Basal Mineral Medium

M1588

Basal Mineral Medium is used for the cultivation of *Beggiatoa* species.

Composition**

Ingredients	Gms / Litre
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

**Formula adjusted, standardized to suit performance parameters

Directions

Suspend 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.

Principle And Interpretation

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 doesnt elicit a proportional increase in cell numbers (1). Basal Mineral Medium is recommended for the cultivation of *Beggiatoa* species (2).This medium contains a variety of different salts in varying concentration, which provide the necessary nutrients required for the growth of *Beggiatoa* .

Quality Control

Appearance
Cream to yellow homogeneous free flowing powder

Colour and Clarity of prepared medium
Colourless clear solution without any precipitate

Cultural Response
M1588: Cultural response observed after an incubation at 25-30°C, in dark,for 3-5 days.

Organism	Growth Cultural Response
Saccharomyces cerevisiae *ATCC 9763*	luxuriant

Storage and Shelf Life

Store below 30°C in tightly closed container and the prepared medium at 2-8°C. Use before expiry date on the label.

Reference

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

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