April 12, 2021

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Antimicrobial Assessment of One Sample

3705055

One granite sample, treated with Ultra-Fresh CA-16, was received from Primagran Sp. z o. o. on April 12, 2021. At Thomson Research Associates, Inc., the samples were tested for antimicrobial activity using a quantitative test method.

PROCEDURE

Quantitative Antibacterial Assessment:

ISO 22196:2011 was used to quantitatively test the specimen for antibacterial activity. In brief:

1. The sample was placed into a container with a lid.
2. A 0.3 mL inoculum of *Escherichia coli* (ATCC #8739) or *Staphylococcus aureus* (ATCC #6538) was placed, in microdroplets, on the surface of the samples.
3. The specimen was incubated 24 hours at 37C.
4. 20 mL of Letheen broth was added to the container and shook. The liquid was plated using dilution techniques.
5. The "Value of Antimicrobial Activity" was carried out using the formula

   R = [log (B/C)]
   Where:
   R= value of antimicrobial activity
   B = Average of the number of viable cells of bacteria on the untreated test piece / inoculum control after 24 hours
   C = Average of the number of viable cells of bacteria on the antimicrobial test piece after 24 hours.

RESULTS

Quantitative Assessment of Activity - ISO 22196:2011 ***E. coli***					
Concentration of starting inoculum		2.02×10^5			
Sample Description		**No. Bacteria Recovered**	**Log Value**	**R = [log(B/C)]**	**% Reduction**
1	A Sample treated with Ultra-Fresh	$<2.00 \times 10^1$	<1.3	>5.6	>99.9%
Inoculum control		7.16×10^6	6.9	---	---

Quantitative Assessment of Activity - ISO 22196:2011 ***S. aureus***					
Concentration of starting inoculum		2.57×10^5			
Sample Description		**No. Bacteria Recovered**	**Log Value**	**R = [log(B/C)]**	**% Reduction**
1	A Sample treated with Ultra-Fresh	$<2.00 \times 10^1$	<1.3	>4.0	>99.9%
Inoculum control		2.22×10^5	5.3	---	---

THOMSON RESEARCH ASSOCIATES, INC.

Microbiology Manager

Microbiologist

c: Michal Stasiak