

Nema ProMax

Application Sheet

ACTIVE INGREDIENT

Burkholderia spp strain M928 and spent fermentation media.....	92.53%
Other Ingredients	7.47%
Total.....	100%

*Contains at least 1.0×10^9 colony forming units per gram liquid type

KEEP AWAY FROM CHILDREN CAUTION

GENERAL INFORMATION

NEMA PROMAX is a biological insecticide and nematicide containing killed cells of Burkholderia spp. strain M928 and bacillus pumilus, for use on agricultural crops against the pests listed in the Directions for Use section.

NEMA PROMAX can be used in either the field or greenhouse for the control of any labeled pest.

Bees and beneficial insects:

- To minimize potential exposure to bees and other pollinating insects, do not apply while bees are foraging.
- Do not allow product to drift to blooming crops or weeds if bees are foraging.
- Minimize spray drift away from the target area to reduce effects to other non-target insects.

NEMA PROMAX has been evaluated for toxicity to non-target insects in a variety of bioassays and on a variety of crops under various normal growing conditions. However, testing all beneficial insects, in all situations, mixtures and combinations, is not feasible. Prior to treating entire crop where the release of beneficial insects serve as part of an Integrated Pest Management (IPM) program, consult with an extension specialist, a pest control advisor (PCA) or with the product manufacturer.

NEMA PROMAX has been evaluated for phytotoxicity on a variety of crops under various normal growing conditions. However, testing all crop varieties, in all mixtures and combinations, is not feasible. Prior to treating entire crop, test a small portion of the crop for sensitivity. Under heavy pest populations, use the higher label rates, shorten the spray interval, and/or apply in tank mixture with another product that has activity on the target pest.

FOR CONTROL OF CROP DAMAGE CAUSED BY THE FOLLOWING PESTS:

- Root-knot (*Meloidogyne* spp.)
- Lesion (*Pratylenchus* spp.)
- Sting (*Belonolaimus* spp.)
- Stunt (*Tylenchorhynchus* spp.)
- Ring (*Bursaphelenchus* spp.)
- Soybean cyst* (*Heterodera glycines*)
- Stubby-root* (*Paratrichodorus* spp.)
- Reniform (*Rotylenchulus* spp.)

SOIL TREATMENT USE DIRECTIONS

NEMA PROMAX can be applied by soil drench, broadcast, and chemigation (drip (trickle) or sprinkler irrigation) and as an in-furrow spray, T-band or soil injection to protect against certain soil-borne nematodes and insects.

In general, NEMA PROMAX can be applied by the following methods, unless specified differently in the SELECTED CROPS section:

Soil Drench Applications: Apply NEMA PROMAX in sufficient water to thoroughly soak the growing media and root zone. Nematode control treatments can occur prior to planting, and at or near planting or transplanting as soil drench applications.

Broadcast Applications: NEMA PROMAX can be applied to bare soil alone or with most types of pesticides and nutrients prior to planting, at planting, at transplant, and in-season. Apply with a minimum of 30 gallons of water and follow with a minimum of 0.5 inches of irrigation water or natural rainfall within 1-2 days to allow the material to move through the soil profile. Use a jar test to confirm physical compatibility prior to application.

Shanked-In and Injected Applications: NEMA PROMAX can be shanked-in or injected into the soil alone, or with most types of pesticides and nutrients prior to planting, and at planting. Use a jar test to confirm physical compatibility prior to application.

In-Furrow and T-Band Applications: At planting, apply NEMA PROMAX as an in-furrow spray or as a 5-7 inch band (T-band) over an open seed furrow at the rate of 15-20 Liter per hectare according to the In-furrow and T-Band Application Rates table below. Apply NEMA PROMAX in a minimum of 3 gallons of water per acre, with the spray directed over the seed furrow just before the seeds are covered by soil. NEMA PROMAX applied as a T-Band should be lightly incorporated into the top 1 inch

of soil by drag chains or tines.

In-furrow and T-band Application Rates

Rate	In-Furrow and T-band Application Rates							
	Product per 1000 ft. row.							
	7.5" Rows	15" Rows	30" Rows	32" Rows	34" Rows	36" Rows	38" Rows	40" Rows
15-20 liter per hectare	80- 110 ml	110- 320 ml	320- 435 ml	348- 465 ml	400- 500 ml	400- 520 ml	420- 550 ml	435- 580 ml

Chemigation: Prior to, at or shortly after planting or transplanting, and in season: apply NEMA PROMAX at the rate specified in the Crop Use section according to the directions in the CHEMIGATION USE DIRECTIONS section of this label.

APPLICATION INSTRUCTIONS

Spray preparation

First, prepare a suspension of NEMA PROMAX in a mix tank. Fill tank with $\frac{3}{4}$ of the amount of water for the area to be treated. Start mechanical or hydraulic agitation. Add the required amount of NEMA PROMAX, and then the remaining volume of water. If using sprinkler irrigation, set the sprinkler to deliver a minimum of 0.1 to 0.3 inch of water per acre. Start sprinkler and uniformly inject the suspension of NEMA PROMAX into the irrigation water line, delivering the desired rate of NEMA PROMAX per acre. Inject the suspension of NEMA PROMAX with a positive displacement pump into the main line ahead of a right angle turn to ensure adequate mixing. NEMA PROMAX is to be metered continuously for the duration of the water application. If you have questions about calibration, you could contact equipment manufacturers or other experts.

Do not combine NEMA PROMAX with other pesticides, surfactants, adjuvants, or fertilizers for application through chemigation equipment unless prior experience has shown the combination to be physically compatible, effective and non-injurious under your conditions of use.

General Requirements

- 1) Apply this product only through sprinkler, including center pivot, lateral move, end tow, side (wheel) roll, traveler, big gun, solid set, or hand move, or drip (trickle) irrigation systems (e.g. micro-emitter). Do not apply this product through any other type of irrigation system.
- 2) Crop injury, lack of effectiveness, or illegal pesticide residues in the crop can result from non-uniform distribution of treated water.
- 3) If you have questions about calibration, you should contact equipment manufacturers, or other experts.
- 4) 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 for public water systems are in place.

- 5) A person knowledgeable of the chemigation system and responsible for its operation, or under the supervision of the responsible person, shall shut the system down and make necessary adjustments should the need arise.

Specific Requirements for Chemigation Systems Connected to Public Water Systems

- 1) 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.
- 2) 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 flow 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.
- 3) The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve, to prevent the flow of fluid back toward the injection pump.
- 4) 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.
- 5) 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.
- 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.
- 7) Do not apply when wind speed favors drift beyond the area intended for treatment.

Specific Requirements for Sprinkler Chemigation

- 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 controls 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.
- 7) Do not apply when wind speed favors drift beyond the area intended for treatment.

Specific Requirements for Drip (Trickle) Chemigation

- 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 controls 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.

Application Instructions for All Types of Chemigation

- 1) Remove scale, pesticide residues, and other foreign matter from the chemical supply tank and entire injector system. Flush with clean water. Failure to provide a clean tank, void of scale or residues, may cause product to lose effectiveness or strength.
- 2) Determine the treatment rates as indicated in the directions for use, and make proper dilutions.
- 3) Prepare a solution in the chemical tank by filling the tank with the required water and then adding product as required. Utilize agitation to keep solution in suspension.

Application Instructions for Drip Chemigation

- 1) Check to be sure that the system provides a uniform water flow.
- 2) Irrigate crop with sufficient water to wet the root zone. Then, begin flow of the solution containing product solution from the chemical tank for a period to uniformly distribute the material. Discontinue flow of the NEMA PROMAX mixture and let the system continue to run only as necessary to purge the line with fresh water. Let the NEMA PROMAX solution remain in the root zone of the crop.

SHAKE WELL BEFORE USE

CROPS	RATE Liter/ha	APPLICATION INSTRUCTION
Bulb Vegetables Onion Garlic Leek Shallots and other bulb vegetables	15~20	<p>For drip chemigation applications, apply at the rate of 15~20 liter per hectare prior to planting, at planting or shortly thereafter, at transplant or shortly thereafter, and in-season. For applications as a soil drench, apply NEMA PROMAX at a rate of 15~20 per hectare in sufficient water to thoroughly soak the growing media and root zone prior to planting, and at or near planting or transplanting.</p> <p>Apply NEMA PROMAX at the rate of 15~20 liter per hectare by broadcast application or sprinkler chemigation (i.e., lateral move, end tow, side (wheel) roll, traveler, big gun, solid set, and hand move) prior to planting, at planting or shortly thereafter, at transplant or shortly thereafter, and in season on a 21-28 day interval as needed to maintain control.</p> <p>If irrigation is not available, apply NEMA PROMAX by broadcast application in a minimum of 30 gallons of water per acre followed by natural rainfall. Insufficient rainfall and delay in incorporation of residues can result in poor product performance. Use of sufficient irrigation water to move the product into the root zone will vary depending upon initial soil moisture, organic matter and clay content of the soil.</p> <p>Nematode management considerations</p> <p>To obtain maximum results in a nematode management program, it is important to take soil samples prior to planting to assess nematode populations and determine an appropriate management strategy. Take soil samples early enough to allow for the application of a pre-plant fumigant if warranted by nematode counts. Utilization of the services of a field person or crop consultant who is knowledgeable in nematode management is advised. For maximum crop protection, apply NEMA PROMAX in-furrow following a shanked in preplant fumigant. Make subsequent foliar applications at crop emergence and on a 14-21 day interval until digging.</p> <p>For Columbia root knot nematodes, base the initial foliar application upon soil degree days with an initial post-emergence application made at 1440 degree days (41 F base). Use NEMA PROMAX in rotation or combination with other registered foliar-applied nematicides. Foliar applications of NEMA PROMAX must be watered in by rainfall or irrigation, or applied by overhead sprinkler irrigation to move the product into the soil profile.</p>

CROPS	Rate Liter/ha	APPLICATION INSTRUCTION
Brassica Vegetables (Cole Crops) Broccpoil Cabbage Broccpoil Cauliflower Brussel Sprouts Collards Kale Mustard Greens Kohlrabi and other brassica crops	15~20	For broadcast or chemigation applications, apply at the rate of 15~20 liter per hectare prior to planting, at planting or shortly thereafter, at transplant or shortly thereafter, and in-season. For applications as a soil drench, apply NEMA PROMAX at a rate of 15~20 per hectare in sufficient water to thoroughly soak the growing media and root zone prior to planting, and at or near planting or transplanting
Cereal Grains Barley, Buckwheat, Grain Amaranth, Milo, Oats, Pearl Millet, Proso Millet, Rye, Sorghum, Triticale, Wheat	15~20	For broadcast or chemigation applications, apply at the rate of 15~20 liter per hectare prior to planting, at planting or shortly thereafter, at transplant or shortly thereafter, and in-season. For applications as a soil drench, apply NEMA PROMAX at a rate of 15~20 per hectare in sufficient water to thoroughly soak the growing media and root zone prior to planting, and at or near planting or transplanting
Corn Sweet Corn Popcorn Seed Corn Silage Corn Field and other Corn	15~20	For control of low to medium infestation levels of nematodes, apply NEMA PROMAX as an in furrow or T-band spray in a minimum of 3 gallons of water per acre according to the SOIL TREATMENT USE DIRECTIONS section.
Cotton	15~20	Apply NEMA PROMAX as an in furrow or T-band spray in a minimum of 3 gallons of water per acre according to the SOIL TREATMENT USE DIRECTIONS section. OR Apply NEMA PROMAX through drip irrigation or overhead irrigation after crop emergence and in season on a 21- to 28-day interval as needed to maintain control.
Cucurbits Cucumber Cantaloupe Melon Muskmelon Squash Watermelon and others	15~20	For broadcast or chemigation applications, apply at the rate of 15~20 liter per hectare prior to planting, at planting or shortly thereafter, at transplant or shortly thereafter, and in-season. For applications as a soil drench, apply NEMA PROMAX at a rate of 15~20 liter per hectare in sufficient water to thoroughly soak the growing media and root zone prior to planting, and at or near planting or transplanting.

CROPS	Rate Liter/ha	APPLICATION INSTRUCTION
Potatoes	15~20	<p>At planting, apply NEMA PROMAX at the rate of 15~20 liter per hectare into the open seed furrow in a 6-8 inch band behind the seed tube. During cultivation, apply NEMA PROMAX at the rate of 15~20 liter per hectare as a directed or banded application incorporating the spray into the soil profile. Refer to the table in the SOIL TREATMENT USE DIRECTIONS</p> <p>(In-Furrow and T-Band Applications) section to determine the proper rate per 1000 foot of row.</p> <p>Apply NEMA PROMAX at the rate of 15~20 liter per hectare by broadcast application or sprinkler chemigation (i.e., lateral move, end tow, side (wheel) roll, traveler, big gun, solid set, and hand move) prior to planting, at planting or shortly thereafter, at transplant or shortly thereafter and in season on a 21-28 day interval as needed to maintain control.</p> <p>If irrigation is not available, apply NEMA PROMAX by broadcast application in a minimum of 30 gallons of water per acre followed by natural rainfall. Insufficient rainfall and delay in incorporation of residues can result in poor product performance. Use of sufficient irrigation water to move the product into the root zone will vary depending upon initial soil moisture, organic matter and clay content of the soil.</p> <p>Nematode management considerations</p> <p>To obtain maximum results in a nematode management program, it is important to take soil samples prior to planting to assess nematode populations and determine an appropriate management strategy. Take soil samples early enough to allow for the application of a pre-plant fumigant if warranted by nematode counts. Utilization of the services of a field person or crop consultant who is knowledgeable in nematode management is advised. For maximum crop protection, apply NEMA PROMAX in-furrow following a shanked in preplant fumigant. Make subsequent foliar applications at crop emergence and on a 14-21 day interval until digging.</p> <p>For Columbia root knot nematodes, base the initial foliar application upon soil degree days with an initial post-emergence application made at 1440 degree days (41 F base). Use NEMA PROMAX in rotation or combination with other registered foliar-applied nematicides. Foliar applications of NEMA PROMAX must be watered in by rainfall or irrigation, or applied by overhead sprinkler irrigation to move the product into the soil profile.</p>
Tropical Fruits Avocado Bananas Plantains Mango Papaya Pineapple and other tropical fruits	15~20	<p>For broadcast or chemigation applications, apply at the rate of 15~20 liter per hectare prior to planting, at planting or shortly thereafter, at transplant or shortly thereafter, and in-season. For applications as a soil drench, apply NEMA PROMAX at a rate of 15~20 liter per hectare in sufficient water to thoroughly soak the growing media and root zone prior to planting, and at or near planting or transplanting.</p>

CROPS	Rate Liter/ha	APPLICATION INSTRUCTION
<p>Root / Tuber and Corm Vegetables</p> <p>Carrot Potato Sweet Potato Cassava Beets Ginger Horseradish Radish Gingseng Turnip and other root/ tuber and corm crops</p>	<p>15~20</p>	<p>At planting, apply NEMA PROMAX at the rate of 15~20 liter per hectare into the open seed furrow in a 6-8 inch band behind the seed tube. During cultivation, apply NEMA PROMAX at the rate of 15~20 liter per hectare as a directed or banded application incorporating the spray into the soil profile. Refer to the table in the SOIL TREATMENT USE DIRECTIONS</p> <p>(In-Furrow and T-Band Applications) section to determine the proper rate per 1000 foot of row.</p> <p>Apply NEMA PROMAX at the rate of 15~20 liter per hectare by broadcast application or sprinkler chemigation (i.e., lateral move, end tow, side (wheel) roll, traveler, big gun, solid set, and hand move) prior to planting, at planting or shortly thereafter, at transplant or shortly thereafter and in season on a 21-28 day interval as needed to maintain control.</p> <p>If irrigation is not available, apply NEMA PROMAX by broadcast application in a minimum of 30 gallons of water per acre followed by natural rainfall. Insufficient rainfall and delay in incorporation of residues can result in poor product performance. Use of sufficient irrigation water to move the product into the root zone will vary depending upon initial soil moisture, organic matter and clay content of the soil.</p> <p>Nematode management considerations</p> <p>To obtain maximum results in a nematode management program, it is important to take soil samples prior to planting to assess nematode populations and determine an appropriate management strategy. Take soil samples early enough to allow for the application of a pre-plant fumigant if warranted by nematode counts. Utilization of the services of a field person or crop consultant who is knowledgeable in nematode management is advised. For maximum crop protection, apply NEMA PROMAX in-furrow following a shanked in pre-plant fumigant. Make subsequent foliar applications at crop emergence and on a 14-21 day interval until digging. For Columbia root knot nematodes, base the initial foliar application upon soil degree days with an initial post-emergence application made at 1440 degree days (41 F base). Use NEMA PROMAX in rotation or combination with other registered foliar-applied nematicides. Foliar applications of NEMA PROMAX must be watered in by rainfall or irrigation, or applied by overhead sprinkler irrigation to move the product into the soil profile.</p>
<p>Tobacco</p>	<p>15~20</p>	<p>For broadcast or chemigation applications, apply at the rate of 15~20 liter per hectare prior to planting, at planting or shortly thereafter, at transplant or shortly thereafter, and in-season. For applications as a soil drench, apply NEMA PROMAX at a rate of 15~20 liter per hectare in sufficient water to thoroughly soak the growing media and root zone prior to planting, and at or near planting or transplanting.</p>

STORAGE AND DISPOSAL

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

Pesticide Storage: Store in a cool, dry place. Do not freeze.

Pesticide Disposal: To avoid wastes, use all material in this container by application according to label directions. If wastes cannot be avoided, offer remaining product to a waste disposal facility or pesticide disposal program (often such programs are run by state or local governments or by industry).

Container Handling:

For plastic containers less than or equal to 5 gallons:

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 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 if available or puncture and dispose of in a sanitary landfill, or by incineration.

For plastic containers greater than 5 gallons:

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 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. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration.

For plastic, refillable containers: Refillable container. Refill this container with NEMA PROMAX 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 percent full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat rinsing procedure two more times.

WARRANTY

Tangsons Biotech warrants that the material contained herein conforms to the description on the label and is reasonably fit for the purpose referred to in the directions for use. Timing and method of application, weather, watering practices, nature of soil, the disease problem, condition of the crop, incompatibility with other



Tangsons Biotech Co., Ltd

Add: office 38/1502, Hanguang Rt 660, Changsha, Hunan, China

Mail: info@tangsonsbio.com

influencing factors in the use of this product are beyond the control of the seller. To the extent consistent with applicable law, buyer assumes all risks of use, storage, or handling of this material not in strict accordance with directions given herein. NO OTHER EXPRESS OR IMPLIED WARRANTY OF THE FITNESS OR MERCHANTABILITY IS MADE.