## **BIOMARK Laboratories-INDIA**

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## **TECHNICAL SHEET**

| B839 SEAWATER AGAR (TWIN PACK)   |  |                    |   |                                   |            |                    |  |
|--|--|--------------------|---|-----------------------------------|------------|--------------------|--|
| Formula  |  |                    |   |                                   |            |                    |  |
| Ingredients:   |  |                    | gms/lit.  |                                   |            |                    |  |
| PART A:  |  |                    |   |                                   |            |                    |  |
| Peptic digest of animal tissue   |  |                    | 5.00  |                                   |            |                    |  |
| Yeast extract  |  |                    | 5.00  |                                   |            |                    |  |
| Beef extract   |  | 3.00               |   |                                   |            |                    |  |
| Agar   |  | 15.00              |   |                                   |            |                    |  |
| PART B:  |  |                    |   |                                   |            |                    |  |
| Sodium chloride  |  | 24.000             |   |                                   |            |                    |  |
| Potassium chloride   |  | 0.700              |   |                                   |            |                    |  |
| Magnesium chloride, 6H2O   |  | 5.30               |   |                                   |            |                    |  |
| Magnesium sulphate, 7H2O   |  | 7.00               |   |                                   |            |                    |  |
| Calcium chloride   |  |                    | 0.100   |                                   |            |                    |  |
| Final pH (at 25°C): $7.5 \pm 0.2$  |  |                    |   |                                   |            |                    |  |
| Directions :   |  |                    |   |                                   |            |                    |  |
| Suspend 37.1gms of PART B in 1000 ml. distilled water. Heat if necessary to dissolve the medium completely. This is      |  |                    |   |                                   |            |                    |  |
| seawater (artificial). Add 28 gms of PART A. Heat to boiling to dissolve the medium completely. Sterilize by autoclaving |  |                    |   |                                   |            |                    |  |
| at 15 lbs pressure (121°C) for 15 minutes.   |  |                    |   |                                   |            |                    |  |
| Principle:   |  |                    |   |                                   |            |                    |  |
| Marine life represents a vast resource, providing food, medicine, and raw materials. It is also a source of halophilic   |  |                    |   |                                   |            |                    |  |
| bacteria. These bacteria contribute to the spoilage of marine fish and shellfish. Halophilic bacteria have complex ionic |  |                    |   |                                   |            |                    |  |
| requirements and may require Mg++ and K+ in addition to sodium chloride for growth and proteolytic activity. Sea         |  |                    |   |                                   |            |                    |  |
| Water Agar is formulated as recommended by APHA for cultivation of marine microorganisms from sea foods.                 |  |                    |   |                                   |            |                    |  |
| Part B composition acts as synthetic sea water to create conducive growth atmosphere. Yeast extract, beef extract and    |  |                    |   |                                   |            |                    |  |
| peptic digest of animal tissue provide nitrogenous compounds, vitamin B complex and other essential growth nutrients.    |  |                    |   |                                   |            |                    |  |
| QC Tests - (I)Dehydrated Medium  |  |                    |   |                                   |            |                    |  |
| Colour:  |  |                    | Part A- Cream to yellow Part B-White to cream               |                                   |            |                    |  |
| Appearance :   |  |                    | Homogeneous Free Flowing powder                             |                                   |            |                    |  |
| (II)Rehydrated medium  |  |                    | <u> </u>  |                                   |            |                    |  |
| pH (post autoclaving/heating) :  |  |                    | $7.3 \pm 0.2$ to $7.7 \pm 0.2$ of complete medium(Part A+B) |                                   |            |                    |  |
| Colour (post autoclaving/heating) :  |  |                    | Yellow  |                                   |            |                    |  |
| Clarity (post autoclaving/heating) :   |  |                    | Slightly opalescent gel                                     |                                   |            |                    |  |
| (III)Q.C. Test Microbiological   |  |                    |   |                                   |            |                    |  |
| Cultural characteristics observed after 18-24 hrs at 35-37 °C.   |  |                    |   |                                   |            |                    |  |
| MICROORGANISM (ATCC )  |  |                    |   | GROWTH                            |            |                    |  |
| Vibrio cholerae (ATCC15748)  |  |                    |   | uxuriant                          |            |                    |  |
| Vibrio parahaemolyticus (ATCC 11344)   |  |                    |   | ione-poor                         |            |                    |  |
| Tibrio paramacinoryticus (ATGC 11511)  |  |                    |   |                                   |            |                    |  |
| Precautions :  | 1. For Laboratory Use.   |                    |   |                                   |            |                    |  |
| i recuations i   | 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 |                    |   |                                   |            |                    |  |
| Liiiitations .   | to grow or grow poorly on this medium.   |                    |   |                                   |            |                    |  |
| Use :  | For cultivation of marine microorganisms.  |                    |   |                                   |            |                    |  |
| Storage: Dehydrated medium- below 30°C Prepared medium- Between 2 to 8°C.  |  |                    |   |                                   |            |                    |  |
| Packing: 500 gm. bottle  |  |                    |   |                                   |            |                    |  |
| Product profile:   | Reconstitution Quantity on   |                    |   | pH (25°C)                         | Supplement | Sterilization      |  |
| Froduct prome:   | Reconstitution   | Preparation (500g) |   | pri (25°C)                        | Supplement | Sternization       |  |
| D020   | 65.1g/l  |                    | .68 L   | 72 + 02 +-                        | NIL        | 121°C / 15 minutes |  |
| B839   | 65.19/1  | /                  | .00 L   | $7.3 \pm 0.2$ to $7.7 \pm 0.2$ of | INIT       | 121 C / 13 minutes |  |
|  |  |                    |   |                                   |            |                    |  |
|  |  |                    |   | complete                          |            |                    |  |

## 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.

medium(Part A+B)

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Page 01 of 01