



ANALYSIS REPORT

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Client: Nuron Organics Limited	Lab No: 1715574	SPV1
Contact: Ron Winkle	Date Received: 30-Jan-2017	
C/- Nuron Organics Limited	Date Reported: 09-Feb-2017	
4087C Great North Road	Quote No:	
Glen Eden	Order No:	
Auckland 0602	Client Reference:	
	Submitted By: Ron Winkle	

Analyst's Comments

Appendix No.1 - Challenge Testing Report 1715574

These samples were collected by yourselves (or your agent) and analysed as received at the laboratory.

Samples are held at the laboratory after reporting for a length of time depending on the preservation used and the stability of the analytes being tested. Once the storage period is completed the samples are discarded unless otherwise advised by the client.

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Nuron Bio-Safe Sanitiser Efficacy Trial

Lisa Bullock
 Hill Laboratories

The method employed to carry out this testing was based on AOAC Official Method 960.09 (Germicidal and Detergent Sanitizing Action of Disinfectants).

The neutraliser buffer used was DE Neutralising Broth.

The organisms used were:

- *Escherichia coli*
- *Legionella pneumophila*

Numeric counts were performed after 30, 60 and 90 minutes of contact time

The sanitiser in this trial was diluted to 1% for *Escherichia coli* and to 1% and 1.5% for *Legionella pneumophila*.

A numeric count of the inoculant solutions was carried out before any contact times to ascertain the theoretical level of organisms inoculated into each sample. This is shown in Table 1.

Table 1:

Organism	cfu per mL of inoculum	Theoretical cfu per mL/g of Product
<i>Escherichia coli</i>	680,000,000	6,800,000
<i>Legionella pneumophila</i>	7,500,000,000	75,000,000

Numbers Controls were performed against the challenge organism in water. Data is shown in Table 2.

Table 2:

Organism	cfu per mL of Control water
<i>Escherichia coli</i>	8,800,000
<i>Legionella pneumophila</i>	96,000,000

Results of the trial can be seen in the tables below.

***Escherichia coli* 1% Sanitiser**

	Contact time	Count before contact	LOG₁₀	Count after contact	LOG₁₀	LOG₁₀ decrease	% Decrease
Nuron Bio-Safe	30 minutes	8,800,000	6.94	<100	<2	>4.94	>99.998
	60 minutes			<100	<2	>4.94	>99.998
	90 minutes			<100	<2	>4.94	>99.998

***Legionella pneumophila* 1% Sanitiser**

	Contact time	Count before contact	LOG₁₀	Count after contact	LOG₁₀	LOG₁₀ decrease	% Decrease
Nuron Bio-Safe	30 minutes	96,000,000	7.98	<100	<2	>5.98	>99.999
	60 minutes			<100	<2	>5.98	>99.999
	90 minutes			<100	<2	>5.98	>99.999

***Legionella pneumophila* 1.5% Sanitiser**

	Contact time	Count before contact	LOG₁₀	Count after contact	LOG₁₀	LOG₁₀ decrease	% Decrease
Nuron Bio-Safe	30 minutes	96,000,000	7.98	<100	<2	>5.98	>99.999
	60 minutes			<100	<2	>5.98	>99.999
	90 minutes			<100	<2	>5.98	>99.999