GROUP	25	FUNGICIDE

AS-50™

Agricultural Streptomycin

[For control of halo blight of beans]
[Seed treatment (only in commercial seed treatment plants)]

[Alternate Brand Name: Agri-Mycin® 50]

ACTIVE INGREDIENT:
Streptomycin Sulfate (Equivalent to 50% streptomycin base) 65.8%
OTHER INGREDIENTS: 34.2%
TOTAL: 100.0%

KEEP OUT OF REACH OF CHILDREN

CAUTION / PRECAUCIÓN

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

[SEE INSIDE BOOKLET FOR FIRST AID, PRECAUTIONARY STATEMENTS, AND DIRECTIONS FOR USE]

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

EPA REG. NO. 55146-98
EPA EST. NO. _____

MANUFACTURED FOR
NUFARM AMERICAS INC.
AGT DIVISION
11901 S. Austin Avenue
Alsip, IL 60803

[Grow a Better Tomorrow.]

NET WEIGHT: _____ Lb (____ kg)

055146-00098.20160511.Label Amend & ABN

FIRST AID	
IF ON SKIN OR CLOTHING	• Take off contaminated clothing. • Rinse skin immediately with plenty of water for 15 to 20 minutes. • Call a poison control center or doctor for treatment advice.
IF IN EYES	• Hold eye open and rinse slowly and gently with water for 15 to 20 minutes. • Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. • Call a poison control center or doctor for treatment advice.
HOTLINE 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.	

PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS AND DOMESTIC ANIMALS
CAUTION / PRECAUCIÓN

Causes moderate eye irritation. Harmful if absorbed through skin. Avoid contact with skin, eyes, or clothing. Prolonged or frequently repeated skin contact may cause allergic reaction in some individuals.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Chemical resistant gloves made of any waterproof material
- Shoes plus socks
- Protective eyewear
- A NIOSH approved particulate respirator with an N, R, or P filter, NIOSH approval number prefix TC-84A.

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 into clean clothing.

ENVIRONMENTAL HAZARDS

This product may be hazardous to aquatic plants. Do not apply directly to water, to areas where surface water is present, or to intertidal areas below the high water mark. Do not contaminate water when disposing of equipment wash waters or rinsate.

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 through any type of irrigation system. 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.

This material is not to be used for medical, veterinary, or human purposes.

RESISTANCE MANAGEMENT

This product contains a Group 25 fungicide/bactericide and is effective against pathogens which are resistant to fungicides/bactericides with modes of action different from those of fungicide Group 25. Pathogen biotypes resistant to streptomycin may eventually dominate the fungal/bacterial population if Group 25 fungicides/bactericides are used repeatedly in the same site or in successive years as the primary method of control for targeted pathogen species. Selection for resistance may be particularly rapid if resistance to Group 25 fungicides/bactericides is already present in the pathogen population. Making more than two consecutive applications of this product may be conducive to the selection of resistant strains.

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 made of any waterproof material
- Shoes plus socks
- 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.

Keep unprotected persons out of treated areas until sprays have dried

CROP USE DIRECTIONS

MIXING INSTRUCTIONS

Dilution Table

Concentration Desired (ppm)*	Quantity of Product per Volume of Water				
	5 gal	50 gal	100 gal	500 gal	600 gal
50	1/2 tsp	2/3 oz	1 1/3 oz	6 2/3 oz	8 oz
60	2/3 tsp	0.8 oz	1.6 oz	8 oz	9.6 oz
100	1 tsp	1 1/3 oz	2 2/3 oz	13 1/3 oz	1 lb
200	2 tsp	2 2/3 oz	5 1/3 oz	1.7 lb	2 lb

* Parts per million of streptomycin base in prepared solution

ROW CROPS

CROP	DISEASE	PRODUCT RATE OR CONCENTRATION	USE INSTRUCTIONS
POTATO	Soft Rot Blackleg	100 ppm (Refer to Dilution Table above)	Soak cut seed pieces in solution for several minutes and plant as usual. Note: A suitable fungicide (such as Maxim® PSP, Maxim MZ Fungicide, Captan, or a product containing a dithiocarbamate a.i.) should be used as an adjunct to this treatment for the control of fungal diseases associated with potato seed pieces.
TOBACCO	Wildfire Blue Mold	For preventive action 100 ppm (equivalent to 5 1/3 oz in 200 gal/A or 25 gal/5,000 ft^2)	Apply first spray when plants are in the 2-leaf stage or about the size of a dime or when blue mold first appears in the area. Continue applications at 5- to 7-day intervals until plants are set in the field. Additional protection may be obtained by spraying field plants weekly.
		For curative action 200 ppm (equivalent to 10 2/3 oz in 200 gal/A)	
		200 ppm (equivalent to 1 1/3 – 5 1/3 oz in 25 - 100 gal/A)	Apply in locations where wildfire has been a problem in recent years or where applications have been delayed until disease appears. Follow the same schedule as above.

TREE CROPS

CROP	DISEASE	PRODUCT RATE OR CONCENTRATION	USE INSTRUCTIONS
APPLE	Fire Blight	8 - 16 oz/A (equivalent to 50 - 100 ppm at 600 gal/A)	Make first application at 20 - 30% bloom. Spray trees every 3 to 4 days during blossom time. After petal fall, continue applications at 10- to 14-day intervals to control twig blight (this could mean an additional 6 to 8 applications after blossom sprays).
	Restriction Do not apply within 50 days of harvest.		
PEAR (Except CA)	Fire Blight	8 - 16 oz/A (equivalent to 50 - 100 ppm at 600 gal/A)	Make first application at 20 - 30% bloom. Spray trees every 3 to 4 days during blossom time. After petal fall, continue applications at 10- to 14-day intervals to control twig blight (this could mean an additional 6 to 8 applications after blossom sprays).
	Restriction Do not apply within 30 days of harvest.		
PEAR (California only)	Fire Blight	9.6 oz/A (equivalent to 60 ppm at 600 gal/A)	Make first application at 10% bloom and repeat at 5-day intervals until all late bloom is over. Continue applications at 5- to 7-day intervals to control shoot and fruit infections.
	Restriction Do not apply within 30 days of harvest.		

VEGETABLE CROPS

(Seedlings of the below listed crops grown in greenhouses and similar structures)

CROP	DISEASE	PRODUCT RATE OR CONCENTRATION	USE INSTRUCTIONS
CELERY (Florida only)	Bacterial Blight	200 ppm (equivalent to 2 2/3 – 5 1/3 oz in 50 - 100 gal/A)	Apply first spray when seedlings are in the 2-leaf stage, when first true leaves appear. Continue applications at 4- to 5-day intervals until transplanted in the field.
PEPPER	Bacterial Spot Bacterial Speck*	200 ppm (equivalent to 2 2/3 – 5 1/3 oz in 50 - 100 gal/A)	Apply first spray when seedlings are in the 2-leaf stage, when first true leaves appear. Continue applications at 4- to 5-day intervals until transplanted in the field.
TOMATO	Bacterial Spot Bacterial Speck*	200 ppm (equivalent to 2 2/3 – 5 1/3 oz in 50 - 100 gal/A)	Apply first spray when seedlings are in the 2-leaf stage, when first true leaves appear. Continue applications at 4- to 5-day intervals until transplanted in the field.

*Not registered for use in California

ORNAMENTAL PLANTS AND SHRUBS

Grown in Greenhouses, Shadehouses, Fields, Nurseries (container, bench, or bed-grown), and Residential† & Commercial Landscapes

† Intended for use by professional applicators

PLANT	DISEASE	PRODUCT RATE OR CONCENTRATION	USE INSTRUCTIONS
Garden: **Apple trees** **Pear trees** **Ornamentals:** **Amelanchier*** **Cotoneaster*** **Pyracantha**	Fire Blight	100 ppm (equivalent to 2 2/3 - 8 oz in 100 - 300 gal/A)	Apply in foliar and blossom sprays. Apply first spray at start of blossoming period. Continue applications every 3 to 4 days during blossom time. Apply additional sprays every 5 to 7 days after blossom period when weather favors spread of fire blight.
	Restriction Do not apply after fruit is visible.		
Berberis* **Carnation*** **Forsythia*** **Geranium*** **Hedera (ivy)*** **Hydrangea*** **Impatiens*** **Lonicera (honeysuckle)*** **Philadelphus*** **Philodendron** **Poinsettia*** **Rudbeckia (Black-eyed susan)*** **Salvia*** **Syringa*** **Viburnum***	Bacterial Leaf Spot* Bacterial Leaf Rot Bacterial Blight* (*Pseudomonas* spp., *Xanthomonas* spp.)	200 ppm (equivalent to 5 1/3 oz – 1 lb in 100 - 300 gal/A)	Apply as preventive spray or at first sign of water-soaked areas on leaves. Repeat at 4- to 5-day intervals. <u>For curative action</u> Remove all rotted leaves from plant and then spray every 4 days.
Chrysanthemum **Hydrangea***	Bacterial Wilt (*Pseudomonas solanacearum*)	50 ppm (Refer to Dilution Table above)	Soak plant cuttings in solution for 4 hours. Plant as usual.

PLANT	DISEASE	PRODUCT RATE OR CONCENTRATION	USE INSTRUCTIONS
Calla Lily **Gladiolus*** **Orchid***	Leaf Spot* Soft Rot caused by *Erwinia* spp.	100 – 200 ppm (Refer to Dilution Table above)	Pre-Plant Treatment Apply as a postharvest, pre-plant dip or spray onto exposed bulbs.
		100 – 200 ppm (equivalent to 2 2/3 – 5 1/3 oz per 100 gal)	Post-Plant, Pre-Emergent Drench Apply as a drench at a rate of 3 to 4 ounces of solution per 6 inch pot or 3 to 4 ounces of solution per setting in the field.
		200 ppm (equivalent to 5 1/3 oz – 1 lb in 100 - 300 gal/A)	Preventive treatment * Apply as a foliar spray at first sign of water-soaked areas on leaves. Continue applications at 4- to 7-day intervals.
Dieffenbachia Cuttings	Bacterial Stem Rot	200 ppm (Refer to Dilution Table above)	Soak cuttings in solution for 20 minutes. Plant cuttings in sterilized rooting medium.
		100 ppm (equivalent to 2 2/3 – 8 oz in 100 - 300 gal/A)	To check spread of stem rot in stock plants, spray every 5 - 7 days.
Roses* **Lonicera (honeysuckle)***	Crown Gall*	200 ppm (Refer to Dilution Table above)	Remove infected plant. Cut out gall tissue. Soak the plant root system and cut surfaces of the infected area in solution for 15 minutes. Replant in soil free of the crown gall organisms.
		50 ppm (equivalent to 1 1/3 - 4 oz in 100 - 300 gal/A)	Use 50 ppm in watering solution and in foliar sprays applied weekly starting one week after planting as an adjunct to the treatment above.

*Not registered for use in California

Additional information regarding the use of this product may be obtained from your local Agricultural Extension Agent or State Experimental Station.

SEED TREATMENT - CONTROL OF HALO BLIGHT OF BEANS

The U.S. Environmental Protection Agency requires the following statements on containers containing streptomycin sulfate treated seed: "This seed has been treated with streptomycin sulfate. Do not use for feed, food, or oil purposes. Store away from feed and foodstuffs. Wear long pants, long-sleeved shirt, shoes, socks, chemical resistant gloves made of any waterproof material, and a NIOSH approved respirator with an approval prefix TC-84A when handling treated seed. Treated seeds exposed to soil surface may be hazardous to wildlife. Cover or collect treated seeds spilled during loading and planting. Dispose of all excess treated seeds by burying seed away from bodies of water. Do not contaminate bodies of water when disposing of planting equipment wash water. Dispose of seed packaging or containers in accordance with local requirements."

USE RESTRICTIONS: When using formulations that do not contain dye, to comply with 40 CFR 153.155, all seed treated with an economic poison must be colored with an EPA approved dye such as one of the dyes listed in 40 CFR Sections 180.910 and 180.920 to distinguish and prevent subsequent inadvertent use as a food for man or feed for animals.

Crop/Disease	Concentration	Use Directions
Beans - Seed Protection (For Control of Surface Infection)	0.18-0.91 oz/cwt of seed	Use the higher specified rate of product when halo blight pressure is severe. This product dissolves in water and is compatible with Nufarm fungicides and insecticides (e.g., Sebring and Senator). Slurry rates will vary with components and treating equipment. Apply this product using commercial mist, spray or other application equipment.

For use by commercial treaters only. Not for on farm use or at planting time. Do not use treated seed for food or feed purposes.

MIXING INSTRUCTIONS FOR SEED TREATMENT

Concentration Desired**	Quantity of AS-50 per Volume of Water			
	1 pt	1 qt	1 gal	5 gal
1%	0.3 oz (9.5 g)	0.6 oz (19.0 g)	2 2/3 oz	13 1/3 oz
2%	0.6 oz (19.0 g)	1 1/3 oz (38.0 g)	5 1/3 oz	1.7 lb
5%	1.5 oz (47.5 g)	3.0 oz (90.0 g)	13 1/3 oz	4.2 lb

**Concentration of streptomycin base in prepared solution

STORAGE AND DISPOSAL

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

PESTICIDE STORAGE – Keep tightly closed. Store at a cool temperature when possible, and with minimum exposure to atmosphere.

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:

[Nonrefillable Containers 50 lb or Less]

Nonrefillable container. Do not reuse or refill this container. Triple 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 ¼ 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 50 lb]

Nonrefillable container. Do not reuse or refill this container. **Triple rinse as follows:** Empty the remaining contents into application equipment or a mix tank. Fill the container ¼ 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. 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.

[Bags:] Nonrefillable container. Do not reuse or refill this container. Completely empty bag into application equipment. Then offer for recycling, if available, or 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.

[Drums with Liners:] Nonrefillable container. Do not reuse or refill this container. Completely empty liner by shaking and tapping sides and bottom to loosen clinging particles. Empty residue into application equipment. Then offer for recycling, if available, or 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. If drum is contaminated and cannot be reused, dispose of it in the manner required for its liner.

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 the directions for use, the warranty disclaimers, or limitations of liability, do not use the product, and return it unopened to the Seller, and the purchase price will be refunded.

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BATCH CODE: _____

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