

## TM 1038A – NUTRIENT AGAR (pH 6.8) (ISO 10273:2003, ISO 21528: 2004, ISO 19250:2010, ISO 6579:2015)

### INTENDED USE

A general purpose nutrient medium for testing of water, sewage, faeces & other materials.

### PRODUCT SUMMARY AND EXPLANATION

Nutrient Agar is a basic culture medium used for maintenance or to check purity of subcultures prior to biochemical or serological tests from water and Dairy. This medium may be used as slants or plates for routine work with non-fastidious organisms. Many bacteria have the optimum pH growth range of 6.6 to 7.0. Wetmore and Gochenour maintained cultures of *Malleomyces* and *Pseudomonas* on Nutrient Agar to which glycerol was added. Greenberg and Cooper employed this medium in cultivation of Staphylococci for the preparation of vaccines and antigens. Nutrient Agar has relatively simple formulation which provides the necessary nutrients for the growth of many microorganisms which are not very fastidious.

### COMPOSITION

Ingredients	Gms / Ltr
Peptone	5.000
Beef extract	3.000
Agar	15.000

### PRINCIPLE

The medium consists of beef extract that provides vitamins, organic nitrogen compounds, salts and little carbohydrates. Peptone provide amino acids and long chain peptides for the organisms.

### INSTRUCTION FOR USE

- Dissolve 23.0 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. If desired, it can be appropriately enriched with 5 - 10% v/v sterile defibrinated bloods.
- 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** : Yellow coloured clear to slightly opalescent gel forms in Petri plates.  
**pH (at 25°C)** : 6.8 ± 0.2

### INTERPRETATION

Cultural characteristics observed after incubation.

Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Recovery	Incubation Temperature	Incubation Period



<i>Salmonella</i> Enteritidis	13076	50-100	Luxuriant	>=70%	35-37°C	18-24 Hours
<i>Salmonella</i> Typhi	6539	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>Shigella flexneri</i>	12022	50-100	Luxuriant	>=70%	35-37°C	18-24 Hours
<i>Staphylococcus aureus</i> subsp. <i>aureus</i>	25923	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

**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**

1. Baird R.B., Eaton A.D., and Rice E.W., (Eds.), 2015, Standard Methods for the Examination of Water and Wastewater, 23rd ed., APHA, Washington, D.C.
2. Standard Methods for the Examination of Dairy Products, 1978, 14th ed., APHA, Washington D.C.
3. Greenberg and Cooper, 1960, Can. Med. Assn. J., 83:143.
4. Isenberg, H.D. Clinical Microbiology Procedures Handbook. 2nd Edition.
5. Jorgensen, J.H., Pfaller, M.A., Carroll, K.C., Funke, G., Landry, M.L., Richter, S.S and Warnock., D.W.(2015) Manual of Clinical Microbiology, 11th Edition. Vol. 1.
6. Pelczar, Chan and Kreig, 1986, Microbiology, 5th ed., McGraw-Hill Book Company, New York.
7. Salfinger Y., and Tortorello M.L. Fifth (Ed.), 2015, Compendium of Methods for the Microbiological Examination of Foods, 5th Ed., American Public Health Association, Washington, D.C.



<b>GMP</b> Good Manufacturing Practices Certified	<b>IVD</b> For In Vitro Diagnostic Use	<b>QTY.</b> Quantity	<b>LOT/ B. NO.</b> Lot / Batch Number	<b>REF</b> Catalogue Number	 Manufacturer
 Temperature Unit	<b>EC REP</b> MedNet GmbH Bauhofstrasse 10, 49163 Muenster, Germany Authorized Representative	 European Conformity	 QR Code	 Consults Instructions for Use	 Best Before

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

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