



Reference : 02-745  
Product :  
LINDEN GRAIN BROTH

Scharlau Microbiology - Technical data sheet

### Specification

Liquid medium for media fill process simulation for beverage bottling, to test for low acid beverage spoiling microorganisms.

### Formula \* in g/L

D(+)-Glucose.....	20.00
Yeast Extract.....	3.50
Casein Peptone.....	2.00
Ammonium sulfate.....	2.00
Magnesium sulfate.....	1.00
Potassium dihydrogenphosphate.....	1.00

\* Adjusted and /or supplemented as required to meet performance criteria

### Directions

Suspend 29,5 g of powder in 1 litre of distilled water. Adjust pH to 4.2. Boil to dissolve the medium completely. Distribute in suitable containers and sterilize at 121°C for 15 minutes.

### Description

The Linden Grain Broth is designed for media fill process simulation for beverage bottling (also known as Aseptic Conditioning Testing) in the modern beverage industry. The medium permits the growth of organisms that can spoil low acid beverages.

### Technique

In the industrial process the broth is prepared directly in product preparation tanks, processed in a heat exchanger and filled into cans or bottles. If as usually, a challenge test is conducted so many litres of broth are prepared at one time. The presence of spoiling microorganisms is indicated by turbid growth in the broth, after the incubation in the standardized conditions for every industry.

### Quality control

**Incubation temperature:** 25°C ± 2,0      **Incubation time:** ≤5 days

**Inoculum:** Practical range 100 ± 20 CFU. Min. 50 CFU (Productivity).

Microorganism	Growth	Remarks
<i>Candida albicans</i> ATCC® 10231	Good	-
<i>Saccharomyces cerevisiae</i> ATCC® 9763	Good	-
<i>Aspergillus brasiliensis</i> ATCC® 16404	Good	-
<i>Dekkera spp.</i>	Good	-
<i>Dekkera bruxelensis</i> ATCC® 36234	Good	-

### References

- . ISO 11133:2014/ Adm 1:2018. Microbiology of food, animal feed and water. Preparation, production, storage and performance testing of culture media.
- . SYPOSS, Z. (2003) The role of risk analysis in the Food Quality & Safety Management Systems. Ph. D. Thesis. Department of Postharvest. Faculty of Food Sciences. Szent István University. Budapest
- . SYPOSS, Z. & J. TORNAI-LEHOCZKI (2003) Application of acidified (pH 4,5) Linden Grain Medium as a microbiological validation tool in the Aseptic Beverage PET Technology. 23rd International Specialized Symposium on Yeasts (ISSY 23). Budapest, Hungary. Food Microbiology 86(1-2):2003:1-212

### Storage

For laboratory use only. Keep tightly closed, away from bright light, in a cool dry place (+4 °C to 30 °C).