

359-695

01/13/84

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ACCEPTED

JAN 13 1984

PRODUCT NUMBER
5005

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

SPECIMEN LABEL

MOCAP[®]

NEMATICIDE-
INSECTICIDE



15%
GRANULAR

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

Red in white box

[SEE ANTIDOTE AND WARNING INFORMATION ON BACK PANEL]

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

1283

Net Weight

50 lbs.

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.

ADD →

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.

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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.

Allow no further exposure until cholinesterase regeneration has taken place as determined by blood tests. Repeated exposure to cholinesterase inhibitors may, without warning, cause increasing susceptibility to very small doses of any cholinesterase inhibitor. This will last for several weeks following exposure.

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.

ADD →

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

1. PROHIBITIONS:

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

2. PESTICIDE DISPOSAL:

ADD-

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

3. CONTAINER DISPOSAL:

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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.

SOYBEAN

Row treatment for nematode control: Use 10 to 20 pounds of 15% MOCAP per acre (42-inch row spacing), or 1-1/2 to 2-1/2 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 15% MOCAP with the top 3 to 6 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.

FIELD CORN AND SWEET CORN

At-planting application: For corn rootworm, corn wireworm and nematode control: Use 8 ounces 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		7.3	8.6	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, springtooth incorporators, or similar equipment. Do not use as a seed furrow treatment or allow granules to contact the seed.

Cultivation application for corn rootworm control: Apply after planting until early. 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 6 inches wide on each side of the corn, directing the granules toward the base of the plants. Cover the granules with 1/2 to 1 inch 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 corn rootworm and corn wireworm. Do not use as a seed furrow treatment or allow granules to contact the seed.

Cutworm: The at-planting treatments for corn rootworm or nematode control will control moderate infestations of black cutworms and sandhill cutworms.

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MICAP 15% Granulat

4/7

12-6-83

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Note: Copy 'A' is 3 pages =

INSECTS CONTROLLED

	6-7 Inch Band 6.6 lb. 15G/A*	Cultivation Application 6.6 lb. 15G/A*		6-7 Inch Band 6.6 lb. 15G/A*	Cultivation Application 6.6 lb. 15G/A*
Black Cutworm** <i>Agrotis ipsilon</i>	X		Sandhill Cutworm** <i>Euxoa detersa</i>	X	
Western Corn Rootworm <i>Diabrotica virgifera</i>	X	X			
Northern Corn Rootworm <i>D. longicornis</i>	X	X			
Southern Corn Rootworm <i>D. undecimpunctata howardi</i>	X	X			
Corn Wireworm <i>Melanotus communis</i>	X				
Southern Potato Wireworm <i>Conoderus falli</i>	X				
Other Wireworms					
<i>M. dietrichi</i>	X				
<i>M. depressus</i>	X				
<i>M. verberans</i>	X				
<i>M. lanei</i>	X				
<i>M. opacicollis</i>	X				
<i>M. similis</i>	X				
<i>Limonius dubitans</i>	X				
<i>Aeolus mellillus</i>	X				

** 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 to control the surviving worms.

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wireworm

NEMATODES CONTROLLED

	6-7 Inch Band 6.6 lb. 15G/A*	12-15 Inch Band 10 lb.-13.3 lb. 15G/A*	Broadcast 40 lb. 15G/A
Dagger Nematodes			
<i>Xiphenema</i> spp.	X	X	X
<i>X. americanum</i>	X	X	X
Lance Nematodes***			
<i>Hoplolaimus</i> spp.		X	X
<i>H. galeatus</i>		X	X
Lesion Nematodes			
<i>Pratylenchus</i> spp.	X	X	X
<i>P. hexincisus</i>	X		
<i>P. zea</i>		X	X
<i>P. penetrans</i>	X	X	X
Ring Nematodes***			
<i>Criconemoides</i> spp.	X	X	X
<i>C. ornatus</i>	X	X	X
Root-Knot Nematodes			
<i>Meloidogyne</i> spp.		X	X
<i>M. hapla</i>		X	X
<i>M. incognita</i>		X	X
Spiral Nematodes			
<i>Helicotylenchus</i> spp.	X	X	X
<i>H. pseudorobustus</i>		X	X
<i>H. dihystra</i>		X	X
<i>Rotylenchus</i> spp.		X	X
Sting Nematodes			
<i>Belonolaimus</i> spp.		X	X
<i>B. longicaudatus</i>		X	X
Stubby Root Nematode			
<i>Trichodorus</i> spp.	X	X	X
<i>T. christiei</i>	X	X	X
Stunt Nematodes			
<i>Tylenchorhynchus</i> spp.	X	X	X

* Rates based on 40-inch row spacing.
Rates per acre for other row spacings
are shown in the section below.

*** Note: Suppression

FIELD CORN AND SWEET CORN

At-planting application for corn rootworm, corn wireworm, cutworms and nematode control: Use 8 ounces of 15% Mocap per 1,000 feet of row. Rate per acre depends on row spacing as shown below:

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

Apply the granules in a 6 to 7-inch band over the row behind the press wheels. Mix the granules with the top 1/2 inch of soil with drag chains, spring-tooth incorporators, or similar equipment. Do not use as a seed furrow treatment, or allow granules to contact the seed.

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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	25.0	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	3/5.0	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.

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:	<u>40"</u>	<u>38"</u>	<u>36"</u>	<u>30"</u>	<u>20"</u>
Lbs. per acre:	10-13.3	10.3-14	10.8-14.8	13-17.7	20-26.5

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 rootworm and corn wireworm.

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BANANA AND PLANTAIN

For nematode control: Apply 40 grams of 15% MOCAP in a radius of 34 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.

TOBACCO

Row treatment for both nematode and wireworm control: Use 40 pounds of 15% MOCAP per acre or 1/3 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 15% MOCAP with the top 4 to 6 inches of soil right after application. Use a rotary tiller, rotary hoe or other cultivating equipment that will do a good job of mixing 15% MOCAP with the soil.

Broadcast treatment for both nematode and wireworm control: Use 40 to 54 pounds of 15% MOCAP per acre. Apply the treatment evenly on top of the soil anytime from 1 week before planting to at-planting time. Mix the 15% MOCAP 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 54 pound treatment is recommended for fields in which nematode injury to tobacco has been especially severe.

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 15% MOCAP 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.

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.

SWEET POTATO

Row treatment for nematode control: Use 20 to 27 pounds of 15% MOCAP per acre or 2-1/2 to 3-1/2 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 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.

In Louisiana 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 for nematode control: 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 the 15% MOCAP 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.

For Fleabeetle Larvae Control (pale-striped fleabeetle and sweet potato fleabeetle):

Row treatment: In Louisiana use 20 to 27 pounds of 15% MOCAP per acre. In other states use 27 pounds of 15% MOCAP per acre. Follow application directions given for nematode control.

Broadcast treatment: Use 40 pounds of 15% MOCAP per acre and follow application directions given for nematode control.

CABBAGE (Florida Only)

Row treatment for sting nematode control: Use 13 pounds of 15% MOCAP per acre on a band 15 inches wide on the row (or 1/3 ounce per 100 linear feet of row, 36-inch row spacing).

Broadcast treatment for sting 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 the 15% MOCAP with the top 3 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 as a seed furrow treatment or allow granules to contact the seed.

CUCUMBER (Florida Only)

Row treatment for rootknot and sting 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 the 15% MOCAP with the top 2 to 3 inches of soil right after application. Use a rotary tiller, rotary hoe, or other cultivating equipment which will do a good job of mixing the 15% MOCAP with the soil. Do not use as a seed furrow treatment or allow granules to contact the seed.

SNAP BEAN AND LIMA BEAN

Row treatment for rootknot, sting, stubby root, lesion, ring, and spiral nematode control: Use 13 to 20 pounds of 15% MOCAP per acre (36-inch row spacing), or 1-1/2 to 2 ounces per 100 linear feet of row. Make application in a band 12 to 15 inches wide on the row.

For broadcast application: Use 40 to 54 pounds per acre. Apply anytime from three days before planting to at-planting time. Mix the 15% MOCAP with the top six inches of soil right after application. Use a rotary tiller, rotary hoe, or other cultivating equipment which will do a good job of mixing the 15% MOCAP with the soil. Do not use as a seed furrow treatment or allow granules to contact the seed.

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

WHITE POTATO (Florida Only)

Row treatment for sting, spiral, rootknot, ring, and stunt nematode control: Use 20 pounds of 15% MOCAP per acre (40-inch row spacing), or 2-1/2 ounces per 100 linear feet of row. Make application in a band 12 inches wide on the row at planting. Mix the 15% MOCAP with the top 6 inches of soil right after application. Use a rotary tiller, rotary hoe, stalk chopper, or other cultivating equipment which will do a good job of mixing the 15% MOCAP with the soil. Do not use as a seed furrow treatment or allow granules to contact the seed.

COMMERCIAL TURF

(For use only by professional turfmen on Bermuda, Zoysia, St. Augustines, Centipede and Bahia Grasses).

MOCAP is an effective contact nematicide for control of nematodes that attack commercial turf such as golf courses, sod farms and cemeteries. Established turf infested with sting and other parasitic nematodes shows increased vigor and improved appearance within 7 to 10 days following treatment. MOCAP treatment at recommended rates will protect turf grasses from further nematode injury for 6 months to an entire growing season.

For nematode control on turf: Use 3-1/2 to 4-1/2 pounds of 15% MOCAP per 1,000 square feet of established turf (133 to 200 pounds per acre). Apply uniformly with a fertilizer spreader or other suitable equipment. Immediately after application apply 1/2 inch of water to treated turf. Failure to apply water may result in poor nematode control. Note: Do not use on newly seeded areas until plants are well established. Do not cut sod or handle treated turf for 20 days after treatment. Birds and other wildlife in treated areas may be killed.

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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