Nutrient Agar BIS

Intended Use
Nutrient Agar is a general-purpose culture medium in accordance with BIS under the specification IS:5887 (Part-I) 1976 reaffirmed 1986, IS:5887 (Part-II) 1976 and IS:5887 (Part-V) 1976 reaffirmed 1986.

Summary
Nutrient Agar is a basic culture medium used to subculture organisms for maintenance purpose or to check the purity of subcultures from isolated plates prior to biochemical or serological testing. It is used for the cultivation and enumeration of organisms in water, sewage, faeces and other materials, which are not particularly fastidious. Nutrient Agar is suitable for teaching purpose and maintenance of cultures, where a prolonged survival of organisms at an ambient temperature is required without risk of the overgrowth that can occur with a more nutritious medium. It is recommended by BIS for the cultivation of *Escherichia coli, Staphylococcus aureus* and *Vibrio* from food samples.

Principle
Peptic digest of animal tissue and beef extract provide water-soluble substances including carbohydrates, vitamins, organic nitrogen compounds and salts. Sodium chloride maintains the osmotic equilibrium of the medium.

Formula*

Ingredients	**g/L**
Peptic Digest of Animal Tissue	10.0
Beef Extract	10.0
Sodium Chloride	5.0
Agar	15.0
Final pH (at 25°C)	7.50 – 7.60

*Adjusted to suit performance parameters.

Storage and Stability
Store dehydrated medium below 30°C in tightly closed container and the prepared medium at 2°C-8°C. Avoid freezing and overheating. Use before expiry date on the label. Once opened keep powdered medium closed to avoid hydration.

Type of specimen
Water and Waste Water samples; Food and Dairy samples

Specimen Collection and Handling
Ensure that all samples are properly labelled. Follow appropriate techniques for handling samples as per established guidelines. Some samples may require special handling, such as immediate refrigeration or protection from light, follow the standard procedure. The samples must be stored and tested within the permissible time duration. After use, contaminated materials must be sterilized by autoclaving before discarding.

Directions
1. Suspend 40.00 g of the powder in 1000 mL distilled water.
2. Heat to boiling to dissolve the powder completely.
3. Sterilize by autoclaving at 121°C (15 psi) for 15 minutes as per validated cycle.
4. Mix well and pour into sterile petriplates.

Quality Control

Dehydrated Appearance: Cream to yellow coloured, homogenous, free flowing powder.
Prepared Appearance: Cream to light yellow coloured, clear to slightly opalescent gel forms in petriplates.
Cultural Response: Culture characteristics observed after an incubation at 30°C-35°C for 18 to 48 hours.

Organism (ATCC)	Growth
Escherichia coli (25922)	Good
Staphylococcus aureus subsp. *aureus* (6538)	Good
Enterococcus faecalis (29212)	Good
Pseudomonas aeruginosa (9027)	Good
Bacillus spizizenii (6633)	Good

Note: For good growth - Growth obtained on test media should not differ by a factor greater than 2 from calculated value for a standardized inoculum.

Interpretation of Results

1. Examine plates for growth.
2. Growth from tubes inoculated with pure cultures can be used for biochemical and serological testing.

Performance and Evaluation

Performance of the product is dependent on following parameters as per product label claim:

1. Directions
2. Storage
3. Expiry

Warranty

This product is designed to perform as described on the label and package insert. The manufacturer disclaims any implied warranty of use and sale for any other purpose.

Reference

1. US Food and Drug Adm; 1998, Bacteriological Analytical Manual, 8th Ed; Rev. A, AOAC, International, Gaithersburg, Md.
2. Data on file: Microxpress®, A Division of Tulip Diagnostics (P) Ltd.

Product Presentation:

Cat No.	Product description	Pack Size
201140060500	Dehydrated Culture Media	500 g