Technical Information

Dextrose Salt Agar

Product Code: DM 1102

Application: 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

Principle & 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.

Methodology

Suspend 35 grams of powder media in 1000 ml distilled water. Shake well and heat 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.

Quality Control

Physical 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 Range 6.40-6.80

Cultural Response/Characteristics
DM1102: Cultural characteristics observed after an incubation at 30°C for 48- 72 hours.

Organism	Inoculum (CFU)	Growth	Recovery
**Aspergillus brasiliensis ATCC 16404*	50-100	Good-luxuriant	
Candida albi cans ATCC 10231	50-100	Good-luxuriant	>=50%
Saccharomyces cerevisiae ATCC 9763	50-100	Good-luxuriant	>=50%

**Key: Formewrly known as Aspergillus niger ATCC 16404*

Storage and Shelf Life

Dried Media: Store below 30°C in tightly closed container and use before expiry date as mentioned on the label.
Prepared Media: 2-8^0 in sealable plastic bags for 2-5 days.

Further Reading

1. International Dairy Federation, 1964, International Standard FIL- 1 DF3 1 Brussels.
2. Ritter and Eschmann, 1966, Alimenta., 5:43.
3. Ritter and Eschmann, 1966, Alimenta., 5:46.

Disclaimer :

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