

BIOMARK Laboratories-INDIA

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TECHNICAL SHEET

B1467	NITRATE BROTH				
Formula					
Ingredients:	gms/lit.				
Peptic digest of animal tissue	5.00				
Meat Extract B#	3.00				
Potassium nitrate	1.00				
Sodium chloride	30.00				
#- Equivalent to Beef extract					
Final pH (at 25°C):	7.0 ± 0.2				
Directions:					
Suspend 39 grams in 1000 ml distilled water. Heat, if necessary, to dissolve the medium completely. Dispense in tubes and sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes.					
Principles:					
Meat Extract B and Peptone are sources of carbon, protein and nutrients. Potassium Nitrate is a source of nitrate. Nitrate reduction is a valuable criterion for differentiating and identifying various types of bacteria. Certain bacteria reduce nitrates to nitrites only, while others are capable of further reducing nitrite to free nitrogen or ammonia.					
QC Tests – (I)Dehydrated Medium					
Colour:	Cream to yellow				
Appearance:	Homogeneous Free Flowing powder				
(II)Rehydrated medium					
pH (post autoclaving/heating):	7.0 ± 0.2				
Colour (post autoclaving/heating):	Light amber				
Clarity (post autoclaving/heating):	Clear to slightly opalescent solution forms in tubes.				
(III)Q.C. Test Microbiological					
Cultural characteristics observed after 18 - 24 hrs at 35 - 37°C. Nitrate reduction observed on addition of 0.5ml of sulphanilic acid and 0.5ml of α-naphthylamine Solution.					
MICROORGANISM (ATCC)	GROWTH	NITRATE REDUCTION			
Bacillus cereus (10876)	Luxuriant	Positive reaction, red colour developed within 1-2 min.			
Enterobacter aerogenes (13048)	Luxuriant	Positive reaction, red colour developed within 1-2 min.			
Escherichia coli (25922)	Luxuriant	Positive reaction, red colour developed within 1-2 min.			
Salmonella typhimurium (14028)	Luxuriant	Positive reaction, red colour developed within 1-2 min.			
Precautions :	<ol style="list-style-type: none"> 1. For Laboratory Use. 2. Follow proper, established laboratory procedures in handling and disposing of infectious materials. 3. IRRITANT. Irritating to eyes, respiratory system and skin. Avoid contact with skin and eyes. Do not breathe dust. Wear suitable protective clothing. Keep container tightly closed. Target organ(s) : Blood, Nerves. 				
Limitations :	<ol style="list-style-type: none"> 1. Since the nutritional requirements of organisms vary, some strains may be encountered that fail to grow or grow poorly on this medium. 2. The addition of too much zinc dust may cause a false – negative reaction or a momentary colour reaction. 3. The nitrate test is very sensitive. An uninoculated nitrate control should be tested with reagents to determine whether the medium is nitrate free and that the glassware and reagents have not been contaminated with nitrous oxide. 4. The inoculum should not be taken from broth suspension of the organisms. 				
Use:	For detection of nitrate reduction by bacteria and also for the enumeration of Bacillus cereus by International Organization for Standardization (ISO), 1993, Draft ISO/DIS 7932				
Storage:	Dehydrated medium- below 30°C Prepared medium– Between 2 to 8°C.				
Packing:	500 gm. bottle				
Product profile:	Reconstitution	Quantity on Preparation (500g)	pH (25°C)	Supplement	Sterilization
B1467	39g/l	12.82L	7.0 ± 0.2	NIL	121°C / 15 minutes

Refer disclaimer Overleaf

Disclaimer:

User must ensure suitability of the product(s) in their application prior to use. Products conform solely to the information contained in this and other related BIOMARKLABORATORIES publications.

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