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TM 1615 - STANDARD NUTRIENT BROTH NO.2

INTENDED USE

For enrichment of less fastidious microorganisms.

PRODUCT SUMMARY AND EXPLANATION

Nutrient Broth is a general purpose medium used for the cultivation of microorganisms that are not exacting in their nutritive requirements.

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.

COMPOSITION

| Ingredients | Gms / Ltr | | |
|-----------------|-----------|--|--|
| Meat peptone | 4.300 | | |
| Tryptone | 4.300 | | |
| Sodium chloride | 6.400 | | |

PRINCIPLE

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

INSTRUCTION FOR USE

- Dissolve 15 grams in 1000 ml distilled water.
- Heat if necessary to dissolve the medium completely.
- Dispense into tubes or flasks as desired.
- Sterilize by autoclaving at 15 psi pressure (121°C) for 15 minutes.

QUALITY CONTROL SPECIFICATIONS

| Appearance of Powder | : Cream to yellow homogeneous free flowing powder. |
|-------------------------------|--|
| Appearance of prepared medium | : Light yellow coloured clear solution. |
| pH (at 25°C) | : 7.5±0.1 |

INTERPRETATION

Cultural characteristics observed after an incubation.

| Microorganism | ATCC | lnoculum (CFU/ml) | Growth | Incubation Temperature | Incubation Period |
|----------------------|-------|----------------------|-----------|---------------------------|----------------------|
| Klebsiella aerogenes | 13048 | 50-100 | Luxuriant | 35-37°C | 18-24 Hours |



| Escherichia coli | 25922 | 50-100 | Luxuriant | 35-37°C | 18-24 Hours |
|-------------------------------|-------|--------|-----------|---------|----------------|
| Klebsiella pneumoniae | 13883 | 50-100 | Luxuriant | 35-37°C | 18-24 Hours |
| <i>Salmonella</i> Typhimurium | 14028 | 50-100 | Luxuriant | 35-37°C | 18-24 Hours |

PACKAGING:

In pack size of 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. American Public Health Association, Standard Methods for the Examination of Dairy Products, 1978, 14th Ed., Washington D.C.
- 2. 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.
- 3. Isenberg, H.D. Clinical Microbiology Procedures Handbook 2nd Edition.
- 4. 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.
- 5. Lapage S., Shelton J. and Mitchell T., 1970, Methods in Microbiology', Norris J. and Ribbons D., (Eds.), Vol. 3A, Academic Press, London.
- 6. MacFaddin J. F., 2000, Biochemical Tests for Identification of Medical Bacteria, 3rd Ed., Lippincott, Williams and Wilkins, Baltimore.
- 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.
- 8. Wehr H. M. and Frank J. H., 2004, Standard Methods for the Microbiological Examination of Dairy Products, 17th Ed., APHA Inc., Washington, D.C.



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

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A- 902A, RIICO Industrial Area, Phase III, Bhiwadi-301019.



PRODUCT DATA SHEET

Revision: 08 Nov., 2019

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