

An Evaluation of the Decontamination Effect on the Inner Chamber of ESCO Celculture CO₂ Incubator Using the 90°C Moist Heat Decontamination Cycle

Report No. 55/10

Commercial In Confidence

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Report Prepared For ESCO	Operator Miss Anna Moy

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The ESCO Celculture CO₂ incubator 90°C decontamination cycle has been evaluated and shown to be an effective method for deactivation of the normally resistant fungi and bacterial spores *Aspergillus brasiliensis* and *Bacillus atrophaeus*, and the vegetative cells *Pseudomonas aeruginosa*, *Staphylococcus aureus*, *Staphylococcus epidermidis*, *Enterobacter faecalis* and *Escherichia coli*.

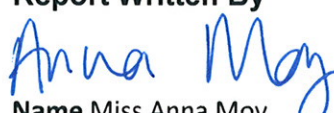



For each of the three test runs carried out no growth was observed from any of the seven test micro-organisms indicating that the 90°C decontamination cycle of the incubator is capable of deactivating high levels of biological contamination.

Average Log₁₀ Reductions for each of the 7 micro-organisms

Micro-organism	Average Log ₁₀ Reduction		
	Test Run 1	Test Run 2	Test Run 3
<i>Bacillus atrophaeus</i>	>6.20	>6.05	>6.11
<i>Pseudomonas aeruginosa</i>	>6.37	>6.29	>6.10
<i>Staphylococcus epidermidis</i>	>6.36	>6.11	>6.06
<i>Escherichia coli</i>	>6.19	>6.10	>6.12
<i>Staphylococcus aureus</i>	>6.75	>6.34	>6.36
<i>Enterobacter faecalis</i>	>6.33	>6.17	>6.11
<i>Aspergillus brasiliensis</i>	>4.18*	>4.22*	>4.11*

*Due to the size of *Aspergillus brasiliensis* spores 10⁴ cfu is the highest concentration that can be achieved on the test coupons in 10µl.

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