



U.S. ENVIRONMENTAL PROTECTION AGENCY
Office of Pesticide Programs
Antimicrobials Division (7510P)
1200 Pennsylvania Ave., N.W.
Washington, D.C. 20460

EPA Reg. Number:

8743-13

Date of Issuance:

8/30/18

NOTICE OF PESTICIDE:

Registration
 Reregistration
(under FIFRA, as amended)

Term of Issuance:

Conditional

Name of Pesticide Product:

TERRASTAT 22-S

Name and Address of Registrant (include ZIP Code):

Brainerd Chemical Company, Inc.
P.O. Box 479910
Tulsa, OK 74147

Note: Changes in labeling differing in substance from that accepted in connection with this registration must be submitted to and accepted by the Antimicrobials Division prior to use of the label in commerce. In any correspondence on this product always refer to the above EPA registration number.

On the basis of information furnished by the registrant, the above named pesticide is hereby registered under the Federal Insecticide, Fungicide and Rodenticide Act.

Registration is in no way to be construed as an endorsement or recommendation of this product by the Agency. In order to protect health and the environment, the Administrator, on his motion, may at any time suspend or cancel the registration of a pesticide in accordance with the Act. The acceptance of any name in connection with the registration of a product under this Act is not to be construed as giving the registrant a right to exclusive use of the name or to its use if it has been covered by others.

This product is conditionally registered in accordance with FIFRA section 3(c)(7)(A). You must comply with the following conditions:

1. Submit and/or cite all data required for registration/reregistration/registration review of your product under FIFRA when the Agency requires all registrants of similar products to submit such data.

Signature of Approving Official:

Zeno Bain, Product Manager 33
Regulatory Management Branch I
Antimicrobials Division (7510P)
Office of Pesticide Programs

Date:

8/30/18

2. You are required to comply with the data requirements described in the DCI Order identified below:
 - a. Peroxyacetic Acid - GDCI-063201-1125 -- EPA-HQ-OPP-2009-0546
 - b. Hydrogen Peroxide – GDCI-000595-1127 – EPA-HQ-OPP-2009-0546

You must comply with all of the data requirements within the established deadlines. If you have questions about the Generic DCI listed above, you may contact the Reevaluation Team Leader (Team 36): <http://www2.epa.gov/pesticide-contacts/contacts-office-pesticide-programs-antimicrobial-division>

3. Make the following label changes before you release the product for shipment:
 - Revise the EPA Registration Number to read, “EPA Reg. No. 8743-13.”
4. Submit one copy of the final printed label for the record before you release the product for shipment.

Should you wish to add/retain a reference to the company’s website on your label, then please be aware that the website becomes labeling under the Federal Insecticide Fungicide and Rodenticide Act and is subject to review by the Agency. If the website is false or misleading, the product would be misbranded and unlawful to sell or distribute under FIFRA section 12(a)(1)(E). 40 CFR 156.10(a)(5) list examples of statements EPA may consider false or misleading. In addition, regardless of whether a website is referenced on your product’s label, claims made on the website may not substantially differ from those claims approved through the registration process. Therefore, should the Agency find or if it is brought to our attention that a website contains false or misleading statements or claims substantially differing from the EPA approved registration, the website will be referred to the EPA’s Office of Enforcement and Compliance.

If you fail to satisfy these data requirements, EPA will consider appropriate regulatory action including, among other things, cancellation under FIFRA section 6(e). Your release for shipment of the product constitutes acceptance of these conditions. A stamped copy of the label is enclosed for your records. Please also note that the record for this product currently contains the following CSFs:

- Basic CSF dated March 2, 2018
- Alternate CSF dated March 2, 2018

If you have any questions, please contact Zebora Johnson by phone at (703) 308-7080, or via email at johnson.zeboraj@epa.gov.

Enclosure: Accepted Label

TERRASTAT™ 22-S

TERRASTAT™ 22-S IS A PEROXYACETIC ACID-BASED ANTIMICROBIAL AGENT

ACTIVE INGREDIENTS:

PEROXYACETIC ACID
HYDROGEN PEROXIDE

INERT INGREDIENTS:

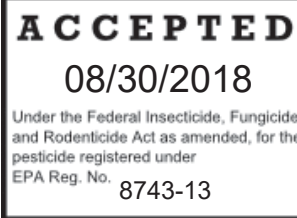
TOTAL

22.0%

5.0%

73.0%

100.0%



EPA Reg. No. 8743 - _____
EPA Est. No. 8743-OK-001; 8743-OK-002

DANGER - PELIGRO

KEEP OUT OF REACH OF CHILDREN

See Side Panel for Additional Precautionary Statements

Before Using This Product, Please Read The Entire Label Carefully.

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)

Manufactured By:
Brainerd Chemical Company Inc.
427 S. Boston Ave., Suite 2100
Tulsa, OK. 74103
800-551-5128

FIRST AID	
Have the product container or label with you when calling a poison control center or doctor, or going for treatment. For general information on product use, etc., call the National Pesticides Information Center at 1-800-858-7378. You may also contact the poison control center at 1-800-222-1222 for emergency medical treatment information	
IF IN EYES:	<ul style="list-style-type: none"> Hold eyelids open and rinse slowly and gently for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing the eye. 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 immediately for treatment or advice.
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 by mouth-to-mouth, if possible. Call a poison control center or doctor for further treatment advice.
IF SWALLOWED:	<ul style="list-style-type: none"> Call poison control center or doctor immediately for treatment or advice. Drink promptly large quantities of water Do not induce vomiting unless told to do so by the poison control center or doctor. Do not give anything by mouth to an unconscious person.
NOTE TO PHYSICIAN: Probable mucosal damage may contraindicate the use of gastric lavage.	

For 24-hour Emergency Information CALL CHEMTREC: 800-424-9300

PRECAUTIONARY STATEMENTS

Hazards to Humans and Domestic Animals

DANGER: CORROSIVE. Causes irreversible eye damage and skin burns. May be fatal if inhaled or absorbed through skin. Harmful if swallowed. Do not breathe vapors or spray mist. Do not get in eyes, on skin, or on clothing. Wear goggles, face shield, rubber gloves and protective clothing with long sleeves when handling. Wash thoroughly with soap and water after handling and before eating, drinking or using tobacco. Remove contaminated clothing and wash before reuse. Do not enter an enclosed area without proper respiratory protection, or when uncoupling of product transfer hoses. Wear a NIOSH approved respirator with an organic vapor (OV) cartridge with a combination N, R or P filter with NIOSH approval number prefix TC-84A; or a NIOSH approved gas mask with a canister with NIOSH approval number prefix TC-140; or powered air purifying respirator with organic vapor (OV) cartridge and combination HE filter with NIOSH approval number prefix TC-23C.

USER SAFETY RECOMMENDATIONS: Users should remove clothing 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.

PERSONAL PROTECTIVE EQUIPMENT

Handlers who may be exposed to the undiluted product through mixing, loading, application, or other tasks must wear: coveralls over long-sleeved shirt and long pants, rubber gloves, chemical resistant footwear plus socks, and protective eyewear (goggles or face shield).

Handlers who may be exposed to the undiluted product through application or other tasks must wear: long-sleeved shirt and long pants, and shoes plus socks.

Follow manufacturer's instructions for cleaning/maintaining PPE. Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product. Do not reuse them. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

PHYSICAL OR CHEMICAL HAZARDS: STRONG OXIDIZING AGENT. CORROSIVE. Mix only with water below 140° F. Product must be diluted in accordance with label directions prior to use. This product is not combustible; however, at temperatures exceeding 165°F, decomposition occurs releasing oxygen. The oxygen released could initiate combustion. Keep out of sunlight to better preserve active ingredients.

ENVIRONMENTAL HAZARDS: This pesticide is toxic to fish, shrimp, clams, oysters, and aquatic invertebrates. Caution must be used when applying indoors because pets may be at risk. Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans or other waters unless in accordance with the requirements of the National Pollution Discharge System (NPDES) permit and the permitting authority has been notified in writing prior to discharge. Do not discharge effluent containing this product into sewer systems without previously notifying the local sewage plant authority.

STORAGE AND DISPOSAL

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

Storage: Never return this product to the original container after it has been removed. Avoid all contaminants, especially dirt, caustic, reducing agents, and metals. Contamination and impurities will reduce shelf life and can induce decomposition. In case of a decomposition, isolate container, spray container with cool water and dilute this product with large volumes of water. Avoid damage to containers. Keep container closed at all times when not in use. Keep container out of direct sunlight. To maintain product quality, store at temperatures below 86°F. **Procedure for Leak or Spill:** Stop leak if this can be done without risk. Shut off ignition sources: no flames, smoking, flares, or spark producing tools. Keep combustible and organic materials away. Flush spilled material with large quantities of water. Undiluted material must not enter confined spaces.

Pesticide Disposal: Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal Law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or Hazardous Waste representative at the nearest EPA Regional Office for guidance. If material has been spilled, an acceptable method of disposal is to dilute with at least 20 volumes of water followed by discharge into suitable treatment system in accordance with all local, state and Federal environmental laws, rules, regulations, standards, and other requirements. Because acceptable methods of disposal may vary by location, regulatory agencies must be contacted prior to disposal. This product which is to be discarded, must be disposed of as hazardous waste after contacting the appropriate local State or Federal agency to determine proper procedures.

Container Disposal: (Containers greater than 5 gallons) Nonrefillable container. Do not reuse or refill this container. Clean container promptly after emptying. Offer for recycling, if available. 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. 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. Do not burn, unless allowed by state and local ordinances.

Container Disposal: (Containers equal to or less 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 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 the procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration. Do not burn, unless allowed by state and local ordinances.

Container Disposal: (Stainless steel containers - tank trucks): Return for reuse. Refill the container with pesticide only. Do not reuse this container for other purposes.

UN3109, Organic peroxide type F, liquid (peroxyacetic acid, Type F, stabilized (<43%)), 5.2 (8)

Density (lbs/gal): 9.40

Net Contents: _____

Lot. No.: _____

Exp. Date: _____

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. Note: All volumes given in ounces are fluid ounces. When used according to the directions for use, this product is compatible with plastic, stainless steel and aluminum surfaces. If product is intended to be used on any other surface, it is recommended that you apply product to a smaller test area to determine compatibility before proceeding with its use.

Note: All volumes given in ounces are fluid ounces. When used according to the directions for use, this product is compatible with plastic, stainless steel and aluminum surfaces. If product is intended to be used on any other surface, it is recommended that you apply product to a smaller test area to determine compatibility before proceeding with its use.

ANTIMICROBIAL RINSE OF PRECLEANED OR NEW RETURNABLE OR NON-RETURNABLE CONTAINERS

To reduce the number of nonpathogenic beverage spoilage organisms, use 0.7 to 7.2 fluid ounces of product per 5 gallons of water. This provides 265 to 2700 ppm peroxyacetic acid and 62 to 628 ppm hydrogen peroxide. After applying the antimicrobial rinse, allow containers to drain thoroughly. Optional rinse with sterile or potable water.

REVERSE OSMOSIS (RO), ULTRA FILTRATION (UF) AND OTHER MEMBRANE CLEANING

This product may be used in the cleaning of ultra-filtration (UF) and reverse osmosis (RO) membranes and their associated piping systems. This product is not for use in kidney dialysis equipment. Do not use the intermittent or continuous dosing methods for non-RO food or drinking water contact applications. This product may not totally eliminate all vegetative microorganisms in RO or NF or UF membranes and their associated piping systems due to their construction or assembly, but can be relied upon to reduce the number of microorganisms to acceptable levels when used as directed. Prior to using this product check with membrane manufacturer to confirm compatibility of membranes with various types or concentration of peroxyacetic acid solutions.

Batch Cleaning of NF, UF and RO Systems: Isolate incompatible equipment, such as carbon filters and ion exchangers. Clean system with an appropriate cleaner and follow with RO permeate water or potable water. Remove mineral deposits if necessary with an acidic cleaner, and rinse as before. Fill entire system with water and add up to 0.28% of this product by volume. This will equal 680 ppm peroxyacetic acid and 158 ppm hydrogen peroxide. Recirculate the cleaning solution through the piping and membrane system at 20° C for 10 minutes minimum, or up to 4 hours, depending on the severity of cleaning to be done. Open and close process valves and solenoids to be sure all parts are in contact with the solution. Rinse the system with RO permeate or potable water until residual peroxigen concentration is below 1 ppm.

Continuous or Intermittent Addition: For continuous addition (dosing) for RO systems, use 2-5 ppm of active peroxyacetic acid, which equals 1-2.6 fl. oz. of this product per 1000 gallons of process water. For occasional intermittent feed, do not exceed 93 ppm active peroxyacetic acid, which equals 0.5 fl. oz. of this product per 10 gallons of feed water. Continuous or intermittent dosing of this product is not allowed for use in NF or UF systems for on-line food or drinking water applications.

BIOFOULING CONTROL IN PULP, PAPER AND PAPERBOARD MILL AND WATER SYSTEMS

Not for use in California

For use in the manufacture of paper and paperboard intended for food or nonfood contact. This product can be used to control bacteria and fungi in paper, paperboard or non-woven process water and influent water systems. Suitable dosing points include but are not limited to: stock chests, pulpers, the white-water loop, white water storage systems and influent water streams.

Influent Water Systems: This product should be fed continuously to incoming fresh water streams (non potable use only) at dosages ranging from 0.08- 1.4 lbs (1-13.7 fl. oz) of this product per 1000 gallons of raw or process water (2.0-35 ppm peroxyacetic acid). Adjust dosage as necessary to maintain microbiological control.

Mill Process Waters:

Intermittent Feed - This product may be fed intermittently (for example: 2-3 hours per 8 hour shift) at dosages ranging from 0.35 lbs to 0.84 lb (4.9-11.2 fl. oz.) of this product per ton (dry basis) of pulp or paper produced. This dosage is equivalent to 37-90 ppm peroxyacetic acid. Repeat as necessary when the peroxyacetic acid concentration reaches less than 2 ppm.

Continuous Feed - This product should be fed continuously at dosages ranging from 0.08-0.84 lbs (1-11.2 fl. oz) of this product per ton (dry basis) of pulp or paper produced. This dosage is equivalent to 8.0-90 ppm peroxyacetic acid.

Shock (slug) Dose – This product may be used to shock dose systems requiring a high level of biofouling control. Use rates ranging from 0.7-5.6 lbs (9.5-75.4 fl. oz.) of this product per ton (dry basis) of pulp or paper produced may be necessary. This dosage is equivalent to 75-600 ppm peroxyacetic acid. Shock dose every 1-3 hrs as necessary until biofouling control is evident. Thereafter, revert to continuous or intermittent feed methods.

CONTROL OF SLIME FORMING BACTERIA AND BIOFOULING IN ONCE-THROUGH AND RECIRCULATING COOLING WATER (COOLING TOWERS, EVAPORATIVE CONDENSERS, AIR WASHERS) AND ORNAMENTAL OR RECREATIONAL WATER FEATURES

Severely fouled systems must be cleaned before adding this product. This product must be added in the water system directly, and not mixed with any other chemicals or additives. Never add this product into any feeding device, such as shot feeders, filter housings, by-pass feeders, or miscellaneous piping of any kind, because dangerous acute decomposition can occur. Discontinue the use of chlorine or bromine products prior to using this product. Contamination with other chemicals could result in product decomposition. Add this product to only water at a point in the system where uniform mixing and even distribution will occur. For shock (slug) treatment for moderately to severely fouled systems add 3.7-14 fl. oz. of this product per 1000 gallons of process water (7-27 ppm peroxyacetic acid). Repeat as necessary until microbiological control is evident. Thereafter, to maintain control use (1-5.2 fl. oz.) of this product per 1000 gallons of process water (2-10 ppm of peroxyacetic acid) as a continuous treatment method. Continuous dosing methods usually require 1-3.7 fl. oz. per 1000 gallons of water (2-7 ppm peroxyacetic acid) to achieve adequate results. Intermittent dosing usually require dose cycles of a minimum once per every other day, up to 6 times per 24 hours. Recommended rates for intermittent dose cycles are 3.7-7 fl. oz of this product per 1000 gallons of process water (7-14 ppm peroxyacetic acid). **CLEANING:** To remove sessile bacteria from cooling systems it is necessary to clean slime and slime-forming bacteria from the surfaces of all areas of water contact. This can be accomplished by treating the recycled water with 26.7-80 fl oz. of this product per 1000 gal of water (50-150 ppm active peroxyacetic acid) for 4-8 hours during normal tower operating cycles. This procedure can be used for online or offline cleaning. When finished, bleed down the system until the PAA level is <5-10 ppm, then normal chlorine or bromine or PAA treatments can begin. This treatment must be done at least once or twice each year depending on exposure conditions.

Air Washers: This product may be used to control bacteria and biofouling in industrial air washing/scrubbing systems. The air washer must have operational and effective mist elimination systems. Prior to use of this product, heavily fouled systems must be pre-cleaned using the appropriate cleaner. Continuous dosing methods will require 2-7 ppm and intermittent dosing methods require 7-14 ppm (as peroxyacetic acid), as described in the previous 2 paragraphs, depending on the type of system and the level of microbiological control desired.

Evaporated or Condensed Water: This product may be used to treat SWEET or COW water (e.g. condensate of whey) collected from evaporated or condensing water systems in food or dairy plants. Continuous dosing methods will require 2-7 ppm and intermittent dosing methods require 7-14 ppm (as peroxyacetic acid) as described in the previous paragraph, depending on the type of system and the level of microbiological control desired.

MICROBIAL CONTROL IN EFFLUENT TREATMENT SYSTEMS

Use this product to treat sewage and wastewater effluent systems associated with public and private wastewater treatment plants. This product may be applied alone at any point in the treatment train, such as debulking control, or may effectively be used in conjunction with other systems, such as Ultra Violet (UV) light. Doses for UV systems will typically be 1-4 ppm (as active PAA). Initially apply this product at the rate of 2-63 gal per million gallons of water to be treated (0.5-15 ppm as peracetic acid). The PAA dosage will depend on the quality of water, contact (holding) time, and the degree of microbial control necessary. The PAA concentration will rapidly decline after treatment, but the maximum amount of PAA that may be discharged into the receiving body of water is limited to 1 ppm as active PAA, or as required for local discharge requirements. Consult your Enviro Tech representative for recommendations regarding an accurate test kit or on-line analyzer.

OIL, GAS AND SECONDARY OIL RECOVERY SYSTEMS, DRILLING MUDS AND PACKING FLUID

This product may be used to treat water used in primary or secondary oil and gas recovery systems to control anaerobic sulfide-forming bacteria, aerobic slime-forming bacteria. This product may be used in fresh or recycled water, secondary recovery systems, muds or fluids. This product controls biofilm and slime deposits on products associated with oilfield and gas field systems which are susceptible to contamination. It also controls slime deposits downhole in water-bottoms. Add sufficient amount of this product to achieve satisfactory biological control. Initial recommended dosing levels of 5 to 100 ppm as active peroxyacetic acid are suggested. A dosage of 2.6 fl. oz. per 1000 gallons of water yields approximately 5 ppm of peroxyacetic acid.

TREATMENT OF FRUIT AND VEGETABLE PROCESS WATER SYSTEMS

This product can be used in water or ice that contacts raw or fresh, post-harvest or further processed fruits and vegetables for the control of spoilage and decay causing bacteria and fungi (non-public health microorganisms) in commercial operations and packinghouses.

Batch or Spray System Processes: Fill vessel containing fruits and vegetables with known amount of water. Ensure that water is circulating in vessel if using the submersion method. **Add this product to no more than 350 ppm residual peroxyacetic acid to the use solution in accordance with FCN #1823.** This can be accomplished by initially adding 1.8 fl. oz. per 10 gallons of water. The recommended concentration is between 30-300 ppm as peroxyacetic acid (0.16-1.6 fl. oz. per 10 gallons of water). The final concentration necessary to accomplish the intended task will vary from plant-to-plant. The fruits and vegetables can be sprayed or submerged (dipped) in the resulting solution. It is also recommended to apply this product during the washing, chilling, or physical cleaning processes, including the roller-spreader, washer or brush washer manifold, dip tank, or sorting processes. Contact time of 60 seconds is recommended to insure efficacy. A potable water rinse is not required

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.

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 (REI). The requirements in this box only apply to the uses of this product that are covered by the Workers Protection Standard. There is a restricted entry of zero (0) hours for this product.

AGRICULTURAL or HORTICULTURAL USES

There is a Restricted-Entry-Interval of zero (0) hours after the use of this product. Upon soil contact this diluted product decomposes rapidly to oxygen, carbon dioxide and water. This product may be harmful to fish if exposed on a continuous basis at concentrations of 1 ppm or more of active peroxyacetic acid. Meter this product into pressurized pipes using a plastic or stainless steel injection/backflow device installed far enough upstream from the equipment to ensure thorough mixing. For open flowing bodies of water, apply this product as far upstream as possible to allow adequate mixing prior to the flow entering any larger body of water. If open pouring of this product is required pour product as close to the surface of the water as possible to reduce odor exposure. Spray lines, hoses and tank must be clean before using this product. Make sure no iron or yellow metals are in contact with the spray solution at any time. Only stainless steel or plastic contact materials may be used in your spray rig.

[Compatibility: This product is compatible as a direct injection or tank-mix with many commonly used pesticides, fertilizers, adjuvants and non-ionic surfactants but has not been fully evaluated with all of these. Do not direct inject or tank mix this product in to the irrigation system or in spray tank with pesticides, surfactants or fertilizers before conducting a compatibility test to show it is physically compatible, effective and noninjurious under your use conditions. Do not tank mix this product with copper or other pesticides containing metals at a dilution rate stronger than 1:100.

To ensure compatibility, evaluate them prior to use as follows: Using a suitable container, add proportional amounts of product to water. Add wettable powders first, followed by water dispersible granules, then by liquid flowables and lastly, emulsifiable concentrates. Mix thoroughly and let stand for at least five minutes. If the combination stays mixed or can be remixed, it is physically compatible. Test the combination on a small portion of the crop to be treated to ensure that a phytotoxic response will not occur as a result of application.]

Treatment of Agricultural or Irrigation Water Systems (sand filters, humidification systems, storage tanks, ponds, reservoirs, canals): For the control of sulfides, odor, slime and algae in water systems, apply this product at 2-10 ppm active peroxyacetic acid. This feed rate equals 10.5-53.4 fl. oz per 10,000 gallons of water. Repeat dose as necessary to maintain control, which will vary with seasonal conditions. For prevention of algae, some systems may require continuous low level dosing during warm sunny periods (2-5 ppm peroxyacetic acid).

Drip Irrigation Systems: To clean slime and algae from drip system filters, tapes and emitters, meter this product at the rate of 5.2-10.5 fl. oz. per 1000 gallons of water (10-20 ppm peroxyacetic acid). When required during normal irrigation cycles, use this product at the recommended dose for a minimum of 30 minutes. After an irrigation cycle do not flush the lines.

Greenhouses: This product can be used to suppress/control algae and slime formations in and around greenhouses. For normal use in various process, irrigation or sprinkler water systems, this product may be used at 1:60,000 to 1:7300 dilutions (4-33 ppm as peroxyacetic acid). Heavily fouled systems, such as evaporative coolers or irrigation/drip lines may need shock doses of up to 100 ppm as peroxyacetic acid (1:2400 dilution).

Soil Applications: Use this product at 11.7-23.4 fl. oz. per 100 gal of water (220-440 ppm active peroxyacetic acid) for the control of soil-borne diseases such as Fusarium, Phytophthora, Pythium, Verticillium, Thielaviopsis, and Rhizoctonia. This product can be applied by drench, flood, drip or sprinkler irrigation systems. Best results may be obtained by application prior to and during the seeding or transplant operations. Wait one day before inoculating the soil with beneficial microbes.

Foliar Applications: This product may be used to cure or prevent bacterial and fungal diseases on growing agricultural crops, including all grains, herbs, spices, row crops, berries, fruit and nut trees, vines (such as grapes) and tobacco. Typical use rates are 3.9-35.4 fl. oz. of this product per 100 gal of water (73.4-663 ppm active peroxyacetic acid) applied at 30-100 gal of mixed solution per acre of foliage. Curative (or rescue) treatment requires the lower dilution rates, while preventative treatments use the higher dilution rates. Apply curative treatments for 2-3 days and then resume weekly preventative treatments thereafter. Good coverage and wetting of the foliage is required. Not all plant diseases have been tested, but some of the common diseases controlled are: Alternaria spp., Anthracnose, Aphanomyces, Bacterial Blight, Black Spot, Botrytis (gray mold), Brown Spot, Copper Spot, Dollar Spot, Early and Late Blights, Erwinia spp. (such as bacterial wilt), Fairy Ring, Fusarium Root Rot and Blight, Fruit, Black, Brown, Stem and Sour Rots, Leaf and Bacterial Spots, Plasmopara, Powdery and Downy mildews, Phytophthora Blight/Rots, Pink Snow Mold, Pseudomonas and Xanthomonas spp. (such as bacterial angular leaf spot, bacterial leaf spec, black soft rot), Pythium spp., Rhizoctonia spp., Rusts, Scabs, Scum, Slime Molds, Smut, Summer Patch, Stripe Smut, Take-all Patch, and Thielaviopsis.

A nonionic spreader (surfactant) adjuvant may be used. Contact your local supplier or farm supply.