



# Technical Data

## Potato Dextrose HiCynth™ Broth

MCD403

Potato Dextrose HiCynth™ Broth is recommended for the isolation and enumeration of yeasts and moulds.

### Composition\*\*

| Ingredients            | Gms / Litre |
|------------------------|-------------|
| HiCynth™ Peptone No.7* | 4.000       |
| Dextrose               | 20.000      |
| Final pH ( at 25°C)    | 5.1±0.2     |

\*\*Formula adjusted, standardized to suit performance parameters

\*Chemically defined peptone

### Directions

Suspend 24 grams in 1000 ml distilled water. Heat if necessary to dissolve the medium completely. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes. Cool to 45-50°C. Mix well and pour into sterile Petri plates. In specific work, when pH 3.5 is required, acidify the medium with sterile 10% tartaric acid. The amount of acid required for 100 ml. of sterile, cooled medium is approximately 1 ml. Do not heat the medium after addition of the acid.

### Principle And Interpretation

Potato Dextrose Broth is recommended by APHA (1) and F.D.A. (2) for plate counts of yeasts and moulds in the examination of foods and dairy products (3). Potato Dextrose HiCynth™ Broth is the modification using chemically defined peptones by replacing vegetable peptones. It is also used for stimulating sporulation, for maintaining stock cultures of certain dermatophytes and for differentiation of typical varieties of dermatophytes on the basis of pigment production (4).

HiCynth™ PeptoneNo.7 and dextrose promote luxuriant fungal growth by providing nitrogen and carbon source, long chain amino acids, vitamins and other growth factors. Adjusting the pH of the medium by tartaric acid to 3.5, inhibits the bacterial growth. Heating the medium after acidification should be avoided.

### Quality Control

#### Appearance

Off-white to yellow homogeneous free flowing powder

#### Colour and Clarity of prepared medium

Light amber coloured clear to slightly opalescent solution in tubes

#### Reaction

Reaction of 2.4% w/v aqueous solution at 25°C. pH : 5.1±0.2

#### pH

4.90-5.30

#### Cultural Response

Cultural characteristics observed after an incubation at 25-30°C for 4-5 days.

| Organism   | Inoculum (CFU) | Growth    | Ascospore formation |
|--|----------------|-----------|---------------------|
| <i>Aspergillus brasiliensis</i><br>*<br>ATCC 16404 | 50-100         | luxuriant | negative            |
| <i>Candida albicans</i> ATCC<br>10231              | 50-100         | luxuriant | negative            |
| <i>Saccharomyces cerevisiae</i><br>ATCC 9763       | 50-100         | luxuriant | positive            |

Key: Formerly known as *Aspergillus niger*

### Storage and Shelf Life

Store below 30°C in tightly closed container and the prepared medium at 2-8°C. Use before expiry date on the label.

Please refer disclaimer Overleaf.

## Reference

1. Downes F. P. and Ito K., (Eds.), 2001, Compendium of Methods for the Microbiological Examination of Foods, 4th Ed., APHA, Washington, D.C.
2. FDA Bacteriological Analytical Manual, 2005, 18th Ed., AOAC, Washington, DC.
3. Wehr H. M. and Frank J. H., 2004, Standard Methods for the Microbiological Examination of Dairy Products, 17th Ed., APHA Inc., Washington, D.C.
4. MacFaddin J. F., 1985, Media for the Isolation-Cultivation-Identification-Maintenance of Medical Bacteria, Vol.1, Williams and Wilkins, Baltimore

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