



M-BCG Yeast and Mould Broth, Modified

M1741

Intended Use:

Recommended for the detection of fungi in the routine analysis of beverages.

Composition**

Ingredients	Gms / Litre
Yeast extract	9.000
Dextrose (Glucose)	50.000
Tryptone	5.000
Peptone	5.000
Magnesium sulphate	2.100
Potassium dihydrogen phosphate	2.000
Diastase	0.500
Thiamine	0.500
Bromocresol green	0.026
Final pH (at 25°C)	4.6±0.2

**Formula adjusted, standardized to suit performance parameters

Directions

Suspend 7.41 grams in 100 ml purified / distilled water. Heat if necessary to dissolve the medium completely. Sterilize by autoclaving at 15 lbs pressure (121°C) for 10 minutes.

Principle And Interpretation

The number of microbes present in beverages depends on the methods of processing and means of preservation. High microbial populations often indicate poor quality in raw material, unsanitary equipments or opportunity for growth in the food at some stage in the process. Heat processed beverages will be free of aciduric microorganism but may yield low numbers of viable spore forming bacteria when cultured on nonselective media. Bacteria cannot grow in the high acid environment and therefore direct microscopic count for yeast, bacteria or moulds may provide a clue to the conditions of sanitization during processing. Heat resistant spores may be present in low numbers. Because of their slow growth and poor competitive ability, yeast and moulds often manifest themselves on or in foods in which the environment is less favourable for bacterial growth.

M-BCG Yeast and Mould Broth, Modified is also recommended for detecting fungi in routine analysis of beverages using membrane filter technique (1). It contains pancreatic digest of casein and peptic digest of animal tissue as nitrogen source therefore differing in composition of M1130 (M-BCG Yeast and Mould Broth) which contains biopeptone as nitrogen source. Essentially even peptone and tryptone serves as rich nutrient source for growth of yeasts and moulds. Yeast extract and Thiamine together provides growth factors and B vitamin to the growing yeast and molds. Dextrose serves as the energy source. Diastase is a mixture of amylolytic enzymes. Bromocresol green acts the pH indicator which is green at acidic pH (4.0) while blue at pH 5.6. Phosphate salts buffers the medium well. The low pH inhibits bacterial growth.

The membrane filter pad is saturated with 2.0 to 2.5 ml broth. Place the membrane filter used for filtration of test sample on the saturated pad and incubate at 30-35°C for 48-72 hours.

Type of specimen

Brewery samples

Specimen Collection and Handling:

For brewery samples follow appropriate techniques for handling specimens as per established guidelines (5).

After use, contaminated materials must be sterilized by autoclaving before discarding.

Warning and Precautions :

Read the label before opening the container. Wear protective gloves/protective clothing/eye protection/ face protection. Follow good microbiological lab practices while handling specimens and culture. Standard precautions as per established guidelines should be followed while handling specimens. Safety guidelines may be referred in individual safety data sheets.

Limitations :

1. Due to nutritional variations, some strains may show poor growth.

Performance and Evaluation

Performance of the medium is expected when used as per the direction on the label within the expiry period when stored at recommended temperature.

Quality Control

Appearance

Cream to light green homogeneous free flowing powder

Colour and Clarity of prepared medium

Green coloured slightly opalescent solution, may contain a slight precipitate.

Reaction

Reaction of 7.41% w/v aqueous solution at 25°C. pH : 4.6±0.2

pH

4.40-4.80

Cultural Response

Cultural characteristics observed after an incubation at 30-35°C for 48-72 hours.

Organism	Inoculum (CFU)	Growth
* <i>Aspergillus brasiliensis</i> ATCC 16404	50-100	good-luxuriant
<i>Candida albicans</i> ATCC 10231	50-100	good-luxuriant
<i>Saccharomyces cerevisiae</i> ATCC 9763	50-100	good-luxuriant

*Key: Formerly known as *Aspergillus niger* ATCC 16404

Storage and Shelf Life

Store between 10-30°C in a tightly closed container and the prepared medium at °C. Use before expiry date on the label. On opening, product should be properly stored dry, after tightly capping the bottle in order to prevent lump formation due to the hygroscopic nature of the product. Improper storage of the product may lead to lump formation. Store in dry ventilated area protected from extremes of temperature and sources of ignition Seal the container tightly after use. Use before expiry date on the label.

Product performance is best if used within stated expiry period.

Reference

1. MacFaddin J.F., 1985, Media for Isolation –Cultivation-identification-Maintenance of Medical Bacteria,Vol. I, Williams and Wilkins, Baltimore.

Revision : 1 / 2011

Disclaimer :

User must ensure suitability of the product(s) in their application prior to use. Products conform solely to the information contained in this and other related HiMedia™ publications. The information contained in this publication is based on our research and development work and is to the best of our knowledge true and accurate. HiMedia™ Laboratories Pvt Ltd reserves the right to make changes to specifications and information related to the products at any time. Products are not intended for human or animal or therapeutic use but for laboratory,diagnostic, research or further manufacturing use only, unless otherwise specified. Statements contained herein should not be considered as a warranty of any kind, expressed or implied, and no liability is accepted for infringement of any patents.
