



**GENERAL
HYDROPONICS®**

DEFGUARD™

Biofungicide / Bactericide

Broad-spectrum preventative biofungicide and bactericide for control of fungal and bacterial plant diseases.

ACTIVE INGREDIENT:

Bacillus amyloliquefaciens strain D747* 98.85%

OTHER INGREDIENTS: 1.15%

TOTAL: 100.00%

*Contains a minimum of 1×10^{10} colony-forming units (cfu) per milliliter

**KEEP OUT OF REACH OF CHILDREN
CAUTION**

See back booklet label for additional directions for use, precautionary statements and first aid.



LB8822

NET CONTENTS 1 Quart (946 ml)



For Organic Use

PO00916e.m



**GENERAL
HYDROPONICS**
DEFGUARD™
Biofungicide / Bactericide

General Hydroponics
DEFGUARD™
Biofungicide/Bactericide
manages resistance to
fungicides through its multiple
and unique modes of action.

Colonizes plant root hairs,
preventing establishment of
disease-causing fungi
and bacteria.

Can be applied up to and
including the day
of harvest.

FIRST AID	
If on skin:	• Take off contaminated clothing. Rinse skin with plenty of water for 15-20 minutes. Call a poison control center or doctor for further treatment advice.
If in eyes:	• Hold eyes 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 eye. Call a poison control center or doctor for further treatment advice.
If inhaled:	• 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. Have the product label with you when calling a poison control center or doctor. For Emergency Medical Information call: 1-866-839-8518.



Sold By: General Hydroponics
2877 Giffen Ave, Santa Rosa CA 95407
(800) 374-9376



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LB8833 - 10102-2132-1 P021317am



LB8833

EPA Reg No. 91865-3
EPA Est No. 239-1A-3, 239-MS-1^M, 91865-CA-1^{HH}
Superscript used is first letter of lot code

KEEP OUT OF REACH OF CHILDREN

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS & DOMESTIC ANIMALS

CAUTION Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals. Avoid contact with eyes, or clothing. Avoid breathing spray mist. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco and using the toilet.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Waterproof gloves
- Shoes plus socks

Mixer/loaders and applicators must wear a dust/mist filtering respirator meeting NIOSH standards of at least N-95, R-95, or P-95. Repeated exposure to high concentrations of microbial proteins can cause allergic sensitization.

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

When handlers use closed systems, enclosed cabs, or aircraft in a manner that meets requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides, the handler PPE requirements may be reduced or modified as specified in the WPS.

USER SAFETY RECOMMENDATIONS

User should:

- Remove clothing/PPE immediately if pesticides get 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

For Terrestrial Uses: Do not apply directly to water or 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 washwaters or rinsate. Do not apply when weather conditions favor drift or runoff from treated areas.

GENERAL INFORMATION

This product is a broad-spectrum preventative biofungicide/bactericide for control or suppression of fungal and bacterial plant diseases. The active ingredient of this product is a naturally occurring strain (D747) of the beneficial bacterium *Bacillus amyloliquefaciens*. This product also colonizes plant root hairs, preventing establishment of disease-causing fungi and bacteria.

This product can be applied alone or in combination and/or rotation with chemical fungicides as a tool for integrated disease management in agricultural crops, ornamental and nursery plants. This product offers a valuable tool for management of resistance to chemical fungicides through its multiple and unique modes of action.

This product can be applied up to and including the day of harvest.

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. For any requirements specific to your State or Tribe, consult the State or Tribal agency responsible for pesticide regulation.

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.

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 intervals. 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.

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.

AGRICULTURAL USE REQUIREMENTS cont.

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.

MIXING AND HANDLING INSTRUCTIONS

Mix the required amount of this product in water with sufficient agitation to maintain a uniform suspension in the spray or mixing tank. Tank should be cleaned prior to use. Do not use highly alkaline or highly acidic water to mix sprays. Use a buffering agent if necessary to maintain neutrality (pH 6 to 8) of water in the tank. Maintain agitation during application. Apply immediately after mixing; do not allow spray mix to stand overnight.

This product can be mixed and used with other agricultural chemicals for which such mixing is permitted by the product labels, in accordance with the most restrictive of those label limitations and precautions. If such a mixture is planned, a compatibility "jar test" should first be conducted by mixing the correct proportions of this product and these products in a small volume of water.

APPLICATION METHODS

Ground: This product can be applied in most commonly-used ground application equipment, such as (but not limited to): tractor-mounted boom, airblast, high clearance, hose-end, backpack, and other pressurized sprayers; hose-end or hand-held sprayers; foggers or mist blowers; water wheel and other drench applicators; and shank or other soil injection method.

Aerial: This product can be applied by fixed or rotary winged aircraft in a minimum of 3 gallons of water per acre. Standard precautions should be taken to minimize spray drift.

Chemigation: This product can be applied through drip (trickle) and sprinkler type irrigation equipment. Refer to the section entitled "Chemigation Instructions" for detailed instructions.

CROPS	DISEASES/PATHOGENS (See footnotes for additional information)
Vegetables	
Fruiting vegetables such as tomatoes, peppers, eggplant, tomatillo, okra, and others. (including those grown for seed production).	Bacterial spot (<i>Xanthomonas</i> spp.)* ¹ Bacterial speck (<i>Pseudomonas syringae</i> pv. tomato)* ¹ Gray mold (<i>Botrytis cinerea</i>) Powdery mildew* (<i>Leveillula</i> , <i>Oidiopsis</i> , <i>Erysiphe</i> , and <i>Sphaerotheca</i> spp.) Early blight (<i>Alternaria solani</i>)* Late blight (<i>Phytophthora infestans</i>)* See instructions below for "Soil application" against the following diseases: "Damping off," seedling blights, and root or crown diseases caused by <i>Pythium</i> , <i>Rhizoctonia</i> , <i>Fusarium</i> , <i>Phytophthora</i> , or <i>Verticillium</i> * spp. Southern blight (<i>Sclerotium rolfsii</i>)* and **
Leafy vegetables	
such as head and leaf lettuce, celery, spinach, radicchio, arugula, watercress, and others (including leafy Brassica vegetables such as mustard and collard greens, kale, bok choy, and related crops). (including those grown for seed production).	Downy mildew (<i>Bremia lactucae</i> , <i>Peronospora</i> spp.)* Powdery mildew (<i>Golovinomyces</i> (<i>Erysiphe</i>) <i>cichoracearum</i>)* Bacterial blights Head and leaf drop (<i>Sclerotinia</i> spp.) ² Pink rot (<i>Sclerotinia sclerotiorum</i>) ² Leaf spots (<i>Cercospora</i> spp.) See instructions below for "Soil application" against the following diseases: "Damping off," seedling blights, and root or crown diseases caused by <i>Pythium</i> , <i>Rhizoctonia</i> , <i>Fusarium</i> , <i>Phytophthora</i> , or <i>Verticillium</i> * spp. Bottom rot (<i>Rhizoctonia solani</i>)
Other Fruits	
Strawberry	Powdery mildew (<i>Sphaerotheca macularis</i> , <i>Erysiphe</i> spp.)* ⁵ Gray mold (<i>Botrytis cinerea</i>)* ⁴ Anthracnose (<i>Colletotrichum acutatum</i>) Angular leaf spot (<i>Xanthomonas fragariae</i>) ¹

CROPS cont.	DISEASES/PATHOGENS cont. (See footnotes for additional information)
Strawberry cont.	For the following diseases, see instructions below for "Soil application" (and also root dip instructions ⁷): "Damping off" and root or crown diseases caused by Rhizoctonia, Fusarium, Pythium, Phytophthora, and/or Verticillium* spp. Charcoal rot (Macrophomina phaseolina)**
Other Crops Herbs and spices such as basil, thyme, coriander, dill, cilantro, parsley, mint, and others.	Powdery mildews (Oidium spp. and others) Downy mildews (Peronospora spp. and others)* Damping off diseases (Rhizoctonia, Pythium, Alternaria, and Fusarium spp.) Leaf spots (Alternaria, Septoria, Colletotrichum, and Cercospora spp.)* Bacterial diseases (Erwinia, Xanthomonas, and Pseudomonas spp.) Rusts (Puccinia spp. and others) See instructions below for "Soil application" against the following diseases: "Damping off" and root or crown diseases caused by Rhizoctonia, Fusarium, Pythium, Phytophthora, and/or Verticillium* spp.
Tobacco	Angular leaf spot (Pseudomonas spp.) Anthracnose (Colletotrichum and Glomerella spp.) Blue mold or downy mildew (Peronospora spp.)* Brown spot (Alternaria) Barn spot/ frogeye leaf spot (Cercospora nicotianae) ³ Collar rot (Sclerotinia sclerotiorum) ² Gray mold (Botrytis cinerea) Powdery mildew (Erysiphe cichoracearum) Target spot (Rhizoctonia solani) See instructions below for "Soil application" against the following diseases:

CROPS cont.	DISEASES/PATHOGENS cont. (See footnotes for additional information)
Tobacco cont.	"Damping off," seedling blights, and root or crown diseases caused by Pythium, Rhizoctonia, Fusarium, Olpidium, Phytophthora, or Verticillium* spp. Charcoal rot (Macrophomina phaseolina) Black root rot (Thielaviopsis basicola) Black shank (Phytophthora spp.)* Southern blight/southern stem rot (Sclerotium rolfsii)*
Mint	Rust (Puccinia spp.)
Hops	Powdery mildew (Sphaerotheca macularis) ⁶
<p>Footnotes:</p> <p>*Suppression only; for improved control mix or rotate with chemical fungicide approved for such use.</p> <p>** NOT FOR USE IN CALIFORNIA</p> <p>¹ Tank mix or rotate with copper-based fungicides at label rates for improved control.</p> <p>² Apply at or immediately following planting (but before plant emergence) as a banded seedline treatment 4 to 6 inches wide. Make second application at thinning or cultivation in sufficient water and multiple nozzles to ensure thorough coverage of lower leaves and surrounding soil surface. Incorporation with light irrigation after application may improve disease control. Repeat at 10-14 day intervals if conditions promoting disease persist.</p> <p>³ Pre-harvest applications in sufficient water to cover fruit or other harvested plant parts may improve control of postharvest infections.</p> <p>⁴ Begin applications at or before pistillate bloom, repeating every 7-10 days. Apply before rainfall if possible, and tank mix or rotate with a copper-based bactericide registered for such use for improved control.</p> <p>⁵ Start applications at or just before flowering and repeat every 7-10 days as needed through harvest.</p> <p>⁶ Mix 6 to 10 fluid ounces of this product per 100 gallons of water and apply in minimum of 20 gallons per acre from emergence to training, 50 gallons per acre from training to wire, and 100 gallons per acre from wire touch through harvest.</p> <p>⁷ For treatment of strawberry roots immediately before transplanting: immerse bare roots (individually or in bunches) for 10 seconds in a suspension of 1 to 2 pints of this product per gallon of water.</p>	

Foliar application: For control of diseases on foliage, flowers, fruit, or other above-ground parts of plants: mix this product in water and apply as a spray at a rate of 0.5 to 6 quarts of this product per acre in sufficient water to achieve thorough coverage of the crop canopy with minimal runoff. Begin applications at crop emergence, transplanting, or when conditions are conducive to development of disease. Repeat application every 3 to 10 days, or as needed, for as long as conditions favor disease development. Lower rates (0.5 to 3 quarts per acre) may be applied under light disease pressure, to smaller (e.g. newly-emerged) plants, or when this product is used in a tank mix with other fungicides whose labels allow such use. Under moderate to severe disease pressure, or when environmental conditions and plant stage are conducive to rapid disease development, use higher label rates (3-6 quarts/acre), apply more frequently (every 3-7 days), and mix or rotate this product with other fungicides for improved performance.

Soil application: For control of soilborne diseases infecting seeds, seedlings, roots, crown, stems, or other plant parts below ground or in contact with soil: Apply this product at 0.5 to 4.5 pints per acre. Mix the required amount in sufficient water to apply by one of the following methods:

- Soil drench applied to transplants in flats or pots in the greenhouse or nursery any time prior to transplanting (see additional drench instructions under "Nurseries, greenhouses, shade houses, and ornamental plants" below).
- Soil drench at transplanting, using a "water wheel" injector, spray nozzles/hoses, or other method to drench each root ball and/or planting hole.
- Soil or seedline drench, or banded spray (in-furrow) at planting. See the section on "Banded (in-furrow) application" below for additional instructions.

Follow-up (post-planting) preventative applications can be made every 2-4 weeks by one or more of the following methods, if needed:

- Drip (trickle) or any type of sprinkler irrigation, any time after planting or transplanting. See Chemigation Instructions for additional information.
- Spray directly onto the soil surface and/or lower plant parts. If targeting root disease, follow immediately with sufficient overhead sprinkler irrigation to move this product to the root zone.
- Injection directly into the rooting zone using shanks or similar equipment.

Lower rates (0.5 to 2 pints of this product per acre) may be applied under light disease pressure, to smaller plants, or when this product is used in a tank mix with other

fungicides whose labels allow such use. Under moderate to severe disease pressure, or when environmental conditions and plant stage are conducive to rapid disease development, use higher label rates (2 - 4.5 pints per acre), apply more frequently (every 2 weeks), and mix or rotate this product with other fungicides for improved performance.

Banded (in-furrow) application: Use the table below (rate this product per acre) to determine the correct application rate in fluid ounces per 1,000 row feet based on row spacing and desired rate per acre. Mix the required amount of this product in water and apply as banded spray (4" to 6" wide) or seedline drench centered over the planting furrow. Apply directly over seeds in the furrow just before they are covered with soil. The volume of water required per acre or per 1,000 row feet will depend on the application equipment used. Consult your local cooperative extension service if you need assistance calibrating band spraying equipment

This Product Rate/acre	Space between rows (inches)															
	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40	
0.5	8	0.2	0.2	0.2	0.3	0.3	0.3	0.4	0.4	0.4	0.5	0.5	0.5	0.6	0.6	
0.75	12	0.3	0.3	0.4	0.4	0.5	0.5	0.6	0.6	0.6	0.7	0.7	0.8	0.8	0.9	
1.0	16	0.4	0.4	0.5	0.6	0.6	0.7	0.7	0.8	0.9	0.9	1.0	1.0	1.1	1.2	
1.25	20	0.5	0.5	0.6	0.7	0.8	0.8	0.9	1.0	1.1	1.1	1.2	1.3	1.4	1.5	
1.5	24	0.6	0.6	0.7	0.8	0.9	1.0	1.1	1.2	1.3	1.4	1.5	1.6	1.7	1.8	
1.75	28	0.6	0.7	0.9	1.0	1.1	1.2	1.3	1.4	1.5	1.6	1.7	1.8	1.9	2.0	
2.0	32	0.7	0.9	1.0	1.1	1.2	1.3	1.5	1.6	1.7	1.8	2.0	2.1	2.2	2.3	
2.25	36	0.8	1.0	1.1	1.2	1.4	1.5	1.7	1.8	1.9	2.1	2.2	2.3	2.5	2.6	
2.5	40	0.9	1.1	1.2	1.4	1.5	1.7	1.8	2.0	2.1	2.3	2.4	2.6	2.8	2.9	
2.75	44	1.0	1.2	1.3	1.5	1.7	1.9	2.0	2.2	2.4	2.5	2.7	2.9	3.0	3.2	
3.0	48	1.1	1.3	1.5	1.7	1.8	2.0	2.2	2.4	2.6	2.8	2.9	3.1	3.3	3.5	
3.25	52	1.2	1.4	1.6	1.8	2.0	2.2	2.4	2.6	2.8	3.0	3.2	3.4	3.6	3.8	
3.5	56	1.3	1.5	1.7	1.9	2.2	2.4	2.6	2.8	3.0	3.2	3.4	3.6	3.9	4.1	
3.75	60	1.4	1.6	1.8	2.1	2.4	2.5	2.8	3.0	3.2	3.4	3.7	3.9	4.1	4.4	
4.0	64	1.5	1.7	2.0	2.2	2.6	2.7	2.9	3.2	3.4	3.7	3.9	4.2	4.4	4.7	
4.25	68	1.6	1.8	2.1	2.3	2.8	2.9	3.1	3.4	3.6	3.9	4.2	4.4	4.7	4.9	
4.5	72	1.7	1.9	2.2	2.5	2.8	3.0	3.3	3.6	3.9	4.1	4.4	4.7	5.0	5.2	

Nurseries, greenhouses, shadehouses, and ornamental plants

Spray application: Mix **0.5 to 6 quarts** of this product per 100 gallons of water and apply as a foliar spray of sufficient volume to wet the entire plant with minimal runoff. Begin preventative applications at plant emergence and repeat every 3-28 days as needed (every 3-7 days if disease pressure is high or environmental conditions are highly favorable to disease outbreak, 10-28 days under low pressure or less conducive conditions).

Drench application: Mix **0.5 to 4.5 pints** of this product per 100 gallons of water and apply as a drench or coarse spray to soil or other growing media in pots, flats, plugs, trays, or planting beds, for control or suppression of soilborne diseases of seedlings, cuttings, bedding plants, and transplants (including vegetables and other transplanted food crops). Make first application at or immediately before seeding, sticking, germination, or transplanting. Repeat applications every 14-28 days as needed. Transplants can be treated immediately before transplanting into field soils to protect against damping-off and other diseases that reduce plant establishment.

Cutting or root dip: Dip basal end of cuttings or bare roots (individually or in bunches) in a suspension of **1 to 2 pints of this product per gallon of water**. Immerse for 5-10 seconds immediately before planting.

Chemigation: Mix **0.5 to 4.5 pints of this product per 100 gallons** of water and apply via drip, handheld, or sprinkler irrigation systems. Refer to "Chemigation Instructions" for more details.

CROPS/USE SITES	DISEASES/PATHOGENS
Indoor, outdoor, and shade-or other cover-grown ornamental trees and shrubs, flowering plants, foliage plants, tropical plants, potted plants, potted or cut flowers, bedding plants, forestry seedlings, conifer production for reforestation, fruit trees, vegetables and other crops grown in greenhouses or nurseries	Powdery mildews caused by Erysiphe, Podosphaera, Sphaerotheca, Oidium, and Golovinomyces spp. Anthracnose (Colletotrichum spp.) Bacterial leaf spots caused by Erwinia, Pseudomonas, and Xanthomonas spp. Damping-off disease (Rhizoctonia, Pythium, Fusarium spp.) Late blight, blackeye, and root rots caused by Phytophthora spp. Gray mold and blight caused by Botrytis cinerea Black root rot (Aspergillus spp.) Black spot of roses (Diplocarpon rosae)

CROPS/USE SITES cont.	DISEASES/PATHOGENS cont.
Indoor, outdoor, and shade-or other cover-grown ornamental trees and shrubs, flowering plants, foliage plants, tropical plants, potted plants, potted or cut flowers, bedding plants, forestry seedlings, conifer production for reforestation, fruit trees, vegetables and other crops grown in greenhouses or nurseries	Downy mildew (<i>Peronospora</i> spp.) Leaf spots caused by <i>Alternaria</i> , <i>Septoria</i> , <i>Cercospora</i> , <i>Entomosporium</i> , <i>Helminthosporium</i> , and <i>Myrothecium</i> spp.) Rust (<i>Puccinia</i> spp.) Scab (<i>Venturia</i> spp.) Root rot, bottom rot, or stem rot caused by <i>Rhizoctonia solani</i> Sclerotinia blight Fusarium wilts

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.

CHEMIGATION INSTRUCTIONS

General information:

Apply this product only through drip (trickle) irrigation (including micro-irrigation through spaghetti tubes or individual tubes) or sprinkler irrigation (including impact or microsprinklers, microjet, overhead boom, water gun, solid set, lateral move, end tow, side-roll, center pivot, or hand move, including mist-type systems); or with hand-held calibrated irrigation equipment (such as a hand-held wand with injector). Do not apply this product through any other type of irrigation system.

Crop injury or lack of effectiveness can result from non-uniform distribution of treated water.

If you have questions about calibration, contact State Extension Service specialists, equipment manufacturers or other experts.

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.

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.

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.

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.

The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection.

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.

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.

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.

Do not apply when wind speed favors drift beyond the area intended for treatment.

Remove scale, pesticide residues, and other foreign matter from the chemical supply tank and injector system and flush with clean water before use. Failure to provide a clean tank, free of scale or residues may reduce effectiveness of this product.

Drip (trickle) and micro-irrigation 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 (i.e., diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.
7. Dilute the product in water following the label mixing directions. It may be premixed in a supply tank with water, fertilizer, or other appropriate tank-mixed agricultural chemicals. Agitation is necessary. Apply to moderately moist soils. Use volumes that thoroughly wet the soil but that do not cause significant runoff or excessive drip from pots. Application should be continuous in sufficient water to apply the recommended rate evenly to the entire treated area.

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 (i.e., diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.
7. Dilute the product in water following the label mixing directions. It may be premixed in a supply tank with water, fertilizer or other appropriate tank-mixed agricultural chemicals. Agitation is necessary. Apply to moderately moist soils. Use volumes that thoroughly wet the soil but that do not cause significant runoff or excessive drip from pots. Application should be continuous in sufficient water to apply the recommended rate evenly to the entire treated area.
8. Do not apply when wind speed favors drift beyond the area intended for treatment.

STORAGE AND DISPOSAL

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

Pesticide Storage: Store in a dry area inaccessible to children. Store in original containers only. Keep container closed when not in use.

Pesticide Disposal: Wastes resulting from the use of this product may be disposed of onsite or at an approved waste disposal facility.

Container Handling: 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 $\frac{1}{4}$ 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, or if allowed by state and local authorities, by burning. If burned, stay out of smoke.

RESIDENTIAL USE

KEEP OUT OF REACH OF CHILDREN

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS & DOMESTIC ANIMALS

CAUTION Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals. Avoid contact with eyes, or clothing. Avoid breathing spray mist. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco and using the toilet.

FIRST AID

If on skin:	• Take off contaminated clothing. Rinse skin with plenty of water for 15-20 minutes. Call a poison control center or doctor for further treatment advice.
If in eyes:	• Hold eyes 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 eye. Call a poison control center or doctor for further treatment advice.
If inhaled:	• 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. Have the product label with you when calling a poison control center or doctor. For Emergency Medical Information call: 1-866-839-8518.

ENVIRONMENTAL HAZARDS

To protect the environment, do not allow pesticide to enter or run off into storm drains, drainage ditches, gutters or surface waters. Applying this product in calm weather when rain is not predicted for the next 24 hours will help to ensure that wind or rain does not blow or wash pesticide off the treatment area. Rinsing application equipment over the treated area will help avoid run off to water bodies or drainage systems.

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 State or Tribal agency responsible for pesticide regulation.

Mixing instructions:

This product must be mixed with water and applied as a spray to fruit and foliage, or as a drench to plant roots. See below for specific mix rate information.

Application rates and methods:

Spray application for control of powdery mildews, leaf spots, anthracnose, gray mold, and other diseases affecting leaves, flowers, fruit, and other above-ground plant parts of home garden plants: Mix 1 teaspoon of this product per gallon of water and apply directly to plants using a hand pump sprayer or other suitable spray equipment. Spray just enough to wet all leaves and fruit with minimal run-off or dripping. Total coverage depends on the size of plants to be sprayed and the type of sprayer used. Repeat as needed to maintain disease control, typically every 7-10 days. If disease is prevalent or environmental conditions such as high humidity favor disease outbreak, increase the mixing rate to 1 tablespoon per gallon and shorten the interval between sprays to every 3-7 days.

Drench application for control of diseases affecting plant roots, tubers, or other parts of plants in contact with soil in the home garden: Mix 1 teaspoon of this product per gallon of water and apply to the soil by one of the following methods:

1. For potted plants (indoors or outdoors), apply in sufficient water to wet the entire root mass using a watering can or tank-fed watering wand. Do not water plants again until 24 hours after application. Alternatively, use a hand-pump or other sprayer to spray the mixture on the soil surface in each pot, then immediately apply sufficient water to move the product into the roots.
2. Drench the roots of transplants with approx. 4 fluid ounces of the mixture immediately before transplanting into pots or garden soil. Allow to soak into the root ball before transplanting.
3. For outdoor-grown plants, use a watering can or sprayer to drench the soil in the planting furrow or transplant hole immediately before planting or transplanting. The amount of water required will depend on the size of the hole or length of furrow.
4. Alternatively, apply in the first watering after planting or transplanting, either by mixing directly into the water at the rate indicated above, or by spraying onto the soil surface at the base of each plant and immediately watering in with a watering can, hose, sprinkler, or other watering device.

This product can be applied up to and including the day of harvest

STORAGE AND DISPOSAL

Pesticide Storage: Keep in original container. Store away from direct sunlight, feed, or foodstuffs. Keep container tightly sealed when not in use.

Pesticide Disposal and Container Handling: Non-refillable container. Do not reuse or refill container. If empty: Place in trash or offer for recycling, if available. If partly filled: Call your local solid waste agency for disposal instructions. Never place unused product down any indoor or outdoor drain.

NOTICE OF CONDITIONS OF SALE AND WARRANTY AND LIABILITY LIMITATIONS

Important: Read the entire Directions for Use and Notice of Conditions of Sale and Warranty and Liability Limitations before using this product. If terms are not acceptable return the unopened container for a full refund.

Our directions for use of this product are based on tests believed to be reliable. However, it is impossible to eliminate all risk associated with the use of this product. Crop injury, inadequate performance, or other unintended consequences may result due to soil or weather conditions, off target movement, presence of other materials, method of use or application, and other factors, all of which are beyond the control of General Hydroponics. All such risks shall be assumed by the Buyer and User. General Hydroponics warrants that this product conforms to the specifications on the label when used in strict conformance with Direction for Use, subject to the above stated risk limitations.

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