STABILIZED AQUEOUS OZONE PATHOGEN SUMMARY

Test Protocols Meet Stringent U.S. EPA Standards for Use on Hard, Non-Porous Surfaces

TESTING SPONSORED BY TERSANO, INC.

Tested for both food-contact and non-food contact sanitizing needs
AOAC Official Method 960.09 employed

BACTERIA	TEST DATE	TEST LOCATION	REDUCTION	DWELL TIME
Claim: For use as a food-contact sanitizer on hard, non-porous surfaces, using ASTM E1276 in order to meet a standard threshold of 99.999% microbes killed in 30 seconds.				
Escherichia coli (E.coli) ATCC 11229	Feb 25, 2016	MycoScience Wilmington, CT	99.999% (log 5)	30 secs
Staphylococcus aureus (Staph) ATCC 6538	Feb 25, 2016	MycoScience Wilmington, CT	99.999% (log 5)	30 secs
Claim: For use as a non-food-contact sanitizer on hard, non-porous surfaces, using ASTM E1153 in order to meet a standard threshold of 99.9% microbes killed in 5 minutes.				
Escherichia coli (E.coli) ATCC 11229	Mar 17, 2016	Lapuck Labs Canton, MA	99.9%	30 secs
Salmonella typhimurium (Salmonella) ATCC 1428	Feb 26, 2016	Lapuck Labs Canton, MA	99.9%	30 secs

- Nonfood Compounds Program listed on White List as a no-rinse sanitizer and cleaner
- Awarded Maximum 10 Points
- Meets standards GS-37 and GS-53
- GRAS and compliant with the EPA Organic Program
- Aqueous ozone approved as antimicrobial agent June 26, 2001
- Non-objection letter received
- Recognized as environmentally preferable
- USDA/National Organic Program (NOP) Ozone Approval

For more detailed kill rate data, please contact your Tersano Customer Representative.

Tested to meet or exceed TUV, UL and CSA standards. Tersano's aqueous ozone is created by a dispenser regulated as a pesticidal device manufactured at EPA Establishment No. 089093-CAN-001.

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tersano™

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STABILIZED AQUEOUS OZONE PATHOGEN SUMMARY

Aqueous Ozone is approved by the EPA, FDA, USDA, is considered GRAS, and is compliant with the EPA Organic Program as a natural and effective cleaner and sanitizer.

The chart below summarizes the power of aqueous ozone and time required to destroy various bacteria and viruses at a strength of 2 ppm or less.

TESTING SPONSORED BY 3RD PARTY ORGANIZATIONS

Results of Aqueous Ozone Tested For Use As a Sanitizer on Non-Porous Surfaces

MICROBE	REDUCTION	TIME	REPORTING ORGANIZATION
Bacteriophage F2	99.9999%	Instantaneously	Journal of Food Sciences
E. faecalis	99.9%	Instantaneously	American Society for Microbiology
Mycobacterium avium	99.9%	Instantaneously	Virginia Tech
Hepatitus A	99%	Instantaneously	Journal of Food Sciences
Rotovirus (HRV)	99.9%	6 seconds	Applied and Environmental Microbiology
Tricophyton Mentagrophytes	99.9999%	30 seconds	Water Quality Products, Inc
Enteric Adenovirus	99.9%	30 seconds	Elsevier Water Research
Feline callicivirus	99.9%	30 seconds	Elsevier Water Research
Norwalk virus	99.9%	30 seconds	Applied and Environmental Microbiology
Pseudomonas Aeruginosa	99.9999%	5 minutes	Water Quality Products, Inc
Cryptosporidium parvum	99%	5 minutes	Applied and Environmental Microbiology
Polio 1	99.99%	10 minutes	National Academies Press

Data compiled from third party independent industry and academic sources, and is for general information purpose only. Kill rates vary with temperature, surface texture, pH and other factors.

For more detailed kill rate data along with a more thorough and complete list of microbes, please contact your Tersano Customer Representative.

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