

OZONE Surface Sanitation



Mobile Ozone Surface Sanitizer **AGW-0500**

Surface
Sanitation
Using
Ozone
Enriched
Water.

DEL AGRICULTURAL
Environmental Ozone Solutions
Since 1975



Patent
Pending


REGISTERED
#123680

AGW-0500

MOBILE OZONE SURFACE SANITATION SYSTEM

SURFACE SANITATION USING OZONE-ENRICHED WATER

DEL Agricultural introduces a revolutionary new system that enriches water with ozone for facility surface sanitation. The AGW-0500 Mobile Ozone Surface Sanitation System is a self-contained, 115V plug-in, mobile ozone system that generates and sprays ozone-enriched water for effective sanitation of water-rinseable surfaces.

The AGW-0500 is a direct ozone spray system that provides 10 GPM water flow with an applied ozone dose of 3–3.5 PPM in water. Designed for mobile surface sanitation, the AGW-0500 provides no-rinse, multi-surface sanitation for wettable equipment; walls and floors; drains and hoses; tanks and barrels; and clean in place (CIP). Optional interchangeable spray attachments can be used for direct ozone spraying of enclosed containers and CIP systems.

AGW-0500 BENEFITS

VERSATILE SANITATION TOOL & ADDITIONAL POINT OF INTERVENTION

- **Final Rinse** – Microbial-free, ozone-enriched final sanitation rinse perfect for organic food contact surfaces and taste-sensitive contact surfaces
- **Reduces Cross Contamination** – Ozone is safe to use on caustic-sensitive equipment, thus eliminating potential cross contamination from otherwise untreated equipment to treated areas
- **Reduces Production Downtime** – Ozone is an FDA approved food additive and in some cases can be utilized during production without compromising product or employee safety
- **Safe for the Environment**
 - Ozone is generated on-site – no storage, handling, or reporting issues
 - Ozone reverts back to oxygen – no residual; no harmful by-products
- **Mobile** – System can be easily rolled throughout facility for use at multiple application points
- **Safe for Operators** – Complies with OSHA requirements for worker safety

AN EFFECTIVE, SCIENTIFICALLY PROVEN, BROAD-SPECTRUM ANTIMICROBIAL AGENT

- Ozone is effective at inactivating bacteria, viruses, molds, spores, yeast, mildew and fungi
- **Microorganisms cannot build up a tolerance to ozone**

AGW-0500 – BALANCING EFFICACY & SAFETY

The AGW-0500's built-in ozone management system balances efficacy and safety by accurately controlling ozone dosage and minimizing ozone off-gas, complying with OSHA safety requirements.



- 1 Ozone Generation Module
- 2 Air Compressor
- 3 Oxygen Concentrator
- 4 Ozone Injector
- 5 Multi-Stage Water Pump
- 6 Ozone Mixing & Degassing Chamber
- 7 Heated Catalytic Ozone Destructor
- 8 G.F.C.I.
- 9 Ozonated Water Out
- 10 110V Power Cord with 3-Prong Plug

AGW-0500 SPECIFICATIONS

Applied Ozone Dose: 3.5 PPM
Electrical: 115V, 18A (20A service)
Dimensions: 3'W x 4'H x 5'L

Actual Dose at Nozzle: 1.8 - 2.5 PPM
Outgoing Water Flow: 10 GPM @ 20 PSI
Weight: 300 lbs.

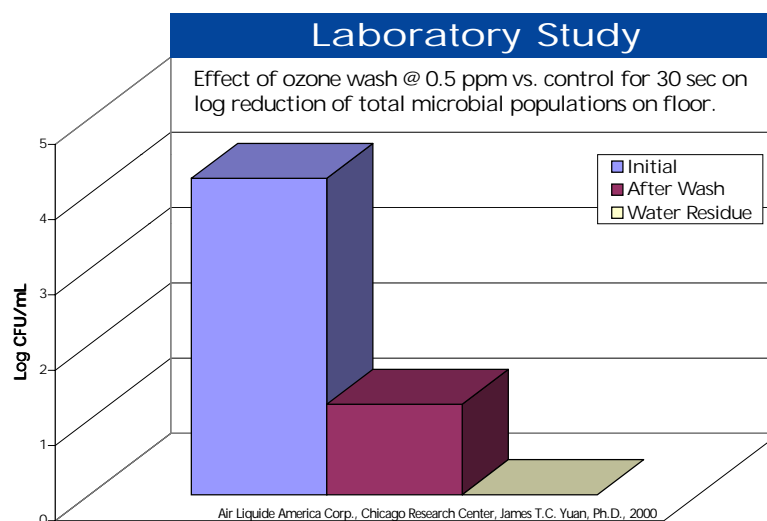


FIELD STUDIES

Ozone dissolved in water has proven to be an effective method for sanitation of multiple surfaces. A single exposure to sanitation with the AGW-0500 Mobile Ozone Surface Sanitation System results in significant reductions in microbial populations, comparable to or outperforming common chemical sanitizers. Ozone has been shown to break down biofilms with repeated use, greatly reducing microbial contamination of food processing equipment. Effective sanitation can be achieved and maintained with regular, repeated exposure to ozone-enriched ambient temperature (40° -80°F) water.

LABORATORY STUDY:

Air Liquide America Corporation performed a laboratory analysis of the AGW-0500 at their Chicago Research Center. The analysis documented the effect of the AGW-0500 on reduction of microbial populations using ozone-enriched water (0.5 PPM ozone). Results indicated a complete elimination (4 log reduction) of microbial populations in the wash water residue.



RETURN ON INVESTMENT

Ozone can act as a stand-alone sanitizer or be added to your existing sanitation regime. Return on investment can be calculated for your facility based on the following benefits and potential savings offered by the AGW-0500:

- Production downtime for sanitation can be reduced because sanitation with ozone can, in some cases, be performed during production without compromising product or employee safety
- Employee & Workplace Safety: ozone is generated on-site and does not require storage, handling, or reporting
- Ozone-enriched water is not corrosive or damaging to equipment
- Ozone does not leave a residual which requires a final rinse (ozone is a final, no-rinse application)
- Ozone will not negatively impact wastewater disposal issues and fees; and water drainage systems are sanitized by the residual of ozone in the water without causing harm to the beneficial bacteria in the septic system or wastewater treatment plant

NSF REGISTERED



#123680

NSF REGISTRATION SUMMARY

NSF (National Sanitation Foundation) has processed the application for Registration of the AGW-0500 Mobile Ozone Surface Sanitation System to the NSF Registration Guidelines for Proprietary Substances and Nonfood Compounds (2000), a continuation of the USDA product approval and listing program (available at www.nsf.org/usda). The AGW-0500 has been determined acceptable for use as an ozone generating device providing sanitization and disinfection of hard, inanimate, pre-cleaned surfaces, in and around food processing areas. A potable water rinse is not required following the use of the AGW-0500 on previously cleaned hard surfaces provided that the surfaces are adequately drained before contact with food. The AGW-0500 system meets performance requirements for both broad-spectrum and hospital/medial environment efficacy claims as specified in the US EPA DIS/TSS-1.

NSF Registration for this device is based upon documentation indicating that it meets all necessary requirements including labeling, EPA Establishment Registration, and safety requirements set forth under Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) of June 5, 1947, Section 2(q)(1) and Section 7.

ANTIMICROBIAL RESULTS

Efficacy studies conducted according to AOAC Official Method 961.02, Germicidal Spray Products as Disinfectants and AOAC Official Method 960.09*, Germicidal and Detergent Sanitizing Action of Disinfectants (EPA formulated test and performance requirements), provided the following results:

Organism	Reduction
<i>Trichophyton mentagrophytes</i> (ATCC 9533)	6 log (99.9999%)
<i>Salmonella choleraesuis</i> (ATCC 10708)	6 log (99.9999%)
<i>Staphylococcus aureus</i> (ATCC 6538)	6 log (99.9999%)
<i>Pseudomonas aeruginosa</i> (ATCC 15442)	6 log (99.9999%)
<i>Campylobacter jejuni</i> (ATCC 33250)	4 log (99.99%)
<i>Listeria monocytogenes</i> (ATCC 7644)	4 log (99.99%)
<i>Aspergillus flavus</i> (ATCC 9296)	4 log (99.99%)
<i>Brettanomyces bruxellensis</i> (ATCC 10560)	4 log (99.99%)
<i>Escherichia coli</i> * (ATCC 11229)	5 log (99.999%)

SAFETY TESTED

Performance safety testing was based on the Hazard Communication Standard as promulgated through the Occupational Safety and Health Act of 1970 and documented in the Code of Federal Regulations, Title 29, Chapter XVII, Part 1910, Section 1910.1200. The Toxicology Group, LLC, a division of NSF International, provides a professional opinion that the AGW-0500 Mobile Ozone Surface Sanitation System poses no safety concerns when operated under the prescribed conditions as set forth in the owner's manual.

DEL AGRICULTURAL
Environmental Ozone Solutions
Since 1975

Corporate Headquarters
3428 Bullock Lane • San Luis Obispo, CA • 93401
Toll Free: 800-676-1335 • Fax: 805-541-8459
E-mail: agininfo@delozone.com • www.delozone.com

EPA Estab. No. 071472-CA-001