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FINAL REPORT

AOAC Germicidal Spray Test Additional Organism Methicillin Resistant *Staphylococcus aureus*

Test Substance

SANITIZEIT RD286

Lot Numbers

04022021LAB1

04022021LAB2

Test Organism

Methicillin Resistant *Staphylococcus aureus*, ATCC 33591

Test Guidelines

EPA (2018) Guidelines 810.2000 and 810.2200 (E)

Author

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Study Completion Date

06/30/21

Performing Laboratory

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Laboratory Project Identification Number

1080-109

Protocol Identification Number

1080.M.21.003

Sponsor

Aseptic Health, LLC

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RESULTS

Results are presented in Tables 1 – 6. The challenge microorganism was confirmed by Gram Stain and colony morphology using the Viability Control streaks to be consistent with Methicillin Resistant *Staphylococcus aureus*. The Sterility Control exhibited no growth. The Neutralizer Effectiveness Control exhibited growth. The challenge microorganism demonstrated resistance to Oxacillin.

Table 1
Test Results

Results Expressed as Number of Tubes Exhibiting Growth / Total Number of Tubes

Microorganism	Lot No.	Results
Methicillin Resistant <i>Staphylococcus aureus</i>	04022021LAB1	0/10
	04022021LAB2	0/10

Table 2
Neutralizer Effectiveness

Results Expressed as Growth (+) or No Growth (0) and Colony-Forming Units (CFU)/mL

Microorganism	Lot No.	Tube Result		Average CFU/Tube
		Rep. 1	Rep. 2	
Methicillin Resistant <i>Staphylococcus aureus</i>	04022021LAB1	+	+	35
	04022021LAB2	+	+	

Table 3
Viability Control

Results Expressed as Growth (+) or No Growth (0)

Microorganism	Replicate	Result
Methicillin Resistant <i>Staphylococcus aureus</i>	1	+
	2	+

RESULTS (continued)

Table 4
Sterility Controls

Results Expressed as Growth (+) or No Growth (0)

Source	Replicate	Result
Neutralizer + Carrier	1	0

Table 5
Antibiotic Resistance

Microorganism	Antibiotic Disc	Zone of Inhibition Size (mm)	Resistance Determination
Methicillin Resistant <i>Staphylococcus aureus</i>	Oxacillin	0mm	Resistant

Table 6
Carrier Counts

Methicillin Resistant *Staphylococcus aureus*

Results Expressed as Average Colony Forming Units (CFU) / Carrier and Mean Log₁₀ Density

Lot No.	Phase	Rep.	CFU/Carrier	Mean Test CFU/Carrier	Log Density (Log ₁₀ CFU/Carrier)	Mean Test Log ₁₀ Density
04022021LAB1	Pre-Test	1	1.88 x 10 ⁶	1.6 x 10 ⁶	6.27	6.2
		2	2.00 x 10 ⁶		6.30	
		3	2.06 x 10 ⁶		6.31	
	Post-Test	1	1.28 x 10 ⁶		6.11	
		2	1.23 x 10 ⁶		6.09	
		3	1.40 x 10 ⁶		6.15	
04022021LAB2	Pre-Test	1	2.24 x 10 ⁶	1.8 x 10 ⁶	6.35	6.2
		2	2.20 x 10 ⁶		6.34	
		3	2.48 x 10 ⁶		6.39	
	Post-Test	1	1.29 x 10 ⁶		6.11	
		2	1.24 x 10 ⁶		6.09	
		3	1.26 x 10 ⁶		6.10	

PRODUCT EVALUATION CRITERIA

According to the US Environmental Protection Agency, the test substance passes the test if no visible growth is observed in any of the 10 replicates for each lot and all controls must meet the test acceptance criteria.

CONCLUSIONS

When tested as described, SANITIZEIT RD286, Lot Nos. 04022021LAB1 and 04022021LAB2 passed the AOAC Germicidal Spray Test Additional Organism when Methicillin Resistant *Staphylococcus aureus* was exposed to the test substances for 15 seconds at 20°C and 39-40% RH.

All of the controls met the criteria established for a valid test. These conclusions are based on observed data.

REFERENCES

1. U.S. Environmental Protection Agency, Office of Chemical Safety and Pollution Prevention, Product Performance Test Guidelines, OCSP 810.2000: General Considerations for Testing Public Health Antimicrobial Pesticides, Guidance for Efficacy Testing, February 2018.
2. U.S. Environmental Protection Agency, Office of Chemical Safety and Pollution Prevention, Product Performance Test Guidelines, Frequent Questions (FAQ) for the 2018 Series 810 – Product Performance Guidelines: Antimicrobial Efficacy Test Guidelines, August 2019.
3. *Official Methods of Analysis of the AOAC International*, Chapter 6, Disinfectants, Official Method 961.02, Germicidal Spray Products as Disinfectants, Eighteenth edition, Revised 2013. AOAC International, Suite 500, 481 North Frederick Avenue, Gaithersburg, MD 20877-2417
4. U.S. Environmental Protection Agency, Office of Chemical Safety and Pollution Prevention, Product Performance Test Guidelines, OCSP 810.2200: Disinfectants for Use on Environmental Surfaces - Guidance for Efficacy Testing, February 2018.