# FDA Certified Laboratory - Tri-Tech Analytical Laboratories Summaries

## Test #3

**Description:** Measure the reduction of bacteria (Listeria monocytogenes)

on surfaces after use of a Biozone Powerzone I Model

**Results:** 3 log reduction (99.9%) after 1 minute of treatment

5 log reduction (99.999%) after 2 minutes of treatment

## Test #4

**Description:** Measure the reduction of bacteria (E. coli 0157) on surfaces

after use of a Biozone Powerzone I Model

**Results:** 4 log reduction (99.99%) after 1 minute of treatment

5 log reduction (99.999%) after 2 minutes of treatment

## **Test - Biozone Photoplasma Experiment**

**Description:** Measure the reduction of surface bacteria (E. coli, Salmonella, Listeria) on surfaces before and after use of a Biozone Air Purifier

Results: After 24 hours of use, there was no remaining bacteria

**Complete Test Results on Following Pages** 

## DISINFECTION VALIDATION PROCESS

## **TEST RESULTS:**

3. REDUCTION <u>Listeria monocytogenes</u> CONTAMINATION – NOT TREATED (NT) VERSUS TREATED (T)

AVERAGE OF 7 SAMPLES	RESULTS	UNITS
ONE (1) MINUTE TIME, E	EXPOSURE LEVEL A	
#1 - #7 Listeria monocytogenes/NT	5 10 <sup>(7)</sup>	CFU's
#1 - #7 Listeria monocytogenes/T	2 10 <sup>(4)</sup>	CFU's
	% Reduction	3 LOG
TWO (2) MINUTE TIME, I	EXPOSURE LEVEL I	3
#1 - #7 Listeria monocytogenes/NT	5 10 <sup>(7)</sup>	CFU'S
#1 - #7 Listeria monocytogenes/T	2 10 <sup>(2)</sup>	CFU'S
	% Reduction	5 LOG
REDUCTION <u>E. coli (0157)</u> CONTAI VERSUS TREATED (T)	MINATION – NOT T	REATED (N
VERSUS TREATED (T)		
VERSUS TREATED (T)		
VERSUS TREATED (T)  ONE (1) MINUTE TIME, F #1 - #7 E. coli (0157)/NT	EXPOSURE LEVEL A	
VERSUS TREATED (T) ONE (1) MINUTE TIME, F	EXPOSURE LEVEL A	CFU's
VERSUS TREATED (T)  ONE (1) MINUTE TIME, F #1 - #7 E. coli (0157)/NT	EXPOSURE LEVEL A  3 10 <sup>(7)</sup> 7 10 <sup>(3)</sup> <b>Reduction</b>	CFU's CFU's 4 LOG
VERSUS TREATED (T)  ONE (1) MINUTE TIME, F #1 - #7 E. coli (0157)/NT #1 - #7 E. coli (0157)/T  TWO (2) MINUTE TIME,	EXPOSURE LEVEL A  3 10 <sup>(7)</sup> 7 10 <sup>(3)</sup> <b>Reduction</b>	CFU's CFU's 4 LOG
VERSUS TREATED (T)  ONE (1) MINUTE TIME, F #1 - #7 E. coli (0157)/NT #1 - #7 E. coli (0157)/T	EXPOSURE LEVEL A  3 10 <sup>(7)</sup> 7 10 <sup>(3)</sup> <b>Reduction</b> EXPOSURE LEVEL	CFU's CFU's 4LOG

### DISINFECTION VALIDATION PROCESS

#### **OVERALL CONCLUSION DATA**

The concentration of bacteria recovered from all inoculated treated samples analyzed show at least a 3 to 5 log reduction. This factor proves that the disinfectant process utilized in this study is effective in inhibiting the most common bacterial problems in producing a high quality product.

The concentration of E. coli (0157) bacteria recovered from only a one minute exposure treated samples, show a 5 log reduction. This factor proves that the disinfectant process utilized in this study is effective in inhibiting the most common bacterial problem in producing a high quality product



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02-06-1078

To:

Biozone Scientific 1180 19 Street

Vero Beach, Florida 32960 Attention: Mr Bryan Cecchi Project:

Biozone Plasma Experiment

**Test Protocol:** 

Infect E. Coli, Salmonella, and Listeria; all at 10<sup>2</sup>, on to a cutting board and stainless steel

Place them in a controlled photoplasma environment.

Summary:

After 24 hours there was no remaining bacteria.

#### **Test Specifics:**

Biozone PhotoPlasma Experiment Tri-tech Lab ID 02-06-1078A

Start time: June 28 10:00

Temperature: 21.5C

Setup: SB

Temperature at 15:50 23.5C

Temperature at 18:20 21.0C

End time: June 29 10:00

Temperature: 22.0C

End: LT

Sample ID	Exposure time 24 hours Test at 10:00	Comments
Cutting Board/Utensils W/E.c S.t. L.m. 10 <sup>2</sup>	Negative No Growth	Effective in this experiment