Nutrient Broth No. 2

Intended Use
Nutrient Broth No. 2 is recommended for cultivation and enrichment of less fastidious bacteria and as a base in the preparation of special media.

Summary
Nutrient Broth is a general-purpose medium used for the cultivation of microorganisms that are not exacting in their nutritive requirements. An infusion of meat and peptone constitute the nutrient composition of many media. Nutrient Broth No. 2 is a basic culture medium used for maintaining microorganisms and for purity checking prior to biochemical or serological testing. It is used for the cultivation and enumeration of bacteria, which are not particularly fastidious. In semisolid form it is used for maintenance or control of standard organisms. Addition of different biological fluids such as horse or sheep blood, serum, egg yolk, etc. makes it suitable for the cultivation of fastidious organisms.

Principle
Meat peptone and casein enzymic hydrolysate provide the necessary nutrients for the growth of non-fastidious organisms. Sodium chloride maintains the osmotic equilibrium of the medium.

Formula*

Ingredients	**g/L**
Meat Peptone	4.3
Casein Enzymic Hydrolysate	4.3
Sodium Chloride	6.4
Final pH (at 25°C)	7.4 ± 0.2

*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.

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 15.00 g of the powder in 1000 mL purified / distilled water.
2. Heat if necessary, to dissolve the powder completely.
3. Dispense as desired and sterilize by autoclaving at 121°C (15 psi) for 15 minutes as per validated cycle.

Quality Control
Dehydrated Appearance: Cream to yellow coloured, homogenous, free flowing powder.
Prepared Appearance: Light yellow to amber coloured, clear solution without any precipitate.
Growth Promotion Test: Growth promotion is carried out in accordance with the harmonized method of USP/EP/JP/IP and growth is observed after an incubation at 30°C-35°C for 18 to 24 hours.
Growth Promoting Properties: The test results observed are within the specified temperature and shortest period of time specified in the test, inoculating ≤ 100 cfu of appropriate microorganism at 30°C-35°C for 18 hours.

Organism (ATCC)	Growth
Escherichia coli (25922)	Good
Escherichia coli (8739)	Good
Klebsiella aerogenes (13048)	Good
Klebsiella pneumoniae subsp. *pneumoniae* (10031)	Good
Salmonella enterica subsp. *enterica* serovar *Typhimurium* (14028)	Good

Note: Inoculum cfu for good growth is 10 - 100.

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. Lapage S., Shelton J. and Mitchell T., 1970, 'Methods in Microbiology', Norris J. and Ribbons D. (Eds.), Vol. 3A., Academic Press, London.
2. MacFaddin J. F., 1985, Media for Isolation-Cultivation-Identification-Maintenance of Medical Bacteria, Vol. I, Williams and Wilkins, Baltimore.
3. Data on file: Microxpress®, A Division of Tulip Diagnostics (P) Ltd.

Product Presentation:

Cat No.	Product description	Pack Size
201140110100	Dehydrated Culture Media	100 g
201140110500	Dehydrated Culture Media	500 g
201140112500	Dehydrated Culture Media	2.5 k