

BCL Forti® has a strong antibacterial function for the food industry



PH LIQUID

BCL Forti® is an improved product with the highest quality guarantee for all meat processing systems regarding colour, taste and natural odour, particularly for a longer shelf-life and stable buffer pH of finished products.

Analysis of results for BCL Forti®:

Sample identification

Sample 1: BCL Forti

Sample description

Fructose-glucose syrup with antibacterial fruit, plant and herb extracts.

Strains

Listeria monocytogenes NCTC 11994
Salmonella enterica ATCC 13314
Campylobacter jejuni spp. Jejuni ATCC 33291

Analytical method

Listeria spp. quantification according to ISO 11290-2 modified
Salmonella quantification according to ISO 6597 modified
Campylobacter quantification according ISO 10272-2

Test set up

Micro-organisms were added to the pure BCL Forti in a ratio of 1:10. The concentration of the micro-organisms was determined after contamination and after a 4-day incubation at 42°C. Simultaneously, a negative control using buffered peptone water (BPW) was contaminated with the same concentration of micro-organisms and incubated under the same conditions to determine difference in growth.

Results

Blank: Listeria, salmonella and campylobacter were not detected in the test product.

Micro-organism	Initial contamination	Result
Listeria. Day 0	BPW (negative control)	14,000,000 (log 7.15) kve/ml
	BCL Forti	6,800 (log 3.83) kve/ml
Listeria. Day 4 at 42°C	BCL Forti	<1 (log 0) cfu/ml
Salmonella spp. Day 0	BPW (negative control)	48,000,000 (log 7.68) kve/ml
	BCL Forti	360,000 (log 5.56) kve/ml
Salmonella spp. Day 4 at 42°C	BCL Forti	<1 (log 0) cfu/ml
Campylobacter. Day 0	BPW (negative control)	1,300,000 (log 6.11) kve/ml
	BCL Forti	<1 (log 0) cfu/ml
Campylobacter. Day 4 at 42°C	BCL Forti	<1 (log 0) cfu/ml

Conclusion

- Directly after contact with the test product there was a strong reduction of listeria of 3.32 log. After four days of incubation at 42°C the growth of listeria was not detected.
- Directly after contact with the test product there was a strong reduction of salmonella of 2.12 log. After four days of incubation at 42°C the growth of salmonella was not detected.
- Most probably there was a death of the campylobacter strain directly after contact with the test product. Also after a microaerophilic incubation at 42°C there was no growth determined for campylobacter.
- It needs to be taken into account that this test was performed under laboratory conditions.

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