

## TM 798 – NUTRIENT AGAR NO. 2 (IS: 5887 (Part I, II and V) 1976, reaffirmed 2005)

### INTENDED USE

General purpose culture medium.

### PRODUCT SUMMARY AND EXPLANATION

Nutrient Agar is a general purpose medium used for the examination of water and dairy products according to Standard Methods for the Examination of Water and Waste water and Dairy Products. Nutrient Agar No. 2 is used in microbiological analysis of water by Czech Standards. It can also be used for cultivating several less fastidious microorganisms. It is recommended by BIS for the cultivation of *Escherichia coli*, *Staphylococcus aureus* and *Vibrio* from food samples. Nutrient Agar with 0.8% sodium chloride and pH 6.0 is used for cultivation of bacteria requiring slightly acidic conditions. Nutrient media may be used as enriched media by addition of 10% blood or other biological fluids like ascetic fluid, serum etc.

### COMPOSITION

Ingredients	Gms / Ltr
Peptic digest of animal tissue	10.000
Meat extract	10.000
Agar	15.000
Sodium chloride	5.000

### PRINCIPLE

The medium consists of Meat extract and peptic digest of animal tissue which provide the necessary nitrogen compound, carbon, vitamins and also some trace ingredients to non-fastidious organism like *Bacillus subtilis* and *Staphylococcus aureus*. Sodium chloride maintains osmotic equilibrium of the medium.

### INSTRUCTION FOR USE

- Dissolve 40.0 grams in 1000 ml purified/distilled water.
- Heat to boiling to dissolve the medium completely.
- Sterilize by autoclaving at 15 psi pressure (121°C) for 15 minutes.
- Mix well and pour into sterile Petri plates.

### QUALITY CONTROL SPECIFICATIONS

**Appearance of Powder** : Cream to yellow coloured homogeneous free flowing powder  
**Appearance of prepared medium** : Light yellow clear to slightly opalescent gel forms in Petri plates.  
**pH (at 25°C)** : 7.5 ± 0.2

### INTERPRETATION

Cultural characteristics observed after incubation.



Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Recovery	Incubation Temperature	Incubation Period
<i>Enterobacter aerogenes</i>	13048	50-100	Luxuriant	>=70%	35-37°C	18-24 Hours
<i>Salmonella Typhimurium</i>	14028	50-100	Luxuriant	>=70%	35-37°C	18-24 Hours
<i>Escherichia coli</i>	25922	50-100	Luxuriant	>=70%	35-37°C	18-24 Hours
<i>Klebsiella pneumoniae</i>	13883	50-100	Luxuriant	>=70%	35-37°C	18-24 Hours
<i>Enterococcus faecalis</i>	29212	50-100	Luxuriant	>=70%	35-37°C	18-24 Hours
<i>Pseudomonas aeruginosa</i>	10145	50-100	Luxuriant	>=70%	35-37°C	18-24 Hours

**PACKAGING:**

In pack size of 100 gm and 500 gm bottles.

**STORAGE**

Dehydrated powder, hygroscopic in nature, store in a dry place, in tightly-sealed containers between 25-30°C and protect from direct sunlight. Under optimal conditions, the medium has a shelf life of 4 years. When the container is opened for the first time, note the time and date on the label space provided on the container. After the desired amount of medium has been taken out replace the cap tightly to protect from hydration.

**Product Deterioration:** Do not use if they show evidence of microbial contamination, discoloration, drying or any other signs of deterioration.

**DISPOSAL**

After use, prepared plates, specimen/sample containers and other contaminated materials must be sterilized before discarding.

**REFERENCES**

- Greenberg A.E., Trussell R.R. and Clesceri L.S. (Eds.), 1985, Standard Methods for the Examination of Water and Wastewater, 16th ed., APHA, Washington, D.C.
- American Public Health Association, 1978, Standard Methods for the Examination of Dairy Products, 14th ed., APHA, Inc., Washington, D.C.
- Bureau of Indian Standards IS:5887 (Part-I) 1976, reaffirmed 1986.
- Bureau of Indian Standards IS:5887 (Part-II) 1976, Second Reprint December 1994.
- Bureau of Indian Standards IS:5887 (Part-V) 1976, reaffirmed 1986.



 GMP Good Manufacturing Practices Certified	 Best Before	 Quantity	 Catalogue Number	 Manufacturer
 Temperature Unit	 Lot / Batch Number	 Consults Instructions for Use	 QR Code	

**NOTE:** Please consult the Material Safety Data Sheet for information regarding hazards and safe handling Practices.

**\*For Lab Use Only**  
**Revision: 08 Nov., 2019**