

AP-PERA 15-22

(ANTIMICROBIAL SOLUTION)

ACTIVE INGREDIENTS:	Peroxyacetic Acid	15.96%	EPA Registration No. 91628-3-83106
	Hydrogen Peroxide	23.34%	
INERT INGREDIENTS:		60.70%	EPA Est. No. 91628-NY-1
	TOTAL	100.00%	

KEEP OUT OF REACH OF CHILDREN

DANGER - PELIGRO

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.)

FIRST AID	
IF IN EYES	- Hold eye open and rinse slowly and gently with water for 15-20 minutes. - Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eyes. - Call a poison control center or doctor for treatment advice.
IF ON SKIN OR CLOTHING	- Take off contaminated clothing. - Rinse skin immediately with plenty of water for 15-20 minutes. - Call a poison control center or doctor for treatment advice.
IF SWALLOWED	- Call poison control center or doctor immediately for treatment advice. - Have person sip a glass of water if able to swallow. - Do not induce vomiting unless told to do so by the poison control center or doctor. - Do not give anything by mouth to an unconscious person.
IF INHALED	- 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 treatment advice.
Note to Physician: Probable mucosal damage may contraindicate the use of gastric lavage. 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.	

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

DANGER: CORROSIVE Causes irreversible eye damage and skin burns. May be fatal if swallowed, inhaled or absorbed through skin. Do not get in eyes, on skin or on clothing. Wear goggles, face shield of safety glasses. Wear coveralls worn over long-sleeve shirt and long pants, socks, chemical-resistant footwear, chemical-resistant gloves (Barrier Laminate, or Butyl Rubber, or Nitrile Rubber, or Neoprene Rubber, or Natural Rubber, or Polyethylene, or Polyvinyl Chloride (PVC), or Viton, selection Category A), and chemical-resistant apron. Wear a NIOSH approved respirator with any N, R, P filter with NIOSH approval number prefix TC-84A; or a NIOSH-approved powered air purifying respirator with an HE filter with NIOSH approval number prefix TC-21C. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Remove and wash contaminated clothing before use.

PHYSICAL OR CHEMICAL HAZARDS - Strong oxidizing agent. Mix only with water. This product is not combustible, but at temperatures exceeding 156°F, decomposition occurs releasing oxygen. The oxygen released could initiate or promote combustion of other materials.

ENVIRONMENTAL HAZARDS - This pesticide is toxic to birds, mammals, fish and aquatic life. Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans, or other waters unless in accordance with requirements of a National Pollutant Discharge Elimination System (NPDES) permit and the permitting authority has been notified in writing prior to the discharge. Do not discharge effluent containing this product to sewer systems without previously notifying the local sewage treatment facility authority. For guidance contact your State Water Board or Regional Office of the EPA.

PERSONAL PROTECTIVE EQUIPMENT (PPE) 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 diluted 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.

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.

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, consult the agency in your State responsible for pesticide regulation.

Sanitizing Non-Porous Food Contact Surfaces

An effective sanitizer against Staphylococcus aureus and Escherichia coli. Clean equipment immediately after use: Remove gross particulate matter with a warm water flush. Wash equipment with detergent or cleaning solution. Rinse equipment with potable water. Prepare this product solution by adding 0.45 to 1.71 fluid ounces to 5 gallons of potable water containing up to 400 ppm hardness as CaCO3. This provides 131 ppm to 426 ppm peroxyacetic acid and 192 ppm to 624 ppm hydrogen peroxide. Fill closed systems with diluted sanitizer solution and allow a contact time of (1) minute. For open or not completely closed systems, use a coarse spray, mop/wipe or flood technique to apply the solution to the surface and allow a contact time of one (1) minute. Allow surfaces to drain thoroughly before resuming operation. Allow to air dry for a minimum of 2 minutes.

Sanitization of Conveyors, Peelers, Slicers and Saws for Meat, Poultry, Seafood, Fruits and Vegetables

An effective sanitizer against Staphylococcus aureus and Escherichia coli.

For use in the static or continuous washing, rinsing and sanitizing of conveyor equipment, peelers, collators, slicers, saws, etc. Remove gross particulate matter with a warm water flush. Wash equipment with detergent or cleaning solution. Rinse equipment with potable water. Remove all products from equipment if during treatment the sanitizer will directly contact the items. Prepare product solution by adding 0.45 to 1.71 fluid ounces to 5 gallons of potable water containing up to 400 ppm hardness as CaCO3. This provides 131 ppm to 426 ppm peroxyacetic acid and 192 ppm to 624 ppm hydrogen peroxide. Apply sanitizer solution to the return portion of the conveyor or to the equipment by using a coarse spray or other means of wetting the surfaces. Allow contact for at least (1) minute or for a contact time as specified by the local governing sanitizing code. Control the volume of solutions so as to permit maximum drainage and to prevent puddles. The conveyor may still be damp when food contact occurs.

Final Sanitizing Bottle Rinse

May be used as a final sanitizing rinse for plastic, glass or metal returnable and non-returnable bottles / cans. Wash bottles with detergent or cleaning solution and rinse with potable water. Prepare product solution by adding 0.45 to 1.71 fluid ounces to 5 gallons of potable water containing up to 400 ppm hardness as CaCO3. This provides 131 ppm to 426 ppm peroxyacetic acid and 192 ppm to 624 ppm hydrogen peroxide. Allow to drain adequately. Allow to air dry for a minimum of 2 minutes.

Combination Disinfection and Cleaning

This product is effective against Staphylococcus aureus and Salmonella enterica at 1.0 oz of this product per 10 gallons of water on hard non-porous surfaces. A pre-cleaning step is required for all surfaces. Apply solution with a mop, cloth, sponge, brush or by soaking, spraying or immersion so as to wet all surfaces thoroughly. Allow to remain wet for 10 minutes, then remove excess solution and entrapped soil with a clean wet mop, cloth, wet vacuum pick-up or by draining. Prepare a fresh solution daily when it becomes soiled or diluted.

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

This product may be used on 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 dosing methods for nano or ultra-filtration food or drinking water 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 peracetic acid solutions.

Batch Sanitation 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 0.42% of this product by volume. This will equal 680 ppm peracetic acid and 1000 ppm hydrogen peroxide. Recirculate 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 peroxygen concentration is below 1 ppm.

Continuous or Intermittent Addition: For continuous addition (dosing) for RO systems, use 1.5- 3.5 fl. oz per 1000 gallons of water. This produces 4 ppm peracetic acid and 6 ppm hydrogen peroxide. For intermittent feed, do not exceed 93 ppm active peracetic acid, which equals 0.64 fl. oz. of this product per 10 gallons of feed water. 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

For use in the manufacture of paper and paperboard intended for food and non-food contact. This product can be used to control bacterial, fungal and yeast growth in pulp, paper and paperboard or non-woven process water and influent systems.

Influent Water Systems: This product should be fed continuously to incoming fresh water streams for non-potable use only, at dosages ranging from 1.5-25 fl. oz. of this product per 1000 gallons of raw or process water this produces 2.0-31 ppm peroxyacetic acid and 46 ppm hydrogen peroxide. Adjust dosage as necessary to maintain microbiological control.

Mill Process Waters:

Intermittent Feed - Apply 7 to 16 fluid ounces of this product per ton (dry basis) of pulp or paper produced for two to three hours every eight-hour shift. Maintain a concentration that provides adequate control. Daily rate could change depending on the severity of the biofouling.

Continuous Feed - Initially, use the intermittent feed method to achieve control. When control is accomplished, apply this product continuously at the rate determined adequate for intermittent control. Then reduce the rate of addition to the lowest level sufficient to maintain control. Depending on the severity of the biofouling, control usually can be maintained using a continuous rate of 2.6 to 15.2 fluid ounces of this product solution per ton (dry basis) of pulp or paper produced on a continuous basis. This will provide 16 to 79 ppm of peroxyacetic acid and 23 to 115 ppm of hydrogen peroxide.

Shock (slug) Dose - This product may be used to shock dose systems requiring a high level of biofouling control. Use rates ranging from 13.5-108 fl. oz. of this product per ton (dry basis) of pulp or paper produced may be necessary. This dosage is equivalent to 82-657 ppm peroxyacetic acid. Shock dose every 1-3 hrs. as necessary until biofouling control is evident. Thereafter, revert to continuous or intermittent feed methods.

TREATMENT OF PROCESSING WATERS AND SURFACES TO CONTROL GROWTH OF NON-PUBLIC HEALTH MICROORGANISMS THAT CAN CAUSE SPOilage OF FRESH-CUT, RAW POST-HARVEST OR PROCESSED FRUITS, NUTS AND VEGETABLES

Ensure that the water is recirculating or mixing in the processing tank or water line. Prepare the product solution by diluting 0.68-4.0 fl. oz. per 25 gallons of water. Ensure that the solution is thoroughly mixed. This provides 40-200 ppm of peroxyacetic acid and 292 ppm hydrogen peroxide. Allow the solution to circulate at least 45 seconds before adding or treating raw fruits and vegetables. Dose as needed to maintain 40-500 ppm of peroxyacetic acid by adding this product to processing water. Allow a minimum contact time of 45 seconds. Do not rinse. Prepare fresh process water daily to ensure effectiveness. Do not reuse water that is badly fouled.

CONTROL OF SLIME FORMING BACTERIA AND BIOFOULING IN RECIRCULATING COOLING WATER SYSTEMS (COOLING TOWERS, EVAPORATIVE CONDENSERS, AIR WASHERS) NON-FOOD CONTACT WATER SYSTEMS AND ORNAMENTAL OR RECREATION WATER FEATURES.

Severly fouled systems should be cleaned before adding this product solution. The product should be added directly to the system and not mixed with any other chemicals or additives. Other chemicals should be added separately. 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 product prior to using this product. Contamination with other chemicals could result in product decomposition. Add the product solution only to water at a point in the system where uniform mixing and even distribution will occur.

Shock (Slug) Dose: For moderately to severely fouled systems add 5-20 fl. oz. of this product per 1000 gallons of process water (7-29 ppm peroxyacetic acid). Repeat as necessary until microbiological control is evident.

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 an appropriate cleaner. Continuous dosing methods will require 2-7 ppm and intermittent dosing methods require 7-14 ppm (as peroxyacetic acid) depending on the type of system and the level of microbiological control desired.

FOR NON-PUBLIC HEALTH MICROBIAL CONTROL IN SEWAGE AND WASTEWATER EFFLUENT TREATMENT PLANTS.

Use this product to treat sewage and wastewater effluent related to public and private wastewater treatment plants. This product can be applied directly to the effluent or may be used with an appropriate activator such as hydrogen peroxide or other technology such as Ultra Violet (UV). This product may be applied to effluent water discharged from trickle bed or percolating fluidized bed filters. The application rate for individual facilities will depend on the degree of bio loading of the effluent stream to be discharged and the local microbial discharge limit. Adjust application rate to meet the need of the individual facility. Add this product to effluent water at a concentration of 0.5 ppm to 45 ppm and 69 ppm hydrogen peroxide. Allow contact time of approximately 15 to 60 minutes. The maximum amount of Peracetic acid that can be discharged from the treatment facility is 1ppm. Use an appropriate Peracetic acid test kit analyzer to ensure that this level is not exceeded.

ANTIMICROBIAL USE WITH AQUEOUS TREATMENT FLUIDS IN SUBTERRANEAN OILFIEND AND GAS FIELD WELL OPERATIONS SUCH AS WELL DRILLING, FORMATION FRACTURING, PRODUCTIVITY ENHANCEMENT AND SECONDARY RECOVERY

This product can be for control of slime forming and spoilage bacteria, yeast and fungi and anaerobic sulfate reducing bacteria, Desulfovibrio vulgaris, that lead to reservoir souring and metal corrosion. This product must be introduced through a closed mixed/loading and delivery transfer system equipped with a metering device that is appropriate for its intended use.

Drilling Muds, Fracturing Fluids, Well Squeezed Fluids: For the preservation of drilling muds, workover and completion fluids and other product susceptible to contamination, pre-mix with the fluid or add directly at the point of use at 3.75-70 fluid ounces per 1000 gallons of water (5-87 ppm of Peroxyacetic and 8-128 ppm of Hydrogen Peroxide) as required. Depending on the severity of the contamination, initial application may be added up to 685 fluid ounces per 1000 gallons of water (1000 ppm of Peroxyacetic Acid and 1462 ppm of Hydrogen Peroxide).

AGRICULTURAL OR HORTICULTURAL USES

A Restricted-Entry-Interval of zero (0) hours is required for this product in agricultural or horticultural uses. This product should not be mixed or combined with any pesticides or fertilizers. Upon soil contact, the 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 greater than 1 ppm of active Peracetic acid. Meter this product into pressurized pipes using a plastic or stainless-steel injection/backflow device installed upstream from the equipment to ensure thorough mixing prior to application. For open bodies of water, allow adequate mixing prior to product flow entering any body of water. If open pouring of this product is required, pour product close to the surface of the water as possible to reduce odor and exposure.

Treatment of Agricultural and Irrigation Water Systems: Use this product to control sulfides, odor, slime, and algae in sand filters, humidification systems, storage tanks, ponds, reservoirs, canals. Apply this product at 15 to 70 fluid ounces per 10,000 gallons of water. This provides 2 ppm to 9 ppm peroxyacetic acid and 13 ppm hydrogen peroxide. Repeat dose as necessary to maintain control. For prevention of algae, some systems may require continuous low-level dosing during warm, sunny periods (2 ppm to 5 ppm of this product).

Drip Irrigation Systems: To clean slime and algae from drip system filters, tapes and emitters, add this product at 7.5 to 14 fluid ounces per 1000 gallons. This provides 11 ppm to 17 ppm peracetic acid and 26 ppm hydrogen peroxide. Use this product at the recommended dose for a minimum of 30 minutes during normal irrigation cycles. Upon irrigation cycle completion, discontinue use and 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 1:40,000 to 1:5000 dilutions (4-31 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 (1:1,600 dilution).

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), notification to workers, and Restricted-Entry Interval (REI). The requirements in this box only apply to the uses of this product that are covered by the Worker Protection Standard. For enclosed environments There is a restricted entry of of one (1) hour for this product whe applied via fogging or spraying to growing plants, surfaces, equipment, structures and non-porous surfaces in enclosed glasshouses and greenhouses. PPE requirement 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 worn over long-sleeved shirt and pants, waterproof gloves and shoes plus socks. There is a restricted entry of zero (0) hours for pre-plant dip, seed treatment, soil drench, mop, sponge, dip, soak, rinse or other non-spraying application methods when used in enclosed environments such as glasshouses and greenhouses.

For field applications: Keep unprotected persons out of treated areas until sprays have dried.

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.

STORAGE AND DISPOSAL

Do Not Contaminate Water, Food or Feed by Storage and Disposal.

Pesticide 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, douse container with cool water and dilute with large volumes of water. Avoid damage to containers. Keep closed at all times when not in use. Keep container out of direct sunlight. To maintain product quality, store at temperatures below 86 F. Do not store on wooden pallets.

Procedure for Leak or Spill Stop leaks 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 should not enter confined spaces.

Pesticide Disposal 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, regulations, standards, and other requirements. Because acceptable methods of disposal may vary by location, regulatory agencies should be contacted prior to disposal. Product to be discarded should be disposed of as hazardous waste after contacting the appropriate local, state, or Federal agency to determine proper procedures.

Container Handling Non-refillable containers greater than or equal to five gallons.

Nonrefillable container. Do not reuse or refill this container. Offer for recycling. If available. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water. Replace and tighten closures. Tip container on its side and roll 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 rinsate into application equipment or mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. Empty drums are not returnable to unless special arrangements have been made. Dispose of drums in accordance with local state, and Federal regulations.

PN: 562_5206

NET CONTENTS: 500 lbs

LOT:

EXP:

rev.011525



Manufactured For:
Algonquin Products Co.
29 Russels Mills Rd., Dartmouth, MA 02748
24 hr Emergency No: CareChem 24 1-215-207-0061
Toll Free: 1-866-928-0789



UN3109, Organic Peroxide Type F, Liquid (Peroxyacetic Acid, type F, stabilized) 5.2 (8)