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BD Diagnostic 234000

BD Diagnostic Difco Nutrient Broth 234000 User Manual

Model: 234000 | Brand: BD Diagnostic

INTRODUCTION

This manual provides essential instructions for the proper use, preparation, and storage of BD Diagnostic Difco Nutrient Broth, Model 234000. This product is a dehydrated culture medium intended for general laboratory use in microbiology for the cultivation of a wide variety of microorganisms.

PRODUCT OVERVIEW

BD Diagnostic offers over 400 different Difco and BBL brand media formulations in dehydrated form, designed for convenience in laboratory and bioprocessing applications. Certain formulations are enhanced to deliver more consistent and superior test results. Each individual ingredient and the final dehydrated product undergo rigorous quality control to ensure consistent, high-quality performance, eliminating the need for media preparation from raw materials in the laboratory. This dehydrated culture medium is available in various container sizes, including 100 g, 500 g bottles, 2 kg, 5 lb, 25 lb, and 10 kg containers.



Image: A 500g bottle of BD Diagnostic Difco Nutrient Broth, Model 234000. The bottle is white with a blue cap and features a label indicating "Difco Select LB Broth" and other product details. This image illustrates the typical packaging for the dehydrated culture medium.

PREPARATION AND SETUP

Proper preparation is crucial for optimal performance of the nutrient broth. Always follow aseptic techniques to prevent contamination.

- Weighing:** Accurately weigh the required amount of dehydrated medium according to the formulation instructions on the product label. Typically, 8 grams per liter of purified water is used for standard nutrient broth.
- Dissolving:** Suspend the weighed powder in the appropriate volume of purified water. Stir thoroughly to ensure complete dissolution. Gentle heating may be required to aid dissolution, but avoid boiling.
- Dispensing:** Dispense the dissolved medium into appropriate culture vessels (e.g., test tubes, flasks).
- Sterilization:** Autoclave at 121°C for 15 minutes at 15 psi (1.05 kg/cm²). Ensure the autoclave cycle is validated and effective. Allow the medium to cool to room temperature before use.
- pH Adjustment (if necessary):** The pH of the prepared medium should be within the specified range (usually 6.8 ± 0.2 at 25°C). Adjust with sterile acid or alkali if required.

OPERATION AND INOCULATION

Once prepared and cooled, the nutrient broth is ready for inoculation.

- Aseptic Inoculation:** Using sterile techniques, inoculate the cooled, sterile broth with the desired microorganism.
- Incubation:** Incubate the inoculated broth at the appropriate temperature and duration for the specific microorganism being cultivated. Common incubation temperatures range from 25°C to 37°C.
- Observation:** Observe for growth, typically indicated by turbidity in the broth. Further tests may be performed as required by the experimental protocol.

STORAGE AND MAINTENANCE

- Dehydrated Medium:** Store the dehydrated Difco Nutrient Broth in its original tightly sealed container at 2-30°C, away from direct light and moisture. Ensure the container is kept dry.
- Prepared Medium:** Prepared sterile broth can be stored at 2-8°C for up to several weeks, provided it remains sterile and protected from light. Discard if any signs of contamination or deterioration are observed.
- Shelf Life:** Refer to the product label for the specific expiration date. Do not use expired product.

TROUBLESHOOTING

| Issue | Possible Cause | Solution |
|-----------------------------|---|--|
| No or poor microbial growth | <ul style="list-style-type: none"> Incorrect preparation (e.g., wrong concentration, improper pH). Ineffective sterilization. Expired or improperly stored medium. Incorrect incubation conditions. Non-viable inoculum. | <ul style="list-style-type: none"> Verify preparation steps and pH. Re-sterilize or use fresh sterile medium. Check expiration date and storage conditions. Confirm incubator settings. Verify viability of inoculum. |
| Contamination | <ul style="list-style-type: none"> Breach in aseptic technique during preparation or inoculation. Incomplete sterilization. Contaminated water source. | <ul style="list-style-type: none"> Reinforce aseptic practices. Validate sterilization cycle. Use high-quality purified water. |

SPECIFICATIONS

- Model Number:** 234000

- **Brand:** BD Diagnostic
- **Product Type:** Dehydrated Nutrient Broth
- **Package Weight:** 0.63 Kilograms (for 500g bottle)
- **Item Weight:** 500 Grams
- **Number of Items:** 1
- **Package Information:** Bottle
- **Country of Origin:** United States
- **Package Dimensions:** 9.88 x 5.51 x 4.72 inches (25.1 x 14.0 x 12.0 cm)
- **First Available Date:** December 17, 2012

SAFETY INFORMATION

This product is for *in vitro* diagnostic use and laboratory use only. It is not intended for human or animal consumption. Always handle dehydrated media and prepared cultures with appropriate personal protective equipment (PPE), including gloves, lab coat, and eye protection. Refer to the Safety Data Sheet (SDS) for complete safety information.

- Avoid inhalation of powder.
- Avoid contact with skin and eyes.
- Dispose of used media and cultures according to local regulations for biohazardous waste.

WARRANTY AND SUPPORT

BD Diagnostic products are manufactured under strict quality control standards. For specific warranty information, please refer to the terms and conditions provided at the time of purchase or contact BD Diagnostic customer support directly. Technical assistance is available for product-related inquiries. For support, please visit the official BD Diagnostic website or contact your local distributor.