

**TECHNICAL SHEET**

|  |                                |   |                                |                      |   |               |
|--|--------------------------------|---|--------------------------------|----------------------|---|---------------|
| <b>B360</b>  | <b>XYLOSE LYSINE AGAR BASE</b> |   |                                |                      |   |               |
| <b>Formula</b>   |                                |   |                                |                      |   |               |
| <b>Ingredients :</b>   |                                | <b>gms/lit.</b>   |                                |                      |   |               |
| Xylose   |                                | 3.5   |                                |                      |   |               |
| L-Lysine   |                                | 5.0   |                                |                      |   |               |
| Lactose  |                                | 7.5   |                                |                      |   |               |
| Sucrose  |                                | 7.5   |                                |                      |   |               |
| Sodium chloride  |                                | 5.0   |                                |                      |   |               |
| Yeast extract  |                                | 3.0   |                                |                      |   |               |
| Phenol red   |                                | 0.08  |                                |                      |   |               |
| Agar   |                                | 13.5  |                                |                      |   |               |
| Final pH (at 25°C) : 7.4 ± 0.2   |                                |   |                                |                      |   |               |
| <b>Directions :</b>  |                                |   |                                |                      |   |               |
| Suspend 45 gms. in 1000 ml. distilled water. Heat with frequent agitation to dissolve completely. Sterilize by autoclaving at (118°C) for 10 minutes. Cool to 50°C to 55°C and add 20 ml sterile solution containing 34% Sodium thiosulphate & 4% Ferric ammonium citrate. Mix well and pour into plates.  |                                |   |                                |                      |   |               |
| <b>Principle :</b>   |                                |   |                                |                      |   |               |
| Yeast extract provides sources of nitrogen and carbon, as well as vitamins and cofactors required for growth. Xylose, lactose, and sucrose (Saccharose) provide of fermentable carbohydrate. Xylose is fermented by most enteric organisms except Shigella and Providencia. Lysine is added to differentiate Salmonella. As xylose is exhausted, Salmonella organisms decarboxylate lysine causing reversion to alkaline conditions. Alkaline reversion by other lysine – positive organisms is prevented by excess acid production from fermentation of lactose and sucrose. Sodium Thiosulfate and Ferric Ammonium citrate allow visualization of hydrogen sulfide production under alkaline conditions. Acidic conditions inhibit the reaction. Phenol red is an indicator. Sodium chloride maintains osmotic balance in the medium. Agar is a solidifying agent. |                                |   |                                |                      |   |               |
| <b>QC Tests – (I) Dehydrated Medium</b>  |                                |   |                                |                      |   |               |
| Colour :   |                                | Pink  |                                |                      |   |               |
| Appearance :   |                                | Homogeneous Free Flowing powder   |                                |                      |   |               |
| <b>(II) Rehydrated medium</b>  |                                |   |                                |                      |   |               |
| pH (post autoclaving/heating) :  |                                | 7.4 ± 0.2   |                                |                      |   |               |
| Colour (post autoclaving/heating) :  |                                | Red   |                                |                      |   |               |
| Clarity (post autoclaving/heating) :   |                                | Slightly opalescent   |                                |                      |   |               |
| <b>(III) Q.C. Test Microbiological</b>   |                                |   |                                |                      |   |               |
| Cultural characteristics observed after 18 - 24 hrs. at 35 - 37°C.   |                                |   |                                |                      |   |               |
| MICROORGANISM (ATCC)   |                                | GROWTH  |                                | COLOUR OF THE COLONY |   |               |
| Enterococcus faecalis (29212)  |                                | Poor to fair  |                                | Yellow               |   |               |
| Escherichia coli (25922)   |                                | Good  |                                | Yellow               |   |               |
| Salmonella typhimurium (14028)   |                                | Good  |                                | Red w/black centers  |   |               |
| Shigella flexneri (12022)  |                                | Good  |                                | Red                  |   |               |
| <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 isolation and identification of pathogenic enteric bacilli.   |                                |                      |   |               |
| <b>Storage :</b>   |                                | Dehydrated medium- below 30°C Prepared medium – Use freshly prepared medium.  |                                |                      |   |               |
| <b>Packing :</b>   |                                | 500 gm. bottle  |                                |                      |   |               |
| <b>Product profile:</b>  |                                | Reconstitution  | Quantity on Preparation (500g) | pH (25°C)            | Supplement  | Sterilization |
| <b>B360</b>  |                                | 45.0 g/l  | 11.11 L                        | 7.4 ± 0.2            | Sterile 34% sod.thiosulphate and 4% ferric ammonium citrate | 118°C/10 min. |

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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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