

Technical Information

Sulphate Reducing MiVeg Medium (Triple Pack)

Product Code : VM1803

Application:- Sulphate Reducing MiVeg Medium is recommended for enumeration of sulphate reducing bacteria in water samples.

Composition**

Ingredients	Gms / Litre
Part A:	
MiVeg peptone	2.0
MiVeg extract	1.0
Magnesium sulphate. 7H ₂ O	2.0
Sodium sulphate	1.5
Dipotassium phosphate	0.5
Calcium chloride	0.1
Part B:	
Ferrous ammonium sulphate. 6H ₂ O	0.392
Sodium ascorbate	0.1
Part C:	
Sodium lactate	3.5
Final pH (at 25°C)	7.5 ± 0.2

** Formula adjusted, standardized to suit performance parameters.

Principle & Interpretation

Sulphate Reducing MiVeg Medium is prepared by adding vegetable peptones instead of animal based peptones thereby making the medium BSE/TSE risks free. This medium is the modification of Sulphate Reducing Medium which is formulated in accordance with APHA (1) for enumeration of sulphate reducing bacteria. Sulphate reducing bacteria such as *Desulfovibrio* reduces sulphate to sulphide which in turn reacts with ferrous ions to give a black colour within 4 to 21 days at 20 - 30°C.

The tubes are filled completely to create anaerobic conditions. When sample volume is greater than 10 ml, sample is passed through a 0.45 µm membrane filter and the filter is transferred to screw-capped test tubes containing medium, and observed for colour change.

Methodology

Suspend 7.1 grams of powder media of Part A in 900 ml distilled water. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes. On the day of use prepare solution by adding 0.492gm of Part B in 100 ml distilled water. Sterilize by filtration through a 0.45 µm membrane filter and aseptically add this 100 ml solution to 900 ml Part A medium. Then separately sterilize 3.58gm of the Part C by autoclaving at 15 lbs pressure (121°C) for 15 minutes and aseptically add to the mixture of Part A and B. Mix well and aseptically transfer the complete medium to sterile screw capped tubes filling them completely.

Quality Control

Physical Appearance

Part A : Yellow coloured, may have slightly greenish tinge, homogeneous, free flowing powder.

Part B : Creamish white coloured, homogeneous, free flowing powder.

Part C: Colourless solution.

Colour and Clarity of prepared medium

Light yellow coloured, clear to slightly opalescent solution in tubes.

Reaction

Reaction of 0.71 grams in 90 ml aqueous solution of Part A is pH 7.5 ± 0.2 at 25°C.

pH Range

7.3-7.7

Cultural Response/Characteristics

Cultural characteristics observed after an incubation at 35-37°C for 18-24 hours.

Organisms (ATCC)	Inoculum (CFU)	Growth
<i>Desulfovibrio desulfuricans</i> (29577)	10^2 - 10^3	Luxuriant
<i>Thiobacillus thiooxidans</i> (19377)	10^2 - 10^3	Good-luxuriant

Storage and Shelf Life

Dried Media: Store below 30°C in tightly closed container and use before expiry date as mentioned on the label.

Prepared Media: 2-8° in sealable plastic bags for 2-5 day.

Further Reading

1. Eaton A.D., Clesceri L.S. and Greenberg A.E., (Eds.), 1992, Standard Methods for the Examination of Water and Wastewater, 18th ed, APHA, Washington. D.C.

Disclaimer :

- User must ensure suitability of the product(s) in their application prior to use.
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