

**TECHNICAL SHEET**

<b>B141</b>	<b>CHARCOAL AGAR BASE</b>		
<b>Formula</b>			
<b>Ingredients:</b>		<b>gms/lit.</b>	
Beef heart, infusion from		500.00	
Peptic digest of animal tissue		10.00	
Yeast extract		3.50	
Sodium chloride		5.00	
Starch, soluble		10.00	
Charcoal		4.00	
Niacin		0.001	
Agar		18.00	
Final pH (at 25°C): 7.3 ± 0.2			
<b>Directions :</b>			
Suspend 31.25 grams in 450 ml distilled water. Heat to boiling to dissolve the medium with frequent stirring. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes. Cool to 45-50°C. Aseptically add sterile 10% of defibrinated blood and rehydrated contents of 1 vial of Bordetella Selective Supplement (BF019). Mix well and pour into sterile Petri plates. Charcoal Agar can be converted to Chocolate Agar for isolation of Haemophilus species.			
<b>Principle :</b>			
The ingredients like beef heart infusion, peptic digest of animal tissue and yeast extract provide essential nutrients to the organisms. Sodium chloride maintains osmotic balance. Starch soluble and charcoal neutralizes substances toxic to Bordetella species such as fatty acids. Charcoal has the tendency to settle at the bottom of the flask. Therefore, before dispensing, swirl the flasks gently to obtain a uniform charcoal suspension. The difficulty in the isolation of Bordetella pertussis from nasopharyngeal secretions is the repression of unwanted flora during the long incubation period on nutritious media. Penicillin can be added to the medium as an antimicrobial agent for restricting the other contaminants. However Penicillin resistant flora still cause the contamination. Methicillin was found to be superior than Penicillin in suppressing unwanted nasopharyngeal flora. The medium can also be used for the maintenance of stock cultures of Bordetella pertussis on slants with weekly subcultures. Charcoal Agar or Charcoal Agar with Niacin can be converted to Chocolate Agar for isolation of Haemophilus species.			
<b>QC Tests - (I) Dehydrated Medium</b>			
	Colour :	Grey to greyish black	
	Appearance :	Homogeneous Free Flowing powder	
<b>(II) Rehydrated medium</b>			
	pH (post autoclaving/heating) :	7.3 ± 0.2	
	Colour (post autoclaving/heating) :	Black	
	Clarity (post autoclaving/heating) :	Opeque	
<b>(III) Q.C. Test Microbiological</b>			
Cultural characteristics observed with added sterile defibrinated blood and Bordetella Selective Supplement (BF019), after an incubation at 35 - 37°C for 24 - 48 hours			
	MICROORGANISM (ATCC )	GROWTH	
	Bordetella bronchiseptica (4617)	Luxuriant	
	Bordetella pertussis (8467)	Luxuriant	
	Bordetella parapertussis (15311)	Luxuriant	
	Staphylococcus aureus (25923)	Inhibited	
	Klebsiella pneumoniae (13883)	Inhibited	

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<b>Precautions :</b>	1. For Laboratory Use. 2. Follow proper, established laboratory procedures in handling and disposing of infectious materials.				
<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.				
<b>Use :</b>	For cultivation of Bordetella pertussis for vaccine production and also for the maintenance of stock cultures.				
<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>B141</b>	62.5 g/l	8.0 L	7.3 ± 0.2	Defibrinated blood and Bordetella Selective Supplement (BF019)	121°C / 15 minutes