Frequently Asked Questions

Q. What are AQUAOX™ solutions?

A. AQUAOX™ solutions are produced by combining two simple ingredients, purified water and Sodium Chloride (NaCl) that are processed by two Electrochemical Activation generators to produce three types of solutions.

AQUAOX™ EAW generator:

Reducing Water (cleaner) is a non-toxic, non-hazardous, chlorine-free cleaning solution that does not produce fumes or contain hazardous "butyl" solvents or other potentially dangerous substances such as phosphates or ammonia. It removes grease, dirt and oil deposits from virtually all surfaces, cleans without scrubbing and does not leave a residue, such as that with chemicals.

Oxidizing Water (disinfectant/sanitizer) is produced at a near neutral pH where the predominant antimicrobial agent is Hypochlorous Acid (HOCl), an efficient and efficacious species of chlorine that kills bacteria, fungi, molds, viruses, and spores. It is particularly effective because it can achieve a degree of disinfection that cannot be achieved with traditional chemicals while being biodegradable, non-toxic, non-corrosive and absent of residue.

AQUAOX™ MOX generator:

Mixed Oxidant Water contains a mixture of chlorine-oxygen compounds which kill harmful pathogens in water at a very fast rate. Users dilute the HOCL/NaOCL solution with water to get the desired ppm for a specific task or dose it into a water distribution system for disinfecting and removal of biofilm.

Q. How does HOCl kill? … compare with bleach?

A. Nature gives a negative charge to the cell wall of a pathogenic microorganism. The negative charge of the pathogenic microorganism's cell wall repulses the negative charge of the hypochlorite ions (OCL-) in bleach making it a weak disinfectant.

The AQUAOX™ neutral Hypochlorous acid (HOCl) molecule easily penetrates the cell wall, making it a very effective disinfectant. HOCl effectively penetrates slime layers, cell walls and protective layers of microorganisms. Microorganisms quickly die or are made non-functional by reproductive failure. HOCl is 80-100 times more effective and exceeds the disinfecting properties of bleach by up to 300 times.

Q. Is HOCl safe for humans and plants?

A. Yes. AQUAOX™ HOCl is no-toxic, non-corrosive, biodegradable, environmentally friendly and absent of residue.

Q. Are AQUAOX™ solutions EPA registered?

A. AQUAOX™ has (2) anti-microbial solutions that are registered with the EPA as hospital grade, broad spectrum hard surface disinfectants.

Q. Are the AQUAOX™ solutions generated onsite registered with EPA?

A. Onsite Electrolyzed water generators that use sodium chloride and water to produce antimicrobial substances are not required to be registered as a pesticide, but the manufacturer of the device must provide documentation that the device complies with 40 CFR 152.55. AQUAOX™ generators comply! Documentation upon request.

Q. Can the solutions be legally applied to cannabis?

A. Yes. Under FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) **§25(b) and 3 CCR §6147** *Exempted Pesticide Products*, the active ingredient Sodium Chloride is exempt from registration requirements.

Q. Are the solutions effective in controlling Powdery Mildew?

A. Yes. Many independent tests demonstrate that HOCl controls powdery mildew and reduces the use of chemical fungicides.

Q. Can the solutions be used for sanitizing fruits and vegetables?

A. Yes. Under CFR (Code of Federal Regulations), **21 CFR §173.315** *Secondary direct food additives permitted in food for human consumption*, solutions may be used in washing or as an assist when peeling fruits & vegetables. The concentration of sanitizer in the wash water must not exceed 200 ppm and the produce must be rinsed with potable water following treatment.

Q. Is Hypochlorous acid (HOCl) allowed as a sanitizer in food processing?

A. Yes. Under CFR (Code of Federal Regulations) **40 CFR § 180.940** *Tolerance exemptions for active and inert ingredients for use in antimicrobial formulations (Food-contact surface sanitizing solutions),* HOCl is exempted from requirement of a tolerance when used in accordance with good manufacturing practice as ingredients in an antimicrobial pesticide formulation, provided that the substance is applied on a semi-permanent or permanent food-contact surface (other than being applied on food packaging), with adequate draining before food contact.

It may be applied to food-contact surfaces in public eating places, dairy-processing equipment, food processing equipment and utensils, provided that end-use concentration does not exceed 200 ppm.

Q. Are your solutions considered organic?

A. Yes. Under the US Department of Agriculture (USDA) organic regulations at **7 CFR Part 205**, electrolyzed water is the type of chlorine material allowed in organic production and handling.

Q. What kinds of PPE (Personal Protective Equipment) must be worn during spray applications?

A. No PPE is required because the product is non-toxic, and our prescribed droplet size and residual chlorine levels are below OSHA allowable exposure limits.

Q. What is the warranty for the generators?

A. AQUAOX™ warrants the generators against defects in materials and workmanship for a period of (12) twelve months from the date of installation. On-line performance monitoring of the generator is included at no charge during the initial (12) twelve-month period.

Q. What are some of the benefits of AQUAOX solutions?

A. AQUAOX solutions can be used to treat crops in the field with no residues on fruits and vegetables and no harm for farmers and limits soil pollution.

Full recovery of cultivations from various plant diseases with increased harvest yields

Reduction of raw material use, resource exploitation, transport costs and fuel charges, packaging costs and related pollutants to be disposed (plastic), surplus and storage of traditional pesticides and their disposal.