

METALAXYL	GROUP	4	FUNGICIDE
THIOPHANATE-METHYL	GROUP	1	FUNGICIDE
FLUDIOXONIL	GROUP	12	FUNGICIDE

SPIRATO MT^m 285 FS

FOR USE AS A SEED TREATMENT FOR PROTECTION OF SEED AND SEEDLINGS AGAINST LISTED DISEASES ON SOYBEANS, DRY BEANS, AND SNAP BEANS

ACTIVE INGREDIENT:

Metalaxyl.....	14.26%
Thiophanate -methyl.....	9.30%
Fludioxonil	2.31%

OTHER INGREDIENTS: 74.13%

TOTAL: 100.00%

Contains 1.31 lbs metalaxyl, 0.86 lbs thiophanate-methyl, and 0.21 lbs fludioxonil per gallon.

**KEEP OUT OF REACH OF CHILDREN
CAUTION**

SEE INSIDE BOOKLET FOR FIRST AID AND ADDITIONAL PRECAUTIONARY STATEMENTS

For Chemical Spill, Leak, Fire, or Exposure, Call CHEMTREC (800) 424-9300
For Medical Emergencies Only, Call (877) 325-1840

EPA Reg. No. 55146-154

Manufactured for
Nufarm Americas Inc.
AGT Division
11901 S. Austin Ave.
Alsip, IL 60803

 **Nufarm**
Grow a better tomorrow



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Net Contents
2.5 Gal.
(9.46 L)

Nonrefillable Container

14978000

PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS AND DOMESTIC ANIMALS

CAUTION

Harmful if swallowed. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Some materials that are chemical-resistant to this product are listed below.

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants,
- Shoes plus socks,
- Chemical-resistant gloves for all mixers and loaders and for applicators using hand held equipment, and
- Chemical-resistant apron for mixers, loaders and other handlers exposed to the concentrate.

Note: Persons involved in bagging treated seed, sewing or moving bags of treated seed, or cleaning up bagging areas or seed treatment equipment are pesticide handlers and must wear the PPE required on this label for pesticide handlers.

USER SAFETY REQUIREMENTS

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry.

USER SAFETY RECOMMENDATIONS

Users Should:

- Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.
- Remove clothing/PPE 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 clothing.

FIRST AID

IF SWALLOWED	<ul style="list-style-type: none">• Call a poison control center or doctor immediately for treatment advice.• Have person sip a glass of water if able to swallow.• Do not induce vomiting unless told to by a poison control center or doctor.• Do not give anything to an unconscious person.
IF INHALED	<ul style="list-style-type: none">• Move person to fresh air.• If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible.• Call a poison control center or doctor for further treatment advice.
IF IN EYES	<ul style="list-style-type: none">• Hold eye open and rinse slowly and gently with water for 15-20 minutes.• Remove contact lenses, if present, after the first 5 minutes, then continue rinsing.• Call a poison control center or doctor for treatment advice.
IF ON SKIN OR CLOTHING	<ul style="list-style-type: none">• Take off contaminated clothing.• Rinse skin immediately with plenty of water for 15-20 minutes.• Call poison control center or doctor for treatment advice.

HOT LINE NUMBER

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-877-325-1840 for emergency medical treatment information.

ENVIRONMENTAL HAZARDS

This product is toxic to fish and aquatic invertebrates. For terrestrial use, **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 when disposing of equipment wash water or rinsate. Cover or incorporate spilled treated seeds.

Groundwater Advisory: Metalaxyl is known to leach through soil into groundwater under certain conditions as a result of agricultural use. Use of this chemical where soils are permeable, particularly where the water table is shallow, may result in groundwater contamination.

PHYSICAL AND CHEMICAL HAZARDS

DO NOT mix or allow coming in contact with oxidizing agents. Hazardous chemical reaction may occur.

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. Spirato MTm 285 FS is formulated for on-farm or commercial seed treatment using standard slurry or mist-type seed treatment equipment.

Mix thoroughly before use or use entire container at one time. All tank mixes should be pre-tested to determine physical compatibility between formulations. Observe the most restrictive use precautions and limitations on labeling of the products used in mixtures.

Spirato MTm 285 FS contains an EPA approved dye/colorant that imparts an unnatural color to the seed.

Treated seed must not be used for or mixed with food or animal feed or processed for oil. Seed commercially treated with this product must be labeled in accordance with all applicable requirements of the Federal Seed Act.

Use the entire contents of Spirato MTm 285 FS in this container in the use season immediately following purchase from Nufarm. Store at temperatures above 40° F but below 80° F.

PRODUCT INFORMATION

Spirato MTm 285 FS is a seed treatment fungicide for use against damping-off, seed, and seedling rots due to *Pythium*, *Fusarium*, *Rhizoctonia* spp. In soybeans, dry beans, and snap beans. Spirato MTm 285 FS also suppresses seed-borne *Sclerotinia* and *Phomopsis* spp. particularly in soybeans.

Apply as a seed treatment using standard slurry or mist-type seed treatment equipment. Uniform application to seed is necessary to ensure seed safety and best disease protection. Seed must be sound and well cured prior to treatment. Product must be diluted with sufficient water to ensure complete seed coverage. Consult a seed treatment specialist regarding slurry rates for the crop to be treated with this product.

Resistance Management Recommendations: Spirato MTm 285 FS contains metalaxyl, a Group 4 fungicide, thiophanate-methyl, a Group 1 fungicide and fludioxonil, a Group 12 fungicide. Metalaxyl belongs to the phenylamide class of chemistry which interferes with fungal RNA synthesis. Thiophanate-methyl belongs to the Methyl Benzimidazole Carbamate class of chemistry which interferes with mitosis. Fludioxonil belongs to the phenylpyrrole class of chemistry which interferes with osmotic signal transduction.

Fungal populations may contain individuals naturally resistant to Group 1, Group 4, and 12 fungicides and if used repeatedly in the same fields, then resistant members may eventually dominate the population. Because resistance development cannot be predicted, the use of this product should conform to sound resistance management strategies such as an alternation with fungicides of a different mode of action and/or tank mixes established for the crop and use area.

Use should be based on an IPM program that includes field sanitation, scouting, historical information related to pesticide use, and crop rotation. The IPM program should also consider cultural, biological, and other chemical control practices.

Nufarm encourages responsible product stewardship to ensure effective long term control of the fungal diseases on this label.

For additional information on Fungicide Resistance Management:

- Contact Nufarm Americas Inc representatives at 1-800-345-3330
- Contact your local extension specialist or certified crop advisor
- Visit the Fungicide Resistance Action Committee (FRAC) at <http://www.frac.info>

Tank Mixing: All tank mixes should be pre-tested to determine physical compatibility between formulations. When tank mixing, follow the most restrictive label instructions for any tank mix partner. DO NOT tank mix with any product that bears a label prohibition against tank mixing. It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

MIXING INSTRUCTIONS FOR SOYBEANS

Spirato MTm 285 FS is formulated for on-farm or commercial treatment to be used with liquid rhizobia products, using standard mechanical slurry or mist-type seed treatment equipment which accurately measures and mixes a flowable seed treatment. The equipment must provide uniform coverage of Spirato MTm 285 FS on the seed. Uneven seed coverage may not give the desired level of disease control. Spirato MTm 285 FS must be diluted with either water or liquid inoculants prior to application to soybeans. Consult the manufacturer of the application equipment you plan to use for suitability for this application and for instructions on operation and calibration of the equipment. Do not mix Spirato MTm 285 FS fungicide with other pesticides unless sufficient compatibility, loading rates, and seed and crop safety factors are determined. Do not mix with any product that contains a prohibition on mixing. Follow the more restrictive labeling of any tank-mix partner.

In a clean container large enough to contain the entire mixture add the specified amount of Spirato MTm 285 FS. Add half of the required water or liquid inoculant and mix thoroughly. Add the remaining amount of water or liquid inoculant and mix again. The slurry is ready for application to the soybeans. Mix as needed and do not store diluted mixture.

Additional or continuous agitation or mixing of the slurry mixture may be necessary to prevent the Spirato MTm 285 FS from settling out of solution when using water or liquid inoculants. Spirato MTm 285 FS has been found to be compatible with some liquid inoculant products. Spirato MTm 285 FS may be mixed or applied sequentially with approved liquid inoculants. Consult the maker of the liquid inoculants and a Nufarm Americas representative for directions before applying Spirato MTm 285 FS with liquid inoculants.

Note: Spirato MTm 285 FS is formulated to be compatible with some liquid inoculants. If water is used to further dilute Spirato MTm 285 FS when rhizobia are present, use only nonchlorinated water. Chlorinated water will kill the live rhizobia contained in the inoculant.

MIXING INSTRUCTIONS FOR OTHER BEANS (DRY and SUCCULENT)

Apply Spirato MTm 285 FS as a water based slurry utilizing standard slurry seed treatment equipment which provides uniform seed coverage. Uneven or incomplete seed coverage may not give the desired level of disease protection. Thoroughly mix the labeled amount of Spirato MTm 285 FS into the required amount of water for the slurry treater and dilution rate to be used.

Follow the manufacturer application instructions for the seed treatment equipment being used. Maintain constant agitation of the slurry during the treatment. Allow seed to dry before bagging.

USE RESTRICTIONS

DO NOT use treated seed for feed, food, or oil.

DO NOT use for hopper box or planter box seed treatments.

SEED BAG LABELING REQUIREMENTS

Seed commercially treated with this product must be labeled in accordance with all applicable requirements of the Federal Seed Act. The user of this product is responsible for ensuring that the seed bag meets all requirements under the Federal Seed Act.

THE FEDERAL SEED ACT REQUIRES THAT BAGS CONTAINING TREATED SEED BE LABELED WITH THE FOLLOWING INFORMATION:

- This seed has been treated with Spirato MTm 285 FS (metalaxyl, thiophanate-methyl, fludioxonil) seed treatment.
- **DO NOT** use for food, feed, or oil purposes. Store away from feeds and other foodstuffs.

THE U.S. ENVIRONMENTAL PROTECTION AGENCY REQUIRES THE FOLLOWING STATEMENTS ON CONTAINERS CONTAINING TREATED SEED:

- Store treated seed away from feeds and foodstuffs.
- Wear long pants, long-sleeved shirt, shoes, socks, and chemical-resistant gloves when handling treated seed.
- Treated seed exposed on soil surface may be hazardous to birds and wildlife.
- Dispose of all excess treated seed by burying seed away from bodies of water. Cover or collect treated seeds spilled during loading and planting.
- **DO NOT** contaminate water bodies when disposing of planting equipment wash water.
- Dispose of seed packaging in accordance with local requirements.
- **DO NOT** allow children, pets, or livestock to have access to treated seed.
- **DO NOT** graze or feed livestock on treated areas for 30 days after planting.
- Excess treated seed may be used for ethanol production only if (1) by-products are not used for livestock feed and (2) no measurable residues of pesticides remain in the ethanol by-product that are used in agronomic practice.
- **Groundwater Advisory:** Metalaxyl is known to leach through soil into groundwater under certain conditions as a result of agricultural use. Use of this chemical where soils are permeable, particularly where the water table is shallow, may result in groundwater contamination.
- After the seeds have been planted, do not enter or allow worker entry into treated areas during the **restricted-entry interval (REI) of 48 hours**. Exception: If the treated seed 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, chemical-resistant gloves made of any waterproof material, and chemical-resistant footwear.

CROP SPECIFIC USE DIRECTIONS

SOYBEANS

DISEASE	USE RATE (based on 3,000 seeds / lb)			
	fl.oz. / cwt. seed*	fl.oz / 1,000 seed	fl.oz / 140,000 seed	mg AI / seed
Protection against damping-off and seed and seedling rots caused by <i>Pythium</i> , <i>Fusarium</i> , and <i>Rhizoctonia</i> spp., and others	1.5	0.005	0.7	0.0232 metalaxyl 0.0152 thiophanate-methyl 0.0037 fludioxonil
Protection against <i>Phytophthora</i> (see remarks below)				
Suppresses seed-borne <i>Sclerotinia</i> and <i>Phomopsis</i> spp.	*Contains 4.642 g of metalaxyl, 3.048 g of thiophanate-methyl, and 0.744 g of fludioxonil per fl.oz (100 kg seed contains 15.35 grams metalaxyl, 10.08 grams thiophanate-methyl, and 2.28 grams fludioxonil)			

Apply Spirato MTm 285 FS at the rate specified in the rate table, plus water to prepare a slurry of sufficient volume and viscosity to adequately cover the seed. As an alternative to water, you may use approved liquid *rhizobia* inoculants at rates specified by the manufacturer and may add the inoculants to the slurry to achieve sufficient total slurry volume and viscosity to adequately cover the seed.

The addition of an application of SEBRING 318 FS* or Sebring 480 FS or another approved metalaxyl or mefenoxam containing seed treatment product may be used if targeting fields with high *Phytophthora* pressure. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

RESTRICTIONS

After the seeds have been planted, do not enter or allow worker entry into treated areas during the **restricted-entry interval (REI) of 48 hours**. Exception: If the treated seed 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, chemical-resistant gloves made of any waterproof material, and chemical-resistant footwear.

DRY BEANS, SUCCULENT (SNAP) BEANS (*Cicer arietinum* (chickpea, garbanzo bean); *Lupinus* spp. (sweet lupine, white sweet lupine, white lupine, and grain lupine). *Phaseolus* spp. (kidney bean, lima bean, mung bean, navy bean, pinto bean, snap bean, and waxbean); *Vicia faba* (broad bean, fava bean); *Vigna* spp. (asparagus bean, blackeyed pea and cowpea)

DISEASE	USE RATE (fl.oz / cwt. seed)
For protection against damping-off and seed and seedling rots caused by <i>Pythium</i> , <i>Fusarium</i> , and <i>Rhizoctonia</i> spp. and others. Protection against <i>Phytophthora</i> (see remarks below) Suppresses seed-borne <i>Sclerotinia</i> and <i>Phomopsis</i> spp.	1.5

The addition of an application of SEBRING 318 FS* or Sebring 480 FS* or another approved metalaxyl or mefenoxam containing seed treatment product may be used if targeting fields with high *Phytophthora* pressure. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

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After the seeds have been planted, do not enter or allow worker entry into treated areas during the **restricted-entry interval (REI)** of **48 hours**. Exception: If the treated seed 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, chemical-resistant gloves made of any waterproof material, and chemical-resistant footwear.

STORAGE AND DISPOSAL

DO NOT contaminate water, food or feed by storage or disposal.

PESTICIDE STORAGE: Store in a cool place, **DO NOT** store in direct sunlight. Protect from freezing temperatures.

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

CONTAINER HANDLING: NOTE: This product is available in multiple containers. Refer to the Net Contents section of this product's labeling for the applicable "Nonrefillable" or "Refillable" designation. Follow the container handling instructions below that apply to your container type / size.

Nonrefillable Containers 5 Gallons or Less

Nonrefillable container. DO NOT reuse or refill this container. Offer for recycling if available. Triple rinse container (or equivalent) promptly after emptying. **Triple rinse as follows:** Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. 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. Plastic containers are also disposable by incineration, or, if allowed by State and local authorities, by burning. If burned stay out of smoke.

Nonrefillable containers larger than 5 gallons

Nonrefillable container. DO NOT reuse or refill this container. Offer for recycling if available. Triple rinse or pressure rinse container (or equivalent) promptly after emptying.

Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. Pressure rinse as follows: Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 psi for at least 30 seconds. Drain for 10 seconds after the flow begins to drip.

Refillable containers larger than 5 gallons

Refillable container. Refill this container with pesticide only. **DO NOT** reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. To clean the container before final disposal, empty the remaining contents from this container into application equipment or a mix tank. Fill the container about 10% full with water. Agitate vigorously or recirculate water with the pump for two minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times.

Refillable containers for return to Nufarm

Refillable container. Refill this container with pesticide only. **DO NOT** reuse this container for any other purpose. Close all openings and replace all caps. Contact Nufarm's Customer Service Department at 1-800-345-3330 to arrange for return of the empty refillable container.

WARRANTY DISCLAIMER

The directions for use of this product must be followed carefully. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, (1) THE GOODS DELIVERED TO YOU ARE FURNISHED "AS IS" BY MANUFACTURER OR SELLER AND (2) MANUFACTURER AND SELLER MAKE NO WARRANTIES, GUARANTEES, OR REPRESENTATIONS OF ANY KIND TO BUYER OR USER, EITHER EXPRESS OR IMPLIED, OR BY USAGE OF TRADE, STATUTORY OR OTHERWISE, WITH REGARD TO THE PRODUCT SOLD, INCLUDING, BUT NOT LIMITED TO MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, USE, OR ELIGIBILITY OF THE PRODUCT FOR ANY PARTICULAR TRADE USAGE. UNINTENDED CONSEQUENCES, INCLUDING BUT NOT LIMITED TO INEFFECTIVENESS, MAY RESULT BECAUSE OF SUCH FACTORS AS THE PRESENCE OR ABSENCE OF OTHER MATERIALS USED IN COMBINATION WITH THE GOODS, OR THE MANNER OF USE OR APPLICATION, INCLUDING WEATHER, ALL OF WHICH ARE BEYOND THE CONTROL OF MANUFACTURER OR SELLER AND ASSUMED BY BUYER OR USER. THIS WRITING CONTAINS ALL OF THE REPRESENTATIONS AND AGREEMENTS BETWEEN BUYER, MANUFACTURER AND SELLER, AND NO PERSON OR AGENT OF MANUFACTURER OR SELLER HAS ANY AUTHORITY TO MAKE ANY REPRESENTATION OR WARRANTY OR AGREEMENT RELATING IN ANY WAY TO THESE GOODS.

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If you do not agree with or do not accept any of directions for use, the warranty disclaimers, or limitations on liability, do not use the product, and return it unopened to the Seller, and the purchase price will be refunded.

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