

# Model SG-OzPAK SG-OzVest

## Portable, Battery Operated, Ozonated Water JetSpray System

The OzPak and OzVest are powered by a rechargeable battery providing up to 12 continuous hours of Ozonated Water with up to 2PPM of dissolved ozone



SG-OzPak



SG-OzVest

# ProMedUSA

## SG-OzPAK and SG-OzVEST

Portable Ozonated Water Generator Jet Spray

- Portable and Self-Contained – weighs less than 1.5KG
- Generates a powerful jetspray of Ozonated Water
- The rechargable battery pack lasts up to 12 hours
- Simple to use: Just attach input hose to any water tap
- Generates up to 2ppm of dissolved ozone in the jetspray
- Cleans, Disinfects and Deodorises almost any surface
- Kills up to 99.99% of Viruses, Germs, Bacteria in seconds
- Absolutely safe for Humans, Pets, and the Environment as the MSDS is 0.0.0.0.
- 100% GREEN and CHEMICAL FREE Cleaning - The Ozonated Water reverts back into plain tap water in under 20 minutes
- Quickly Clean, Sanitise and Deodorise Toilets, Bin Centres, Rubbish Chutes, Shopping Centres, Childcare Centres, Medical Offices and Clinics, F&B Outlets, Pet Salons and Shops, etc.
- Save Water, Time and Manpower – no rinsing required

# SIMPLE AND EASY TO USE



# ACTUAL TEST RESULT BEFORE AND AFTER OZONE WATER



BEFORE APPLYING OZONE WATER  
THE BACTERIA COUNT WAS 2728



AFTER APPLYING OZONE WATER  
THE BACTERIA COUNT IS JUST 99

# ProMedUSA SG-OzTAP

## Ozonated Water Generator

### Hand Wash Effectiveness\*



<b>PATHOGEN</b>	<b>WASH TIME</b>	<b>% REDUCTION</b>
<b>Staphylococcus aureus</b>	<b>5 seconds</b>	<b>99.9%</b>
	<b>15 seconds</b>	<b>99.999%</b>
<b>E.coli</b>	<b>5 seconds</b>	<b>99.9%</b>
	<b>15 seconds</b>	<b>99.999%</b>
<b>Salmonella</b>	<b>5 seconds</b>	<b>99.999%</b>
	<b>15 seconds</b>	<b>99.9999%</b>
<b>MRSA</b>	<b>5 seconds</b>	<b>99.99%</b>
	<b>15 seconds</b>	<b>99.999%</b>
<b>HFMD (Coxsackie)</b>	<b>5 seconds</b>	<b>99.9%</b>
	<b>15 seconds</b>	<b>99.99%</b>
<b>Listeria</b>	<b>5 seconds</b>	<b>99.999%</b>
	<b>15 seconds</b>	<b>99.999%</b>
<b>Legionella</b>	<b>5 seconds</b>	<b>Not tested</b>
	<b>15 seconds</b>	<b>99.99%</b>
<b>Hepatitis A</b>	<b>5 seconds</b>	<b>99.9%</b>
	<b>15 seconds</b>	<b>99.99%</b>
<b>Norovirus</b>	<b>5 seconds</b>	<b>99.9%</b>
	<b>15 seconds</b>	<b>99.999%</b>

\*Tested by Dokkyo Medical University (Japan) and also by SGS Worldwide Testing and Certification Service (Swiss) with 5 and 15 second exposures to ozonated water of 5ppm

# PROVEN - VERIFIED RESULTS

## Men's Toilets

LOCATION	READINGS			
	ODOUR READING Cosmos XP-329 Odour Meter		BACTERIA SWAB TEST RESULTS SystemSure Plus ATP Monitor	
	BEFORE	AFTER	BEFORE	AFTER
<b>LITTLE INDIA</b> NEL MRT STATION GENTS TOILET	<b>586</b>	<b>478</b>	<b>5272</b>	<b>20</b>
<b>BUKIT TIMAH FOOD CENTRE</b> GENTS TOILET	<b>496</b>	<b>345</b>	<b>1143</b>	<b>29</b>
<b>BERSEH FOOD CENTRE</b> GENTS TOILET	<b>472</b>	<b>338</b>	<b>621</b>	<b>100</b>

Test Procedure: The smell in the Men's Toilet at these 3 test sites was first measured for odour using the standard Cosmos Model XP-329 Odour Meter.

We then swabbed the urinals with the hospital Grade SystemSure Plus ATP meter and measure the relative bacterial count.

The Toilets were then washed down briefly with the Ozonated Water from the SG-OZPak and the readings were taken again.

The results: Odours immediately reduced by at least 30% with a single wash (repeated washing will further reduce the odours).

The bacteria count was reduced to a level that would be acceptable by the AVA for serving food on (100 counts or less). Theoretically, the urinals were sanitised enough to eat from!



## **TEST OF THE OZONATED WATER PRODUCED BY THE SG-OzPAK's OZONE GENERATOR IN DEACTIVATING THE CORONAVIRUS SARS-CoV-2**

Tested at Nara Medical University, Level3 Biohazard Lab October 2020

A study conducted at the Nara Medical University, by Professor Hisakazu YANO, Associate Professor Ryuichi NAKANO, Department of Microbiology and Infectious Diseases, confirmed the novel coronavirus SARS-CoV-2 inactivation effect of low-concentration ozone water generated by the Professional Use Ozone Generator used in ProMedUSA's SG-OzPAK.

The study confirmed the inactivation effect on the novel coronavirus of approx. 0.2 mg/l of low- concentration ozone water (hereafter referred to as "the ozone water") generated using an actual production model of the equipment to infuse tap water with ozone gas from a nozzle directly connected to the faucet.

The test and confirmation of effectiveness in the study were implemented under proper pathogen containment measures ex situ at bio-safety level 3 (BSL3), and do not constitute proof of effectiveness in an actual-use environment using the equipment.

### **TEST VIRUS USED: NOVEL CORONAVIRUS (SARS-CoV-2)**

### **METHODOLOGY:**

A total of 190 µl of the ozonated water produced by the SG-OzPAK's Ozone Generator and 10 µl of virus fluid were mixed and allowed to react with each other for a fixed time. As a control group, the same amount of phosphate-buffered saline (PBS) and virus fluid were mixed and allowed to react in the same way.

After reaction, 800 µl of culture medium containing 10 mM of sodium thiosulfate was added to each fluid to stop the reaction, the fluid was collected, and the amount of virus was then calculated using the plaque assay technique. The test was conducted twice for each fluid.

The virus reduction rate was calculated using a logarithmic decrease value and the following formula:

$$\text{Reduction rate [\%]} = (1 - 1/10^{\text{logarithmic decrease value}}) \times 100$$



Ozonated Water Generator, and the mixing of the SARS-Cov-2 Virus

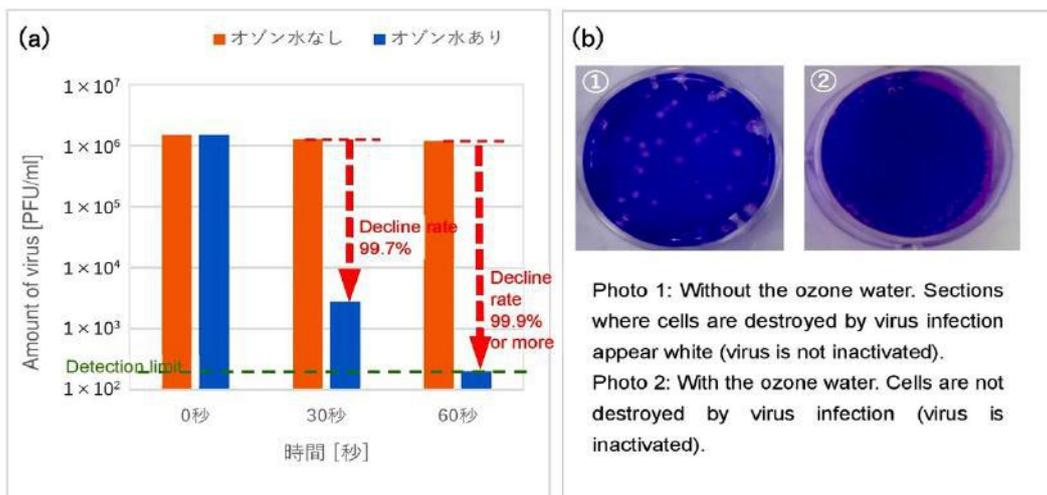
## TEST RESULTS:

After mixing the ozone water with the virus fluid, a virus amount of  $1.49 \times 10^6$  PFU/ml decreased to  $2.75 \times 10^3$  PFU/ml in 30 seconds, then decreased to within the detection limit of  $2.00 \times 10^2$  PFU/ml in 60 seconds. **The virus reduction rate at this time was 99.7% and at least 99.9% respectively.** These values are the average values of two tests.

	0 seconds	30 seconds	60 seconds
Without the ozone water	$1.49 \times 10^6$	$1.28 \times 10^6$	$1.17 \times 10^6$
With the ozone water	$1.49 \times 10^6$	$2.75 \times 10^3$	$< 2.00 \times 10^2$
<b>Decline rate (%)</b>	-	<b>99.7 %</b>	<b>&gt; 99.9 %</b>

\* Detection limit value:  $< 2.00 \times 10^2$ ; decline rate (%) is rounded down to two decimal places.

Changes in amount of virus due to the ozone water (units: PFU/ml)



Orange Without ozone water, Blue: With ozone water. Time in seconds: 0, 30, 60

**The test results confirmed that the ozone water renders the novel coronavirus SARS-CoV-2 inactive at a rate greater than 99.9%.**

This confirms that cleaning with the ozone water may be effective for preventing contact infection via substances infected with the novel coronavirus.

## **SUMMARY**

Confirmation of the effects of high concentrations (10 mg/l)<sup>\*3</sup> and low concentrations (2 to 0.4 mg/l)<sup>\*4</sup> of ozone water on the novel coronavirus have already been reported.

Generation of ozone water is broadly classified into generation by electrolysis or by generation by mixing ozone gas into water using the venturi injector which is the process used in the SG-OzPAK. With the venturi injector methodology as used in the SG-OzPAK, the dissolved ozone concentration in the water is lower.

**In this study, the effect of a relatively low-concentration (0.2 mg/l) of dissolved ozone in the test water generated by an actual production model of the SG-OzPAK's ozone generator verifies the effectiveness of the SG-OzPAK against the actual coronavirus SARS-CoV-2 (Covid-19) in achieving a rapid 99.9% deactivation (or destruction) of the virus.**

This validates that ozone water need not be limited to high-concentration use for medical equipment, etc., and that low-concentration ozone water may be sufficiently and widely utilized for general public sanitation use with regard to the novel coronavirus SARS-CoV-2.

# SOME OF OUR CLIENTS:





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