

# M-Green Yeast and Mold Broth

## Intended Use

M-Green Yeast and Mold Broth is used for the detection of fungi in the routine analysis of beverages.

## Summary and Explanation

M-Green Yeast and Mold Broth is an improved modification of the liquid medium, M-Yeast and Mold Broth, which was developed to improve the efficiency of detection and enumeration of fungi in sugar and other materials by the membrane filter method. The revised formula contains the indicator dye, bromcresol green. It is a relatively more complex formula than many of the other media exclusively used for the recovery of yeasts and molds.

## Principles of the Procedure

The formulation is rich in nutrients provided by peptones, yeast extract and dextrose, but bacterial growth is inhibited by the acid pH. Diastase is a mixture of amylolytic (starch-hydrolyzing) enzymes. The bromcresol green indicator facilitates the visualization and counting of fungal colonies. The colonies are green due to the diffusion of bromcresol green into the colonies (alkaline reaction). End products from the colonies diffuse into the medium, further reducing the pH and causing the dye to turn yellow (acid reaction).

## Formula

### BBL™ M-Green Yeast and Mold Broth

Approximate Formula* Per Liter	
Yeast Extract .....	9.0 g
Dextrose (anhydrous) .....	50.0 g
Pancreatic Digest of Casein .....	5.0 g
Peptic Digest of Animal Tissue.....	5.0 g
Magnesium Sulfate .....	2.1 g
Potassium Phosphate .....	2.0 g
Diastase .....	0.05 g
Thiamine.....	0.05 g
Bromcresol Green.....	26.0 mg

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

## Directions for Preparation from Dehydrated Product

1. Suspend 7.3 g of the powder in 100 mL of purified water. Mix thoroughly.
2. Warm slightly if necessary to completely dissolve the powder.
3. Autoclave at 121°C for 10 minutes.
4. Test samples of the finished product for performance using stable, typical control cultures.

## User Quality Control

### Identity Specifications

#### BBL™ M-Green Yeast and Mold Broth

Dehydrated Appearance:	Fine, homogeneous, free of extraneous material, may contain a large number of minute to small, dark green and/or white specks.
Solution:	7.3% solution, soluble in purified water. Solution is medium, green (with or without a tint of yellow) to blue-green, clear to moderately hazy.
Prepared Appearance:	Medium, green to blue-green, clear to moderately hazy.
Reaction of 7.3% Solution at 25°C:	pH 4.6 ± 0.2

### Cultural Response

#### BBL™ M-Green Yeast and Mold Broth

Prepare the medium per label directions. Inoculate using the membrane filter technique and incubate at 30-35°C for 2 days (up to 5 days, if necessary).

ORGANISM	ATCC™	INOCULUM CFU	RECOVERY
<i>Aspergillus brasiliensis (niger)</i>	16404	10 <sup>2</sup> -3 × 10 <sup>2</sup>	Good
<i>Candida tropicalis</i>	1369	30-300	Good
<i>Penicillium roquefortii</i>	10110	10 <sup>2</sup> -3 × 10 <sup>2</sup>	Good
<i>Saccharomyces cerevisiae</i>	9763	30-300	Good

## Procedure

1. Saturate a sterile membrane filter pad in a sterile Petri dish with 2.0-2.5 mL of M-Green Yeast and Mold Broth.
2. Roll a membrane filter, which has been used to filter the test sample, onto the surface of the moistened pad so as to avoid the trapping of air bubbles between the filter and the pad.
3. Incubate the plates at 30-35°C for 48 hours and up to 5 days in an aerobic atmosphere with increased humidity.

## Expected Results

After incubation, colonies appearing on the filter surface can be counted. Mold colonies generally appear green and filamentous, whereas yeast colonies are green and opaque.

## Availability

### BBL™ M-Green Yeast and Mold Broth

#### COMPF

Cat. No.	211286	Dehydrated – 100 g*
	211287	Dehydrated – 500 g*

\*Store at 2-8°C.