

# **Product Data Sheet**

NUTRIENT AGAR
Product No. GB-DCM-00439-1A

### **INTENDED USE**

For cultivation of less fastidious microorganisms, can be enriched with blood or other biological fluids.

#### PRODUCT SUMMARY

Nutrient media are basic culture media used for maintaining microorganisms, cultivating fastidious organisms by enriching with serum or blood and are also used for purity checking prior to biochemical or serological testing. Nutrient Agar is ideal for demonstration and teaching purposes where a more prolonged survival of cultures at ambient temperature is often required without risk of overgrowth that can occur with more nutritious substrate. It is one of the several non-selective media useful in routine cultivation of microorganisms. It can be used for the cultivation and enumeration of bacteria which are not particularly fastidious. Addition of different biological fluids such as horse or sheep blood, serum, egg yolk etc. makes it suitable for the cultivation of related fastidious organisms.

# **Product Specifications**

| Ingredients     | Gms / Ltr |  |
|-----------------|-----------|--|
| Peptone         | 5.000     |  |
| Sodium chloride | 5.000     |  |
| Beef extract    | 1.500     |  |
| Yeast extract   | 1.500     |  |
| Agar            | 15.000    |  |

# **PRINCIPLE**

The medium consists of Peptone, Beef extract and yeast extract that provide the necessary nitrogen compounds, carbon, vitamins and also some trace ingredients necessary for the growth of bacteria. Sodium chloride maintains the osmotic equilibrium of the medium.

### INSTRUCTION FOR USE

- Dissolve 28 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. Cool to 45-50°C.
- If desired, the medium can be enriched with 5-10% blood or other biological fluids.
- Mix well and pour into sterile Petri plates.



## **UALITY CONTROL SPECIFICATIONS**

Appearance of Powder: Cream to yellow homogeneous free flowing powder.

Appearance of prepared medium: Light yellow coloured clear to slightly opalescent gel

forms in Petri plates.

pH (at  $25^{\circ}$ C): 7.4±0.2

| Microorganism                             | ATCC  | Inoculum<br>(CFU/ml) | Growth             | Recovery | Incubation<br>Temperature | Incubation<br>Period |
|---|-------|----------------------|--------------------|----------|---------------------------|----------------------|
| Salmonella Typhi                          | 6539  | 50-100               | Good-<br>luxuriant | >=50%    | 35-37°C                   | 18-48 Hours          |
| Streptococcus pyogenes                    | 19615 | 50-100               | Good-<br>luxuriant | >=50%    | 35-37°C                   | 18-48 Hours          |
| Yersinia enterocolitica                   | 23715 | 50-100               | Good-<br>luxuriant | >=50%    | 35-37°C                   | 18-48 Hours          |
| Staphylococcus<br>aureus subsp.<br>aureus | 25923 | 50-100               | Good-<br>luxuriant | >=50%    | 35-37°C                   | 18-48 Hours          |
| Escherichia coli                          | 25922 | 50-100               | Good-<br>luxuriant | >=50%    | 35-37°C                   | 18-48 Hours          |
| Pseudomonas aeruginosa                    | 27853 | 50-100               | Good-<br>luxuriant | >=50%    | 35-37°C                   | 18-48 Hours          |
| Salmonella<br>Enteritidis                 | 13076 | 50-100               | Good-<br>luxuriant | >=50%    | 35-37°C                   | 18-48 Hours          |

#### 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.

This product is for research use only.