

Product Data Sheet

DEY-ENGLEY NEUTRALIZING BROTH

Product No. GB-DCM-00170-1A

INTENDED USE

For neutralizing and testing antiseptics and disinfectants.

PRODUCT SUMMARY

Dey-Engley Neutralizing Broth is formulated as per the procedure described by Engley and Day. Day -Engley Neutralizing Broth is especially suited for environmental sampling where neutralization of the chemical is important to determine its bactericidal activity. A strongly bacteriostatic substance inhibits the growth and reproduction of bacteria without killing them. These bacteria hold the ability to cause infection under favourable conditions. Dey-Engley Neutralizing Broth Base and Dey-Engley Neutralizing Broth has the same formula but the former does not containing the neutralizing components. The Dey-Engley Neutralizing Broth neutralizes a broad spectrum of antiseptics and disinfectants including quaternary ammonium compounds, phenolics, iodine and chlorine preparations, mercurials, formaldehyde and glutaraldehyde. Dey-Engley Neutralizing Broth is used for the neutralization and testing of antiseptics and disinfectants according to the procedure of Engley and Day.

Product Specifications

| Ingredients | Gms / Ltr |
|-----------------------|------------------|
| Tryptone | 5.000 |
| Yeast extract | 2.500 |
| Dextrose (Glucose) | 10.000 |
| Sodium thiosulphate | 6.000 |
| Sodium thioglycollate | 1.000 |
| Sodium bisulphite | 2.500 |
| Lecithin | 7.000 |
| Polysorbate | 80 5.000 |
| Bromocresol purple | 0.020 |



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INSTRUCTION FOR USE

- Dissolve 39.02 grams in 1000 ml purified/distilled water.
- Heat if necessary to dissolve the medium completely.
- Mix well and dispense into tubes or flasks as desired.
- Sterilize by autoclaving at 15 psi pressure (121°C) for 15 minutes. Cool to 45-50°C.

PRINCIPLE

The medium consists of Tryptone which provides nitrogen and carbon source, long chain amino acids, vitamins and other essential nutrients. Dextrose is an energy source. Yeast extract is also a rich source of vitamin B-complex. The present formulation incorporates neutralizing substances for almost all the active products used as antiseptics and disinfectants. Sodium bisulfite neutralizes aldehydes; sodium thioglycollate neutralizes mercurials; sodium thiosulfate neutralizes iodine and chlorine; lecithin neutralizes quaternary ammonium compounds; and polysorbate 80, a non-ionic surfaceactive agent, neutralizes substituted phenolics. Bromocresol purple is an indicator for dextrose utilization. Due to the high concentration of lecithin in the broth medium, turbidity cannot be used to detect growth. Therefore, bromocresol purple and dextrose are added to the medium. Those organisms that ferment dextrose will turn the medium from purple to yellow. Growth of Pseudomonas species, which do not ferment dextrose, can be detected by the formation of a pellicle on the surface of the broth.

QUALITY CONTROL SPECIFICATIONS

Appearance of Powder: Light yellow to bluish grey homogeneous free flowing powder
Appearance of prepared medium: Purple to reddish purple coloured, opalescent solution (may have particulate precipitate) in tubes.
pH (at 25°C) : 7.6±0.2

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.

| Microorganism | ATCC | Inoculum (CFU/ml) | Growth | Incubation Temperature | Incubation Period |
|------------------------|-------|-------------------|-----------|------------------------|-------------------|
| Escherichia coli | 25922 | 50-100 | Luxuriant | 35-37 °C | 40-48 Hours |
| Escherichia coli | 8739 | 50-100 | Luxuriant | 35-37 °C | 40-48 Hours |
| Pseudomonas aeruginosa | 27853 | 50-100 | Luxuriant | 35-37 °C | 40-48 Hours |
| Salmonella Typhimurium | 14028 | 50-100 | Luxuriant | 35-37 °C | 40-48 Hours |
| Staphylococcus aureus | 25923 | 50-100 | Luxuriant | 35-37 °C | 40-48 Hours |
| Bacillus subtilis | 6633 | 50-100 | Luxuriant | 35-37 °C | 40-48 Hours |

DISPOSAL

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

This product is for research use only.