Fentonite™ Effectiveness Against Common Wound Pathogens

PROTOCOL

The organisms are prepared by inoculating the surface of Soybean-Casein Digest Agar (TSA) incubated at 32.5 ± 2.5°C for 3 days. Following the incubation period, the plates are washed with sterile Serological Saline Solution to harvest the microorganisms used and dilutions with Saline are made, plated on TSA in duplicate, and incubated at 36 ± 1 °C for 42 hours to determine the concentration. The inoculum level is then adjusted to 108 cfu/ mL for use as a stock suspension. Stock suspensions are well mixed and homogenized at inoculation for each organism.

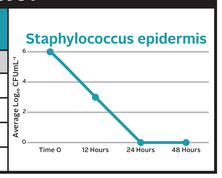
The following microorganisms were used in this Kill Time Study to demonstrate the antimicrobial properties of the Blue clay mixture & Hydrogel Component against common pathogenic organisms: Microbiologies Kwik-Stiks Staphylococcus epidennidis ATCC 35984, Escherichia coli ATCC 25922, Candida albicans ATCC 90028, Methicillin Resistant Staphylococcus aureus ATCC 33591, Streptococcus pyogenes ATCC 19615, Pseudomonas aeruginosa 9027, Klebsiella pneumoniae ATCC 10031, and Clostridioides difficile ATCC 700057.

Using Saline, positive controls are performed by pour plating to enumerate inoculum levels and verify culture purity during testing and Negative controls are performed to establish sterility of media, reagents, and materials used at initiation. Neutralizer Suitability using Dey-Engley Neurtalizing Broth (DEB) is performed concurrently with Kill Time testing to confirm the recovery of< I 00 CFU of the test organism in the subculture media in the presence of product.

TESTING RESULTS

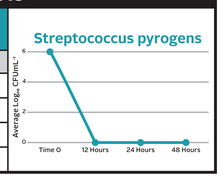
Staphylococcus epidermidis ATCC 35984

Exposure Time	Concentration of Organism cfu/mL		Percent Reduction	
	Control	Product	Control	Product
Time 0	5.8x106	N/A	N/A	N/A
Time 12 hours	N/A	4.1x103	N/A	99.9%
Time 24 hours	N/A	<10	N/A	99.9%
Time 48 Hours	N/A	<10	N/A	99.9%



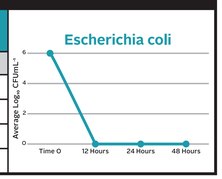
Streptococcus pyrogenes ATCC 19615

Exposure Time	Concentration of Organism cfu/mL		Percent Reduction	
	Control	Product	Control	Product
Time 0	4.7x106	N/A	N/A	N/A
Time 12 hours	N/A	<10	N/A	99.9%
Time 24 hours	N/A	<10	N/A	99.9%
Time 48 Hours	N/A	<10	N/A	99.9%



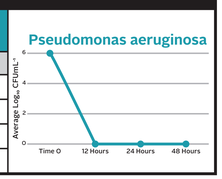
Escherichia coli ATCC 25922

Exposure Time	Concentration of Organism cfu/mL		Percent Reduction	
	Control	Product	Control	Product
Time 0	7.7x106	N/A	N/A	N/A
Time 12 hours	N/A	<10	N/A	99.9%
Time 24 hours	N/A	<10	N/A	99.9%
Time 48 Hours	N/A	<10	N/A	99.9%



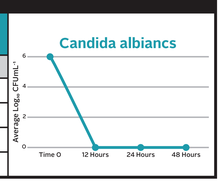
Pseudomonas aeruginosa 9027

Exposure Time	Concentration of Organism cfu/mL		Percent Reduction	
	Control	Product	Control	Product
Time 0	5.6x106	N/A	N/A	N/A
Time 12 hours	N/A	<10	N/A	99.9%
Time 24 hours	N/A	<10	N/A	99.9%
Time 48 Hours	N/A	<10	N/A	99.9%



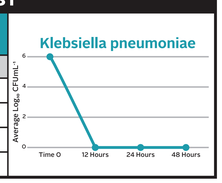
Candida albicans ATCC 90028

Exposure Time	Concentration of Organism cfu/mL		Percent Reduction	
	Control	Product	Control	Product
Time 0	5.9x106	N/A	N/A	N/A
Time 12 hours	N/A	<10	N/A	99.9%
Time 24 hours	N/A	<10	N/A	99.9%
Time 48 Hours	N/A	<10	N/A	99.9%



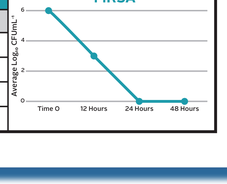
Klebsiella pneumoniae ATCC 10031

Exposure Time	Concentration of Organism cfu/mL		Percent Reduction	
	Control	Product	Control	Product
Time 0	7.3x106	N/A	N/A	N/A
Time 12 hours	N/A	<10	N/A	99.9%
Time 24 hours	N/A	<10	N/A	99.9%
Time 48 Hours	N/A	<10	N/A	99.9%



MRSA (Staphylococcus aureus) ATCC 33591

Exposure Time	Concentration of Organism cfu/mL		Percent Reduction	
	Control	Product	Control	Product
Time 0	6.3x106	N/A	N/A	N/A
Time 12 hours	N/A	3.0x103	N/A	99.9%
Time 24 hours	N/A	<10	N/A	99.9%
Time 48 Hours	N/A	<10	N/A	99.9%



Fentonite™ is a rare earth nano-mineral compound that is found in a single remote location. It provides a precise balance of cationic minerals that are embedded in a low pH illite/smectite matrix that effectively traps and deactivates anions, toxins and pathogens. Fentonite effectively chelates and binds toxins in wound exudate and lowers wound pH to create an environment hostile to pathogenic activity.

CONCLUSION

The Accession# 28532 Rev l indicates a 99.9% log reduction at 12, 24, and 48 hours for Staphylococcus epidemlidis ATCC 35984, Escherichia coli ATCC 25922, Candida albicans ATCC 90028, Methicillin Resistant Staphylococcus aureus ATCC 33591, Streptococcus pyogenes ATCC 19615, Pseudomonas aeruginosa 9027, Klebsiella pneumoniae ATCC 1003, and Clostridioides difficile ATCC 700057.

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PATHOGEN PROFILE OF 81 YEAR OLD PATIENT SUCCESSFULLY TREATED WITH FENTONITE™

BACTERIAL LOAD
HIGH > 10^7
Serratia marcescens
Staphylococcus aureus
Acinetobacter baumannii
Streptococcus dysgalactiae
Corynebacterium striatum

Laboratory Director
Owatha Tatum PhD,
HCLD/CC(ABB), MBA

MicroGenDX
qPCR + NGS DNA DIAGNOSTICS
FOR ACCURATE MICROBIAL IDENTIFICATION

8/28/22

9/29/22

11/17/22