

Plasma Disinfectant
for Surfaces and Spaces

V1000



MedSchenker® is committed to providing safety for patients,
paramedics, caregivers and all medical personnel from
infectious diseases using advanced convergence technology.

V1000

Through continuous R&D, we eliminate the risk of contact with infectious diseases to provide a pleasant and safe environment.

Contents

1. Product Introduction	04
V1000, a Surface and Space Disinfector Disinfectants	
2. Test Results	08
Efficacy of Hospital Environmental Disinfection Efficacy of Ambulance Disinfection Certified Test Reports	
3. Guidelines for Personal Protective Equipment to Protect Against Disinfectant Exposure	13
Skin protection Eye protection Respiratory protection	

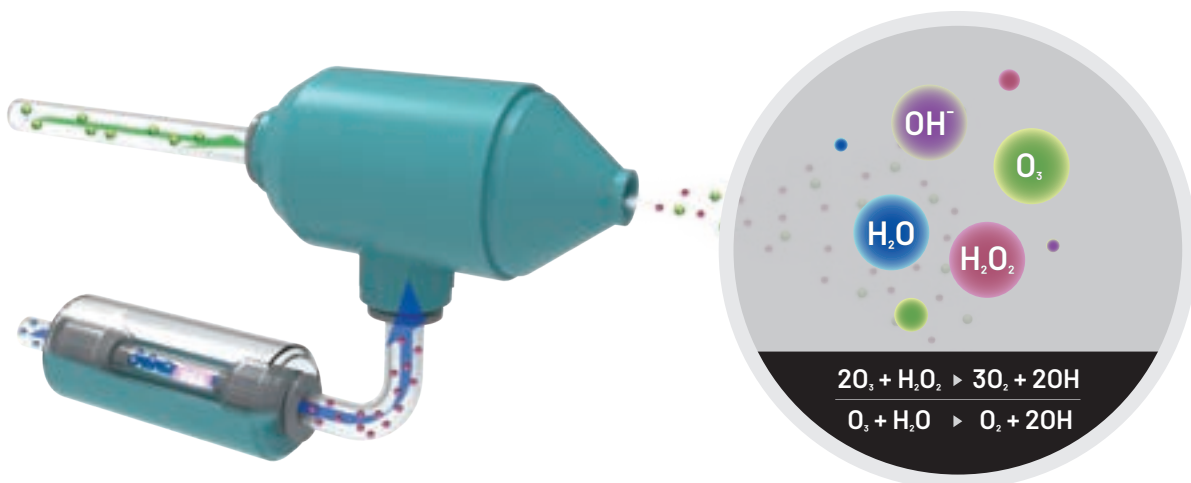
Product Introduction

V1000 | a Surface and Space Disinfectant

SPECIFICATIONS	
Size	390 x 470 x 720 mm
Weight	Approx. 21kg
Supply Voltage	AC 110/220V, 50/60Hz
Power Consumption	350 W
Disinfection Time	5 sec/m ³
Spray Liquid Flow Rate	50±5 mL/min
Disinfectant	5 / 3 / 1 / 0.5 Percent 3L x 1(60min of use)
Nozzle Cleaning Solution	500mL x 1(5 uses)



Disinfection mechanism



The V1000 quickly and effectively disinfects surfaces and spaces by spraying a mixture of plasma-activated air, which contains reactive oxygen species and a hydrogen peroxide-based disinfectant solution.

Product Features



Easy to Use



Quick to Disinfect



Highly Effective

Disinfect and Reuse Spaces Quickly

Ventilated spaces can be disinfected and reused within 10 to 30 minutes and spaces that are enclosed or have a negative pressure can be reused within 60 to 90 minutes. The variation in time depends largely on the size of the room, temperature and degree of ventilation or negative pressure.

Excellent Disinfection Efficacy

V1000 kills 99.9% to 99.999% or more of various pathogens, including bacteria, bacterial spores, viruses and fungi. A hydrogen peroxide-based disinfectant mixture is effective against antibiotic-resistant bacteria and corona viruses, as certified by the Korea Research & Testing Institute and the International Tuberculosis Research Center.

No Residue nor Residual Toxicity After Disinfection

The solution consists of a hydrogen peroxide-based disinfectant that disintegrates after use, leaving only a small amount of water behind that evaporates quickly. The disinfectant leaves no residue, so it is not necessary to rinse afterwards, cutting down on both time and labor costs. Since there is absolutely no residual toxicity after evaporation, V1000 can be used repeatedly without worry.

Simple, Lightweight, and Convenient for All Users

The spray gun is light and ergonomic, so anyone can use it. The user can use the guiding laser to mark a target for accurate disinfection and can press the button on the gun to start and stop the spray.

Disinfection in all Facilities and Environments in a Hospital

The disinfectant is available in various grades to match the disinfection strength to the particular location in a hospital or other facilities, such as wards, intensive care units, operating rooms, outpatient clinics and kitchens.

Parts

POWER BUTTON

SOLUTION INLET

CONTROL PANEL

USB INPUT

HANDLE





SUB HANDLE

SPRAY GUN

POWER CABLE



Disinfectants

Percentage		Spectrum	Examples	
			Pre-Hospital	Hospital
	5	High Strength	Ambulance Transporting Infected Patients, Negative Pressure Ambulance	Operating Room, Intensive Care Unit, Isolation Ward, Emergency Room (Resuscitation, Isolation, Triage)
	3	Intermediate Strength	Ambulance Transporting Infected Patients, Infection Control Office	Gastrointestinal Endoscopy Unit, Bronchoscopy Unit, Nursing Hospital, General Ward
	1	Low Strength	Ambulance Between Work Shifts For Paramedics	Outpatient Clinic, Dental Clinic, Nursing Home
	0.5	For Living Spaces	Office, Cafeteria, Garage	Hospital Diet Kitchen and Cafeteria, Funeral Hall

Test Results

Disinfection Efficacy Test Results

Efficacy of Environmental Disinfection in a Hospital Setting



A TEACHING UNIVERSITY HOSPITAL IN SEOUL, KOREA (TOTAL 24 AREAS)




- Infectious Diseases Outpatient Clinic
- Isolation Ward (VRE)
- Negative Pressure Isolation Ward
- CT Room
- X-Ray Room
- Pediatric Outpatient Clinic (Waiting Area)
- Gastrointestinal Endoscopy Unit
- Ophthalmology Outpatient Clinic
- Surgical Dressing Room
- Emergency Medical Center (Pediatric Zone)
- Emergency Medical Center (Critical Care Zone)
- Emergency Medical Center (Triage Room)
- Emergency Medical Center (CT Room)
- Emergency Medical Center (Resuscitation Room)
- Emergency Medical Center (X-Ray Room)
- Otorhinolaryngology Outpatient Clinic
- General Ward (Single Room)
- General Ward (4-Person Room)
- Intensive Care Unit (Isolation Room)
- Dental Outpatient Clinic
- Renal Dialysis Unit
- Peritoneal Dialysis Room
- Tuberculosis Clinic
- Bronchoscopy Unit






Test Results Example in a Hospital Setting

EMERGENCY MEDICAL CENTER (CRITICAL CARE ZONE)




* ATP: adenosine triphosphate

Bed (A) - Side Rail (R)	Before Spraying		After Spraying	
		ATP 211 (+) Cocci [70] (+) Bacillus [5]		ATP 64 None




GENERAL WARD (SINGLE ROOM)

Wood Table	Before Spraying		After Spraying	
		ATP 211 (+) Cocci [100] (+) Bacillus [4]		ATP 13 None




GASTROINTESTINAL ENDOSCOPY UNIT

Cart Drawer	Before Spraying		After Spraying	
		ATP 211 (+) Cocci [100]		ATP 0 None

X-RAY ROOM

Chest Fixture Plate	Before Spraying		After Spraying	
		ATP 211 (+) Cocci [100]		ATP 28 None

OTORHINOLARYNGOLOGY OUTPATIENT CLINIC

ENT Chair Button	Before Spraying		After Spraying	
		ATP 147 (+) Cocci [50] (+) Bacillus [10] Mold [1]		ATP 0 None

* Results of an average of 20 or more surface disinfection cultures per area were identified. Additional data is available upon request.

Official Certification Test Results

ANTIBACTERIAL AND ANTIVIRAL TESTING

No.	Testing Institution	Test Name	Disinfectant	Date	
1	KTR (Korea Testing & Research Institute)	Bactericidal and sporicidal test	3 Percent	'17. 11. 20	
				▪ Geobacillus stearothermophilus	> 99.999%
				▪ Escherichia coli	> 99.999%
				▪ Pseudomonas aeruginosa	> 99.999%
				▪ Staphylococcus aureus	> 99.999%
2	International Tuberculosis Research Center	Inactivation Efficacy Test Against Mycobacterium Tuberculosis	1 / 3 / 5 Percent	'19. 09. 06	
				▪ Mycobacterium tuberculosis H37Rv	> 99.999%
3	KTR (Korea Testing & Research Institute)	Bactericidal and Sporicidal Test	5 Percent	'19. 10. 31	
				▪ Escherichia coli	> 99.999%
				▪ Pseudomonas aeruginosa	> 99.999%
				▪ Staphylococcus aureus	> 99.999%
				▪ Enterococcus hirae	> 99.999%
				▪ Methicillin-resistant Staphylococcus aureus	> 99.999%
				▪ Aspergillus brasiliensis	> 99.99%
				▪ Candida albicans	> 99.99%
				▪ Bacillus cereus	> 99.99%
				▪ Bacillus subtilis	> 99.9%
				▪ Feline calicivirus	> 99.99%
				▪ Porcine parvovirus	> 99.9%
				▪ Human influenza A H1N1	> 99%
4	KTR (Korea Testing & Research Institute)	Surface Disinfectant Virucidal Efficacy Test	5 Percent	'20. 06. 26	
				▪ Human coronavirus	> 99.9%
				▪ Human Influenza A H3N2	> 99.9%
				▪ Human respiratory syncytial virus	> 99.99%
				▪ Rotavirus A	> 99.9%
				▪ Feline calicivirus	> 99.9%

* Although the sterilizing effect is greater than 99% to 99.99%, these are the maximum values derived from the experimental method defined by KTR for certification.

REPRESENTATIVE RESULTS FROM THE INTERNATIONAL TUBERCULOSIS RESEARCH CENTER



Distance : 1m, Time : 15 seconds, H ₂ O ₂ : 3%			
Medium 1 : N.G	Medium 2 : N.G	Medium 3 : N.G	
Medium 4 : N.G	Medium 5 : N.G	Medium 6 : N.G	
Medium 7 : N.G	Medium 8 : N.G	Medium 9 : N.G	

Distance : 1m, Time : 15 seconds, H ₂ O ₂ : 5.9%			
Medium 1 : N.G	Medium 2 : N.G	Medium 3 : N.G	
Medium 4 : N.G	Medium 5 : N.G	Medium 6 : N.G	
Medium 7 : N.G	Medium 8 : N.G	Medium 9 : N.G	

* N.G : No Growth

ANIMAL TOXICITY TEST

No.	Testing Institution	Test Name	Disinfectant	Date
1	ChemOn Inc. Nonclinical Research Institute	Skin irritation test	5 Percent	'20. 05. 12
	▪ Skin irritation test in rabbits			
2	ChemOn Inc. Nonclinical Research Institute	Eye irritation test	5 Percent	'20. 05. 12
	▪ Eye irritation test in rabbits			
3	ChemOn Inc. Nonclinical Research Institute	Oral dose toxicity	5 Percent	'20. 05. 12
	▪ Single oral dose toxicity test in rats			
4	ChemOn Inc. Nonclinical Research Institute	Dermal toxicity test	5 Percent	'20. 05. 12
	▪ Acute dermal toxicity test in rats			

* Summary of the test results

The 5 Percent disinfectant showed mild erythema and edema in the skin irritation test and showed a skin irritation index of 2.5 (moderate skin irritation), slightly above the weak irritation range of 2.0. The acute eye irritation index (I.A.O.I. – Index of Acute Ocular Irritation) was 36.0 in the eye-washed group (moderate irritation) and 52.3 in the unwashed group (severe irritation). Upon oral administration, no effect on the test substance was observed upon autopsy.

Guidelines

for Personal Protective Equipment to Protect Against Disinfectant Exposure

“When spraying, protective equipment should be used to protect against chemical exposure.”

Skin protection

- 1 Personal protective equipment (PPE) and gloves equivalent or above Level D are required.
- 2 PPE should be disposed after one use.

Eye protection

- 1 Goggles or protective eye equipment should be used to protect the eyes from irritation.

GOGGLES



MASK



GLOVES



BOOTS





V1000

Plasma Disinfector



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