## **BIOMARK Laboratories-INDIA**

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| TECHNICAL SHEET  |  |                |                                  |            |             |                  |              |                           |  |
|--|--|----------------|----------------------------------|------------|-------------|------------------|--------------|---------------------------|--|
| B1219 MUG EC 0157 AGAR, MODIFIED   |  |                |                                  |            |             |                  |              |                           |  |
| Formula  |  |                |                                  |            |             |                  |              |                           |  |
| Ingredients : gms/lit.   |  |                |                                  |            |             |                  |              |                           |  |
| Peptic digest of animal tissue 20.00   |  |                |                                  |            |             |                  |              |                           |  |
| Sodium chloride 5.00   |  |                |                                  |            |             |                  |              |                           |  |
| Bile salts 1.12  |  |                |                                  |            |             |                  |              |                           |  |
| Sorbitol 20.00   |  |                |                                  |            |             |                  |              |                           |  |
| 4-Methylumbelliferyl B-D-Glucuronide (MUG) 0.05  |  |                |                                  |            |             |                  |              |                           |  |
| Bromocresol purple 0.015   |  |                |                                  |            |             |                  |              |                           |  |
| Agar 12.00   |  |                |                                  |            |             |                  |              |                           |  |
| Final pH (at 25°C) : 7.2 <u>+</u> 0.2  |  |                |                                  |            |             |                  |              |                           |  |
| Directions :   |  |                |                                  |            |             |                  |              |                           |  |
| Suspend 58.18 grams in 1000 ml distilled water. Heat to boiling to dissolve the medium completely.       |  |                |                                  |            |             |                  |              |                           |  |
| Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes. Mix well and pour into sterile Petri |  |                |                                  |            |             |                  |              |                           |  |
| plates   |  |                |                                  |            |             |                  |              |                           |  |
| Principle :  |  |                |                                  |            |             |                  |              |                           |  |
| Bile salts inhibit the growth of gram-positive microbes. Sorbitol provides carbon and energy source.     |  |                |                                  |            |             |                  |              |                           |  |
| Bromocresol purple is pH indicator. Microorganisms utilizing sorbitol exhibit yellow colonies whereas    |  |                |                                  |            |             |                  |              |                           |  |
| sorbitol-negative strains (such as E. coli O157:H7) grow as colourless colonies.                         |  |                |                                  |            |             |                  |              |                           |  |
| QC Tests - (I)Deh  |  |                |                                  |            |             |                  |              |                           |  |
| Colour :   |  |                | Cream to yellow                  |            |             |                  |              |                           |  |
| Appearance :   |  |                | Homogeneous Free Flowing powder  |            |             |                  |              |                           |  |
| (II)Rehydrated medium  |  |                |                                  |            |             |                  |              |                           |  |
| pH (post autoclaving/heating) :  |  |                | 7.2 ± 0.2                        |            |             |                  |              |                           |  |
| Colour (post autoclaving/heating) :  |  |                | Light purple                     |            |             |                  |              |                           |  |
| Clarity (post autoclaving/heating) :   |  |                | clear to slightly opalescent gel |            |             |                  |              |                           |  |
| (III)Q.C. Test Microbiological   |  |                |                                  |            |             |                  |              |                           |  |
| Cultural characteristics observed after an incubation at 35-37°C for 16-24 hours                         |  |                |                                  |            |             |                  |              |                           |  |
| MICROORGANISM (ATCC ) GROW   |  | GROWTH         | I COLOU                          |            | UR OF COLOI | NY SORBITOL      | F<br>(1      | LUORESCENCE<br>UNDER UV)* |  |
| Bacillus cereus (10876)  |  | none to p      | oor                              |            |             |                  |              |                           |  |
| Bacillus subtilis (6633)   |  | inhibited      | _                                |            |             |                  |              |                           |  |
| Escherichia coli O157:H7   |  | luxuriant      | СС                               | colourless |             | negative reacti  | on n         | negative                  |  |
| Escherichia coli (25922)   |  | luxuriant      | ye                               | yellow     |             | Positive reactio | n p          | ositive                   |  |
| Enterococcus faecalis (29212)  |  | inhibited      | _                                |            |             |                  | n            | negative                  |  |
| Serratia marcescens (8100) luxuriant   |  |                | pi                               | ink        |             | Positive reactio | n n          | negative                  |  |
| * - Fluorescence can be visualized on addition of NaOH solution or exposure to ammonia fumes.            |  |                |                                  |            |             |                  |              |                           |  |
| 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 : It is recommended for direct isolation and differentiation of Escherichia coli O157:H              |  |                |                                  |            |             |                  | coli 0157:H7 |                           |  |
| from foodstuffs and clinical specimen.   |  |                |                                  |            |             |                  |              |                           |  |
| Storage :  | Dehydrated medium- below 30°C Prepared medium- Between 2 to 8°C.                 |                |                                  |            |             |                  |              |                           |  |
| Packing : 500 gm bottle  |  |                |                                  |            |             |                  |              |                           |  |
| Product profile:   | Reconstitution   | Quantity o     | n                                |            | pH (25°C)   | Supplement       |              | Sterilization             |  |
| •  |  | Preparation (5 |                                  | 0g)        | /           |                  |              |                           |  |
| B1219  | 58.18 q/l  | 8.59           | 4 L                              | 3,         | 7.2 + 0.2   | NIL              | 1219         | °C/ 15 minutes            |  |
|  | 5,   |                |                                  |            |             |                  |              | -                         |  |

Disclaimer:

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