Malathion-5
Emulsifiable Concentrate

KEEP OUT OF REACH OF CHILDREN

CAUTION

See Side Panel for Additional Precautionary Statements

ACTIVE INGREDIENTS	
Malathion*	57.00%
Xylene	33.36%
INERT INGREDIENTS	9.64%
Total	100.00%

*O,O-dimethyl dithiophosphate of diethyl mercaptosuccinate.
Contains 5 pounds of Malathion per gallon.

Net Volume: 5 Gallons
Product 244

EPA Reg. No. 1386-124
EPA Est. No. 1386-OH-1

CO-OP

UNIVERSAL COOPERATIVES, INC., MINNEAPOLIS, MN 55440

PRECAUTIONARY STATEMENTS:

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

CAUTION

Harmful if swallowed. Avoid breathing spray mist. Avoid contact with skin, eyes and clothing. Wash thoroughly after using. Avoid contamination of feed and foodstuffs.

STATEMENT OF PRACTICAL TREATMENT

If on skin, wash affected areas with soap and water. If inhaled, remove victim to fresh air. Apply respiration if indicated. If in eyes, flush eyes for at least 15 minutes with water.

ENVIRONMENTAL HAZARDS

This product is toxic to fish, shrimp, crabs and other wildlife. Keep out of lakes, streams, ponds, tidal marshes and estuaries. Do not apply where runoff is likely to occur. Do not apply when weather conditions favor drift from areas treated. Do not contaminate water by cleaning of equipment, or disposal of wastes.

This pesticide is highly toxic to bees exposed to direct treatment or to residues remaining on the treated area. Do not apply this product or allow drift when bees are actively visiting the treatment area. Applications should be timed to provide the maximum possible interval between treatment and the next period of bee activity. Further protection information may be obtained from your Cooperative Agricultural Extension Service. Apply this product only as specified on this label.

PHYSICAL OR CHEMICAL 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.

Mix this concentrate with water as directed below for application as a spray, or mix with fuel oil for use in back rubber devices for beef cattle. Make thorough full-coverage applications of the spray and repeat applications as stated in all cases.

BERRIES, VEGETABLES, AND FIELD CROPS

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.

Do not enter treated areas without protective clothing until sprays have dried. Because certain states may require more restrictive reentry intervals for various crops treated with this product, consult your State Department of Agriculture for further information.

Written or oral warnings must be given to workers who are expected to be in a treated area or in an area about to be treated with this product. Oral warnings must inform workers of areas or fields that may not be entered without wearing specific protective clothing until sprays have dried and of appropriate actions to take in case of accidental exposure (refer to Statement of Practical Treatment). When oral warnings are given, warnings shall be given in a language customarily understood by workers. Oral warnings must be given if there is reason to believe that written warnings cannot be understood by workers. Written warnings must include the following information: "CAUTION. Area treated with malathion on (insert date of application). Do not enter without appropriate protective clothing until sprays have dried. In case of accidental exposure, follow these procedures: (insert information found under Statement of Practical Treatment).

BERRIES

BRAMBLES (BLACKBERRIES, BOYSENBERRIES, LOGANBERRIES, and RASPBERRIES) — To control mites, thrips, leafhoppers, Japanese beetle adults, aphids, and rose scale, use 3 pints per acre (in sufficient water for good coverage). Apply sprays to foliage when insects first appear, usually when plants begin to grow in spring, and repeat at 7 to 10-day intervals as necessary. DO NOT APPLY TO BLACKBERRIES, BOYSENBERRIES, LOGANBERRIES, AND RASPBERRIES WITHIN 1 DAY OF HARVEST.

STRAWBERRIES — to control aphids, spider mites, spittlebug, strawberry leafroller, leafhoppers, and whitefly, apply 1½ to 3 pints per acre in the amount of water required for uniform thorough coverage of foliage. Apply when insects first appear, usually early in the spring and repeat as needed. DO NOT APPLY TO STRAWBERRIES WITHIN 3 DAYS OF HARVEST.

CRANBERRIES — To control leafhopper, black-headed fireworm, spittlebug, and cranberry fruitworm, apply 1½ pint per acre in the amount of water required for uniform thorough coverage. Apply when insects first appear, usually early in the spring, and repeat as needed. DO NOT APPLY TO CRANBERRIES WITHIN 3 DAYS OF HARVEST.

VEGETABLE CROPS

To control the insects on the crops listed below, begin applications when insects first appear and repeat at 7 to 10-day intervals as necessary, using 1½ to 2 pints (0.93 to 1.25 lb. Malathion) per acre in the quantity of water required for uniformly thorough coverage: APHIDS — On beans, beets, broccoli, Brussels sprouts, cabbage, melons, cauliflower, celery, cucumber, eggplant, kale, lettuce, mustard greens, peas, peppers, potato, spinach, squash, tomato and turnip. LEAFHOPPERS — On beans, melons, cucumber, celery, eggplant, squash, and tomatoes. MEXICAN BEAN BEETLE — On beans. IMPORTED CABBAGE WORM AND CABBAGE LOOPER — On broccoli, Brussels sprouts, cabbage, cauliflower, kale, lettuce, and mustard greens. THRIPS — On asparagus and onions. PEPPER MAGGOT — On peppers. CUCUMBER BEETLES — On Melons, cucumbers, and squash. ASPARAGUS BEETLE — On asparagus. MEALY3UG — On potatoes. PEA WEEVIL — On peas. DROSOPHILA — On tomatoes.

DO NOT APPLY TO BEANS, MELONS, CUCUMBERS, SQUASH, OR TOMATOES WITHIN 1 DAY OF HARVEST: APPLY TO CUCUMBERS ONLY WHEN THE FOLIAGE IS DRY. DO NOT APPLY TO BROCCOLI, PEPPERS, GREEN ONIONS, PEAS, OR TURNIPS (INCLUDING TOPS) WITHIN 3 DAYS OF HARVEST. DO NOT APPLY TO BEETS, BRUSSELS SPROUTS, CABBAGE, CARROTS, CAULIFLOWER, CELERY, KALE, MUSTARD GREEN, SPINACH OR HEAD LETTUCE WITHIN 7 DAYS OF HARVEST. DO NOT APPLY TO LEAF LETTUCE WITHIN 14 DAYS OF HARVEST.

FIELD CROPS

ALFALFA — To control aphids including spotted alfalfa aphid, leafhoppers, spider mites, spittlebug, and alfalfa weevil larvae, use 1½ to 2 pints (0.93 to 1.25 lb. Malathion) per acre, in the amount of water required for uniformly thorough coverage. Begin applications when insects first appear and repeat at 7 to 10-day intervals as necessary. 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 the outside of hives. May be grazed or harvested on day of application.

GRASS CROPS — (including Green Sorghum) Grasshoppers and leafhoppers — Use at the rate of 1⅓ to 2 pints (.93 to 1.25 lb. Malathion) per acre in quantity of water required for uniformly thorough coverage. ARMY WORM — Use 2 pints (1.25 lbs. Malathion) per acre. Apply when larvae are small. A limitation of 7 days preharvest should be given.

GRAIN CROPS — (Barley, Corn, Oats, Wheat) — Cereal Leaf beetle — Use at the rate of 1 to 1⅓ pints (.625 to .93 lb. Malathion) per acre in quantity of water required for uniformly thorough coverage. Green bugs and grasshoppers use 1 to 1⅓ pints (.625 to .93 lbs. Malathion) per acre. Make full coverage to hatching areas when nymphs are young. Army Worm — Use 2 pints (1.25 lb. Malathion) per acre in quantity of water required for uniformly thorough coverage. Do not apply to Barley, Oats, and Wheat within 7 days of harvest. Do not apply to corn within 5 days of harvest.

ORNAMENTAL PLANTS

To control the following on ornamentals, mix the indicated dosage with 100 gallons of water. Apply spray when the insects are first observed and repeat as necessary.

OYSTER SHELL SCALE — 1 pint. APHIDS, SPIDER MITES, JAPANESE BEETLE ADULTS, LEAFHOPPERS, THRIPS, AND SCURFY SCALE — 1⅓ pints. BIRCH LEAFMINER, BOXWOOD LEAFMINER, AZALEA SCALE, PINE LEAF SCALE, AND MAGNOLIA SCALE — 2 pints. Do not use on Boston, Maidenhair, or Pteris ferns. Do not use on petunias. May cause injury to Crassula.

BEEF CATTLE

SPRAY — To control the insects stated below, use the indicated amount of concentrate mixed in 100 gallons of water and apply as a complete-coverage spray to each animal.

LICE — 1 gallon. One treatment may be sufficient; repeat application only if needed. TICKS — 1 to 2 gallons. Repeat applications at 2-week intervals if needed. HORN FLIES — 1 to 1⅓ gallons. Repeat applications at 2-week intervals if needed.

BACK RUBBER DEVICES — To aid in reduction of lice and horn flies on beef cattle, use 1 part of the concentrate mixed in 27 parts of fuel oil (2 percent Malathion), e.g., 1 pint of concentrate in 3⅜ gallons of fuel oil, and apply this mixture to saturate fabric covering of back rubber device or to fill storage tank of machine applicator. Observe back rubber device frequently and re-treat it every 2 to 3 weeks or when necessary. The back rubber device or applicator should continuously and readily be accessible to the beef cattle. Preferably it should be installed in gateways, entrances, or lanes leading from pasture to water or salt, so the cattle will be forced to rub against it going from one area to another.

DO NOT APPLY TO DAIRY ANIMALS. DO NOT MAKE TREATED BACK RUBBER DEVICES ACCESSIBLE TO DAIRY ANIMALS. DO NOT TREAT ANIMALS UNDER 1 MONTH OF AGE.

SHEEP AND GOATS

SPRAY — To control lice, ticks, and keds, use 1 gallon in 100 gallons of water, and spray each animal thoroughly. Repeat application in 2 to 3 weeks if needed.

DO NOT APPLY TO MILK GOATS, DO NOT TREAT ANIMALS UNDER 1 MONTH OF AGE.

SWINE

SPRAY — To control lice on hogs, use 1 gallon in 100 gallons of water and apply complete coverage spray to animals, pens and litter. One treatment may be sufficient; repeat application only if needed.

POULTRY

DIRECT APPLICATION — To control northern fowl mite (feather mite), poultry lice, and as a supplement to premise treatments for chicken red mite, use 2 tablespoonfuls in 1 gallon of water, and apply 1 gallon of the diluted mixture per 100 to 150 birds. Repeat in 4 to 8 weeks if necessary.

PREMISE TREATMENT — To control northern fowl mite, chicken red mite, poultry lice, and flies, use 4 tablespoonfuls in 1 gallon of water, and spray thoroughly the walls, ceilings, roosts, and nests, and adjacent areas, taking care to force the spray into all cracks and crevices. Repeat as necessary. Use high pressure sprayer for surface application.

ROOST PAINT — To control chicken red mite and poultry lice, use 4 tablespoonfuls in 1 gallon of water. Brush on this mixture as a roost paint at the rate of 1 pint per 150 feet of roost. Repeat as necessary.

DO NOT CONTAMINATE FEED, FEED CONTAINERS, FEEDING TROUGHS, WATERING CUPS, TROUGHS, OR FOUNTAINS.

DILUTION RATE FOR SMALL APPLICATION EQUIPMENT

Amount in 100 Gallons	Amount in 1 Gallon
1 Pint	1 Teaspoonful
1 Gallon	2½ Tablespoonfuls

The dosage rate of 2 pints per acre is equivalent to approximately ½ teaspoonful per 1,000 square feet, which usually can be applied to that area in 3 gallons of water in a typical compressed air sprayer.

MOSQUITO CONTROL

ADULT MOSQUITO CONTROL - To control adult mosquitoes outdoors, in backyards, in areas of ornamental shrubbery, and on lawns, use a 2% to 5% area or fog spray. For a 2% spray, dilute 1 part Malathion-5 Emulsifiable Concentrate with 28 parts of water, fuel oil, or diesel oil. For a 5% spray, dilute 1 to 11. Apply water based spray uniformly, into and around the ornamental vegetation. Apply oil based fog to uniformly penetrate into and around the ornamental vegetation. Repeat applications as needed. Do not apply to areas where food or feed crops are growing. Do not apply oil mixture for fogging directly to ornamental plants.

MOSQUITO LARVAE CONTROL - For control of mosquito larvae in standing water (intermittently flooded areas, stagnant water, temporary rain pools), apply 13 fluid ounces of Malathion-5 Emulsifiable Concentrate per acre, mixed in sufficient water or oil to obtain even coverage when applied by air or ground equipment. NOTE: Contamination of shallow, fish bearing waters may kill fish.

GRAIN AND PEANUT PROTECTANT

CLEAN-UP SPRAY (Before Storing Grain or Peanuts) — Since many of the insects which commonly infest grain or peanuts in storage continue to live and breed in residues and debris, the bins, storage areas, elevators, and handling equipment such as trucks and conveyors should be thoroughly cleaned before storing the new crop. Remove and burn all sweepings and debris. The ground outside should be kept free of debris since this material also breeds insects.

Before the new grain or peanuts go into storage, a spray made by mixing 1 gallon of this concentrate in 19 gallons of water (1 pint in 2½ gallons) should be applied to walls, floors and ceilings of bins, warehouses, and other storage areas including farm storage. Spray also handling equipment and truck beds. Spray all surfaces to the point of runoff, making sure the spray is driven into joints, corners, cracks, and crevices where insects may be concealed.

GRAIN PROTECTION — For protection of stored grain (wheat, oats, rice, corn, rye, barley, and grain sorghum) against infestation by insects which attack grain in storage such as rice weevil, granary weevil, lesser grain borers, cadelle, saw-toothed grain beetle, red flour beetle, confused flour beetle, flat grain beetles, rusty grain beetles, and Augoumois grain moth, use 1 pint of concentrate in 2 to 5 gallons of water to each 1,000 bushels. Apply the spray uniformly as the grain is being loaded or turned into final storage. Standard spray applicators which can be calibrated to deliver a known volume are suitable for this application.

For small amounts of grain in farm storage, where special spray equipment may not be available, any low-pressure sprayer (holding one gallon or more) can be used. The spray should be applied to the grain stream as the grain is being elevated into storage. The first step is to determine, by means of spraying out a tank full of water, the rate at which the sprayer is discharging (e.g. fluid ounces per minute). Then, regulate the flow of grain to get the proper amount of spray uniformly on the grain. For example, if the sprayer is calibrated to deliver 4 fluid ounces (¼ pint) per minute then, when using a mixture of 1 pint concentrate in 5 gallons of water, the flow of grain should be 6¼ bushels per minute.

SURFACE TREATMENT FOR INDIAN MEAL MOTH — To protect stored grains against attack by Indian meal moth, use ½ pint of the concentrate in 1 to 2 gallons of water for each 1,000 square feet of grain surface. Apply as a spray uniformly to the surface of clean or uninfested grain immediately after being loaded into storage. Repeat if necessary.

PEANUT PROTECTION — For protection of stored peanuts against infestations of red flour beetle, Indian meal moth, confused flour beetle, rice weevil, flat grain beetle, rusty grain beetle, lesser grain borer, granary weevil, and saw-toothed grain beetle apply as follows:

Residual Warehouse Spray — Before Storing Peanuts: Clean warehouse thoroughly of trash and old remains of peanuts 1 to 2 weeks before new peanut crop is stored. Thoroughly spray with sufficient pressure interior of empty warehouse (including cracks and protected places) outside walls to height of 6 to 8 feet, and the ground to a distance of about 6 feet from warehouse by diluting 1 pint in sufficient water to make 2½ gallons of spray or 1 gallon with 19 gallons of water. Apply finished spray at the rate of 2 gallons per 1,000 square feet or to run-off.

Bulk Spray Treatment—Peanuts Going Into Storage: Apply 2½ pints in 5 gallons of water per 15 tons of farmers' stock peanuts as they go into storage. Apply coarse spray uniformly. Preferably use a suitable mechanical spray applicator which regulates rate of application to flow of peanuts. Otherwise, adjust pressure and size of nozzle opening to rate of flow of peanuts.

Supplemental Surface Spray: After warehouse has been filled, level surface of peanuts before spaying. Apply surface spray using 1¾ lbs. of UNIVERSAL's 25% Premium Grade Malathion Wettable Powder in 2 gallons of water and apply at the rate of 2 gallons per 1,000 square feet of surface. Apply first treatment as soon as bin is filled and leveled, but not later than the first week in October. Apply the second surface treatment 1 month later, followed by treatments at 2 month intervals. Use a piston type power sprayer equipped with agitator and nozzle capable of delivering a coarse spray. Repeat surface application 60 days later if warm temperatures prevail. Otherwise delay further treatment until late winter.

STORAGE AND DISPOSAL

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

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 by other procedures approved by State and local authorities.

WARRANTY AND LIMITATION OF DAMAGES

Seller warrants that this material conforms to its chemical description and is reasonably fit for the purposes stated on the label when used in accordance with directions under normal conditions of use and Buyer assumes the risk of any use contrary to such directions. Seller makes no other express or implied warranty, including any other express or implied warranty of Fitness or of Merchantability, and no agent of Seller is authorized to do so except in writing with a specific reference to this warranty. In no event shall Seller's liability for any breach of warranty exceed the purchase price of the material as to which a claim is made.