

## Antibacterial efficiency test

The experiment conducted at Bactochem microbiology lab between august 09-11 , 2021

The experiment based on the Israeli standard 1944.

Test for *Listeria monocytogenes* added at 01-03-22

During the test, the antibacterial effectiveness of green life group – Green up soap C-AB

Was tested

The following microorganisms were tested:

<b>Bacteria</b>	<b>ATCC</b>
<i>Staphylococcus aureus</i>	6538
<i>E. Coli</i>	8739
<i>Enterobacter aerogenes</i>	13048
<i>Pseudomonas aeruginosa</i>	9027
<i>Enterococcus faecalis</i>	29212
<i>salmonella typhimurium</i>	14028
<i>Staphylococcus epidermidis</i>	12228
<i>Bacillus subtilis</i>	6633
<i>Candida albicans</i>	10231
<i>Aspergillus brasiliensis</i>	16404
<i>Listeria monocytogenes</i>	13114

### Method:

#### Preparation of microorganisms:

Starters of microorganisms prepared in TSB media and incubated at 30-35°C over night.

Serial dilutions were made by PBS media following a plating of the dilutions on SMA (for bacteria) & OGYE (for mold and yeast) media in pour plate media for viable count.

### **Sample preparations:**

Contamination of surface: 0.2 ml of bacteria at concentrations of  $10^7$ - $10^8$  CFU/ml was spread on aluminum surface 5X5 cm

The next step was to test the antibacterial efficiency of the green up-material by spreading the material on the contaminated surfaces.

Contaminated Aluminum surfaces without treatment served as a control.

Repeats – every test conducted in duplicate.

After 30 minutes of drying the spreading bacteria on the surface at room temperature, swabs from each surface were taken and serial dilutions were made following plating 1ml from the dilutions on SMA & OGYE media in pour plate method.

Viable count were made after incubation

**Results:**

microorganism	Control – without treatment CFU/ml	1 minute treatment CFU/ml	Efficiency percentage %
<i>Staphylococcus aureus</i>	7.8X10 <sup>7</sup>	<10	99.999%
<i>E. Coli</i>	5.13X10 <sup>7</sup>	<10	99.999%
<i>Enterobacter aerogenes</i>	6.9X10 <sup>7</sup>	<10	99.999%
<i>Pseudomonas aeruginosa</i>	6.6X10 <sup>7</sup>	<10	99.999%
<i>Enterococcus faecalis</i>	8.1x10 <sup>7</sup>	<10	99.999%
<i>salmonella typhimurium</i>	5.8x10 <sup>7</sup>	<10	99.999%
<i>Bacillus subtilis</i>	3.4x10 <sup>6</sup>	<10	99.999%
<i>Candida albicans</i>	2.8x10 <sup>7</sup>	<10	99.999%
<i>Aspergillus brasiliensis</i>	4.7x10 <sup>7</sup>	2100	99.995%
<i>Staphylococcus Epidermidis</i>	5.7X10 <sup>7</sup>	<10	99.999%
<i>Listeria monocytogenes</i>	3.4X10 <sup>7</sup>	<10	99.999%



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