

TECHNICAL SHEET

B845	ASPARAGINE NITRATE MEDIUM				
Formula					
Ingredients :		gms/lit.			
Potassium nitrate		1.00			
L-asparagine		1.00			
Sodium citrate		8.50			
Potassium dihydrogen phosphate		1.00			
Magnesium sulphate		1.00			
Calcium chloride		0.20			
Ferric chloride		0.0001			
Agar		15.00			
Final pH (at 25°C) : Self					
Directions :					
Suspend 27.7 gms. in 1000 ml. distilled water. Boil to dissolve the medium completely. Dispense as desired. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes.					
Principle :					
The conversion of nitrate and nitrite into molecular nitrogen or nitrous oxide through microbial processes is known as denitrification. Denitrification of bound nitrogen to gaseous nitrogen is mediated by numerous species of bacteria, which normally use oxygen of the air as hydrogen acceptor (anaerobic) but also possess the ability to use nitrates and nitrites in the place of oxygen (anaerobically). Asparagine is source of organic nitrogen and is readily available for microbial energy and growth while the salts in the medium help for growth of microorganisms.					
QC Tests - (I) Dehydrated Medium					
	Colour :	Cream to light yellow			
	Appearance :	Homogeneous Free Flowing powder			
(II) Rehydrated medium					
	pH (post autoclaving/heating) :	Self			
	Colour (post autoclaving/heating) :	Cream to light amber			
	Clarity (post autoclaving/heating) :	Clear to slightly opalescent			
(III) Q.C. Test Microbiological					
Cultural characteristics observed upto 7 days at 25- 30°C.					
	MICROORGANISM (ATCC)	GROWTH			
	Thiobacillus denitrificans (29685)	Good			
	Pseudomonas aeruginosa (27853)	Luxuriant			
	Achromobacter species	Luxuriant			
	Bacillus subtilis (6633)	Luxuriant			
	Micrococcus luteus (10240)	Luxuriant			
Precautions :					
1. For Laboratory Use.					
2. Follow proper, established laboratory procedures in handling and disposing of infectious materials.					
Limitations :					
1. Since the nutritional requirements of organisms vary, some strains may be encountered that fail to grow or grow poorly on this medium.					
Use :					
For the isolation and cultivation of denitrifying bacteria from soil.					
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
B845	27.7 g/l	18.05 L	Self	Nil	121°C /15 min.

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 BIOMARK LABORATORIES publications.

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