

A presentation for ...

Safety Net
Solutions that save lives.

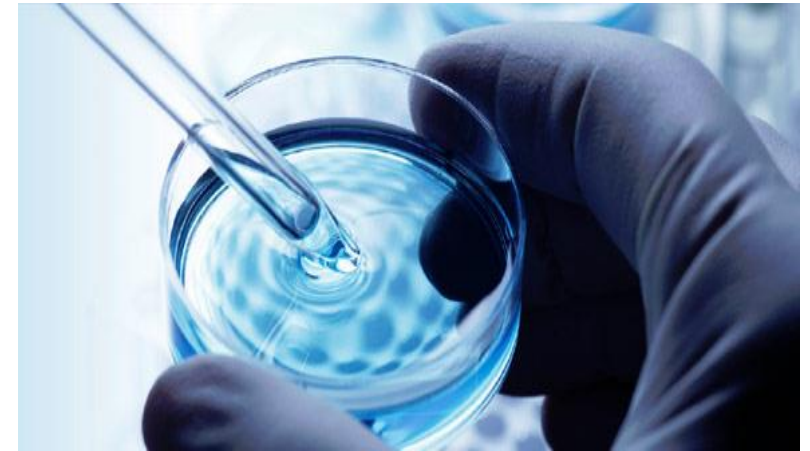


Agenda

- Company Overview
- The Truth
- Opportunity
- Comparison
- HOCL
- AQUA OX Solutions
- FAQ

Our Company

AQUA OX™ is a Process Engineering company specializing in the development and use of Electrochemical Activation (ECA) generators and solutions that replace conventional chemicals and apply them using proprietary techniques to reduce labor and human error.



AQUA OX™ Solutions are used in hospitals, cruise ships and other institutional facilities to effectively and efficiently clean and disinfect surfaces utilizing smart applicators to reduce labor and human error.

Our Vision

*AQUA OX™ believes in **challenging the status quo** on cleaning, sanitizing and disinfecting facilities by providing a more proactive, cost effective, balanced protocol where delivery mechanisms are optimized and human error is minimized .*



Our Mission



“To help people live healthy, sustainable lives by delivering quality environmental service solutions in innovative, cost effective ways.”

WHY change the Status Quo?

- HAI continues to be a growing problem, with HAI numbers either flat or growing, despite newer, more-potent, faster-acting chemicals & despite rapid growth of UV-Light in almost all hospitals.



WHY change the Status Quo?

HAI caused by environmental surface contamination is mostly OVERLOOKED by Infection Preventionists (IP's), whose focus is hand-sanitation, personal hygiene and cleanliness of surgical procedures.



The TRUTH Hurts

Simply wiping **HITES** (“High-Touch Environmental Surfaces”) with an EPA certified disinfectant leaves a lot of untouched surfaces.

Adjunct disinfection steps will disinfect the whole room, but such “Room-Decontamination” systems like **UV-light** and **Hydrogen Peroxide** add too much TIME ... to quickly become **underutilized**.



"EMERGING TECHNOLOGY FOR ROOM DE-CONTAMINATION SHOULD ONLY BE USED AS AN ADJUNCT TO MANUAL ENVIRONMENTAL CLEANING PROCEDURES." -AMBER WOOD

The TRUTH Hurts

Not even half of patient-rooms are disinfected by these systems ... leaving a majority of patient rooms improperly & inadequately prepared for patients.

1 → 10???

1 → 100??



"EMERGING TECHNOLOGY FOR ROOM DE-CONTAMINATION SHOULD ONLY BE USED AS AN ADJUNCT TO MANUAL ENVIRONMENTAL CLEANING PROCEDURES." -AMBER WOOD

WHY does EVS-staff run out of time?

Strictly following protocols for terminal cleaning and disinfecting patient-rooms requires wiping ALL surfaces, objects, furniture & equipment ... and takes up to 1 hour per patient-room.

Failure to properly follow disinfecting protocols results from EVS staff not having time to rapidly deliver constantly-demanded patient rooms.

[Note: many inaccessible surfaces are unable to be wiped by EVS staff.]



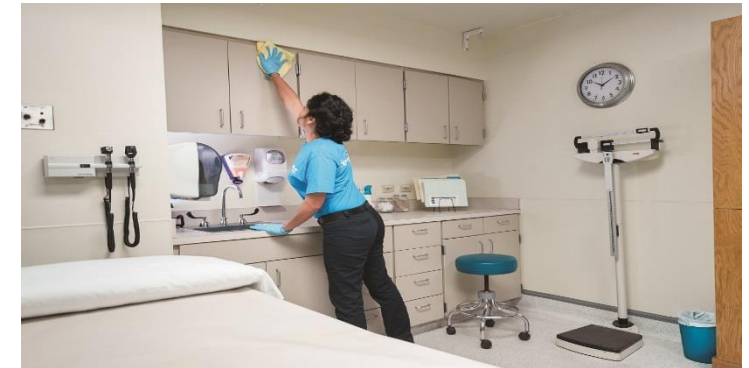
**ROOM IN
USE**

WHY does EVS-staff run out of time?

EVS staff is required to wear PPE when preparing a patient room.

And, EVS staff must be trained operationally on complex, difficult-to-manage UV-Light and Hydrogen Peroxide systems that take 1 to 1.5 hours to disinfect a patient room.

Patient rooms are unavailable, patients (and their diseases) are left in halls.



**ROOM IN
USE**

WHY EVS staff does NOT get more time?

- Cleaning/Disinfecting environmental surfaces is not a **PROFIT Center** and, therefore, is of little interest to Hospital management.
- As a **COST Center**, Environmental Services are often outsourced, relieving the Hospital of the responsibility!!!
- EVS-companies **PROFIT** when they are able capture **LABOR SAVINGS**, something they do well when they **use fewer people on more square feet**.
- And, when they assist UV & other adjunct systems into hospitals, that lowers their labor factor even more . . . to the detriment of profitability.



Aquaiox has difficulty in making an OVERNIGHT impact on healthcare systems or their economics, since the product of healthcare is PROCEDURES . . . and the more PROCEDURES, the more REVENUE.

However, when Hospital management wakes up to the cost of not getting patients into safe, clean rooms . . . then that day will be when Aquaiox will accelerate making an impact.

The Answer?

- **ADVOCATE** for an **ADJUNCT Disinfecting step**, as consensus is growing that this is how to combat HAI's
- **PROMOTE HALOSIL Hydrogen Peroxide System** for “Whole-Room-Disinfection” in pre-cautional or Isolation rooms.
- Offer to compare efficacy, time, efficiency & R.O.I. to UV-light)
- **OFFER** Electrostatic Spraying of **AQUAOX** as *the* **ALTERNATIVE** adjunct Disinfecting step for the **MAJORITY** of patient-rooms and public areas.

Alternative ADJUNCT DISINFECTING STEP

WHAT SHOULD EVS DO WHEN TIME DOESN'T ALLOW FOR PROPER ROOM DECONTAMINATION?

If WIPING ALL SURFACES is an impossible task for EVS-staff, what is your alternative Adjunct Disinfecting Step?



100% coverage.

Extra layer of protection on ALL surfaces.

No residue.

WHY AQUAOX Whole-Room-Disinfecting

SAVES LABOR-TIME & COST!

1 to 5 minutes spray-time + 10 minutes to air-dry surfaces. Only 15 minutes additional time.

1 minute spray-time equals 3 oz. of Aquaox Disinfectant 525

- Daily bathroom spraying cost: < \$0.75
- Daily discharge room spraying cost: < \$ 4.00

Requires small investment or rental of (multiple) hand-held /back-pack electrostatic sprayers.

- **Easy-to use**
- **Affordable**
- **No PPE**
- **No Capital**

HOW to disinfect with AQUA OX solutions

SPRAY AQUA OX DISINFECTANT, LET AIR-DRY

ADD **1 minute** spray-time for disinfecting ALL surfaces in each bathroom at the end of Daily cleaning of Patient rooms.

ADD **5 minutes** spray-time for disinfecting ALL surfaces at the end of each Terminal cleaning of Patient rooms

ADD **1-5 minutes** spray-time for Public rest-rooms, waiting-rooms, offices and common areas AFTER areas have been wiped clean.

- Fill sprayer
- Charge sprayer
- Point at target
- Pull trigger
- Let Air-dry

With AQUAOX, it's about SAVING \$\$\$\$

CALCULATE & COMPARE

For less than \$750/day in a 500-bed Hospital ...
100 Terminal cleanings and 400 Daily cleanings can be
disinfected every day!

Compared to the 6-figure annual cost of maintaining 2
UV-Light systems with max coverage of only 25 rooms
disinfected daily that does not include cost of third-
party technicians to transport & operate UV-Light
systems. Add preventive maintenance cost UV-light
replacements ... and then wonder why bother with UV-
light systems at all ?

CHANGE is difficult

NOT CHANGING
is FATAL

Comparison Testing Overview – Control vs AQUA OX



AQUA OX Solutions were introduced to the Johnston UNC Healthcare System, comprised of 2 facilities located in Smithfield and Clayton, North Carolina.

A trial tested the efficiency & effectiveness of using AX 112 (Cleaner) and AX-275 (Disinfectant) solutions when substituted and compared to EVS staff's traditional cleaning solutions.

Extensive use of ATP and culture swabbing tested *high-touch surfaces* in designated patient room sections, comparing the existing cleaning process to that of using AQUA OX products integrated into the existing cleaning process with electrostatic spray-equipment.

Comparison Testing – Control vs AQUA OX ICS Review

Test Phase 1: January 2014 - June 2014

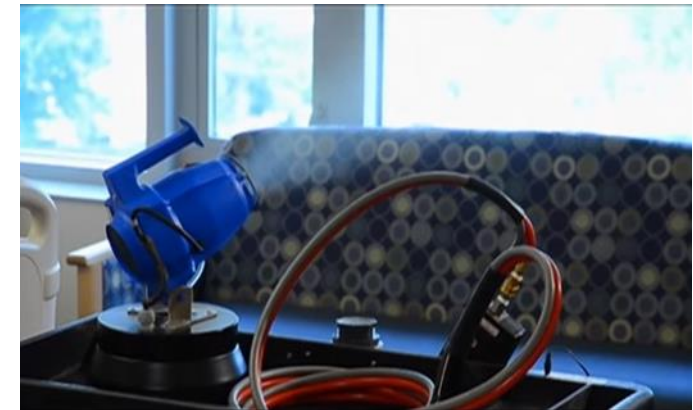
ATP and Culture swab testing was conducted on the current EVS cleaning process used at Johnston UNC Health System (including the use of cotton terry cloths, quaternary ammoniated disinfectants, and synthetic loop floor pads)

Test Phase 2: July - December 2014

AQUA OX was integrated into the EVS cleaning process, using AX-112, AX -275, GREENSPEED® brand microfiber products, and a 360-degrees Electrostatic Spraying cart.

ATP and Culture swab testing was conducted on the integrated process.

Research demonstrated that using the full spectrum AQUA OX was critical in dramatically increasing **tested surface** pass rates to more than 98%.

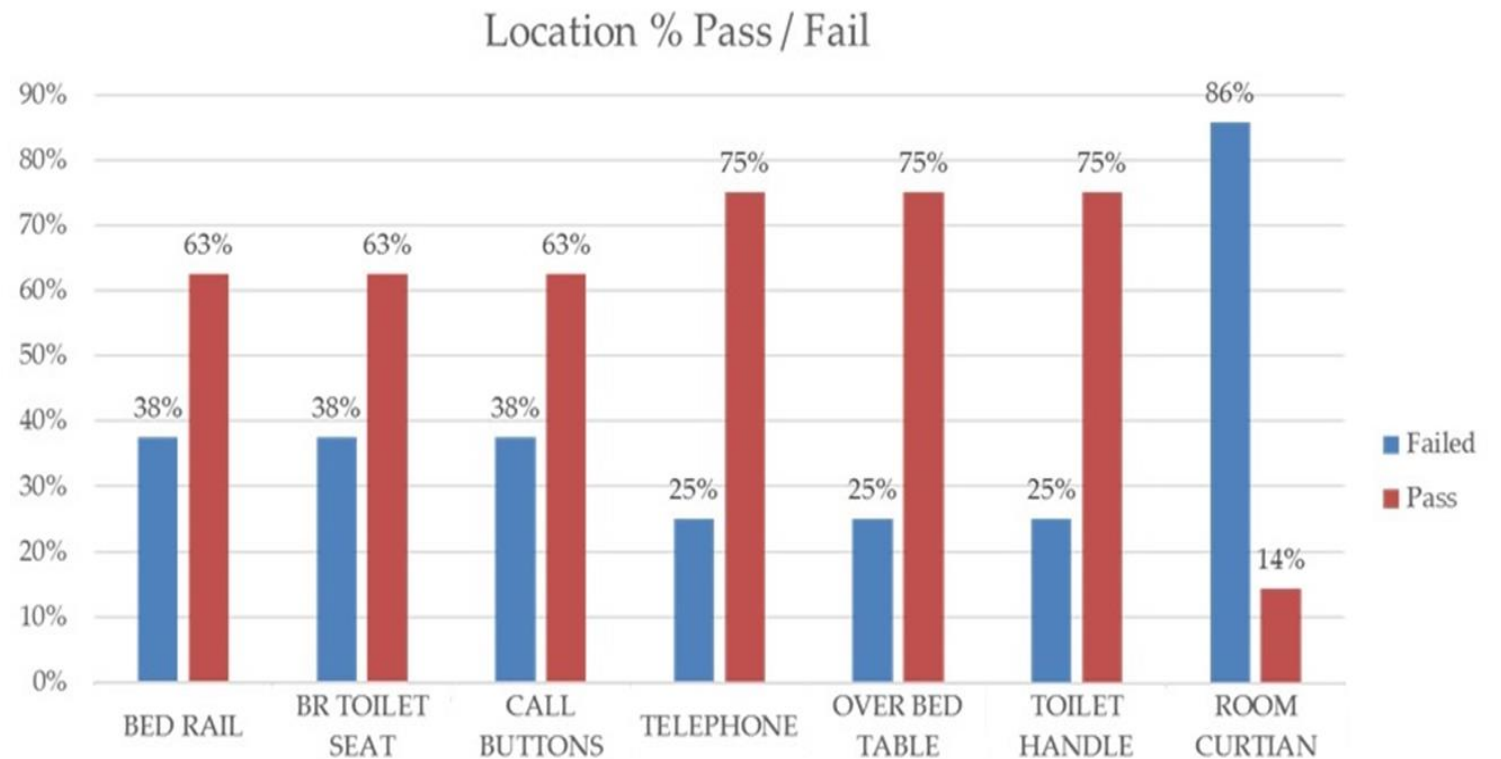


Comparison Testing – Control vs AQUAOX ICS Review

Control Phase 1:
 Existing Cleaning

EVS staff uses standard terry cloths, quaternary ammoniated disinfectants from dispensers and synthetic loop microfiber floor pads.

ATP and culture swab tests showed **an average 35% fail rate on tested high-touch surfaces.**

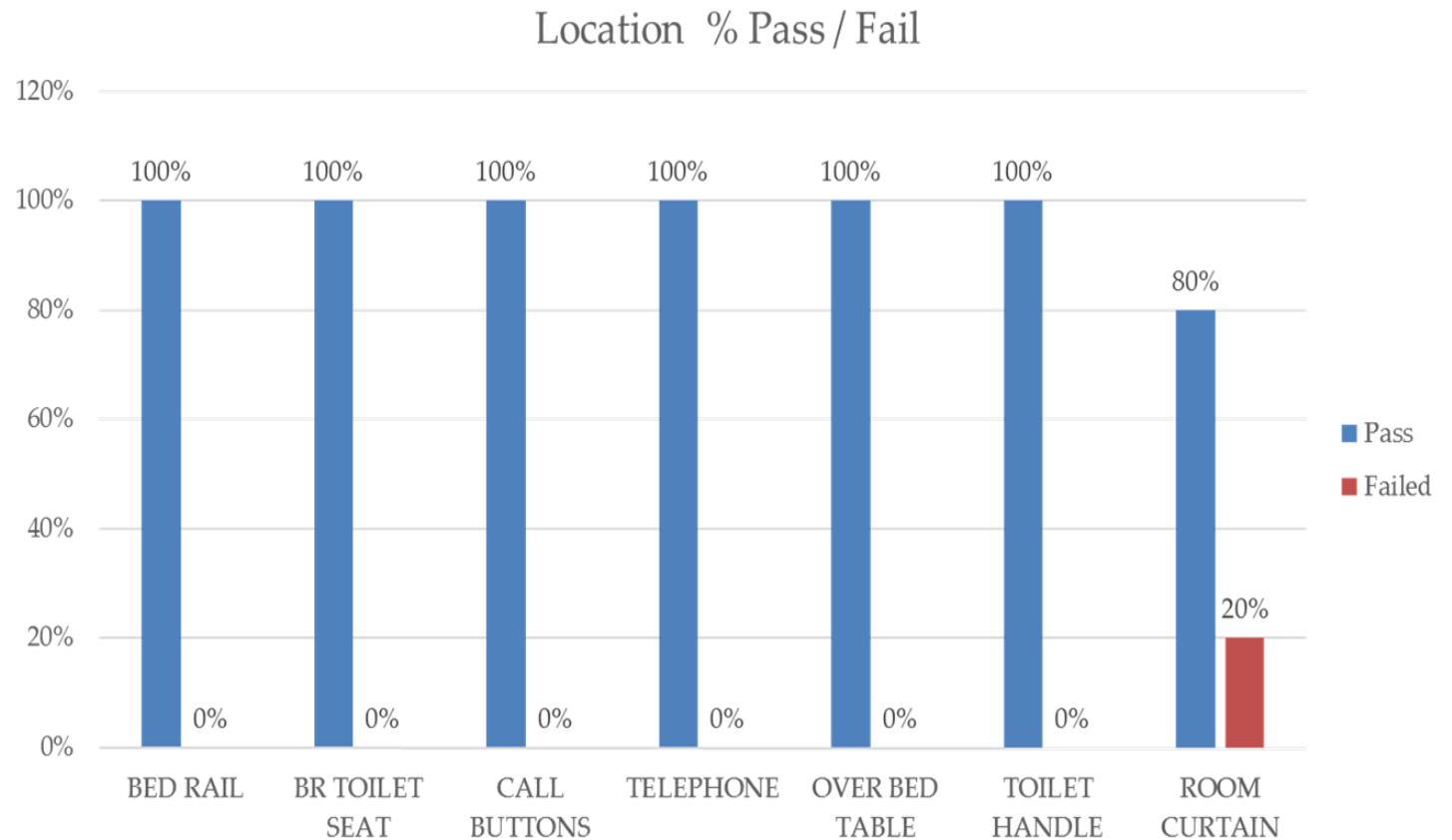


Comparison Testing – Control vs AQUAOX ICS Review

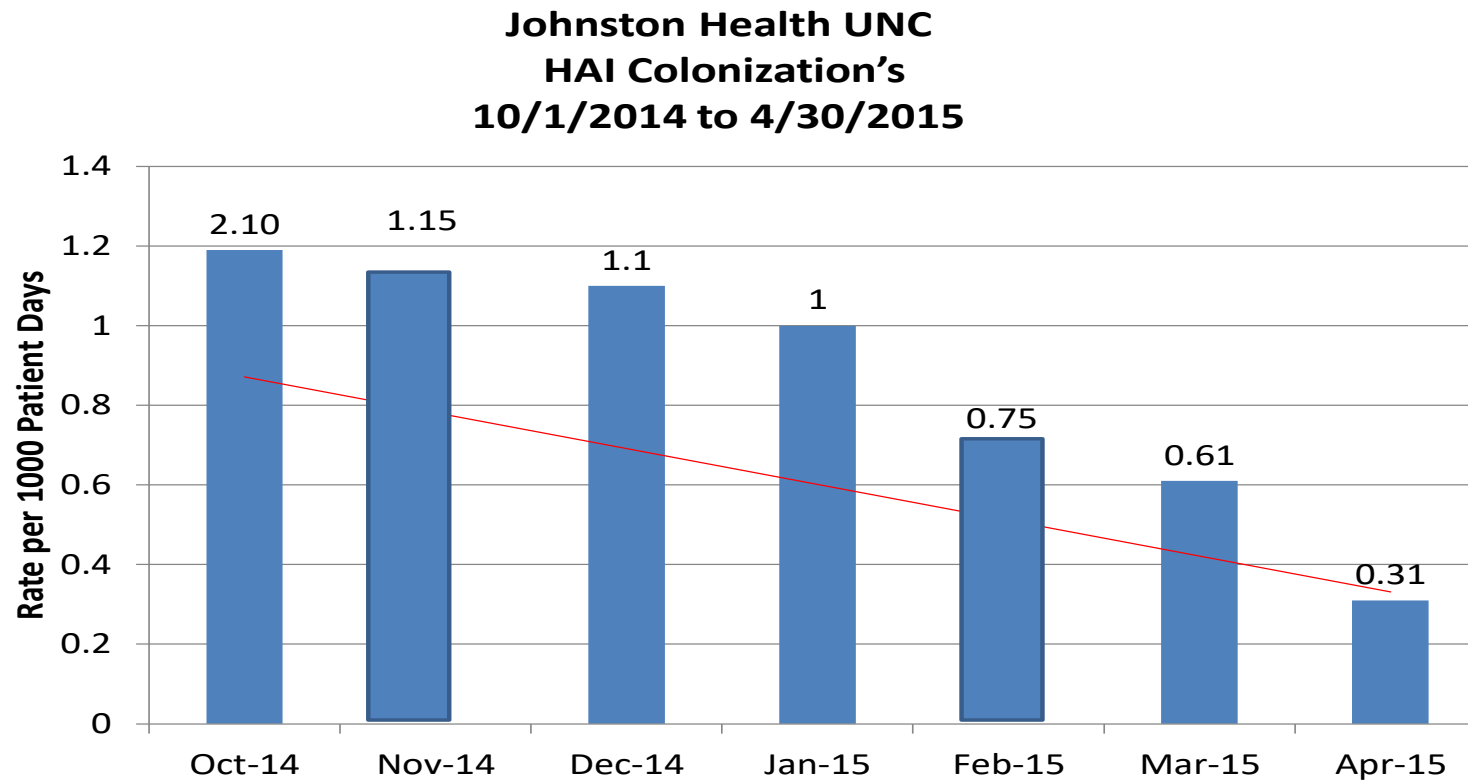
Phase 2: GS ICS Cleaning
 System Integration

EVS staff integrated GS brand microfiber cleaning cloths, AX-112 and AX-275 RTU solutions, and GS brand microfiber floor pads.

ATP and culture swab test readings produced a more than 97% pass rate for tested high-touch surfaces.



Results Using AQUA OX™ ICS





AQUAOX™ -- A REVOLUTIONARY DISINFECTION SOLUTION ... WITH ACTIVE INGREDIENT **HOCL** ... IS NON HAZARDOUS, HAS NO FRAGRANCE AND IS SAFE ON ALL SURFACES AND TO SKIN.

HYPOCHLOROUS ACID (HOCl)
Our Body's immune system
protector in a BOTTLE

**SAFELY KILLS ALL BACTERIA, VIRUSES AND FUNGUS
KNOWN TO MAN**

**KILLS ALL "SUPERBUGS" AND ANTIBIOTIC RESISTANT
BACTERIA**



EFFICIENT



USER-FRIENDLY



SUSTAINABLE



INNOVATIVE

HYPOCHLOROUS EFFICACY DATA

Organism	Contact Time	Reduction
Acinetobacter baumannii	60 seconds	>99.99%
Aspergillus brasiliensis	60 seconds	>99.99%
Bacteroides fragilis	60 seconds	>99.999%
Candida albicans	60 seconds	>99.99%
Clostridium perfringens	60 seconds	>99.99%
Corynebacterium amycolatum	60 seconds	>99.99%
Enterobacter aerogenes	60 seconds	>99.999%
Enterococcus faecium (VRE)	60 seconds	>99.99%
Haemophilus influenzae	60 seconds	>99.999%
Klebsiella pneumoniae	60 seconds	>99.999%
Moraxella catarrhalis	60 seconds	>99.9%
Proteus mirabilis	60 seconds	>99.999%
Pseudomonas aeruginosa	60 seconds	>99.9999%
Serratia marcescens	60 seconds	>99.999%
Staphylococcus aureus (MRSA)	60 seconds	>99.999%
Staphylococcus aureus	60 seconds	>99.999%
Staphylococcus epidermidis	60 seconds	>99.999%
Staphylococcus haemolyticus	60 seconds	>99.99%
Staphylococcus hominis	60 seconds	>99.99%
Staphylococcus saprophyticus	60 seconds	>99.99%
Streptococcus pyogenes	60 seconds	>99.99%
Vibrio vulnificus	60 seconds	>99.999%

USP <51> test protocol

HOCL: 100PPM FAC, pH 6.5

Organism	Contact Time	Reduction
Klebsiella pneumoniae	15 seconds	>99.9999%
Enterococcus faecalis	15 seconds	>99.9999%
Methicillin-resistant Staphylococcus aureus	15 seconds	>99.9999%
Staphylococcus epidermidis	15 seconds	>99.9999%
Acinetobacter baumannii	15 seconds	>99.9999%
Staphylococcus aureus	15 seconds	>99.9999%
Pseudomonas aeruginosa	15 seconds	>99.9999%
Escheria coli	15 seconds	>99.9999%
Kennel cough	10 minutes	>99.99%
Mycobacterium bovis	10 minutes	>99.99%
C. Difficile	10 minutes	>99.9999%
Candida albicans	15 seconds	>99.9999%
C. Parvovirus	10 minutes	>99.99%
Feline calicivirus	10 minutes	>99.99%
Influenza A (H1N1)	5 minutes	>99.9988%
Influenza A (H3N2)	5 minutes	>99.979%
2009 Pandemic Influenza A (H1N1)	5 minutes	>99.963%
Influenza B	5 minutes	>99.992%
HSV-1	5 minutes	>99.999%
Enterovirus 71	5 minutes	>99.98%
Coxsackie virus B	5 minutes	>99.9999%
Echovirus 6	5 minutes	>99.987%
Adenovirus	5 minutes	>99.996%

USP <51> test protocol

HOCL: 225PPM FAC, pH 6.5

CLEANING & DISINFECTING REDEFINED

WATER +
SALT +
SCIENCE

AQUAOX™ REVOLUTIONARY TECHNOLOGY TRANSFORMS OUR EARTH'S MOST NATURAL SOLVENT - WATER.

AT TWO PRECISE PH LEVELS, WATER TAKES ON POWERFUL, YET COMPLETELY SAFE, CLEANING AND DISINFECTING PROPERTIES. AQUAOX'S REVOLUTIONARY TECHNOLOGY STABILIZES WATER AT THESE LEVELS RESULTING IN AQUAOX™ 112 CLEANER & AQUAOX™ 275/525 DISINFECTANT



CLEANING & DISINFECTING COMPATIBILITY

WATER +
SALT +
SCIENCE

AQUAOX™ SMART SOLUTIONS ARE BIODEGRADABLE AND REVERT TO THEIR ORIGIN - WATER

FYI: THE EPA DOES NOT ALLOW ENVIRONMENTAL CLAIMS TO BE USED WHEN DESCRIBING DISINFECTANTS. PER THE EPA, A DISINFECTANT IS DESIGNED TO KILL LIVING ORGANISMS.

IS THE CONCLUSION THAT ALL THESE CHEMICALS ARE NOW PESTICIDES?



Biodegradable

AQUAOX™ 112 CLEANER

WATER +
SALT +
SCIENCE

AX-112 IS A STABLE, NON-TOXIC, COST-EFFECTIVE, more-than-GREEN SOLUTION THAT CAN BE USED IN MANY APPLICATIONS, YET IS SAFE FOR HUMANS AND THE ENVIRONMENT

POWERFUL, SAFE & NATURAL

- ✓ SAFE FOR ANY HARD SURFACE
- ✓ CUTS THROUGH GREASE & FAT
- ✓ NON-TOXIC & CHEMICAL FREE
- ✓ LABORATORY TESTED



AQUAOX™ 275 BROAD-SPECTRUM DISINFECTANT

WATER +
SALT +
SCIENCE

AX-275 IS A **STABLE, NON-TOXIC, COST-EFFECTIVE, more-than-GREEN SOLUTION** THAT CAN BE USED IN MANY APPLICATIONS, YET IS SAFE FOR HUMANS AND THE ENVIRONMENT

POWERFUL, SAFE & NATURAL

- ✓ KILLS ON CONTACT
- ✓ COMPLETELY NON-TOXIC
- ✓ LEAVES NO RESIDUE
- ✓ MICROORGANISMS CAN NOT DEVELOP RESISTANCE

AQUAOX™ 275 is registered with the Federal and State Environmental Protection Agency.



EPA. No. 93392-1

AQUAOX™ 525 HOSPITAL DISINFECTANT

WATER +
SALT +
SCIENCE

AX-525 IS A STABLE, NON-TOXIC, COST-EFFECTIVE, more-than-GREEN SOLUTION THAT CAN BE USED IN MANY APPLICATIONS, YET IS SAFE FOR HUMANS AND THE ENVIRONMENT

POWERFUL, SAFE & NATURAL

- ✓ KILLS ON CONTACT
- ✓ COMPLETELY NON-TOXIC
- ✓ LEAVES NO RESIDUE
- ✓ MICROORGANISMS CAN NOT DEVELOP RESISTANCE



AQUAOX™ 525 is registered with the Federal and State Environmental Protection Agency.



EPA. No. 93392-2

Frequently asked questions - 1

Do AQUAOX solutions cover Hepatitis, Mycobacterium Tuberculosis & C. Difficile (spores)?

C.diff:

AX-275/525 has not passed the EPA use-dilution test for C.diff.

AX-525 achieved a 5.96 log reduction without soil in a quantitative disk carrier test.

AX-525 achieved a 2.71 log reduction with a 3-part soil in a quantitative disk carrier test.

AX-275 achieve a 5.35 log reduction in a time-kill assay.

HOCL with 460 ppm has successfully passed C.diff and has a valid EPA claim.

Mycobacterium Tuberculosis:

AX275/525 has been successfully tested against Mycobacterium Bovis. (5.21 log in 30 sec.).

Hepatitis

AX275/525 has been successfully tested against Human Immunodeficiency Virus Type 1 (HIV-1)

There are many published articles supporting Mycobacterium Tuberculosis claims.

Frequently asked questions - 2

How does the AQUAOX process work? Wipe down first?

All disinfectants are tested to work as a ***one-step disinfectant*** and are tested to work on a soiled surface on which solutions are applied to the surface and left wet for 10 minutes.

Rather than sell bottled disinfectant, we market a disinfection ***System*** ... for reasons that infection control is more than just supplying a disinfectant and relies on the technique being used for surface cleaning.

AQUAOX has incorporated cleaning protocols suitable for all rooms within many classifications of healthcare and non-healthcare facilities. **Our protocol requires all HITES to be wiped clean PRIOR to electrostatic spraying of AQUAOX Disinfectant.**

Frequently asked questions - 3

If AQUAOX has no C.Diff certification, why electrostatically spray AQUAOX Disinfectant?

- 3.5 years practical **EVIDENCE** of electrostatic spraying significantly reduced HAI's
- GLP-DATA proves that HOCL kills C.diff spores on pre-cleaned (and dirty) surfaces.
- When electrostatically spraying Aquaox Disinfectant, ALL airborne microbes are killed, reducing cross-contamination, preventing spread of C.Diff.



Frequently asked questions - 4

How do you prove efficacy of electrostatic spraying with AQUAOX Disinfectant?

- 3.5 years of anecdotal performance results and thousands of ATP and Swab tests are the proof in the pudding.....
- We can start immediately with ATP and swab tests in your facility!.... BTW, how do you currently prove efficacy of a UV-light system?



Bounce back

Frequently asked questions - 5

Should I advocate use of AX-275 or AX-525 and which one?

Why not? What is the alternative? Doing NOTHING???

You will likely save someone their job, if not get them promoted!

You may help save lives otherwise lost to HAI or due to infections spread to others residing in Public areas of the hospital

AX-525, as it has 9 CERTIFIED EPA-CLAIMS! (we work on C.Diff)



Frequently asked questions - 6

CERTIFIED EPA –Claims AX-525

Existing **Disinfecting** claims for 93392-1 (525ppm) / 10 -minutes contact time

1. Pseudomonas A.
2. Staphylococcus A
3. Swine Flue Influenza Virus (H1N1)
4. Salmonella Enterica
5. MRSA - Staphylococcus A.
6. NDM - E.Coli
7. VRE - Vancomycin Resistant Enterococcus
8. HIV - Human immunodeficiency Virus
9. BCG -Mycobacterium Bovis

Additional **Disinfecting** claims for 93392-2 (525ppm)

10. C. Diff.



pH ~6.5
~525ppm
~800mV
~5000uS

Frequently asked questions - 7

CERTIFIED EPA –Claims AX-275

Existing **Disinfecting** claims for 93392-1 (275ppm) / 10 -minute contact time

1. Pseudomonas A.
2. Staphylococcus A
3. Swine Flue Influenza Virus (H1N1)
4. Salmonella Enterica

Additional **Sanitizing** claims for 93392-1 (275ppm) / 1- minute contact time

5. Listeria monocytogenes
6. E-coli
7. Campylobacter
8. Clostridium Perfringens
9. Candida Aureus / Candida Albicans
10. Murine Norovirus / F. Calicivirus



pH ~6.5
~275ppm
~800mV
~3000uS

QUESTIONS OR COMMENTS ?

Thank you !

For more information please contact:



info@aquaox.net
(800)790.7520