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JAN 19 1996

Water and Soil Treatment Division
Fungicide, for use on plants
or animals for the control of
registered under
EPA Reg. No. 64137-5

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MYCOSTOP®

BIOFUNGICIDE FOR AGRONOMIC, VEGETABLE, AND ORNAMENTAL CROPS

ACTIVE INGREDIENTS: Dried spores and mycelium of ray fungus
(*Streptomyces griseoviridis* Strain K61)*.....30%
INERT INGREDIENTS.....70%
TOTAL 100%

*10⁸ cfu (colony forming units) per 1g of product

CAUTION

KEEP OUT OF REACH OF CHILDREN

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

Avoid breathing dust or spray mist. Avoid contact with skin and eyes.

STATEMENT OF PRACTICAL TREATMENT

In case of contact, immediately flush eyes or skin with plenty of water. Get medical attention if irritation persists.

PERSONAL PROTECTIVE EQUIPMENT

Applicators and other handlers must wear: Long-sleeved shirt and long pants. Waterproof gloves. Shoes plus socks. Dust/mist filter respirator (MSHA/NIOSH approval prefix TC-21C). 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.

EMERGENCY INFORMATION

For spill, leak, fire, exposure, or accident call CHEMTREC 1-800-424-9300.

ENVIRONMENTAL HAZARDS

Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water by disposal of equipment wash waters.

Use Before (Date)

Net Contents: _____

Kemira Agro Oy
Porkkalankatu 3
P.O. Box 330
00101 Helsinki, Finland

E.P.A. Registration No. 64137-5
E.P.A. Establishment No. 64137-FI-001
Made in Finland
AVO-951095AMD

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. 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 4 hours. Exception: if the product is soil injected or soil incorporated, the Worker Protection Standard, under certain circumstances, allows workers to enter the treated area if there will be no contact with anything that has been treated.

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
- Waterproof gloves
- Shoes plus socks

ORNAMENTAL AND VEGETABLE USES

MYCOSTOP is used for the control of seed rot, root and stem rot, and wilt caused by *Fusarium*, *Alternaria*, and *Phomopsis* of container grown ornamentals and vegetables. Container grown refers, for example to trays, pots, bags, rockwool, raised benches, or beds if the growing medium is separated from the grown by a physical barrier to root growth. MYCOSTOP has also shown suppression of *Botrytis* Gray Mold and root rots of *Pythium*, *Phytophthora* and *Rhizoctonia* in the greenhouse.

MYCOSTOP can be used as a seed treatment for seed or soil-borne damping off and early root rot of vegetables, herbs and ornamentals planted in the field or greenhouse.

DISEASE CONTROL

SEED TREATMENT

- MYCOSTOP can be applied as a seed treatment in vegetables, herbs, and ornamentals with the following rates:
 - Lettuce: 0.03 oz. MYCOSTOP/lb. seed (2 g/kg)
 - Ornamentals, dill, legumionous plants, parsley, root crops, spinach and tomatoes: 0.08 oz. MYCOSTOP/lb. seed (5 g/kg)
 - *Brassica* species (Cole crops), herbs, leeks and onions: 0.13 oz. MYCOSTOP/lb. seed (8 g/kg)
- MYCOSTOP can be mixed with seed in a planter box. As a planter box treatment, fill box half full of seed, add half the required amount of MYCOSTOP and mix thoroughly with a stick or paddle. Add remainder of seed and MYCOSTOP and mix thoroughly.
- To mix in a small container such as a jar, add the required amount of MYCOSTOP, shake until the seeds become coated with powder, then pour into planter box.
- Treated seed should be sown without delay, but at least within a week if kept cool and dry.
- Do not treat damp or wet seed with MYCOSTOP powder.
- Do not treat seeds of Dusty Miller or melons with MYCOSTOP.

MYCOSTOP has also proven effective when used as a 0.01% [(5 g/13 gal)(0.18 oz./13 gal)(5 g/50 liters)] - 0.1% [(5 g/1.3 gal)(0.18 oz./1.3 gal)(5 g/5 liters)] seed soak where soaking seed for 5-15 minutes immediately prior to planting is practical. Because many ornamentals and vegetables have not been tested using a seed soak, the grower should first check emergence on a small quantity of seed.

INCORPORATION IN POTTING MEDIA

MYCOSTOP can be mixed into potting media at a rate of 1-2 g/cubic yard. Apply MYCOSTOP in a concentrate spray to the growth media when the media is being mechanically blended or it can be raked in by hand in beds. It is important that MYCOSTOP be incorporated evenly to assure best performance. Potting media containing MYCOSTOP should be used within 2 days after incorporation. Do not store above 85°F. A drench or spray application of MYCOSTOP is recommended within 2-6 weeks as described below under SOIL SPRAY OR DRENCH APPLICATIONS.

TRANSPLANT DIP OR CUTTING DIP

MYCOSTOP can be applied by dipping roots of transplants or cuttings, such as carnations, in a suspension shortly before planting. A suspension of 0.01% [(5 g/13 gal)(0.18 oz./13 gal)(5 g/50 liters)] to 0.1% [(5 g/1.3 gal)(0.18 oz./1.3 gal)(5 g/5 liters)] is recommended. Use the higher rate for high disease pressure.

SOIL SPRAY OR DRENCH APPLICATIONS

MYCOSTOP can be applied to bedding plants, foliage plants, flowering plants, conifers, woody ornamentals, vegetable transplants or vegetables grown for production. Examples of ornamental crops include carnation, gerbera, African violet, cyclamen, geranium, pine, and others. Examples of vegetable crops include cabbage, cucumbers, melons, peppers, tomatoes, and others.

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- **Soil Spray** - Uniformly apply MYCOSTOP at a rate of 1-2 g/100 sq. ft. (0.035-0.07 oz./100 sq. ft.) over the area to be treated. For example use 0.2-0.5 gal. (1-2 liters) of 0.1% suspension [(5g/1.3 gal)(0.18 oz./1.3 gal.)(5 g/5 liters)] per 100 sq. ft. Follow with normal irrigation or sufficient water (1/8-1/4 inch) within 6 hours to move MYCOSTOP into the plant root zone.
 - **Drench** - Uniformly apply MYCOSTOP at a rate of 1-2 g/100 sq. ft. (0.035-0.07 oz./100 sq. ft.) over the area to be treated. Sufficient water should be applied during application to move MYCOSTOP into the root zone.
 - **Small Seedling Production** - Apply MYCOSTOP at a rate of 2-4 g per 1000 sq. ft. [(0.07-0.14 oz./1000 sq. ft.)(2-4 g /100 sq. meters)] over the area to be treated.

Repeat spray or drench application every 2-6 weeks as needed for disease control. Use the higher rate and more frequent application for high disease pressure and for larger plants.

BAND OR IN-FURROW APPLICATION

Apply 0.5-1.0 lb. MYCOSTOP/treated acre (0.5-1.0 MYCOSTOP kg/treated hectare) shortly before or at the time of planting in 25-50 gals. of water. A 7-inch band is recommended for banded applications. Lightly incorporate into the top 2-3 inches of soil. An in-furrow application of MYCOSTOP can also be made at the same rates. Spray all the soil that surrounds and covers the seed.

SIDE-DRESS APPLICATION

Apply 0.5-1.0 lb. MYCOSTOP/treated acre (0.5-1.0 MYCOSTOP kg/ha) in 25-100 gals. of water as a side dress application to the plant bed. Direct spray to base of plant and root zone. Repeat treatment every 2-4 weeks or as needed.

BOTRYTIS SUPPRESSION

A MYCOSTOP spray of 0.01% [(5 g/13 gal)(0.18 oz./13 gal)(5 g/50 liters)] will help suppress *Botrytis* infection. Direct spray to susceptible leaves, flowers, and fruits to point of run-off. Apply every 2-3 weeks or as needed depending on disease pressure.

MIXING INSTRUCTIONS

To make a suspension of MYCOSTOP, mix in a small volume of water such as 0.25-1.0 gallon and let stand for about 30 minutes. Agitate as needed to get product to evenly dispersed before diluting to final volume. Do not tank mix MYCOSTOP with any pesticides or with concentrated fertilizers.

POTENTIAL GROWTH ENHANCEMENT/YIELD INCREASE

MYCOSTOP has been shown to promote the growth and yield of plants even in healthy crops. For potential growth enhancement use a rate of 1 g/500 sq. ft. (0.035 oz./500 sq. ft.) and repeat monthly during the life of the crop.

AGRONOMIC USES

MYCOSTOP is used for the control of seed rot, root and stem rot, and wilt diseases caused by *Fusarium* in agronomic crops such as cotton, corn (field), soybeans, wheat, sorghum, beans and peas.

SEED TREATMENT

- MYCOSTOP is applied as a seed treatment at a dose rate of 4-8 oz./100 lb of seed (2.5-5.0 g/kg). Apply as a planter box treatment by mixing MYCOSTOP with the seed before planting. For best results, fill planter box half full of seed, add half the required amount of MYCOSTOP and mix thoroughly with a stick or paddle. Add remainder of seed and MYCOSTOP and mix thoroughly.
- Good results can also be obtained by mixing MYCOSTOP with seed in a separate container, then pouring into planter box.
- Treated seed should be sown without delay, but at least within a week, if kept cool and dry.

SOIL SPRAY APPLICATIONS

Mixing Instructions

To make a suspension of MYCOSTOP, mix in a small volume of water such as 0.25-1.0 gallon and let stand for about 30 minutes. Agitate as needed to get product to evenly disperse before diluting to final volume. Do not tank mix MYCOSTOP with any pesticides or with concentrated fertilizers.

Band or In-Furrow Application

Apply 0.5-1.0 lb. MYCOSTOP/treated acre (0.5-1.0 kg MYCOSTOP/treated hectare) shortly before or at the time of planting in 25-50 gal. of water. A 7-inch band is recommended for banded applications. Lightly incorporate into the top 2-3 inches of soil.

An in-furrow application of MYCOSTOP can also be made at the same rates. Spray all the soil that surrounds and covers the seed.

INTEGRATED DISEASE CONTROL PROGRAMS

MYCOSTOP can be used in integrated disease control programs. However, it should not be tank mixed with any pesticide. MYCOSTOP can be used the same day, if registered and if not prohibited, with benomyl, thiophanate methyl, metalaxyl, vinclozolin, fosetyl-Al, and propamocarb hydrochloride. Pesticides not compatible with MYCOSTOP have a 4-day interval between applications.

DRIP IRRIGATION - CHEMIGATION

Refer to supplemental labeling entitled "Supplemental Chemigation Labeling for MYCOSTOP Drip Irrigation" for use directions for chemigation. Do not apply this product through any irrigation system unless the supplemental labeling on chemigation is followed.

STORAGE AND DISPOSAL

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

STORAGE: MYCOSTOP consists of living microbes, which is packed in moisture and air proof unit packages. Store in a cool (below 8°C, 46°F), dry place. Use all contents in packet the same day. Do not store opened packets since product will lose its activity.

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.

NOTICE TO USER

Kemira Agro Oy warrants only that this product conforms to the product description on this label and is reasonably fit for the purposes set forth in the Directions for Use when used in accordance with them. However, ineffectiveness or other unintended consequences may result because of such factors as weather conditions, presence of other materials, or the use, storage or handling of the product contrary to the label instructions, all of which are beyond the control of Kemira Agro Oy. All such risks shall be assumed by the user. In no case shall Kemira Agro Oy be liable for indirect or consequential damages resulting from the use, storage or handling of this product. KEMIRA AGRO OY MAKES NO WARRANTIES OR MERCHANTABILITY OR FITNESS FOR PARTICULAR PURPOSE NOR ANY OTHER EXPRESS OR IMPLIED WARRANTY EXCEPT AS STATED ABOVE.

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**Supplemental Chemigation Labeling for MYCOSTOP® Drip Irrigation in
Agronomic, Vegetable and Ornamental Crops
(For MYCOSTOP EPA Registration 64137-5)**

GENERAL

1. Apply MYCOSTOP only through drip irrigation system(s). Do not apply MYCOSTOP through any other type of irrigation system.
2. A pesticide supply tank is recommended. Continuous agitation of MYCOSTOP in the supply tank is required. Begin application of MYCOSTOP during the beginning of irrigation.
For Agronomic Crops
 - Use MYCOSTOP at 0.5-1.0 lb./treated acre (0.5-1.0 kg/treated hectare).
 - Apply in sufficient water to move into root zone.
 - Repeat every 2-6 weeks as needed for disease control.For Vegetable and Ornamental Crops
 - On an area basis, use MYCOSTOP at 1.0-2.0 g/100 sq. ft. [(0.035-0.07 oz./100 sq. ft.) (1.0-2.0 g/10 sq. meters)].
On an individual plant basis, use MYCOSTOP at 1.0-5.0 g (0.03-0.17 oz.) per 200 plants.
 - Use higher rate and more frequent application for large plants and pots, and for high disease pressure.
 - Apply in sufficient amount of water to move into root zone. Repeat every 2-6 weeks as needed for disease control.
3. Crop injury, lack of effectiveness, or illegal pesticide residues in the crop can result from nonuniform distribution of treated water.
4. If you have any questions about calibration, you should contact State Extension Service specialists, equipment manufacturers or other experts.
5. A person knowledgeable of the chemigation system and responsible for its operation, or under the supervision of a responsible person, shall shut the system down and make necessary adjustments should the need arise.

SPECIAL INSTRUCTIONS FOR USE OF PUBLIC WATER SOURCES

1. Do not connect an irrigation system (including greenhouse systems) used for pesticide application to a public water system unless the pesticide label-prescribed safety devices from public water systems are in place.
2. Public water system means a system for the provision to the public of piped water for human consumption if such system has at least 15 service connections or regularly serves an average of at least 25 individuals daily at least 60 days out of the year.
3. Chemigation systems connected to public water systems must contain a functional, reduced-pressure zone, backflow preventer (RPZ) or the functional equivalent in the water supply line upstream from the point of pesticide introduction. As an option to the RPZ, the water from the public water system should be discharged into a reservoir tank prior to pesticide introduction. There shall be a complete physical break (air gap) between the outlet end of the fill pipe and the top or overflow rim of the reservoir tank of at least twice the inside diameter of the fill pipe.
4. The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.
5. The pesticide injection pipeline must contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.
6. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops, or in cases where there is no water pump, when the water pressure decreases to the point where pesticide distribution is adversely affected.
7. Systems must use a metering pump, such as a positive displacement injection pump (e.g. diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.

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SPECIAL INSTRUCTIONS FOR DRIP IRRIGATION (CHEMIGATION) SYSTEMS

1. The system must contain a functional check valve, vacuum relief valve and low pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from backflow.
2. The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.
3. The pesticide injection pipeline must also contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.
4. The system must contain functional interlocking control to automatically shut off the pesticide injection pump when the water pump motor stops.
5. The irrigation line or water pump must include a functional pressure switch which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.
6. Systems must use a metering pump such as a positive displacement injection pump (e.g., diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.

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Revision - AVO-9510AMD-SUPPLEMENTAL