

**BIOMARK Laboratories-INDIA**

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**TECHNICAL SHEET**

<b>BW270</b>	<b>NITRATE BROTH</b>					
<b>Formula</b>						
<b>Ingredients :</b>		<b>gms/lit.</b>				
Peptic digest of animal tissue		5.00				
Beef extract		3.00				
Potassium nitrate		1.00				
Sodium chloride		30.00				
Final pH (at 25°C) :		7.0 ± 0.2				
<b>Directions :</b>						
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.						
<b>Principles:</b>						
Beef Extract and peptic digest of animal tissue 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.						
<b>QC Tests - (I) Dehydrated Medium</b>						
Colour :		Cream to yellow				
Appearance :		Homogeneous Free Flowing powder				
<b>(II) Rehydrated medium</b>						
pH (post autoclaving/heating) :		7.0 ± 0.2				
Colour (post autoclaving/heating) :		Light amber				
Clarity (post autoclaving/heating) :		Clear				
<b>(III) Q.C. Test Microbiological</b>						
Cultural characteristics observed after 18 - 24 hrs at 35 - 37°C.						
MICROORGANISM (ATCC)		GROWTH		NITRATE REDUCTION		
Acinetobacter calcoaceticus (19606)		Luxuriant		-		
Enterobacter aerogenes (13048)		Luxuriant		+		
Escherichia coli (25922)		Luxuriant		+		
Salmonella typhimurium (14028)		Luxuriant		+		
<b>Precautions :</b>		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.				
<b>Limitations :</b>		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.				
<b>Use :</b>		For detection of nitrate reduction by bacteria				
<b>Storage :</b>		Dehydrated medium- below 30°C Prepared medium- Between 2 to 8°C.				
<b>Packing :</b>		500 gm. bottle				
<b>Product profile:</b>		Reconstitution	Quantity on Preparation (500g)	pH (25°C)	Supplement	Sterilization
<b>BW270</b>	39g/l	12.82L	7.0 ± 0.2	NIL	121°C / 15 minutes	