

359-695

07/17/85

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ADD: Best copy Available

RESTRICTED USE PESTICIDE
 Acute Dermal Toxicity.
 For retail sale to, and use only by Certified Applicators or persons under the direct supervision of a Certified Applicator, and only for those uses covered by the Certified Applicator's certification.

PRODUCT NUMBER
5005

SPECIMEN LABEL

MOCAP®

**NEMATICIDE-
INSECTICIDE**




15%
GRANULAR

ACCEPTED
 JUL 17 1985
 Under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended, for the pesticide registered under EPA Reg. No. 359-695

ACTIVE INGREDIENT
 Ethoprop, O-ethyl S, S-dipropyl phosphorodithioate 15%
 INERT INGREDIENTS 85%

U.S. Patent Nos. 3,112,244; 3,268,393

KEEP OUT OF REACH OF CHILDREN

DANGER!  **POISON**

(SEE ANTIDOTE AND WARNING INFORMATION ON BACK PANEL)

EPA Reg. No. 359-695
EPA Est. 359-TN-1

NET WEIGHT
50 LBS.

ADD — 0585

Manufactured by
RHÔNE-POULENC INC.
 AGROCHEMICAL DIVISION
 Monmouth Junction, N.J. 08852

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

DANGER: Poisonous if swallowed, inhaled or absorbed through skin. Rapidly absorbed through skin. Wear protective clothing. In case of contact, wash immediately with soap and water. Do not breathe fumes or dust. After use, wash hands, arms and face thoroughly with soap and warm water before eating or smoking. Wash all clothing with soap and hot water before reuse. Discard contaminated shoes. Do not contaminate feed or food.

Do not store in or around the home.

SYMPTOMS OF POISONING: Nausea, vomiting, abdominal cramps, diarrhea, excessive salivation, headache, dizziness, weakness, blurring or dimness of vision, excessive tearing, loss of muscular coordination, slurring of speech, twitching of muscles (especially of tongue and eyelids), mental confusion, disorientation, drowsiness, difficulty in breathing (chest tightness), runny nose.

STATEMENT OF PRACTICAL TREATMENT

IF SWALLOWED: Give 1 or 2 glasses of water and induce vomiting by touching back of throat with finger. Do not induce vomiting or give anything by mouth to an unconscious person. Call a physician, Poison Control Center, or hospital emergency room. If not breathing, give mouth to mouth artificial respiration.

IN CASE OF SKIN CONTACT: Immediately remove all contaminated clothing, and wash skin with soap and water. Wash clothing before reuse. Discard contaminated shoes.

FOR EYES: Flush with plenty of water for at least 15 minutes. Call a physician immediately in all cases of suspected poisoning.

Persons providing first aid should prevent contamination of themselves.

NOTE TO PHYSICIAN: This product is a cholinesterase inhibitor. Severe symptoms and signs include diarrhea, pinpoint and non-reactive pupils, respiratory difficulty, pulmonary edema, cyanosis, loss of sphincter control, convulsions, and coma.

Support respiration as needed. Measures should include removal of secretions, maintenance of a patent airway, and if necessary, artificial ventilation.

If cyanosis is absent, give ATROPINE 2-4 mg intravenously (0.05 mg/kg for children). Repeat ATROPINE at 5-10 minute intervals until atropinization occurs (dry, flushed skin, tachycardia, pupillary dilatation), and maintain for 48 hours. If cyanotic, give initial ATROPINE intramuscularly and start measures to improve ventilation.

Start 2-PAM (PROTOPAM, Ayerst) at the same time. Give 1-2 grams PROTOPAM (20-40 mg/kg for children) in 100cc saline over 15-30 minutes. If pulmonary edema is present, give intravenously slowly as a 5% solution in water over a period of at least 5 minutes.

A second dose may be given after one hour if muscle weakness persists. Additional doses may be given cautiously for persistent muscle weakness. May be given by intramuscular or subcutaneous routes if intravenous administration is not feasible.

In case of skin contact wash patient with soap and water followed by wash with 95% ethyl alcohol. Keep patient under constant observation for 24-36 hours. Symptoms may persist for one month.

The use of theophylline, morphine, barbiturates, phenothiazines, reserpine, and succinyl choline is contraindicated.

ENVIRONMENTAL HAZARDS

This pesticide is toxic to fish and wildlife. Birds feeding in treated areas may be killed. Cover or incorporate granules that are spilled. Do not apply directly to water or wetlands. Drift or runoff from treated areas may be hazardous to aquatic organisms in neighboring areas. Do not contaminate water by cleaning of equipment or disposal of wastes.

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. Unprotected persons may enter treated fields after chemical has been mixed into the soil.

Granules lying on the soil surface in turn areas at row ends should be incorporated to remove possible hazard to birds and other wildlife.

STORAGE AND DISPOSAL

PROHIBITIONS:

Do not contaminate water, food, or feed by storage or disposal. Do not store in or around the home.

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:

Completely empty bag into application equipment. Then dispose of empty bag in a sanitary landfill or by incineration, or, if allowed by State and local authorities by burning. If burned, stay out of smoke.

INCORPORATION INFORMATION

MOCAP nematicide-insecticide can be incorporated with a rotary tiller, rotary hoe, spring-tooth harrow, by double-discing or with other equipment for mixing the chemical with the soil to the depth recommended. Follow any specific incorporating directions given under the crop heading.

If moisture is applied immediately after application to carry the treatment into the soil, only shallow incorporation (1/4 to 1/2 inch) with mechanical equipment such as drag chains is required.

NEMATODES CONTROLLED

	Banana & Plantain	Field Corn & Sweet Corn Cabbage	Peas & Sweet Corn Cucumbers	Peanuts (planting)	Peanuts (logging)	White (Irish) Potato Pineapple	Snap Beans & Lima Beans Sweet Potato	Soybeans	Sugarcane	Commercial Turf Tobacco
Burrowing Nematodes <i>Radopholus similis</i>	C									
Dagger Nematodes <i>Ciprinema</i> spp.			C					S		
Cyst Nematodes <i>Heterodera glucines</i> <i>Heterodera cruciferae</i> <i>Heterodera schachtii</i>								S		
Lesion Nematodes <i>Pratylenchus</i> spp.	C	C	C	C	C	C	C	C	C	C
Root-Knot Nematodes <i>Meloidogyne</i> spp. <i>Meloidogyne hapla</i> <i>Meloidogyne incognita</i> <i>Meloidogyne arenaria</i> <i>Meloidogyne javanica</i>	C		C	C	C	C	C	C	C	C
Lance Nematodes <i>Hoplaimus</i> spp. <i>Hoplaimus tylenchiformis</i> <i>Hoplaimus columbus</i>		S	C	S	C			S	S	
Spiral Nematodes <i>Helicotylenchus</i> spp. <i>Rotylenchus</i> spp.	C		C	C			C	C	C	C
Sting Nematodes <i>Belonolaimus</i> spp. <i>Belonolaimus longicaudatus</i>			C	C	C	C	C	C	C	C
Ring Nematodes <i>Criconemoides</i> spp. <i>Criconemoides ornatus</i>			C	C	C	C	C	C	C	C
Reniform Nematodes <i>Rotylenchulus reniformis</i>						C	C			
Stunt Nematodes <i>Tylenchorhynchus</i> spp. <i>Tylenchorhynchus claytoni</i> <i>Tylenchorhynchus martini</i>			C	C	C	C	C	C	C	C
Stubby Root Nematodes <i>Trichodorus</i> spp. <i>Trichodorus christiei</i>			C	C	C	C	C	C	C	C
Pin Nematodes <i>Paratylenchus</i> spp.										C

C - Control S - Suppress

INSECTS CONTROLLED

	Banana & Plantain	Field Corn & Sweet Corn	Peanuts (peginng)	White Irish Potatoes	Sweet Potato	Sugarcane	Tobacco	Commercial Turf
Corn Rootworm <i>Diabrotica virgata</i> <i>Diabrotica longicornis</i> <i>Diabrotica undecimnotata</i> <i>Diabrotica howardi</i>			C C C C	C				
Wireworms <i>Conoderus</i> spp <i>Conoderus vespertinus</i> <i>Conoderus falli</i> <i>Melanotus</i> spp <i>Melanotus communis</i> <i>Limonius dubitan</i> <i>Limonius canus</i> <i>Limonius californicus</i> <i>Aeolus melius</i> <i>Ctenicera</i> spp <i>Ctenicera pruinina</i> <i>Eleodes</i> spp			C C C C C C C C C C C		C C C C C	C C C		C
Black Cutworm <i>Agrotis ipsilon</i>			C					
Sandhill Cutworm <i>Euxoa cetera</i>			C					
White Grubs <i>Phyllophaga</i> spp <i>Phyllophaga crinita</i> <i>Phyllophaga ephialta</i>			S S			C		
Banded Cucumber Beetle <i>Diabrotica balteata</i>					C			
Flea-beetle larvae <i>Chaetocnema confinis</i> <i>Systema blanda</i>					C C			
Lesser Cornstalk Borer <i>Elasmopalpus lignosellus</i>				S				
Banana Root Borer <i>Cosmopolites sordidus</i>		C						
Japanese Beetle <i>Popillia japonica</i>								C
European Chaler <i>Rhizotrogus maidis</i>								C
Black Turfgrass Ataenius <i>Ataenius Spretulus</i>								C
Chinchbug <i>Blissus leucopterus</i>								C
Bluegrass Billbug <i>Sphenophorus parvus</i>								C
Sod Webworm <i>Crambus</i> spp <i>Herpetogramma</i> spp								C C
Mole Crickets <i>Scapteriscus vicinus</i> <i>Scapteriscus acletus</i>								C C

*NOTE: Under heavy infestations of cutworms, enough cutworms may survive to cause some crop damage. If this occurs, it may be necessary to apply a rescue treatment with another registered pesticide to control the surviving worms

C = Control S = Suppression

BANANA AND PLANTAIN

For nematode and banana root borer (*Cosmopolites sordidus*) control: Apply 40 grams of 15% MOCAP in a radius of 3/4 meter around each producing stem or 1.3 ounce of 15% MOCAP in a radius of 30 inches around each producing stem. Before application, remove ground litter from area to be treated and apply granules evenly. For best results, make application just before irrigation or a rainy period. If application is made during a dry period, mix granules into the top inch of soil with a rake. Repeat application in 6 months.

BEAN (SNAP AND LIMA)

Row treatment for nematode control: Use 13 to 20 pounds of 15% MOCAP per acre (36-inch row spacing) or 1-1/2—2 ounces per 100 linear feet of row. Make application in band 12 to 15 inches wide on the row. Do not use as a seed furrow treatment or allow granules to contact the seed.

Broadcast application for nematode control: Use 40 to 54 pounds per acre. Apply anytime from 3 days before planting to at-planting time. Mix with the top 6 inches of soil right after application.

NOTE: Beans grown in treated soil may remain green longer than other beans and mature 1 to 2 weeks later.

CABBAGE

Row treatment for nematode control: Use 13 pounds of 15% MOCAP per acre on a band 15 inches wide on the row (36-inch row spacing) or 1/3 ounce per 100 linear feet of row. Do not use as a seed furrow treatment or allow granules to contact the seed.

Broadcast treatment for nematode control: Use 34 pounds of 15% MOCAP per acre. Apply evenly over the soil area to be treated from 1 week before planting to at-planting time. Mix with the top 3 inches of soil right after application.

CORN (FIELD AND SWEET)

At-planting application for control of corn rootworm, wireworm, cutworm, Symphylans (*Scutigerella maculata*), nematode and suppression of white grubs: Use 8 ounces of 15% MOCAP per 1,000 feet of row. Rate per acre depends on row spacing as shown below.

Row Spacing:	40"	38"	36"	30"	20"
Lbs. per acre:	6.6	7	7.3	8.8	13.3

Apply the granules in a 6 to 7-inch band on the row over a closed seed furrow. Mix the granules with the top 1/2 inch of soil with drag chains, spring-tooth incorporators, or similar equipment.

FOR COMMONLY USED APPLICATORS, SEE CALIBRATIONS FOLLOWING.

**GAUGE SETTINGS FOR 8 OUNCES PER 1,000 FEET OF ROW.
(DO NOT CHANGE ROW WIDTH.)**

FOR APPLICATION RATE OF 8 OZ./1000 FEET OF ROW

Brand of Applicator	SPEED IN MILES PER HOUR								
	2	3	4	5	6	7	8	9	10
Allis Chalmers	Gauge 7	— Rate is uniform for all speeds —							Gauge 7
Gandy snap-on bottom	15.3	18.5	21.0	23.1	25.1	26.0	28.6	30.4	31.9
International Harvester (old)	1/5.3	1/7.7	1/9.7	2/3.0	2/6.3	2/9.5	3/2.7	3/6.0	3/9.2
International Harvester (new)	1/7.2	1/9.4	2/2.4	2/5.7	2/9.9	3/2.3	3/5.4	3/9.7	4/2.2
John Deere (metal boxes)	1/22	1/24	1/26	1/29	2/4	2/8	2/13	2/17	2/22
John Deere (new) (1)	21	22.5	24	25	27	28	29	31	32
John Deere (newest) (2)	8	11	13	15	17	18	20	21	23
Noble (3)	7	11	14	18	21	24	27	29	31
Noble (new) (4)	5	7	9	12	14	17	19	21	23

- (1)—Gauge Reads 10-20-30-40
- (2)—Gauge Reads 5-15-25-35-45

- (3)—Round hole in bottom of hopper
- (4)—Rectangular hole in bottom of hopper

Cultivation application for corn rootworm control: Apply after planting until layby. Use the rates shown above for at-planting application. On small corn, apply in a 6 to 7-inch band over the row. On taller corn, apply in bands 3 to 4 inches wide on each side of the corn, directing the granules toward the base of the plants. Cover the granules with soil by making application immediately ahead of cultivation equipment.

Broadcast treatment for Cutworm control: Use 20 pounds of 15% MOCAP per acre or 1/2 pound per 1,000 square feet. Apply treatment from 3 days before planting to at-planting time. Mix treatment with the top 2 inches of soil right after application.

Nematode control: Row treatment: Use 3/4 to 1 pound of 15% MOCAP per 1,000 feet of row. Rate per acre depends on row spacing as shown below. Make application in a band 12 to 15 inches wide on the row.

Row Spacing	40"	38"	36"	30"	20"
Lbs. per acre:	10-13.3	10.3-14	10.8-14.8	13-17.7	20-26.6

Broadcast treatment: Use 40 pounds of 15% MOCAP per acre or 1 pound per 1,000 square feet. Apply treatment from 3 days before planting to at-planting time. Mix treatment with the top 2 inches of soil right after application. The treatments for nematode control will also control rootworms, wireworms, cutworms, Symphylans (*Scutigerella maculata*) and suppress white grubs.

CUCUMBER

Row treatment for nematode control: Use 13 pounds of 15% MOCAP per acre (7-foot row spacing) or 3 ounces per 100 linear feet of row. Make application in a band 12 to 15 inches wide on the row at or just before planting. Prepare bed and knock off top to provide a level area for treatment. Mix with the top 2 to 3 inches of soil right after application. Do not use as a seed furrow treatment or allow granules to contact the seed.

PEANUT

Row treatment for nematode control at planting: Use 20 to 27 pounds of 15% MOCAP per acre (36-inch row spacing) or 2 to 2-1/2 ounces per 100 linear feet of row. Make application in a band 15 to 18 inches wide on the row anytime from 1 week before planting to at-planting time. Mix 15% MOCAP with the top 4 to 8 inches of soil right after application. Use a rotary tiller, rotary hoe or other cultivating equipment which will do a good job of mixing 15% MOCAP with the soil. Do not use a seed furrow treatment or allow granules to contact the seed.

Nematode, corn rootworm control and suppression of lesser cornstalk borer and white mold (*Sclerotium rolfsii*) at pegging: Use 20 pounds of 15% MOCAP per acre (36-inch row spacing) or 2.1 ounces per 100 linear feet of row. Make application in a band 15 to 18 inches wide on the row.

Corn rootworm control at pegging: Use 16.7 pounds of 15% MOCAP per acre (36-inch row spacing) or 1.8 ounces per 100 linear feet of row. Make application in a band 18 inches wide on the row.

NOTE: Pegging treatment should be incorporated lightly into the soil.

~~WHITE (IRISH) POTATO~~

~~**Wireworm and nematode control: Row treatment:** Use 20 pounds of 15% MOCAP per acre (40-inch row spacing) or 2.7 ounces per 100 linear feet of row. Make application in a band 12 inches wide on the row at planting. For broadcast treatment use 60 pounds per acre.~~

~~**Wireworm control only: Broadcast treatment:** Use 26.7-40 pounds per acre. Mix treatment with the top 4 inches of soil right after application.~~

Delete



SOYBEAN

Row treatment for nematode control: Use 10 to 20 pounds of 15% MOCAP per acre or 1.3 to 2.6 ounces per 100 linear feet of row. Make application in a band 12 to 15 inches wide on the row anytime from 1 week before planting to at-planting time. Mix with the top 3 to 6 inches of soil right after application. Do not use as a seed furrow treatment or allow granules to contact seed.

NOTE: Soybeans treated with organophosphate chemicals such as MOCAP may be more susceptible to injury from metribuzin and propanil herbicides.

SUGARCANE

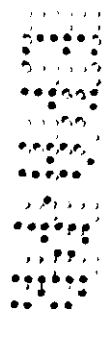
Furrow treatment for nematode and wireworm control: Use 13 to 27 pounds of 15% MOCAP per acre at planting time (15-foot row spacing). Use the higher rates where nematodes have been especially severe. Apply evenly in a band 12 to 15 inches wide, centered over the seed pieces in the opened furrow, immediately before closing. Mix with the soil with a disc harrow or other suitable equipment as the cane is covered.

SWEET POTATO

For nematode, wireworm, white grub, banded cucumber beetle and flea beetle larvae (pale striped and sweet potato flea beetle) control:

Row treatment: Use 20 to 27 pounds of 15% MOCAP per acre or 2.6 to 3.6 ounces per 100 linear feet of row (minimum 42-inch row spacing). Make application in a band 12 to 15 inches wide on the row 2 to 3 weeks before planting. Mix with the top 4 inches of soil right after application. Good results have been obtained by opening the row, applying 15% MOCAP in a 12 to 15-inch band on the row, bedding over and dragging.

Broadcast treatment: Use 40 to 54 pounds of 15% MOCAP per acre. Apply the treatment evenly on top of the soil 2 to 3 weeks before planting. Mix with the top 4 to 8 inches of soil right after application. Use a double gang disc harrow or other equipment which will do a good job of mixing the 15% MOCAP with the soil.



ADD

POTATOES

WIREWORM CONTROL: Row Treatment:

Use 20 pounds of 15% Mocap per acre (40-inch row spacing) or 2.7 ounces per 100 linear feet of row. Make application in a band 12 inches wide on the row at planting. The following broadcast treatment is recommended for fields where wireworm injury has been (or is suspected to be) especially severe (i.e., potatoes planted following sod, pasture or new ground).

Broadcast Treatment:

Use 26.7 to 40 pounds of 15% Mocap per acre. Mix treatment with the top 4 inches of soil right after application.

NEMATODE CONTROL: Row Treatment:

(Control of Lesion, Spiral, Sting, Ring, Stunt, and Stubby Root Nematodes and Suppression of Northern Root-Knot and Southern Root-Knot Nematodes.)

Use 20 pounds of 15% Mocap per acre (40 inch row spacing) or 2.7 ounces per 100 linear feet of row. Make application in a band 12 inches wide on the row at planting.

Broadcast Treatment:

(Control of Northern Root Knot, Southern Root-Knot, Lesion, Spiral, Sting, Ring, Stunt and Stubby Root Nematodes.)

Use 40 to 60 pounds 15% Mocap per acre. Mix treatment with the top 4 inches of soil right after application. The higher rate treatment is recommended for fields in which nematode injury has been especially severe or where soil is sandy.



TOBACCO

Row treatment for nematode and wireworm control: Use 40 to 80 pounds of 15% MOCAP per acre or 1/3 to 2/3 pound per 100 linear feet of row. Apply after fertilizer has been listed or bedded. Make application in a band 18 to 24 inches wide on the row, anytime from 1 week before planting to at-planting time. Mix with the top 4 to 6 inches of soil right after application.

The higher rate treatment is recommended for fields in which nematode injury to tobacco has been especially severe, or where soil is sandy.

Broadcast treatment for nematode and wireworm control: Use 40 to 80 pounds of 15% MOCAP per acre. Apply the treatment evenly on the top of the soil anytime from 1 week before planting to at-planting time. Mix with the top 3 to 4 inches of soil right after application. Use a double gang disc harrow or other equipment which will do a good job of mixing the 15% MOCAP with the soil. After mixing, apply fertilizer and, for best results, shape a wide bed with a tractor equipped with 4 disc hillers and wide sweeps for running out the middles. Be sure that only the treated soil (top 3 to 4 inches) is used to make beds.

The higher rate treatment is recommended for fields in which nematode injury to tobacco has been especially severe, or where soil is sandy.

Broadcast treatment for wireworm control: Use 13 pounds of 15% MOCAP per acre. Apply as a broadcast treatment anytime from 2 weeks before planting to at-planting time. Mix with the top 2 to 4 inches of soil right after application. Use a disc harrow or other cultivating equipment that will do a good job of mixing 15% MOCAP with the soil.

Rhone-Poulenc does not recommend the use of MOCAP on tobacco in Florida.

COMMERCIAL TURF

(Such as Golf Courses, Sod Farms, Cemeteries)

FOR USE ONLY BY PROFESSIONAL TURFMEN

For Nematode Control (Bahia, Bermuda, Centipede, Fescue, Kentucky Blue, St. Augustine, and Zoysia grasses): Use 3.1 to 4.6 pounds of MOCAP 15% G per 1,000 square feet (133-200 pounds per acre) of established turf. Apply uniformly with a fertilizer spreader or other suitable equipment. Severe infestations may require re-treatment after 6 months.

For Insect Control (Bent, Bahia, Bermuda, Centipede, Fescue, Kentucky Blue, St. Augustine, and Zoysia grasses): Use 1.5 pounds of MOCAP 15% G per 1,000 square feet (67 pounds per acre) of established turf to control mole crickets. Use 3/4 pound per 1,000 square feet (33 pounds per acre) of established turf to control chinch bugs and larvae of Japanese beetle, European chafer, black turfgrass Ataenius beetle, bluegrass billbug, and sod webworms. Apply uniformly with a fertilizer spreader or other suitable equipment.

Notes: Immediately after application, apply 1/2 inch of water to treated grass. Failure to apply water may result in a hazard to animals, poor pest control, injury to grass and longer presence of chemical odor. DO NOT allow unprotected humans or animals to walk on treated areas until grass and soil surface are dry.

Do not apply with equipment carried on the chest. Do not use cyclone or rotary-type applicators which are likely to throw the granules to areas outside the lawn area to be treated. Any granules on non-lawn areas, such as walkways and driveways, must be removed immediately by sweeping or washing the granules onto the lawn.

For use on home lawns only by Professional Turfmen. Do not use on newly seeded areas until plants are well established. Do not apply to wet foliage. Do not cut sod or handle treated turf for 21 days after treatment. Birds and other wildlife in treated areas may be killed. Do not apply where runoff is likely to occur.

CONDITION OF SALE, WARRANTY, LIMITATION OF LIABILITY

This product conforms to the chemical description on the label thereof and is reasonably fit for the purpose stated on such label only when used in accordance with directions under normal use conditions. Follow directions carefully. Timing and method of application, weather and crop conditions, mixture with other chemicals not specifically recommended and other influencing factors in the use of this product are beyond the control of Rhone-Poulenc or the seller. Buyer assumes all risks of use, storage, or handling of this material, not in strict accordance with directions given herewith. In no case shall Rhone-Poulenc or the seller be liable for consequential, special, or indirect damages such as loss of profits or values resulting from the use or handling of this product.

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