

# TM 1244 - MALT EXTRACT BROTH, MODIFIED (as per Thom and Church)

### **INTENDED USE**

For isolation, detection and enumeration of yeasts and moulds.

# PRODUCT SUMMARY AND EXPLANATION

Malt Extract medium is recommended for the isolation, detection and enumeration of yeasts and moulds. Reddish described a medium prepared from malt extract which was an acceptable substitute for wort. Following the formula of Reddish, Thom and Church used Malt extract as a base from which they prepared the complete media.

### **COMPOSITION**

| Ingredients        | Gms / Ltr |  |
|--------------------|-----------|--|
| Malt extract       | 6.000     |  |
| Maltose            | 1.800     |  |
| Dextrose (Glucose) | 6.000     |  |
| Yeast extract      | 1.200     |  |

### **PRINCIPLE**

Malt extract and yeast extract provide essential growth nutrients for the growth of fungi. Maltose and dextrose are the suitable carbohydrates for the growth of fungi. The low pH inhibits bacterial growth.

## **INSTRUCTION FOR USE**

- Dissolve 15.0 grams in 1000 ml purified/distilled water.
- Heat if necessary to dissolve the medium completely.
- Dispense into tubes or flasks as desired. Sterilize by autoclaving at 15 psi pressure (121°C) for 15 minutes. Avoid overheating.

# **QUALITY CONTROL SPECIFICATIONS**

**Appearance of Powder** : Cream to yellow homogeneous free flowing powder.

**Appearance of prepared medium** : Yellow coloured clear to slightly opalescent solution in tubes.

pH (at 25°C) : 4.7±0.2

### INTERPRETATION

Cultural characteristics observed after an incubation.

| Microorganism            | ATCC  | lnoculum<br>(CFU/ml) | Growth              | Incubation<br>Temperature | Incubation<br>Period |
|--------------------------|-------|----------------------|---------------------|---------------------------|----------------------|
| Aspergillus brasiliensis | 16404 | 10-100               | Good -<br>luxuriant | 25-30°C                   | 40-48 Hours          |









| Candida albicans         | 10231 | 10-100 | Good -<br>luxuriant | 25-30°C | 40-48 Hours |
|--------------------------|-------|--------|---------------------|---------|-------------|
| Saccharomyces cerevisiae | 9763  | 10-100 | Good -<br>luxuriant | 25-30°C | 40-48 Hours |

### **PACKAGING:**

In pack size of 500 gm bottles.

### **STORAGE**

Dehydrated powder, hygroscopic in nature, store in a dry place, in tightly-sealed containers between 25-30°C and protect from direct sunlight. Under optimal conditions, the medium has a shelf life of 4 years. When the container is opened for the first time, note the time and date on the label space provided on the container. After the desired amount of medium has been taken out replace the cap tightly to protect from hydration.

**Product Deterioration:** Do not use if they show evidence of microbial contamination, discoloration, drying or any other signs of deterioration.

### **DISPOSAL**

After use, prepared plates, specimen/sample containers and other contaminated materials must be sterilized before discarding.

# **REFERENCES**

- 1. Ajello L., Georg L. K., Kaplan W. and Kaufman L., 1963, CDC Laboratory Manual for Medical Mycology, Washington, D. C.
- 2. Isenberg, H.D. Clinical Microbiology Procedures Handbook 2nd Edition.
- 3. Jorgensen, J.H., Pfaller, M.A., Carroll, K.C., Funke, G., Landry, M.L., Richter, S.S and Warnock., D.W. (2015) Manual of Clinical Microbiology, 11th Edition. Vol. 1.
- 4. Lennett, Balows, Hausler and Shadomy (Eds.), 1985, Manual of Clinical Microbiology, 4th ed., ASM, Washington, D.C.
- 5. Reddish, 1919, Abst. Bact., 3:6.
- 6. Thom and Church, 1926, The Aspergilli.



**NOTE:** Please consult the Material Safety Data Sheet for information regarding hazards and safe handling Practices. \*For Lab Use Only

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