PRODUCT DATA SHEET

# ANTIBIOTIC ASSAY MEDIUM NO. 12 (NYSTATIN ASSAY AGAR) TM 023

For microbiological assay of Amphotericin B & Nystatin using *Saccharomyces cerevisiae*

## Composition

| Ingredients | Gms/Ltr. |
|---|---|
| Agar | 25.00 |
| Peptic digest of animal tissue | 10.00 |
| Sodium chloride | 10.00 |
| Dextrose | 10.00 |
| Yeast extract | 5.00 |
| Beef extract | 2.50 |

* Dehydrated powder, store in a dry place, in tightly-sealed containers at 24°C and protect from direct sunlight.

## Instructions for Use

Dissolve 62.5 gms in 1000 ml of distilled water. Gently heat to boiling with gentle swirling and dissolve the medium completely. Sterilize by autoclaving at 15 psi (121ºC) for 15 minutes. Cool to 45 - 50°C and mix well before pouring into sterile Petri plates.

**Appearance:** Yellow in colour, slightly opalescent gel
**pH (at 25°C):** 6.1± 0.2

## Principle

**ANTIBIOTIC ASSAY MEDIUM NO. 12 (NYSTATIN ASSAY AGAR)** is used for microbiological assay of Amphotericin B & Nystatin using *Saccharomyces cerevisiae*. This medium is identified numerically and also where applicable with names assigned by "**Grove** and **Randall**" in Assay method of Antibiotics. "**Schmidt** and **Moyer**" proposed the liquid formulation for the antibiotic assay medium. The medium contains Peptic digest of animal tissue, Yeast extract and beef extract, are used to provide essential nutrients for the growth of the organisms in the medium. Dextrose acts as the source of carbon and energy. Sodium chloride is used to control the osmotic balance. Agar is used as a solidifying agent, also controls the diffusion activity of antibiotics and provides a solid support for the seed agar layer. The base agar for the antibiotic assay usually prepares on the same day of test and allows solidifying; the seed agar inoculated with the culture medium is then overlaid over the base medium.

## Interpretation

Cultural characteristics observed after inoculating ($10^3$CFU / ml) at 25 ± 2°C (pre-incubation), for examined growth transfer to subsequent incubation at 25 - 30ºC for 18 - 24 hours.

| Microorganisms | ATCC | Inoculum (CFU/ml) | Growth | Antibiotics assayed with Inhibition zones |
|---|---|---|---|---|
| *Saccharomyces cerevisiae* | 2601 | $10^3$ | Luxuriant | Amphotericin B, Nystatin |

## References

1. Grove and Randall, 1955. Assay Methods of Antibiotics Medical Encyclopedia, Inc. New York.
2. Schmidt and Moyer, 1944. J. Bact, 47:199.