

**TECHNICAL SHEET**

<b>B247</b>	<b>MALONATE BROTH, EWING MODIFIED</b>					
<b>Formula</b>						
<b>Ingredients :</b>		<b>gms/lit.</b>				
Yeast extract		1.00				
Dextrose		0.25				
Ammonium sulphate		2.00				
Dipotassium phosphate		0.60				
Monopotassium phosphate		0.40				
Sodium chloride		2.00				
Sodium malonate		3.00				
Bromo thymol blue		0.025				
Final pH (at 25°C) : 6.7 ± 0.2						
<b>Directions :</b>						
Dissolve 9.28 grams in 1000 ml. distilled water. Dispense and sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes. Avoid the addition of carbon and nitrogen from other sources.						
<b>Principle :</b>						
Yeast Extract and Dextrose provide the vitamins and cofactors, as well as minimal sources of carbon, required for good growth of a wide variety of organisms. An organism that can utilize Sodium Malonate as its carbon source while at the same time using Ammonium Sulfate as its nitrogen source causes increased alkalinity due to the formation of sodium hydroxide. This causes the indicator, Bromo Thymol Blue, to change colour from green to blue. Some malonate – negative strains produce a yellow colour. This is due to fermentation of the dextrose alone, producing increased acidity that causes the indicator to turn yellow at pH 6.0. Dipotassium Phosphate and Monopotassium Phosphate provide buffering capability. Sodium Chloride maintains the osmotic balance of the medium.						
<b>QC Tests – (I) Dehydrated Medium</b>						
Colour :		Light yellow to Light green				
Appearance :		Homogeneous Free Flowing powder				
<b>(II) Rehydrated medium</b>						
pH (post autoclaving/heating) :		6.7 ± 0.2				
Colour (post autoclaving/heating) :		Bluish green				
Clarity (post autoclaving/heating) :		Clear				
<b>(III) Q.C. Test Microbiological</b>						
Cultural characteristics observed after 18- 48 hours at 35 - 37°C.						
MICROORGANISM (ATCC )		GROWTH	MALONATE UTILIZATION			
Enterobacter aerogenes (13048)		Luxuriant	+ (Dark blue colour)			
Klebsiella pneumoniae (13883 )		Luxuriant	+ (Dark blue colour)			
Salmonella arizonae (13314)		Luxuriant	+ (Dark blue colour)			
Salmonella typhimurium (14028)		Luxuriant	-			
Escherichia coli (25922)		Luxuriant	-			
<b>Precautions :</b>		<ol style="list-style-type: none"> <li>1. For Laboratory Use.</li> <li>2. Follow proper, established laboratory procedures in handling and disposing of infectious materials.</li> <li>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) : Lungs, Intestines.</li> </ol>				
<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 differentiation of Enterobacteriaceae based on malonate utilization.				
<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>B247</b>	9.28g/l	53.879L	6.7 ± 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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