



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

S474811

MAR 04 1997

Ms. Glenda Haage
Registration Specialist
Riverside/Terra Corporation
600 Fourth Street
Sioux City, IA 51101

OFFICE OF
PREVENTION, PESTICIDES AND
TOXIC SUBSTANCES

Dear Ms. Haage:

Subject: Deletion of Unsupported Malathion Uses
Malathion 5
EPA Reg. No. 9779-5
Labeling Submitted September 23, 1994
Federal Register Notices of March 18, 1991 and
September 30, 1994

The labeling amendment referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide, and Rodenticide Act, As Amended (FIFRA), is acceptable, provided that you:

Submit one copy of your final printed label incorporating the following corrections before you release the product for shipment.

1. Correct the precautionary statements as described below so that they agree with the toxicity categories cited in your response to the Worker Protection Standard (WPS) for the product; i.e. II for eye irritation; III for acute dermal toxicity, and skin irritation; and IV for acute oral and inhalation toxicity.

Delete the precautionary statements, "Avoid breathing spray mist. Avoid contact with skin or clothing." and replace them with the following statements.

"Causes substantial but temporary eye injury. Harmful if absorbed through skin. Do not get in eyes on skin or on clothing."

2. Correct the Environmental Hazard statement, " Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark." to read as follows.

"For terrestrial uses, do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark."

3. Under the directions for use on flies, delete the

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reference to walls, ceilings, stanchions and windows in dairy barns. The use of malathion is not being supported for use inside dairy barns.

4. Clarify the directions for use on flies by specifying, "Outdoor fly control."

5. Add a statement prohibiting the grazing or feeding of the treated crop foliage by livestock for the crops, beans, peas and lentils (vines/forage and straw/hay).

6. Malathion product labeling bearing aquatic uses must bear the restrictions cited below. These restrictions are being required in lieu of conducting residue chemistry studies under 171-4 (Magnitude of the Residue in Fish and Shellfish and Magnitude of the Residue in Drinking and Irrigation Water).

Your submitted label did include these restrictions in the mosquito larvae control use directions. They must also appear in the directions for use on the aquatic food crop, rice.

"Broadcast use only over intermittently flooded areas. Application may not be made around bodies of water where fish or shellfish are grown and/or harvested commercially."

7. The following statements are not appropriate restrictions for the non-WPS uses appearing on your label. Relocate them within the Agricultural Use Requirements box.

"Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application."

8. Delete the Non-agricultural Use Requirements box since there are no use requirements in the box.

It is noted for the files that the subject amended labeling has the correct restricted entry interval (REI) of 12 hours. The Agency's letter of January 28, 1994 regarding your WPS labeling submission had specified a REI of 24 hours which was apparently based on the 24 hour REI appearing on your label accepted in 1989 for the use on slash pines.

The 12 hour REI which is based on the acute toxicity of the active ingredient, malathion, agrees with the REI specified for the active ingredient on the WPS Active ingredient list which is attached to PR Notice 93-7 as part of supplement three-A. Prior to the WPS regulations, the Agency had not established a longer reentry interval for agricultural uses beyond the minimum reentry interval (sprays have dried, dusts have settled and vapors have dispersed) (Reference: 1988 malathion registration standard).

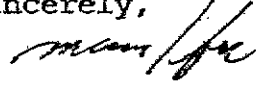
If this condition is not complied with, the registration will be subject to cancellation in accordance with FIFRA sec.

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6(e). Your release for shipment of the product bearing the amended label constitutes acceptance of this condition.

A stamped copy of the label is enclosed for your records.

Sincerely,



William W. Jacobs, Ph. D.
Acting, Product Manager Team 14
Insecticide-Rodenticide Branch
Registration Division (7505C)

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R*

MALATHION 5

An emulsifiable concentrate containing 5 pounds of malathion per gallon.

ACCEPTED
with COMMENTS
in EPA Letter Dated

ACTIVE INGREDIENT

Malathion (O,O-dimethyl phosphorodithioate of diethyl mercaptosuccinate)

56.8%

INERT INGREDIENTS*

43.2%

TOTAL

100.0%

MAR 04 1997

Under the Federal Insecticide, Fungicide, and Rodenticide Act

9779-5

Contains 5 pounds malathion per gallon.

*Contains 35.2% of Xylene range aromatic solvent.

KEEP OUT OF REACH OF CHILDREN

WARNING/AVISO

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand this label, find someone to explain it to you in detail.)

STATEMENT OF PRACTICAL TREATMENT

ORGANOPHOSPHATE

IF SWALLOWED: Contact your local poison control center, hospital, or physician. If the patient is unconscious, maintain breathing and heartbeat (cardiopulmonary resuscitation). If the patient is conscious and alert, induce vomiting (syrup of ipecac or stimulate the back of throat with finger). Never give anything by mouth to an unconscious person.

IF INHALED: Remove victim to fresh air and apply respiration if indicated.

IF ON SKIN: Wash with soap and water.

IF IN EYES: Flush with water. Get medical attention if irritation persists.

NOTE TO PHYSICIAN: Malathion is an acetyl cholinesterase inhibitor. Atropine is antidotal.

PRECAUTIONARY STATEMENTS

WARNING

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

Avoid breathing spray mist. Avoid contact with skin or clothing.

Personal Protective Equipment:

Some materials that are chemical-resistant to this product are listed below. If you want more options, follow the instructions for category F on an EPA chemical resistance category selection chart.

Applicators and other handlers must wear long-sleeved shirt and long pants, chemical-resistant gloves, such as Barrier Laminate, Butyl Rubber, Nitrile Rubber or Viton, shoes plus socks and protective eyewear.

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them. Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

When handlers use closed systems, enclosed cabs, or aircraft in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240 (d) (4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.

Read additional PRECAUTIONARY STATEMENTS

EPA-Reg. No. 9779-5

EPA Est. Nos. 9779-AR-1P

9779-AL-1M

9779-TX-3T

(Lot no. indicates establishment.)

Manufactured For

RIVERSIDE/TERRA CORPORATION

P.O. Box 6000, Sioux City, Iowa 51102-6000

Riverside Serves Agriculture. Agriculture Serves Everyone.

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USER SAFETY RECOMMENDATIONS

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

ENVIRONMENTAL HAZARDS

This product is toxic to fish, aquatic invertebrates, and aquatic life stages of amphibians. Do not apply directly to water, or to intertidal areas below the mean high water mark. 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 OR CHEMICAL HAZARDS

Do not use, pour, spill, 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.

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application.

Do not apply this product through any type of irrigation system.

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

AGRICULTURAL USE REQUIREMENTS

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

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 12 hours.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water, is: coveralls, chemical-resistant gloves, such as Barrier Laminate or Butyl Rubber, Nitrile Rubber or Viton, shoes plus socks and protective eyewear.

NON-AGRICULTURAL USE REQUIREMENTS

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

STORAGE AND DISPOSAL

DO NOT CONTAMINATE WATER, FOOD, OR FEED BY STORAGE OR DISPOSAL.

STORAGE

Store in a dry location away from children, animals, foods, feeds, seeds, or other agricultural chemicals. Handle in accordance with information given under PRECAUTIONARY STATEMENTS. In the event of spillage or leakage, soak up material with absorbent clay, sand, sawdust, or other absorbent material. Scrape up and dispose of in accordance with information given under DISPOSAL. Repackage and relabel useable products in a sound container. In case of fire or other emergency, report at once by toll-free telephone to 800-424-9300.

DISPOSAL

PESTICIDE DISPOSAL: Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

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

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GENERAL INFORMATION

MALATHION 5 may be applied by ground sprayers or by airplanes, mixing the MALATHION 5 in water to form an emulsion spray solution. To make the spray solution, half fill the spray tank with water, agitate, add the proper amount of MALATHION 5 and then fill the spray tank with water while still agitating. Continue to agitate during use.

When applying with ground sprayers, calibrate so as to apply the recommended amount of MALATHION 5 in not less than 3 gallons of water per acre. Airplanes should apply the recommended amount of MALATHION 5 in not less than 1 gallon of water per acre. Always use sufficient water for adequate coverage of the crop foliage.

The dosages given under DIRECTIONS FOR USE are the amounts of MALATHION 5 to be applied per acre treated per application. Repeat applications as necessary, unless otherwise directed in DIRECTIONS FOR USE.

Where a dosage range is given, use the lower rate on small or young plants or with light insect infestations; use the higher rate on large or more mature plants or with heavy insect infestations. The hazards and precautions for handling MALATHION 5 in this container are equally applicable to it after dilution with water for spray application.

ORNAMENTALS

Make thorough, full-coverage spray with repeated applications as necessary. For scales, apply when crawlers have settled on foliage. Injury may occur on certain ferns, including Boston, Maidenhair and Pteris, as well as some species of crassula.

Apply 1 pint per 100 gallons of water to control lacebugs and oyster shell scale. Apply 1 1/2 pints per 100 gallons of water to control aphids, spider mites, whitefly, mealybugs, thrips, Japanese beetle adults, four-lined leaf bug, tarnished plant bug, rose leafhopper, potato leafhopper, European pine shoot moth, scurfy scale and euonymus scale.

Apply 2 pints per 100 gallons of water to control bagworms, tent caterpillar, birch leaf miner, boxwood leaf miner, oak kermes, juniper scale, Fletcher scale, Florida red scale, azalea scale, magnolia scale and pine leaf scale.

Apply 2 1/2 pints per 100 gallons of water to control soft brown scale, Monterey pine scale and black scale crawlers.

Apply 4 pints per 100 gallons of water to control pine needle scale.

PECANS

For control of aphids, spider mites, and walnut aphid, use 1 1/2 to 2 pints of MALATHION 5 per 100 gallons of water. For control of European red mite, use 1 1/4 pints per 100 gallons of water. For control of pecan phylloxera, pecan budmoth, and pecan leaf casebearer, use 1 1/4 pints per 100 gallons of water. Apply when buds begin to develop. Repeat as necessary. For control of pecan nut casebearer and walnut husk fly, apply 1 1/4 pints per 100 gallons of water after first generation eggs begin to hatch. Applications may be made on the day of harvest. Application rates are based on a standard of 500 gallons of dilute spray per acre for mature trees 25 to 35 feet high.

MOSQUITOES

OUTDOOR ADULT MOSQUITO CONTROL: For control of mosquitoes outdoors, use a 2% to 5% Malathion area or fog spray. For a 2% spray dilute 1 part of MALATHION 5 with 28 parts of water; for 5%, dilute 1 to 11. Repeat as necessary.

Treat shrubbery and vegetation where mosquitoes may rest. Shrubby and vegetation around stagnant pools, marshy areas, ponds and shore lines may be treated. Application of this product to any body of water is prohibited.

MOSQUITO LARVAE CONTROL: For control of mosquito larvae in standing water, intermittently flooded areas, stagnant water, and temporary rain pools, apply 13 ounces of MALATHION 5 per acre. Mix 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.** Broadcast use only over intermittently flooded areas. Application may not be made around bodies of water where fish or shellfish are grown and/or harvested commercially.

FLIES

For the control of flies around buildings which house domestic animals, around yards and around homes, apply a spray containing 2 gallons of MALATHION 5 in 100 gallons of water. Apply the spray at the rate of one gallon per 1,000 square feet on painted surfaces, and two gallons per 1,000 square feet on unpainted surfaces where flies alight or congregate, such as walls, ceilings, stanchions, windows in dairy barns, fences, around garbage cans, etc. Repeat applications as necessary.

For a bait spray, use 2 gallons of MALATHION 5 with two gallons of unsulfurized molasses or corn syrup, or 20 pounds of sugar per 100 gallons of water. Use 3 gallons of this product with 40 pounds of sugar per 100 gallons, if the fly population is severe. Repeat applications as necessary.

Do not use indoors. Avoid contamination of feed and food products. Do not use in dwellings. Keep out of reach of children.

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CROP	INSECTS CONTROLLED	AMOUNT TO APPLY PER ACRE	PREHARVEST (DAYS) OR GRAZING INTERVALS
CITRUS			
Grapefruit, Lemons, Limes, Oranges, Tangerines	California Red Scale, Yellow Scale, Black Scale, Soft Scale, Citrocolea Scale	1 ½ pints	7
	Red Scale, Purple Scale	1 ½ - 2 pints	7
	Thrips Do not apply during full bloom.	1 ½ pints	7
FIELD CROPS			
Cotton For control of worms and weevils, use in combination with other recommended insecticides.	Boll Weevil	1 - 2 quarts	0
	Desert Spider Mite, Cotton Aphid, Leafhoppers, White Flies, Cotton Leafworm, Brown Cotton Leafworm, Cotton Leaf Perforator, Thrips, Lygus Bugs	1 - 2 quarts	0
	Fleahoppers	1 - 1 ½ pints	0
	Fall Armyworms, Grasshoppers, Garden Webworms	1 ½ - 3 pints	0
FORAGE CROPS			
GRAIN CROPS Barley, Corn, Oats, Wheat Barley, Oats, Rye, Wheat	Cereal Leaf Beetle	1 - 1 ½ pints	7 5 corn
	English Grain Aphid, Greenbugs, Grasshoppers Make full coverage to hatching areas when nymphs are young.	1 ½ pints	7
	Armyworms	2 pints	7
Alfalfa, Clover	Grasshoppers, Aphids, Leafhoppers, Spider Mites, Alfalfa Weevil Larvae, Spittlebug	1 ½ - 2 pints	7
VEGETABLES AND FRUITS			
BEANS Lima, Green, Snap, Navy, Red Kidney, Wax, Cow-peas, Black-eyed Peas Dry Beans (California and Northwest Only)	Mexican Bean Beetles	1 ½ pints	1
	Leafhoppers, Aphids, Cucumber Beetles, Bean Leaf Beetles, Blister Beetles, Lygus Bugs	2 pints	1
	Spider Mites	1 - 1 ½ pints	1
	Japanese Beetles Make 2 or more applications as needed.	1 ½ - 2 pints	1
	Lygus Bugs	1 ½ - 2 pints (ground) 1 ½ pints (air) in 10 gallons of water	1
CELERY To be applied to fresh leaves and stalks only.	Aphids, Spider Mites	1 ½ pints	7

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CROP	INSECTS CONTROLLED	AMOUNT TO APPLY PER ACRE	PREHARVEST (DAYS) OR GRAZING INTERVALS
CHERRIES	Black Cherry Aphid Fruit Tree Leafroller	1 1/2 pints/100 gal.	3
	Cherry Fruit Fly Japanese Beetle Eyespotted Bud Moth	1 pint/100 gal.	
	The rates for use on cherries are based on a standard of 400 gallons per acre dilute spray for mature trees. Do not apply more than 8 lbs. of actual MALATHION 5 per acre to cherry trees. Injury may occur on certain varieties of sweet cherries, particularly in the Northwest.		
COLE CROPS AND LEAFY VEGETABLES Broccoli, Brussels Sprouts, Cabbage, Collards, Dandelions, Kale, Kohlrabi, Mustard Greens, Parsley, Swiss Chard, Turnips, Watercress	Aphids	1 1/2 - 2 pints	7 3 Turnips and Broccoli 21 Parsley
	Flea Beetles (on Mustard Greens only)	1 1/2 - 2 pints	7
	Imported Cabbage Worms, Diamond-Back Moth Larvae (on Cauliflower, Collards, Brussels Sprouts and Broccoli only)	2 pints	7 3 Broccoli
	Harlequin Cabbage Bugs (on Collards only)	1 pint	7
	Cabbage Loopers	1 - 2 pints	7
	Diamondback Moths, Webworms	2 pints	7
EGGPLANT	Aphids, Spider Mites	1 pint	3
	Lacebugs	3 pints	3
ENDIVE	Aphids, Spider Mites	1 1/2 - 2 pints	7
GARLIC, SHALLOTS	Aphids, Thrips	1 1/2 - 2 pints	3
HOPS	Aphids, Spider Mites	1 pint	10
LEEKs	Aphids	1 1/2 - 2 pints	3
	Onion maggot flies	2 1/2 pints	3
	Thrips	3 pints	3
LENTILS	Cowpea aphids, Pea aphids	1 1/2 pints	3
LETTUCE NOTE: For control of cabbage loopers, use in combination with other recommended insecticides	Leafhoppers, Aphids	2 pints	14-leaf
	Cabbage Loopers	3 pints	7-head
SPINACH	Aphids	2 pints	7
CUCURBITS Cucumbers Do not apply unless plants are dry.	Aphids, Spider Mites, Pickleworms	1 1/2 pints	1
	Leaf miners	2 pints	1
	Cucumber Beetles, Squash Vine Borers	3 pints	1
MUSHROOMS Make thorough applications as soon after picking as possible. Repeat as necessary, usually twice a week.	Mites, Phorid and Sciarid flies	2 1/2 pints in 130 gallons of water; or, 2 tablespoons in 3 gallons of water per 1000 square feet of bed	1

CROP	INSECTS CONTROLLED	AMOUNT TO APPLY PER ACRE	PREHARVEST (DAYS) OR GRAZING INTERVALS
OKRA Make no application after pods start to form.	Aphids	1 ½ pints	1
	Japanese beetles	2 pints	1
ONIONS	Onion maggots	1 ½ - 2 ½ pints	3
	Onion thrips	1 ½ - 2 pints	3
SQUASH Do not apply unless plants are dry. Make full-coverage applications weekly to stems and vines at base of plants.	Aphids, Spider Mites	1 ½ pints	1
	Pickleworms, Leaf miners	2 pints	1
	Squash Vine Borers, Cucumber Beetles	3 pints	1
STRAWBERRIES	Aphids, Spider Mites	1 ½ pints	3
	Field crickets, Lygus bugs, Spittlebugs, Thrips	1 ½ - 3 pints	3
	Potato leafhoppers, Strawberry leafrollers, Strawberry root weevils, Whiteflies	1 ½ - 2 ½ pints	3
SWEETCORN Injury may occur in the whorl or to the silks.	Japanese beetles	2 pints	5
PEPPERMINT SPEARMINT	Aphids, Flea beetles, Leafhoppers, Spider mites	1 ½ pints	7
PEAS	Pea Weevil *7 day interval if vines are to be used as animal feed. 3 day interval if vines are NOT used as animal feed.	1 ½ - 2 pints	.
PEPPERS	Aphids	1 pint	3
	Pepper maggots	2 ½ pints	3
POTATOES	Aphids, Leafhoppers, Mealybugs	1 pint	0
	False Chinch Bugs	1 ½ pints	0
	Grasshoppers	2 pints	0
RICE	Rice leaf miners. Make first application shortly after the first rice blades appear on the surface of the water and repeat if necessary.	2 ½ pints	7
	Rice stink bugs. Apply by airplane in 2 gallons of water per acre during the early milk and dough stage of growing rice. Repeat applications as necessary.	1 - 1 ½ pints	7
ROOT CROPS Beets (table and garden) Horseradish, Parsnips, Radishes, Salsify Rutabegas Sweet Potatoes	Aphids *If tops are to be used as feed.	1 ½ - 2 pints	7"
	Aphids	1 ½ - 2 pints	7"
	Aphids	1 ½ pints	3
	Leafhoppers	1 ½ - 2 pints	3
	Morningglory Leafhoppers	2 ½ - 3 pints	3

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CROP	INSECTS CONTROLLED	AMOUNT TO APPLY PER ACRE	PREHARVEST (DAYS) OR GRAZING INTERVALS
TOMATOES (outdoors)	Spider Mites	1 1/2 pints	1
	Aphids	1 pint	1
	Drosophila	2 1/2 pints	1
	Amyworms, Fruitworms (California only)	2 1/2 quarts	3
GRAPES The rates for use on grapes are based on a standard of 200 gallons per acre dilute spray. Injury may occur on grapes of Almeria, Cardinal, Italia and Riberia varieties when sprays containing MALATHION 5 are applied after clusters appear.	Leafhoppers Spider mites	3 pints	3
	European Fruit Lecanium Make full coverage applications when newly hatched nymphs are migrating over vines, usually shortly after bloom.	3 pints	3
	Mealybugs Apply in 50-100 gallons of water per acre.	1 1/2 pints	3

INSECTICIDE, LIQUID, NOS (CONTAINS MALATHION) COMBUSTIBLE LIQUID, NA 1993, RQ

NOTICE: Seller warrants that the product 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, but neither this warranty nor any other warranty of merchantability or fitness for a particular purpose, express or implied, extends to the use of this product contrary to label instructions, or under abnormal conditions, or under conditions not reasonably foreseeable to Seller, and Buyer assumes the risk of any such use.

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