

V3-0424

SG-WDS Series

Affordable Ozonated Water Disinfection

Ozone Water is FDA, USDA, AVA Approved

ADVANCED FOOD SAFETY OZONE DISINFECTION SOLUTIONS

Designed for the Professional Food & Beverage Industry













SG-WDS MAX

SG-WDS/ICE

WHY USE PROMEDUSA'S SG-WDS OZONATED WATER DISINFECTION SYSTEM?

ESG COMPLIANCE & ENVIRONMENTAL IMPACT

GO FROM THIS....



TO THIS....



TO PREVENT THIS....



Introduction to: BioSure Professional Ozone for Food & Beverage

For over 30 years, BioSure Professional has been an industry leader in the development, manufacturing, and supply of environmentally-friendly microbial controls and sanitation systems using electrolytic ozone made from water and electricity. Our expertise in ozone equipment manufacturing has allowed us to innovate ozone products for F&B, enhancing food safety and beverage quality for operators worldwide.

NOW MARRIOTT INTERNATIONAL

Safe and Sustainable Food Safety and Sanitation

At BioSure Professional, we understand the importance of food safety and sanitation in the food and beverage industry. This is why we offer innovative, safe, and reliable ozone products and comprehensive solutions for food safety and sanitation.

Ozone is one of the strongest naturally occurring oxidants and is highly effective in killing bacteria, viruses, and other harmful microorganisms. Our patented Electrolytic Ozone Generation (EOG) technologies deliver easy-to-use, effectively dissolved ozone in water safely and reliably without using harmful chemicals that can alter tastes. And, unlike traditional sanitizers, ozone reverts to oxygen after use, leaving no harmful residues or by-products.

Our cutting-edge sanitation technology offers specialized applications for various types and stages of food handling or processing, including water disinfection, produce wash, beverage waterlines hygiene maintenance, ice machine hygiene maintenance, and hygiene improvement. With our comprehensive solutions, F&B operators can improve food safety, reduce chemical usage, minimize downtime, and surpass regulatory standards.

SAFE: Ozonated water has an MSDS of 0.0.0.0 - just like normal tap water.



"I trust BioSure Professional ozone to keep kitchen sanitation at the highest level and to ensure safest and freshest food for diners while naturally cleaning the highest level ingredients as they should."

Chef Jean Luc Voegele, ex-Executive Chef at Westin Denver Downtown, an advocator for food safety and BioSure Professional solutions.

ADVANTAGES OF USING PROMEDUSA'S SG-WDS AND SG-WDS/ICE OZONATED WATER DISINFECTION SYSTEMS

MARRIOTT CORPORATE RECOMMENDATION:

Ms. Hope Lang, Area Director of Operations Marriott International

 June 2023 - issued a notification recommending the WDS in cases of hygiene issues – particularly Ice Machines (WDS/ICE) and shellfish

EASE OF USE:

- Turn on the tap and you have instant ozonated water on demand
- The WDS replaces more than or totally eliminates 80% of the chemicals you use
- Ozonated Water leaves no residues behind
- WDS's Ozonated Water sanitizes & deodorizes (99.999%) on contact within 5 seconds
- No handling or mixing of dangerous chemicals or Chlorine
- No possibility of human error
- No need for protective gloves, goggles or clothing
- Equipment downtime due to servicing and cleaning is reduced
- The WDS and WDS/ICE are fully automatic

FOOD PREPARATION & QUALITY OF FOODS:

- Ozonated Water will kill on contact the mould and bacteria on your foods that causes foods (seafood, meat, poultry, greens, fruits) to decay, and vegetables to rot
- Ozonated Water is a natural sanitizer, has a 50X stronger oxidation rate and is 3000X faster than Chlorine
- Ozonated Water prevents cross contamination
- Food shelf life improves dramatically.
- Ozonated Water will never alter or change the texture, colour or taste of any foods or ice
- Ozonated Water quickly removes up to 90% of pesticides from food surfaces

HEALTH & SAFETY:

- WDS's Ozonated Water is 100% safe and harmless MSDS 0.0.0.0
- Ozonated Water is FDA, USDA and AVA approved for F&B usage, and human consumption since 2001 and deemed safe by HACCP
- The WDS/ICE's Ozonated Water prevents the build-up of dangerous pathogen breeding slime and biofilm inside your ice machine
- The WDS/ICE will sanitize the interior of your ice machine and provide your guests and customers with clean, crystal pure, and tasteless ice
- Sanitize all of your food preparation surfaces and tools (knives, chopping boards, etc.) in seconds
- Prevent food poisoning Ozonated Water kills 99.999% of food borne pathogens including Salmonella, E. coli, Listeria, Norovirus

ENVIRONMENTAL & ESG COMPLIANCE:

- Ozone Water is totally harmless to the environment. The WDS's ozonated water begins as tap water, and reverts back to simple tap water and oxygen
- Eliminate tons of paper and plastic packaging waste
- Eliminate tens of thousands of empty plastic bottles and containers from being dumped into landfills or recycle bins
- Dramatically reduce your carbon footprint (future carbon tax) by eliminating chemical transportation and resupply costs
- Food wastage due to spoilage is dramatically reduced
- WDS's Ozonated Water is corrosion free, with no hazardous byproducts produced like NOx
- The WDS saves energy and labour costs

TESTED BY:



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TECHNICAL DATA

OZONE EFFECTS ON SPECIFIC BACTERIA, VIRUSES & MOLDS

Bacteria are microscopically small, single-cell creatures having a primitive structure. The bacteria body is sealed by a relatively solid-cell membrane. Ozone interferes with the metabolism of bacterium-cells, most likely through inhibiting and blocking the operation of the enzymatic control system. A sufficient amount of ozone breaks through the cell membrane, and this leads to the destruction of the bacteria. Viruses are small, independent particles, built of crystals and macromolecules. Unlike bacteria, they multiply only within the host cell. They transform protein of the host cell into proteins of their own. Ozone destroys viruses by diffusing through the protein coat into the nucleic acid core, resulting in damage of the viral RNA. At higher concentrations, ozone destroys the capsid, or exterior protein shell by oxidation so DNA (deoxyribonucleic acid), or RNA (ribonucleic acid) structures of the microorganism are affected.

1-mg/l = 1-PPM

Pathogen	Dosage
Aspergillus Niger (Black Mount)	Destroyed by 1.5 to 2 mg/l
Bacillus Bacteria	Destroyed by 0.2 m/l within 30 seconds
Bacillus Anthracis (causes anthrax in sheep, cattle and pigs. Also a human pathogen)	Ozone susceptible
Bacillus cereus	99% destruction after 5-min at 0.12 mg/l in water
B. cereus (spores)	99% destruction after 5-min at 2.3 mg/l in water
Bacillus subtilis	90% reduction at 0.10-PPM for 33 minutes
Bacteriophage f2	99.99% destruction at 0.41 mg/l for 10-seconds in water
Botrytis cinerea	3.8 mg/l for 2 minutes
Candida Bacteria	Ozone susceptible
Clavibacter michiganense	99.99% destruction at 1.1 mg/l for 5 minutes
Cladosporium	90% reduction at 0.10-PPM for 12.1 minutes
Clostridium Bacteria	Ozone susceptible
Clostridium Botulinum Spores. Its toxin paralyses the central nerve system, being a poison multiplying in food and meals.	0.4 to 0.5 mg/l threshold value
Coxsackie Virus A9	95% destruction at 0.035 mg/l for 10-seconds in water
Coxsackie Virus B5	99.99% destruction at 0.4 mg/l for 2.5-minutes in sludge effluent
Diphtheria Pathogen	Destroyed by 1.5 to 2 mg/l
Eberth Bacillus (Typhus abdomanalis). Spreads typically by aqueous infection and causes typhoid.	Destroyed by 1.5 to 2 mg/l
Echo Virus 29: The virus most sensitive to ozone.	After a contact time of 1 minute at 1 mg/l of ozone, 99.999 killed.
Enteric virus	95% destruction at 4.1 mg/l for 29 minutes in raw wastewater
Escherichia Coli Bacteria (from feces)	Destroyed by 0.2 mg/l within 30 seconds in air
E–coli (in clean water)	99.99% destruction at 0.25 mg/l for 1.6 minutes
E–coli (in wastewater)	99.9% destruction at 2.2 mg/l for 19 minutes
Encephalomyocarditis Virus	Destroyed to zero level in less than 30 seconds with 0.1 to 0.8 mg/l.
Endamoebic Cysts Bacteria	Ozone susceptible
Enterovirus Virus	Destroyed to zero level in less than 30 seconds with 0.1 to 0.8 mg/l.



1-mg/l = 1-PPM

Pathogen	Dosage	
Fusarium oxysporum f.sp. lycopersici	1.1 ma∕l for 10 minutes	
Fusarium oxysporum f.sp. melonogea	99.99% destruction at 1.1 mg/l for 20 minutes	
GDVII Virus	Destroyed to zero level in less than 30 seconds with 0.1 to 0.8 mg/l.	
Hepatitis A virus	99.5% reduction at 0.25 mg/l for 2-seconds in a phosphate buffer	
Herpes Virus	Destroyed to zero level in less than 30 seconds wit 0.1 to 0.8 mg/l.	
Influenza Virus	0.4 to 0.5 mg/l threshold value	
Klebs–Loffler Bacillus	Destroyed by 1.5 to 2 mg/l	
Legionella pneumophila	99.99% destruction at 0.32 mg/l for 20 minutes in distilled water	
Listeria monocytogenes (air)	1.0–4.0 PPM for 5 log reduction (time not known)	
Luminescent Basidiomycetes (species having no melanin pigment).	Destroyed in 10 minutes at 100-PPM	
Mucor piriformis	3.8 mg/l for 2 minutes	
Mycobacterium avium (scientifically reviewed document)	99.9% with a CT value of 0.17 in water	
Mycobacterium foruitum	90% destruction at 0.25 mg/l for 1.6 minutes in water	
Penicillium Bacteria	Ozone susceptible	
Phytophthora parasitica	3.8 mg/l for 2 minutes	
Poliomyelitis Virus	99.99% kill with 0.3 to 0.4 mg/l in 3-4 minutes	
Poliovirus type 1	99.5% destruction at 0.25 mg/l for 1.6 minutes in water	
Proteus Bacteria	Very susceptible	
Pseudomonas Bacteria	Very susceptible	
Rhabdovirus virus	Destroyed to zero level in less than 30 seconds with 0.1 to 0.8 mg/l	
Salmonella Bacteria	Very susceptible	
Salmonella typhimurium	99.99% destruction at 0.25 mg/l for 1.67 minutes in water	
Schistosoma Bacteria	Very susceptible	
Staph epidermidis	90% reduction at 0.1-ppm for 1.7 min	
Staphylococci	Destroyed by 1.5 to 2.0 mg/l	
Stomatitis Virus	Destroyed to zero level in less than 30 seconds with 0.1 to 0.8 mg/l	
Streptococcus Bacteria	Destroyed by 0.2 mg/l within 30 seconds	
Verticillium dahliae	99.99% destruction at 1.1 mg/l for 20 minutes	
Vesicular Virus	Destroyed to zero level in less than 30 seconds with 0.1 to 0.8 mg/l	
Virbrio Cholera Bacteria	Bacteria Very susceptible	
Vicia Faba progeny	Ozone causes chromosome aberration and its effect is twice that observed by the action of X-rays	



Natural sanitation simply from water and electricity

BioSure Professional WDS Series products uses innovative Electrolytic Ozone Generation (EOG) technology that directly convert water and electricity to aqueous ozone. Ozonated water is a powerful, yet safe and natural oxidant that is effective at destroying bacteria, viruses, and mold. Once it is used it reverts back to water and oxygen. It is a safe and residue-free sanitation method. It leaves no residual and doesn't change taste and texture of food. The US FDA has recognized ozone as an antimicrobial agent suitable for use in Food Processing and Agricultural Production^{*1}.

*1. Notice of this recognition appeared in the Federal Register, June 26, 2001.



Flexible installation to meet your kitchen applications



Hand Wash

Cross Contamination Prevention



Food Defrosting & Purification









Utensils & Produce Washer Equipments Integration Sanitation

sher Wash-Down & n Sanitation

vn & Ice M on Disir

Ice Machine Disinfection

SG-WDS SERIES



Organic Wash



Reduces Chemical Use

Increases Productivity



Reduces Corporate Carbon Footprint

With the BioSure Professional WDS Series, food processing and kitchen operators can maintain high food safety standards and reduce operational costs associated with traditional sanitation methods. These solutions offer a safe and effective alternative that eliminates the need for harmful chemicals and leaves no residue. You can trust BioSure Professional to properly and safely sanitize your food while reducing your operational costs.

Ozone Water MSDS is 0.0.0.0 (just like tap water)





SG-WDS (up to 2 taps)

SG-WDS MAX (up to 4 taps)

Electrolytic Ozone Generation (EOG) technology.

SG-WDS/ICE

- Easy in-line installation.
- Simple flow-start design.
- Replaceable EOG Cell Cartridge.

- Large flow capability.
- User-friendly display and controls.
- Intelligent self-booster program.
- Smart self-cleaning maintenance program.

SG-WDS Series

Simple Installation for Continuous Disinfection





WDS Configuration Diagram



Ice Machines



Commercial Kitchen Faucets



Commercial Laundry Machines



Beverage Dispenser

WDS

Water Dispenser



AUTOMATIC ICE MACHINE DISINFECTION SYSTEM



Your Ice Machine is Filthy!

Don't you want your ice to look like this?



Continuously disinfect your ice machine and keep your ice safe, pure, and crystal clear



SG-WDS/ICE

ProMedUSA's SG-WDS/ICE

The chemical free solution to eliminate biofilm, slime, bacteria and germs – automatically

- Tested and proven to remove 99.99% of bacteria and viruses in just 5 seconds
- Kills Biofilm, Slime, Salmonella, E. coli, Legionella, Norovirus, Listeria
- Eliminates or reduces manual cleaning
- Leaves no chemical residues behind
- No change in taste or colour of your ice
- The SG-WDS/ICE generates pure, safe ozonated water that is a disinfectant that is 3,000 times faster than chlorine and safer.
- FDA and USDA approved
- Ensures best quality hygiene 24/7

ProMedUSA Model SG-WDS/ICE ICE & BEVERAGE SOLUTIONS

Enormous food safety risks occur when there is a build-up of biofilm and slime in your ice and beverage machines and in the water lines supplying those units. Dangerous pathogens like Salmonella, E. coli, Listeria, Candida, Norovirus attach to the biofilm and slime and multiply and breed contaminating the ice and cold water.

The ProMedUSA Model SG-WDS/ICE is proven to quickly kill those dangerous pathogens and prevent the biofilm build-up.

SGS OZONATED WATER TEST RESULTS				
Test Item	0 Sec	5 Sec	15 Sec	Reduction(%)
Staphylococcus aureus(CFU/ml)	5.4x10 ⁵	not detected	not detected	>99.999
Escherichia Coli(CFU/ml)	2.5x10 ⁵	6.1x10	< 10	99.99
Salmonella(CFU/ml)	1.7x10 ⁵	1.9x10	not detected	99.9
Pseudomonas aeruginosa(CFU/ml)	4.5x10 ⁵	not detected	not detected	>99.999
Candida albicans(CFU/ml)	1.3x10 ⁵	not detected	not detected	>99.999
MRSA(CFU/ml)	1.3x10 ⁵	not detected	not detected	>99.999

The above test results, by SGS show the effectiveness of ozone water. Exposure times of 5 seconds and 15 seconds show remarkable kill rates of up to 99.999%. SGS is the world's leading inspection, verification, testing and certification laboratory, and is recognized as the global benchmark for quality and integrity.



SG-WDS/ICE Results in a 5 Star Hotel's Ice Machine



Before SG-WDS/ICE Installation

30 Days After SG-WDS/ICE Installation



Typical SG-WDS/ICE Installation

SPECIFICATIONS

SG-WDS/ICE Ice Machine Disinfection System

EOS7211-	BX
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Dimensions (W x D x H)	73 x 118 x 148 mm (2.8"x 4.6"x 5.8")
Weight (Net)	500 g (1.1 lb)
Power Supply	100 -240V AC, 50/60Hz (24V DC, 4.0A)
Rated Power	30W
Waterline Connection	1/2"
Operating Water Requirements	Cold Clean Tap Water (Filtered to $\leq 1 \ \mu m$, TDS ^{*1} > 30 ppm, Hardness ^{*2} <250 ppm)
Nominal Operating Flowrate	60 - 880 LPH (0.3 - 3.9 GPM)
Aqueous O ₃ Concentration	Up to 1.5 ppm @ 60 LPH*3

SG-WDS Water Disinfection System (for up to 2 taps)

EOS7177-PQX



Dimensions (W x D x H)	140 x 128.5 x 210.5 mm (5.5"x 5.1"x 8.2")
Weight (Net)	1.3 kg (2.9 lb)
Power Supply	100 -240V AC, 50/60Hz (24V DC, 4.0A)
Rated Power	96W
Waterline Connection	3/4"
Operating Water Requirements	Cold Clean Tap Water (Filtered to ≤ 1 µm, TDS > 30 ppm, Hardness <250 ppm)
Nominal Operating Flowrate	60 - 2000 LPH (0.3 - 9.0 GPM)
Aqueous O ₃ Concentration	Up to 2.5 ppm @ 60 LPH*3

SG-WDS MAX Water Disinfection System (for up to 4 taps)

- NAME AND ALC	Dimensions (W \times D \times H)	202 x 141.5 x 273.2 mm (8.0"x 5.6"x 10.8")
	Weight (Net)	3.0 kg (6.6 lb)
	Power Supply	100 -240V AC, 50/60Hz (15V DC, 10.5A)
	Rated Power	96W
	Waterline Connection	1"
	Operating Water Requirements	Cold Clean Tap Water (Filtered to ≤ 1 µm, TDS > 30 ppm, Hardness <250 ppm)
	Nominal Operating Flowrate	60 - 4000 LPH (0.3 - 18.0 GPM)
	Aqueous O ₃ Concentration	Up to 3.5 ppm @ 60 LPH*3

EOS7178-PQX

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SG-OzSPRAY Professional Ozone Spray Bottle

EOS7161-P	Dimensions (D x H)	255 mm (10") Height 53 mm (2.1") Diameter
	Weight (Net)	308 g (0.7 lb)
1	Power Supply	5V DC, 1.0A (USB-C)
	Battery Capacity	Li-ion 3.7V, 1200mAh
	Operating Water Requirements	Cold Clean Tap Water (TDS > 30 ppm, Hardness < 180 ppm)
8	Bottle Water Volume	Max. 150 ml (5 oz)
a der	Aqueous O ₃ Concentration	Up to 3.0 ppm ^{*3}
150ml	Re Colored Col	



Contact us: We are your local authorized BioSure dealer

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BioSure Products have been tested and approved by:

