



## Dextrose Salt Agar

M102

Dextrose Salt Agar is used for enumeration of yeasts and moulds in butter and other dairy products.

### Composition\*\*

Ingredients	Gms / Litre
Dextrose	10.000
Yeast extract	1.000
Ammonium nitrate	1.000
Ammonium sulphate	1.000
Disodium phosphate	4.000
Monopotassium phosphate	2.000
Sodium chloride	1.000
Agar	15.000
Final pH ( at 25°C)	6.6±0.2

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

### Directions

Suspend 35 grams in 1000 ml distilled water. Heat to boiling to dissolve the medium completely. Sterilize by autoclaving at 10 lbs pressure (115°C) for 15 minutes. Cool to 45°C. If desired pH can be adjusted to 3.5 by adding sterile 10% aqueous citric acid. Mix well before pouring into sterile Petri plates. Do not reheat the medium after addition of citric acid.

### Principle And Interpretation

Dextrose Salt Agar is prepared according to the standard formula 31 of the International Dairy Federation (1). It is used for enumeration of yeasts and moulds in butter and other dairy products (2, 3).

Yeast extract and dextrose provide growth nutrients. A 2.5 gm sample of chilled butter is diluted with 5 ml of quarter strength Ringers solution. Plates are poured by addition of 0.2 ml of the solution, which corresponds to 0.1 gm butter. Plates are incubated at 30°C for 2 days. If growth is not visible then incubation is continued at 30°C for 3 days and visible colonies of yeasts and moulds are counted.

### Quality Control

#### Appearance

Cream to yellow homogeneous free flowing powder

#### Gelling

Firm, comparable with 1.5% Agar gel

#### Colour and Clarity of prepared medium

Light amber coloured, clear to slightly opalescent gel forms in Petri plates

#### Reaction

Reaction of 3.5% w/v aqueous solution at 25°C. pH : 6.6±0.2

#### pH

6.40-6.80

#### Cultural Response

M102: Cultural characteristics observed after an incubation at 30°C for 48- 72 hours.

Organism	Inoculum (CFU)	Growth	Recovery
* <i>Aspergillus brasiliensis</i> ATCC 16404	50-100	good-luxuriant	
<i>Candida albicans</i> ATCC 10231	50-100	good-luxuriant	≥50%

*Saccharomyces cerevisiae*  
ATCC 9763                      50-100                      good-luxuriant  $\geq 50\%$

*\*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.

## Reference

1. International Dairy Federation, 1964, International Standard FIL-1 DF31 Brussels.
2. Ritter and Eschmann, 1966, Alimenta., 5:43.
3. Ritter and Eschmann, 1966, Alimenta., 5:46.

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