

## TM 2001 – BASAL MINERAL MEDIUM

### INTENDED USE

For cultivation of *Beggiatoa* species.

### PRODUCT SUMMARY AND EXPLANATION

*Beggiatoa* is most frequently found in natural environments high in heterotrophic organisms. *Beggiatoa* is one of the few filamentous bacteria that is motile. They have sulphur granules within its cells and attached growth is usually uncommon. *Beggiatoa* has a cell width of 1.0-3.0 µm and filament length of 100-500 µm. The nutritional requirements of organisms in the genus *Beggiatoa* are poorly understood. These organisms require dilute culture media and are inhibited by conventional media. An increase in nutrients doesn't elicit a proportional increase in cell numbers. Basal Mineral Medium is recommended for the cultivation of *Beggiatoa* species.

### COMPOSITION

| Ingredients                       | Gms / Ltr |
|-----------------------------------|-----------|
| Ammonium chloride                 | 0.800     |
| Dipotassium phosphate             | 0.700     |
| Magnesium sulphate heptahydrate   | 0.010     |
| Disodium EDTA                     | 0.0092    |
| Ferrous sulphate.heptahydrate     | 0.007     |
| Calcium sulphate,dihydrate        | 0.002     |
| Boric acid                        | 0.0001    |
| Zinc sulphate, heptahydrate       | 0.0001    |
| Manganese sulphate, quadrahydrate | 0.00002   |
| Cobalt nitrate                    | 0.00001   |
| Sodium molybdate dihydrate        | 0.00001   |
| Copper sulphate.pentahydrate      | 0.0005    |

### PRINCIPLE

This medium contains a variety of different salts in varying concentration, which provide the necessary nutrients required for the growth of *Beggiatoa*.

### INSTRUCTION FOR USE

- Dissolve 1.53 grams in 1000 ml distilled water.
- Mix thoroughly. Filter sterilize. DO NOT AUTOCLAVE.
- Cool to 45°C and dispense into sterile test tubes.

### QUALITY CONTROL SPECIFICATIONS

**Appearance of Powder** : Cream to yellow homogeneous free flowing powder.  
**Appearance of prepared medium** : Colourless clear solution without any precipitate.

### INTERPRETATION

Cultural characteristics observed after incubation.



| Microorganism                   | ATCC | Inoculum (CFU/ml) | Growth    | Recovery | Incubation Temperature | Incubation Period |
|---------------------------------|------|-------------------|-----------|----------|------------------------|-------------------|
| <i>Saccharomyces cerevisiae</i> | 9763 | 50-100            | Luxuriant | >=70%    | 25-30°C                | 3-5 Days          |

**PACKAGING:**

In pack size of 500 gm bottles.

**STORAGE**

Dehydrated powder, hygroscopic in nature, store in a dry place, in tightly-sealed containers between 25-30°C and protect from direct sunlight. Under optimal conditions, the medium has a shelf life of 4 years. When the container is opened for the first time, note the time and date on the label space provided on the container. After the desired amount of medium has been taken out replace the cap tightly to protect from hydration.

**Product Deterioration:** Do not use if they show evidence of microbial contamination, discoloration, drying or any other signs of deterioration.

**DISPOSAL**

After use, prepared plates, specimen/sample containers and other contaminated materials must be sterilized before discarding.

**REFERENCES**

- Lois Faust and R. S. Wolfe, J Bacteriol., 1961 January; 81(1): 99106
- Atlas R. M., 2004, Handbook of Microbiological Media, Lawrence C.Parks (Ed.), 3rd Edition, CRC Press.

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|--|---|---|--|---|
| <br>GMP<br>Good Manufacturing Practices Certified | <br>Best Before                          | <br>QTY.<br>Quantity               | <br>REF<br>Catalogue Number | <br>Manufacturer |
| <br>Temperature Unit                              | <br>LOT/<br>B. NO.<br>Lot / Batch Number | <br>Consults Instructions for Use | <br>QR Code                 |   |

**NOTE:** Please consult the Material Safety Data Sheet for information regarding hazards and safe handling Practices.

**\*For Lab Use Only**  
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