

**BIOMARK Laboratories-INDIA**

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**TECHNICAL SHEET**

|  |                                   |   |   |           |            |               |
|--|-----------------------------------|---|---|-----------|------------|---------------|
| <b>B1414</b>   | <b>LISTERIA FRASER BROTH BASE</b> |   |   |           |            |               |
| <b>Formula</b>   |                                   |   |   |           |            |               |
| <b>Ingredients:</b>  |                                   |   | <b>gms/lit.</b>                         |           |            |               |
| Proteose Peptone   |                                   |   | 5.00                                    |           |            |               |
| Tryptone   |                                   |   | 5.00                                    |           |            |               |
| Yeast extract  |                                   |   | 5.00                                    |           |            |               |
| Meat extract B#  |                                   |   | 5.00                                    |           |            |               |
| Sodium chloride  |                                   |   | 20.00                                   |           |            |               |
| Disodium hydrogen phosphate  |                                   |   | 9.50                                    |           |            |               |
| Potassium Dihydrogen phosphate   |                                   |   | 1.35                                    |           |            |               |
| Aesculin   |                                   |   | 1.00                                    |           |            |               |
| Lithium Chloride   |                                   |   | 3.00                                    |           |            |               |
| Nalidixic acid   |                                   |   | 0.020                                   |           |            |               |
| Acriflavin hydrochloride (Trypaflavin)   |                                   |   | 0.025                                   |           |            |               |
| #- Equivalent to Beef extract  |                                   |   |   |           |            |               |
| Final pH (at 25°C) : 7.2 ± 0.2   |                                   |   |   |           |            |               |
| <b>Directions :</b>  |                                   |   |   |           |            |               |
| Suspend 27.4 grams in 500ml distilled water. Heat if necessary to dissolve the medium completely. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes. Cool to room temperature and add the contents of one vial of Fraser Supplement (BF002) .Mix well and pour into sterile tubes or plates.  |                                   |   |   |           |            |               |
| <b>Principle :</b>   |                                   |   |   |           |            |               |
| This medium contains tryptone, yeast extract and beef extract which provide essential nutrients like carbon and nitrogenous compounds including vitamins, amino acids and trace ingredients. Phosphates provide buffering action to the medium while sodium chloride maintains osmotic equilibrium. Nalidixic acid and acriflavin inhibits the growth of gram – negative and gram – positive organisms respectively except Listeria species. |                                   |   |   |           |            |               |
| <b>QC Tests – (I)Dehydrated Medium</b>   |                                   |   |   |           |            |               |
| Colour :   |                                   | Cream to light yellow   |   |           |            |               |
| Appearance :   |                                   | Homogeneous Free Flowing powder   |   |           |            |               |
| <b>(II)Rehydrated medium</b>   |                                   |   |   |           |            |               |
| pH (post autoclaving/heating) :  |                                   | 7.2 ± 0.2   |   |           |            |               |
| Colour (post autoclaving/heating) :  |                                   | Yellow coloured solution with bluish tinge  |   |           |            |               |
| Clarity (post autoclaving/heating) :   |                                   | Clear to slightly opalescent  |   |           |            |               |
| <b>(III) Q.C. Test Microbiological</b>   |                                   |   |   |           |            |               |
| Cultural characteristics observed on addition of supplement after 24-48 hours at 35- 37°C.   |                                   |   |   |           |            |               |
| MICROORGANISM (ATCC )  |                                   | GROWTH  | ESCULIN HYDROLYSIS                      |           |            |               |
| Listeria monocytogenes (19118 )  |                                   | Good-luxuriant  | Positive reaction, blackening of medium |           |            |               |
| Listeria monocytogenes (19111)   |                                   | Good-luxuriant  | Positive reaction, blackening of medium |           |            |               |
| Listeria monocytogenes (19112)   |                                   | Good-luxuriant  | Positive reaction, blackening of medium |           |            |               |
| Staphylococcus aureus (25923)  |                                   | Inhibited   | -                                       |           |            |               |
| Escherichia coli (25922)   |                                   | Inhibited   | -                                       |           |            |               |
| Enterococcus faecalis (29212)  |                                   | Inhibited   | -                                       |           |            |               |
| <b>Precautions :</b>   |                                   | 1. For Laboratory Use.<br>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 selective enrichment of Listeria species as per ISO11290-1:1997 & ISO11133-2:2003   |   |           |            |               |
| <b>Storage:</b>  |                                   | Dehydrated medium and 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 |

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|              |          |          |           |                                 |                           |
|--------------|----------|----------|-----------|---------------------------------|---------------------------|
| <b>B1414</b> | 54.8 g/l | 9.12 lit | 7.2 ± 0.2 | Fraser<br>supplement<br>(BF002) | 121 <sup>0</sup> 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 BIOMARKLABORATORIES publications.

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