



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™ Cleaning Solutions (AX-112, AX-122):

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.

AQUAOX™ Disinfecting Solutions (AX-275, AX-525):

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™ Water Treatment solutions (AX-5000)

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, animals and environment?

A. Yes. AQUAOX™ HOCl is non-toxic, non-corrosive, biodegradable, environmentally friendly and absent of residue.

Q. Is HOCL effective against Covid-19?

A. Yes, CDC recommends the use of >200ppm free available chlorine.

Q. What (other) viruses are killed by exposure to HOCL?

A. There are multiple independent laboratory data that confirm efficacy against enveloped and non-enveloped viruses E.g., Aquaiox tested its HOCL solutions at a 225ppm strength and these tests confirm 99.9999% efficacy in 30 seconds against e.g.: Coronavirus, Adenovirus, Hepatitis virus, bovine viral virus, polio virus, herpes virus and HIV.

Q. What is kill-time of HOCL against viruses?

A. Most viruses are fully destroyed within 5 to 60 seconds contact time under clean conditions.

Q. Is HOCL is effective against bacteria?

A. Yes, there are multiple independent laboratory data that confirm efficacy against all kinds of bacteria. (a really long list)

Q. What bacteria are killed by exposure to HOCL?

A. Independent test data confirm that HOCL is effective against gram-negative, gram-positive as well aerobic and anaerobic bacteria.

Q. What is kill-time of HOCL against bacteria?

A. Most bacteria are fully destroyed within 5 to 60 seconds contact time under clean conditions.

Q. Is HOCL effective against fungi?

A. Yes, there are multiple independent laboratory data that confirm efficacy against fungi. (Another long list)

Q. What fungi is killed by HOCL exposure?

A. Most fungi are fully destroyed within 5 to 60 seconds contact time under clean conditions.

Q. Is HOCL is effective against spores?

A. Yes.

Q. What spores are killed by HOCL exposure?

A. independent test data confirm that HOCL is effective against C.Diff and Candida Aurus.

Q. What is kill-time of HOCL against spores?

A. Most spores are killed within 5 to 10 minutes contact time.

Q. Are HOCL solutions FDA approved?

A. Yes, FDA approved several HOCL solutions for topical (skin) usage, for direct food contact as well for sanitizing food contact surfaces. FDA requires HOCL producers to submit a formulation for either a 510k device approval or submit formulation with FDA for obtaining a Food Contact Notice (FCN)

Q. Are Aquaiox solutions FDA approved?

A. No, simply as Aquaiox has not applied for FCN. Aquaiox has submitted and obtained a 510k device application, but this approval is exclusively licensed to another company, that markets AX-250 formulation under one or more of its brand names.

Q. Is use of HOCL allowed by USDA?

A. Yes, HOCL is permitted for usage in food preparation, direct food contact as well for sanitizing food contact surfaces. USDA provides guidelines for ppm-level not to exceed.

Q. Is use of Aquaiox solutions allowed by USDA?

A. Yes, as USDA permits usage of HOCL.

Q. Is usage of HOCL recommended by CDC?

A. Yes, CDC recommends the use of sodium hypochlorites with >200ppm for disinfecting hard (non-porous) services as well aerosols.

Q. Is HOCL approved by EPA?

A. No, EPA does not approve nor endorse any disinfectant or active ingredient. EPA certifies efficacy of pesticides (disinfectants, sanitizers) for use on hard (non-porous) surfaces.

Q. Are AQUAOX™ solutions EPA certified?

A. AQUAOX™ has (2) anti-microbial solutions that are registered with the EPA as hospital grade, broad spectrum hard surface disinfectants. AX Disinfectant 275 (AX-275) and AX Disinfectant 525 (AX-525)

Q. What does it mean that AX-275 and AX-525 are both EPA certified Hospital-Grade Broad-Spectrum disinfectants?

A. This means that efficacy of Aquaiox disinfectants against target organisms have been verified by EPA.

Q. What is the active ingredient(s) in AX-275 or AX-525?

A. The only active ingredient in AX-275 and AX-525 is Hypochlorous Acid (HOCL) generated by electrolysis of a dilute sodium chloride solution.

Q. What is the difference between AX-275 and AX-525?

A. AX-275 contains 248 to 302ppm HOCL and AX-525 contains 477-577ppm HOCL, measured as Free Available Chlorine (FAC).

Q. What is the pH of AX-275 or AX-525?

A. The pH of both AX-275 and AX-525 is near neutral; between. 6.2 to 7

Q. How many parts per million Free Available Chlorine is in AX-275 or AX-525?

A. AX-275 contains 275 ± 10% ppm HOCL. AX-525 contains 525 ± 10% ppm HOCL.

Q. When do I use AX-275 and when do I use AX-525?

A. We recommend usage of AX-525 in the presence of blood or bodily liquids. We recommend AX-525 on surfaces that have not been pre-cleaned and thus contain a high level on contaminants (organic matter).

Q. How is AX-275 or AX-525 supplied?

A. Both AX-275 or AX-525 solutions can be supplied in: 2,3,5,4,8,16,24 or 32oz bottles. Both AX-275 or AX-525 solutions can be supplied in 1, 5-, 15,30-,55,275- or 330-gallon containers.

Q. What is the shelf-life of AX-275 or AX-525?

A. The shelf life is not absolute. The shelf life of AX-275 and AX-525 is determined by the lower concentration level as set by the EPA. Thus, as long as AX-275 contains >248ppm FAC, AX-275 is effective as a Hospital Grade Broad Spectrum disinfectant. As long as the AX-525 contain >477ppm FAC, AX-525 is effective as a Hospital Grade Broad Spectrum disinfectant. AX-275 and AX-525 shelf life is minimal 30 days from production.

Q. What do I use to measure PPM of AX-275 or AX-525?

A. Use 0-300ppm chlorine test strips for AX-275. Use 0-1000ppm chlorine test strips for AX-525.

Q. Where do I purchase these Chlorine strips?

A. Purchase with chlorine test strip manufacturer or purchase from Aquaiox website: www.aquaiox.net/shop

Q. How do I apply AX-275 or AX-525 on surfaces?

A. Wipe, spray or dip Aquaiox Disinfectant on a surface with a cloth, wipe, mop, sponge, sprayer or spray applicator. Allow surfaces to air-dry.

Q. Do I need to dilute AX-275 or AX-525?

A. No, AX-275 and AX-525 are Ready-To-Use disinfectants.

Q. Can I fill and use re-fillable spray bottles with AX-275 or AX-525?

A. Yes, it is permitted to spray-bottles, sprayers or spray applicators.

Q. For how long are these spray bottles filled with AX-275 or AX-525 effective? What is the shelf-life?

A. Remove AX-275 or AX-525 at or over 1-week-old from the bottle or storage tank. 1 week.

Q. How do I best store AX-275 or AX-525?

A. Store in a closed plastic container in a cool area away from direct sunlight.

Q. Can I spray and let air-dry AX-275 and AX-525?

A. Spray cleaned surfaces and let air-dry. No wiping needed.

Q. Do I need an electrostatic sprayer to disinfect surfaces?

A. No, not at all. An electrostatic sprayer is more efficiently in covering surfaces but has no effect on efficacy.

Q. How long do I spray surfaces? How frequent.

A. Spray at 1.4-4ft distance from target area. Spray daily or weekly as needed.

Q. How many square feet surface does 1-gallon AX-275 or AX-525 disinfect?

A. Please, refer to instructions of (electrostatic) sprayer, as output of sprayers may vary between 3-9oz/minute.

Q. How long does the surface need to be wet?

A. Sprayed surfaces must remain wet for 10 minutes.

Q. What PPE is required when spraying AX-275 or AX-525?

A. Only precautionary statement is to avoid contact with eyes, so wear safety glasses. Wash hands with soap and water after handling and before eating.

Q. How long one must wait before it is safe to enter the (sprayed) area?

A. Area can be entered immediately.

Q. Can I spray AX-275 or AX-525 of fabrics, such as upholstery and curtains?

A. Yes, will not harm surfaces. When applying to a large non-porous surface, allow an overlap of 50% when spraying from top to bottom using a 3ft side-by-side motion.

Q. Can I spray AX-275 or AX-525 on toys, instruments, tools and equipment?

A. Yes, will not harm surfaces. Will not harm titanium coated, medical grade stainless steel. AX-275 and Ax-525 can be used to decontaminate critical devices prior to sterilization.

Q. Can I spray AX-275 or AX-525 on all materials or surfaces? Are there materials to be avoided?

A. AX-275 and AX-275 can be used on all materials. Avoid Brass, Copper, Silver and Gold.

Q. Is AX-275 or AX-525 corrosive?

A. No, unless it reacts with quaternary ammonium, so do not use quaternary ammonium cleaners to pre-clean surfaces.

Q. Can I use AX-275 or AX-525 in a fogger or humidifier?

A. Yes,

Q. Is AX-275 or AX-525 toxic or cytotoxic?

A. No, Independent laboratory data confirms biocompatibility.

Q. Does AX-275 or AX-525 cause allergic and/or asthmatic reactions?

A. No, independent laboratory data confirm biocompatibility

Q. The label says AX-275 or AX-525 is a cleaner and disinfectant in one. Does this mean that surfaces do not need to be pre-cleaned?

A. No, this means that efficacy is warranted under dirty circumstances, so that the solution can overcome the bio load (contaminants) on the surfaces when surface remain wet for 10 minutes.

Q. Can I use any cleaner to pre-clean surfaces?

A. No, do not use quaternary ammonium cleaners and hydrogen peroxide.

Q. Can I use (Clorox, Lysol, Cavi) wipes to pre-clean surfaces?

A. Yes, as these wipes are all bleach wipes, which active ingredient is free available chlorine.

Q. What cleaner is recommended to wipe surfaces clean prior to applying AX-275 or AX-525 disinfectant?

A. AX-112 is recommended to pre-clean all surfaces. A 1:10-1:20 dilution of AX-122 is also recommended.

Q. What is difference between AX-112 and AX-122 cleaner?

A. AX-112 contains ~170ppm Sodium Hydroxide (NaOH). AX-122 contains ~3400ppm Sodium Hydroxide (NaOH). AX-122 is 20 time more concentrated than Ax-112.

Q. What is shelf life of AX-112 or AX-122?

A. At least 2 years from production date.

Q. Can I use AX-112 or AX-122 on any surface?

A. AX-112 can be used on any surface. AX-122 MUST be diluted 1:10-1:20 to be used on any surface

Q. What is the active ingredient(s) of AX-112 and AX-122?

A. Sodium Hydroxide (NaOH) generated from electrolysis of a sodium chloride solution.

Q. What is the pH of AX-112 or AX-122?

A. PH of Ax-112 is 11-12. PH of AX-122 is 12-13

Q. How do I apply AX-112 or AX-122 on surfaces?

A. Wipe, spray, immerse on surfaces with cloth, mop, wipe, sponge or sprayer.

Q. Do I need to dilute AX-112 or AX-122?

A. AX-112 is a ready-to-use multipurpose cleaner; no dilution needed. AX-122 MUST be diluted 1:10-1:20

Q. Can I fill and use re-fillable spray bottles with AX-112 or AX-122?

A. Yes, permitted.

Q. For how long are these spray bottles filled with AX-112 or AX-122 effective? What is the shelf-life?

A. For at least a year. 2-year shelf life.

Q. How do I best store AX-112 or AX-122?

A. Store in a closed plastic container in a cool area away from direct sunlight.

Q. Can I spray and let air-dry AX-112 and AX-122?

A. Yes, but this makes no sense as both cleaners emulsify dirt and debris that then need to be wiped-off the surface using a greenspeed microfiber cloth or mop.

Q. What PPE is required when using applying AX-112 or AX-122?

A. Only precautionary statement is to avoid contact with eyes, so wear safety glasses. Wash hands with soap and water after handling and before eating.

Q. Do I need to apply AX-112 or AX-122 on microfiber cloth or can I use paper, cotton towels or wipes?

A. You can use paper, cotton towels or wipes. However, the absorbency and adherence of a microfiber cloth is superior. Thus, removing dirt and debris far more effectively than paper or cotton towels or even wipes that 'smear' the surface.

For cleaning and disinfecting the facility, you recommend me to daily to FIRST wipe all high-touch surfaces clean wetting a Greenspeed microfiber with AX-112 cleaner. THEN, (electrostatically) spraying all surfaces with AX-275 and let air-dry for >10 minutes. Mop floors clean applying AX-112 on Greenspeed floor mop.

Q. How long do I spray surfaces?

A. Spray until all surfaces are evenly wet for at least 10 minutes.

Q. How wet do I make surfaces?

A. Wet enough, so that all surfaces remain wet for at least 10 minutes.

For in between case cleaning, you recommend me to FIRST (electrostatically) spray all surfaces. THEN wipe high touch surfaces dry with Greenspeed microfiber. Mop floors dry with Greenspeed floor mop.

Q. How long do I spray surfaces?

A. Depending on area and spray applicator, we suggest 1-2 minutes.

Q. How wet do I make surfaces?

A. Just enough to remain wet another 1-2 minutes. Wipe high touch surfaces dry. Mop floor dry to avoid slip & fall accidents.

For all wiping and mopping, you recommend Greenspeed microfiber.

Q. Why Greenspeed microfiber? Would not any microfiber to the same?

A. No,

Q. How many times can I use or re-use microfiber?

A. Greenspeed BASIC cloth minimal 400 times. Greenspeed Original cloth minimal 600 times.

Q. Why microfiber does not cross-contaminate surfaces?

A. Use of Microfiber Cleaning Utensils Microfiber is a material that is made of synthetic fibers that attract dirt, bacteria, and other pathogens like a magnet. A microfiber cloth will only let dirt go in a laundry machine

Q. What color coding should I apply to distinguish uses of microfiber cloths?

A. Red for sanitary. Yellow for kitchen. Blue for windows. Green for all furniture.

Q. How many microfiber cloth/mops do I need?

A. You can use each cloth 4 times by folding cloth. You can use each mop for 2000 sq. ft. We recommend purchasing enough to last a week without laundering

Q. How do I launder microfiber?

A. Washing

- Wash in warm water with a mild detergent
- No fabric softeners - they clog the open spaces in the microfiber, making the fabric useless
- Be careful what you wash with your microfiber. Avoid anything made with cotton because lint will grab on to the microfiber
- Ideally wash microfiber with only microfiber but if you must mix loads, wash with other non-linting synthetics

- If you hand wash, wash in warm water with a mild detergent and use a soft bristled brush if necessary
- Rinse thoroughly.

Drying

- To ensure the longest lasting microfiber, air dry is best
- Microfiber dries relatively quickly. If you use a dryer, set it on low heat or no heat
- Dry with other microfiber products only so that it doesn't pick up extra lint

Q. Where do I purchase Greenspeed microfiber?

A. Purchase online at www.greenspeed.biz.

Q. Are there any discounts on Greenspeed microfiber?

A. Use code GREENER15 for 15% discount.

For air-disinfecting/sanitizing or air-purification, you recommend to fog or mist HOCL in the room.

Q. What particle size you are recommending?

A. Not exactly our expertise, but a 4–6-micron HOCL fog or mist would be in our opinion ideal to reduce pollutants.

Q. What fogger you are recommending? Why? Where do we purchase it?

A. Not exactly our expertise, we ourselves uses/used a simple cold steam humidifier that can be purchased almost everywhere.

For disinfecting/sanitizing clothing, you recommend to (electrostatically) spray gowns with HOCL in between cases.

Q. Can I reduce usage gowns to one per day?

A. Not exactly our expertise, we believe that spraying gowns, clothing in between cases with HOCL is effective and most of all more practical than removing and putting on protective clothing.

Q. Can I use HOCL for disinfecting (plastic) safety masks and gloves?

A. HOCL is proven to disinfect these materials.

For disinfecting restrooms, you recommend to (electrostatically) spray restroom and let air-dry after each restroom visit.

Q. Each time?

A. Yes, we recommend making this a habit, though we understand that every time is not an option for many facilities. So, do it as frequent as possible.

For informing & educating visitors, you recommend using Window-clings, Certificate, Table tents and an Information sheet.

Q. How and where do I get these?

A. Ask by sending an email to customer@aquaox.net

For my facility, you recommend me to purchase a 5-gallon cubcontainer AX-112 and a 5-gallon cubcontainer AX-275, along with Greenspeed microfiber cloth/mops.

Q. How long can I expect the shelf life to be once I dispense it?

A. The AX-275 should remain to contain at least 248ppm FAC for 90 days.

Q. Is it necessary for me to check the chlorine ppm level?

A. The shelf life of AX-275 can be summarized as 30 to 90 days.

Q. When do I need to measure PPM of AX-275 or AX-525?

A. We recommend to check FAC of AX-275, if solutions is older than 30 days.

Q. How long do you normal expect the 5 gallon AX-112 and AX-122 to stay active?

A. The AX-112 and AX-122 should remain good for an indefinite period.

Q. How do I subscribe to AUTOSHIP / AUTOBILLING?

A. Call customer service at 800.790.7520

Q. How frequently are products supplied? Can I set frequency?

A. Normal frequency is set monthly. If usage requires less shipment, we change frequency to bi-monthly

Q. What are cost of subscription?

A. Call customer service at 800.790.7520

Q. Are there any discounts or freebies with subscription?

A. Yes, Call customer service at 800.790.7520

Free M-material

Free chlorine strips

Cleaning protocols

20% discount on Greenspeed microfiber.

Q. Is there a starter-package to kick-start the subscription?

A. Yes, we have 2-3 different starter package for different size facilities.

Q. How do I subscribe?

A Call customer service at 800.790.7520.

Q. How do I cancel subscription?

A. Call customer service at 800.790.7520

Aquaox Disinfectant 525 has demonstrated effectiveness against Sars-Cov-2 and viruses similar to Sars-CoV2 on hard, non-porous surfaces. Therefore, Aquaox Disinfectant 525 can be used against Sars-CoV-2 when used in accordance with the directions for use against Human Coronavirus on hard, non-porous surfaces.

COVID 19 is caused by Sars-CoV2. Aquaox Disinfectant 525 kills Sars-Cov-2 and similar viruses and therefore can be used against Sars-CoV2 when used in accordance with the directions for use against Human Coronavirus on hard, non-porous surfaces.

Aquaox Disinfectant 525 (EPA Reg. No. 93392-2) is on EPA's "List N: Disinfectants for Coronavirus (COVID-19)". EPA's List N may be accessed at <https://www.epa.gov/pesticide-registration/list-n-disinfectants-coronavirus-covid-19>

Q. Can the AQUAOX™ solutions generated onsite and can the solutions be 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! Solutions can only be used within facility or company. Solutions cannot be bottled and sold, unless a License and Supplemental Distribution rights have been obtained. More documentation about AQUAOX onsite generators upon request.

Q. Can the onsite generated HOCL solutions be legally applied to disinfect surfaces?

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 onsite generated HOCL solutions effective in controlling Covid -19?

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

Q. Can the onsite generated HOCL 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 HOCL 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 are some of the benefits of onsite generated HOCL 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

Q. What are some of the disadvantages of onsite generated HOCL solutions?

A. Onsite generation is only feasible if daily a substantial volume solution is needed

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. Am I better off with a subscription to receive periodically AX-122 and AX-275 or am I better off with an onsite generator?

A. By far most customers and/or facilities are better off periodically receiving read-to-use solutions.