



MEDiSTiCK Plus⁺ A CLEAN AND SAFE AIR DISENFECTANT

99% STERILIZATION

TESTED AND PROVED TO DESTROY SALMONELLA
TYPHIMURIM, MSRA, PNEUMOCOCCUS, PSEUDOMONAS
AERUGINOSA, BACILLUS CEREUS, STREPTOCOCCUS, FUNGUS

REDUCTION RATE OF BACTERIA

99% STERILIZATION

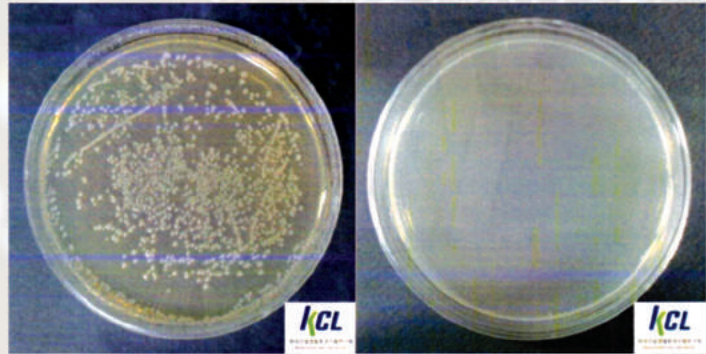
This test was conducted by the Korean Conformity Laboratories and Fiti Testing & Research Institute to determine level of sterilization.

Measured the rate of bacterial reduction by operating one sample of Medistick Plus in a container (4.5) for 24 hours and putting the medium inoculated with the bacteria in a container at room temperature for 24 hours.

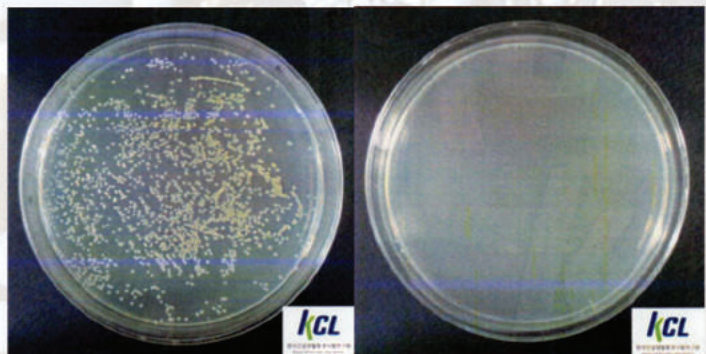
TESTED AND PROVED TO DESTROY 99% OF THE FOLLOWING:

SALMONELLA
TYPHIMURIM
MSRA
PNEUMOCOCCUS
PSEUDOMONAS
AERUGINOSA
BACILLUS CEREUS
STREPTOCOCCUS
FUNGUS

AFTER 24 HOURS WITH MEDISTICK



KLEBSIELLA PNEUMONIAE ATCC 4352



STAPHYLOCOCCUS AUREUS ATCC 6538



ESCHERICHIA COLI ATCC 8739

TEST REPORTS

the way to trust **KCL**

Test Items		Test Results			Test method	Testing Environment
		Early Conc. (CFU/mL)	After 24 h Conc. (CFU/mL)	Reduction rate of bacteria(%)		
Antibacterial test : <i>Klebsiella pneumoniae</i>	BLANK	1.5×10^4	1.5×10^4	-	Client's requirement method	(37.0 ± 0.2) °C
	Clean Stick	1.5×10^4	< 10	99.9		
Antibacterial test : <i>Staphylococcus aureus</i>	BLANK	1.3×10^4	1.3×10^4	-		
	Clean Stick	1.3×10^4	< 10	99.9		

※ CFU : Colony Forming Unit

※ Test strain : *Klebsiella pneumoniae* ATCC 4352
Staphylococcus aureus ATCC 6538

※ Sample : Clean Stick

※ Client's requirement method
: After 24 hours of operation by breaking and operating one sample in a container (4.5 L) suggested by the client, put the medium inoculated with the bacteria for 24 hours at room temperature in container and measure the rate of bacterial reduction.

※ Inoculum preparation, Inoculation method, Assessment of Results : KCL-FIR-1002:2018 Mod.

Zip 415-871, 196 Aegibong-ro, Wolgot-myeon, Gimpo-si, Gyeonggi-do

Tel(031)999-3000 Fax(031)999-3001

Report number: TBH-001913

Receipt Date: 2013.10.16

Representer: Yoo Su-Young

Test Completion date: 2013.11.15

company name: NON

Address: 302-1, 201 Daehak-ro, Chubu-myeon, Kumsan-gun, Chungcheongnam-do
(IACF Of Joongbu-University)

Sample : New clear

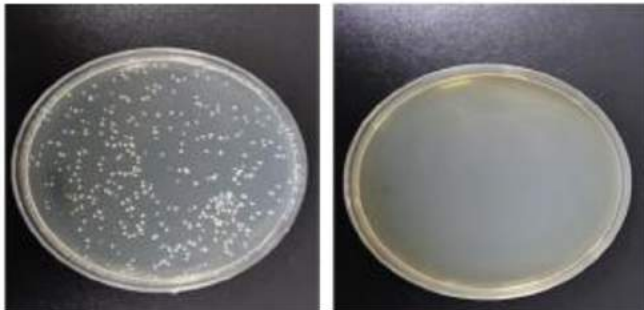
Result of Test

Test Item	Unit	Test Sample	Result	Inspection method
Sterilization test (Escherichia coli)	CFU/ Carrier	Initial	6.8×10^5	Provided by the Requester
Sterilization test (Escherichia coli)	CFU/ Carrier	after 1 hour	1.3×10^5 (80.9%)	Provided by the Requester
Sterilization test (Escherichia coli)	CFU/ Carrier	after 4 hours	< 20 (more than 99.9%)	Provided by the Requester
Sterilization test (S. typhimurium)	CFU/ Carrier	Initial	5.9×10^5	Provided by the Requester
Sterilization test (S. typhimurium)	CFU/ Carrier	after 1 hour	5.2×10^2 (99.9%)	Provided by the Requester
Sterilization test (S. typhimurium)	CFU/ Carrier	after 4 hours	< 20 (more than 99.9%)	Provided by the Requester

Nam-Seoul University Dept. of Clinical Laboratory Science, Molecular Diagnosis Lab Test Results

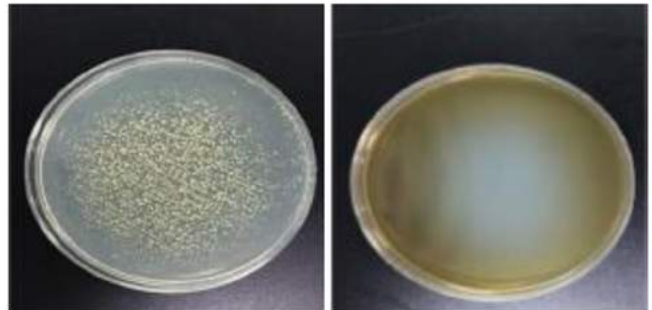
STAPHYLOCOCCUS AUREUS

Foodborne, pyogenic disease



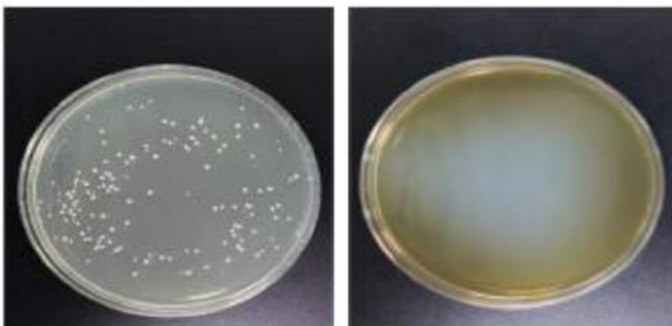
STAPHYLOCOCCUS PYOGENES

Scarlet-fever, Acute glomerulonephritis



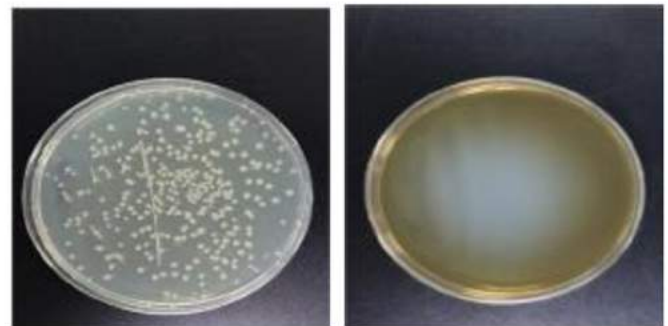
STREPTOCOCCUS AGALATIAE

Neonatal Meningitis, Cystitis



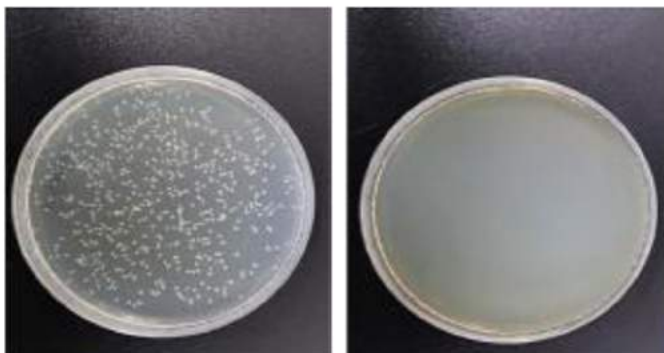
ESCHERICHIA COLI 0157 H7

Enterohemorrhagic Diarrhea



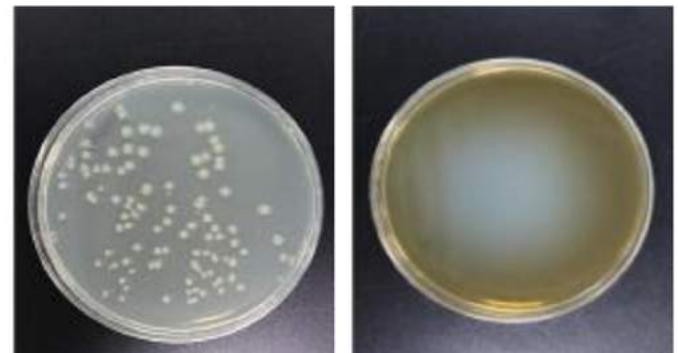
SALMONELLA TYPHI

Neonatal Meningitis, Cystitis

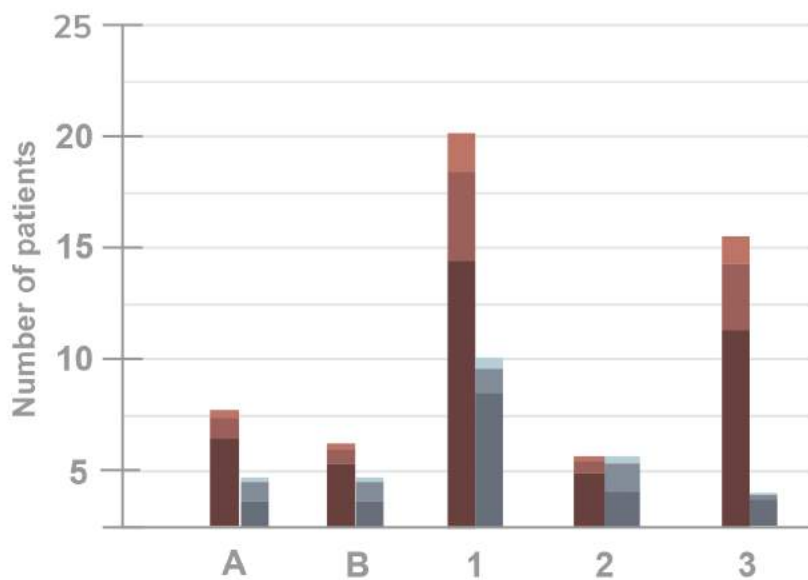


SHIGELLA SONNEI

Shigellosis



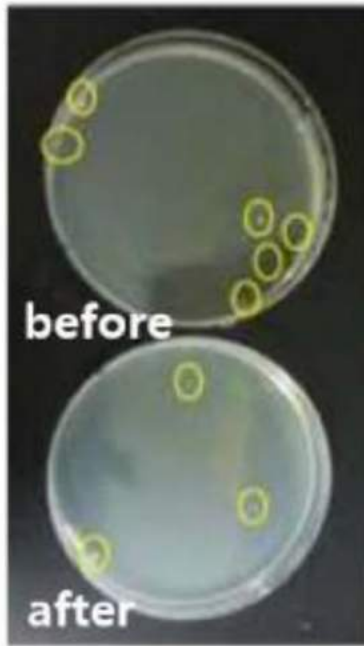
Floating Bacteria Count Decrease



Medistick has been tested in the ICU of Korean Hospital. Placed in special isolation room(A), near entrance to isolation room(B), and in three different sections around patients beds in the ICU section(1, 2 & 3).

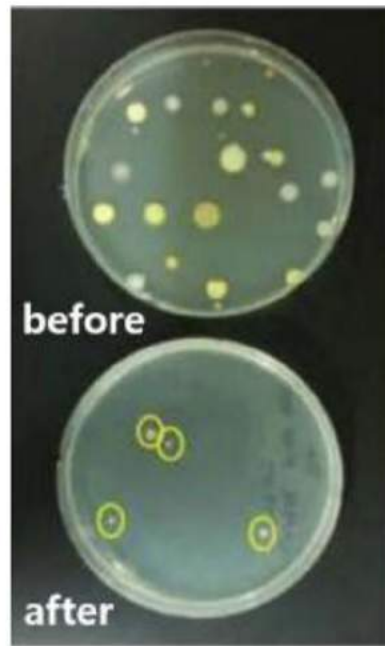
The in-patient occupancy ratio was increased from 30% to 90% and the results still showed floating bacterial count was decreased.

SICKROOM



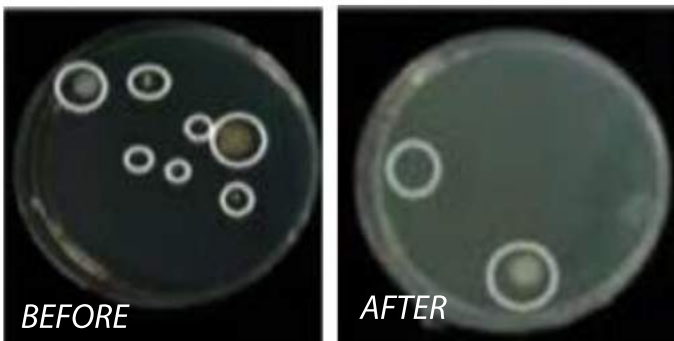
50% REDUCTION

ICU



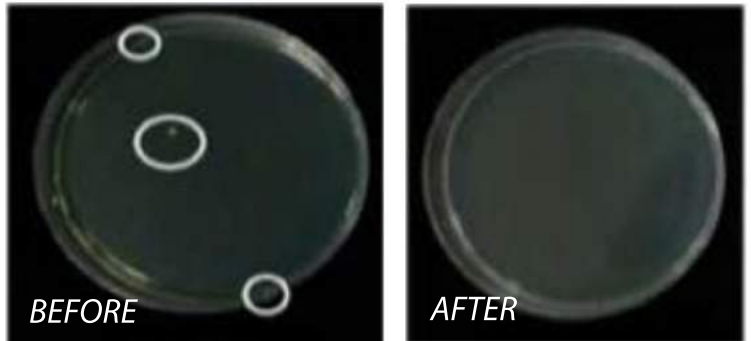
84% REDUCTION

X-RAY ROOM



72% REDUCTION

TUBERCULOSIS OFFICE



100% REDUCTION

 **MEDiSTiCK Plus⁺**

EXPERIMENTATION RESULTS ON AIR QUALITY

Medistick removes bacilli with its powerful and test-certified sterilization capability. The main ingredient CLO2 destroys odor-causing bacteria thus improving the air quality and reducing unpleasant and foul smells in living spaces.



OFFICE



MEETING ROOM



RESTAURANT



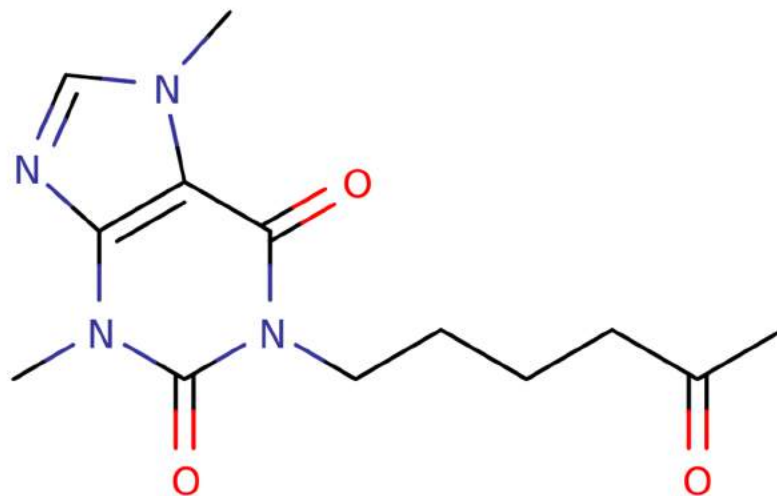
CAFETERIA



Can chlorine dioxide prevent the spreading of coronavirus or other viral infections?

To our present knowledge, an aqueous solution of ClO_2 is able to inactivate all types of viruses. Disinfectants (in water phase) are compared by their CT values, which is the concentration (measured in mg/L) multiplied by the contact time (measured in minute). In CT tables, ClO_2 is indicated for viruses in general, without mentioning any exemptions. For example, according to [6], a CT value of $8.4 \text{ mg} \times \text{min/L}$ is needed to achieve a four-orders-of-magnitude ("4 log" or "99.99%") inactivation of viruses in an aqueous medium at 25 °C.

In a recent study conducted Department of Physics, Budapest, Hungary Institute of Translational Medicine and International Nephrology Research and Training Center, Budapest, Hungary with Authors: K. Kály-Kullai M. Wittmann 1 , Z. Noszticzius 1 and László Rosivallrosivall.laszlo@med.semmelweis-univ.hu 2



Skeletal formula Molecule Chemical formula Chlorine dioxide

The study was centered around a discussion of some important properties of the ClO₂ molecule, which make it an advantageous antiviral agent, then some earlier results of ClO₂ gas application against viruses will be reviewed. Finally, we hypothesize on methods to control the spread of viral infections using aqueous ClO₂ solutions.

Summary of Findings

“It is interesting to remark that the spike protein of the new coronavirus SARS_CoV-2 contains 54 tyrosine, 12 tryptophan, and 40 cysteine residues. If we assume that in an aqueous solution all of these residues are able to react with ClO₂ just like the free amino acids, then the inactivation of the viruses can be extremely rapid even in a very dilute (e.g., in a 0.1 mg/L) ClO₂ solution.

A full copy of this report is available for download from

<https://akjournals.com/view/journals/2060/107/1/article-p1.xml>



Treatment with chlorine dioxide extends the vase life of selected cut flowers

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<https://www.sciencedirect.com/science/article/abs/pii/S092552140800135X>

The accumulation of bacteria in vase water is often associated with premature senescence in many cut flower species. In the present study, we tested the efficacy of aqueous chlorine dioxide (ClO₂) to extend flower display life by preventing the build-up of bacteria in vase solutions. The addition of 2 or 10 µL L⁻¹ ClO₂ to clean deionized water extended the vase life of many plants.

“Taken collectively, the results of the present study highlight the potential of aqueous ClO₂ for use as an alternative antibacterial agent in flower vase solutions.”

Case Studies of Chlorine dioxide being used to disinfect Vision Care facilities



The Bausch+ Lomb (B&L) Vision Care production facility in Greenville, South Carolina, manufactures contact lens solutions in sterile processing areas within a clean environment. Because the manufactured products either clean contact lenses or are placed directly into a person's eye's, they must be sterile and containers must be filled and sealed in an extremely high-quality environment.

The case study shows the effects of chlorine dioxide after 2 days All biological indicators dead; no positive swabs from their testing.

Download the case study

<https://www.clordisys.com/pdfs/articles/BauschLomb%20ISPE%20Mar2020.pdf>