

Wort Broth

Cat. 1444

For the cultivation and enumeration of yeasts

Practical information

Applications	Categories
Selective enumeration	Yeasts
Detection	Yeasts and molds
Industry: Food	

Principles and uses

WORT BROTH is commonly used for the detection and enumeration of yeasts and fungi, particularly yeasts in butter, syrups and other materials, especially in the soft drinks industry.

Yeasts grow well on media that contain dextrose or maltose, moreover if the reaction is acidic. This medium has been enriched with the addition of salts and other nutrients. The low pH inhibits the growth of most bacteria.

Malt extract and Casein peptone provide nitrogen, vitamins, minerals and amino acids essential for growth. Dextrin is a carbon source. Dipotassium phosphate is the buffer. Glycerol limits bacterial growth by reducing the water activity from 0,999 to 0,95.

Formula in g/L

Ammonium chloride	1	Casein peptone	1
Dipotassium phosphate	1	Malt extract	15
Dextrin	2,5	D-Maltose	12,5

Preparation

Suspend 33 grams of the medium in one liter of distilled water. Add 2-3 ml of Glycerol. Mix well and dissolve by heating with frequent agitation. Boil for one minute until complete dissolution. Dispense into appropriate containers and sterilize in autoclave at 121°C for 15 minutes.

Instructions for use

Incubate at 30°C and observed after 40-48 hours.

Quality control

Solubility	Appearance	Color of the dehydrated medium	Color of the prepared medium	Final pH (25°C)
w/o rests	Fine powder	Beige	Amber, slightly opalescent	4,8 ± 0,2

Microbiological test

Incubation conditions: (30 °C / 40-48 h)

Microrganisms	Specification
Aspergillus brasiliensis ATCC 16404	Good growth
Sacharomyces cerevisiae ATCC 9080	Good growth
Saccharomyces cerevisiae ATCC 9763	Good growth

Storage

Temp. Min.:2 °C
Temp. Max.:25 °C

Bibliography

J. Dairy Science, 16: 141,
RAPP Milchwiss, 29, 341-344 (1974)