar application.  
Do not use where cyclamen mite is a problem.

VEGETABLES:

Cucumber      APHIDS, PICKLEWORM, SPIDER MITES, CUCUMBER BEETLES,      3 tsp/gal      1 day

Do not apply unless plants are dry.  
Foliar application

Asparagus:      APHIDS, ASPARAGUS BEETLE, LEAFHOPPERS, SPIDER MITES, THRIPS,      1 day

2 tsp./gal.

Foliar application. For asparagus beetle, apply when pest first appears. For thrips, apply immediately after cutting.

Cole Crops (incl. Brussels sprouts, Cabbage, Cauliflower, Broccoli),      APHIDS (incl. cabbage, turnip aphid), ARMYWORM, CABBAGE LOOPER, CORN EARWORM, CUCUMBER BEETLES, DIAMONDBACK MOTH, FLEA BEETLES, FOURLINED PLANT BUG, HARLEQUIN BUG, IMPORTED CABBAGEWORM, WHITEFLIES.      7 days

1-2 pts/100 gal.  
or  
2 tsp./gal.

Foliar application. For aphids, apply lower dosages. For control of caterpillars on summer and fall plantings in South, apply when true leaves appear. On other plantings, and for control of other insects, apply when pests first appear.

Celery,      APHIDS, CELERY LEAF-TIER, CUCUMBER BEETLES, CUTWORMS, JAPANESE BEETLE, LEAFHOPPERS, SPIDER MITES (incl. twospotted spider mite), THRIPS, WHITEFLIES,      7 days

2 tsp./gal.

Foliar application.



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CHEM-TOX MAL 50X-EC

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Eggplant	APHIDS, SPIDER MITES (incl. twospotted spider mite. LACE BUGS;	2 tsp./gal.	3 days
	Foliar application. For lace bugs, apply the higher dosage.		
Endive	APHIDS, ARMYWORM, CABBAGE LOOPER, SPIDER MITES, WHITEFLIES, THRIPS;	2 tsp./gal.	7 days
	Foliar application.		
Peas	APHIDS (incl. pea aphid), PEA WEEVIL, SPIDER MITES, THRIPS, WHITEFLIES;	2 tsp./gal.	3 days (vines not used for feed)
	Foliar application. For leafhoppers and Mexican bean beetle, make 2 or more applicaton as needed. For pea aphids, apply during early bloom before eggs are oviposited.		7 days (vines are used for feed)
Beans	APHIDS (incl. bean phid), BEAN LEAF BEETLE, BEAN LEAF BEETLE, BLISTER BEETLES, CORN EARWORM, CUCUMBER BEETLES, CUTWORMS, DARTLING BEETLES, SPIDER MITES (incl. twospotted spider mite) STINK BUGS;	1-1.5 pts/100 gal. or 2 tsp./gal.	1 day
	Foliar application. Make 2 or more applications as needed.		
Spinach	ALFALFA LOOPER, APHIDS, LACE BUGS, LEAFHOPPERS, SPIDER MITES, THRIPS.	3 pts/100 gal. or 2 tsp./gal.	7 days
	Foliar application.		
Tomato	APHIDS, DROSOPHILA, LEAFMINERS (incl. serpentine leafminer), SPIDER MITES (incl. twospotted spider mite), TOMATO HORNWORM;	2 tsp./gal.	5 days
	Foliar application; For aphids, spider mites, and tomato russet mite, apply the higher dosage.		
Beets	APHIDS (incl. bean aphid), LEAFHOPPERS, LEAFMINERS,	3 pts./100 gal. or 2 tsp./gal.	7 days
	Foliar application;		

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CHEM-TOX MAL 50% EC.

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Corn:	APHIDS (incl. corn leaf aphid), ARMYWORMS, CEREAL LEAF BEETLE, CORN ROOTWORMS(adults) GRASSHOPPERS, SAP BEETLES, THRIPS, SPIDER MITE	3 pts./100 gal. or 2 tsp./gal.	5 days
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Foliar application. For aphids, apply spray formulations by locating pests in leaf sheath and use as much water as possible; direct spray into whorl. For corn rootworm; begin treatment when 10% of ears show silk. Make 4-5 applications at 3-5 days intervals. Injury may occur in the whorl stage. For grasshoppers, apply at nymphal stage.