

Technical Information

Sulphate Reducing Medium (Twin Pack)

Product Code: DM 1800

Application: - Sulphate Reducing Medium is used for the cultivation and enumeration of sulphate reducing bacterium *Thiobacillus thioeparus*.

Composition**

Ingredients	Gms / Litre
Part A	-
Dipotassium hydrogen phosphate	2.000
Magnesium sulphate heptahydrate	0.100
Calcium chloride	0.100
Ammonium sulphate	0.100
Ferric chloride	0.020
Part B	-
Sodium thiosulphate	10.000
Final pH (at 25°C)	7.8±0.2

**Formula adjusted, standardized to suit performance

Principle & Interpretation

Sulphate Reducing Medium (*Thiobacillus thioeparus*) is devised according to APHA ⁽¹⁾. This Sulphate Reducing Medium is suitable for enumeration of *Thiobacillus thioeparus* ⁽⁴⁾ by an MPN technique. The single-celled aerobic sulphur-oxidizers of genus *Thiobacillus* are of most importance in the water and wastewater field along with other sulphate reducing bacteria. *Thiobacillus* produce sulfuric acid which contributes to the destruction of concrete sewers and the acid corrosion of metals. *Thiobacillus* are found in environment containing H₂S. The *Thiobacillus* species cannot be identified by direct microscopic examination, so they are identified physiologically ^(2, 3). Growth of Thiobacilli produces elemental sulphur which sinks to the bottom with decrease in pH and turbidity of the medium.

Methodology

Suspend 2.32 grams of Part A and 10 grams of Part B in 1000 ml distilled water. Shake well & heat to dissolve the medium completely. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes.

Quality Control

Physical Appearance

Part A : White to cream homogeneous free flowing powder Part B : White to cream homogeneous free flowing powder

Colour and Clarity of prepared medium

Colourless clear solution without any precipitate **Reaction**

Reaction of medium (0.23% w/v of Part A + 1.0% w/v of Part B) at 25°C. pH : 7.8±0.2

pH range

7.6-8.0

Cultural Response/Characteristics

DM 1800: Cultural characteristics observed after an incubation at 25-30°C for upto 5 days.

Organism

Thiobacillus thioeparus ATCC 8158

Growth

luxuriant



Dehydrated Culture Media
Bases / Media Supplements

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: 2-8⁰ in sealable plastic bags for 2-5 days.

Further Reading

1. Greenberg A.E., Trussell R.R. and Clesceri L.S. (Eds.),1985, Standard Methods for the Examination of Water and Wastewater, 16th ed., APHA, Washington D.C.
2. Hutchinson M., Johnstone K.I. and White D., 1965, J. Gen.
3. Hutchinson M., Johnstone K.I. and White D., 1966, J. Gen.
4. Starkey R.L., 1937, J. Bacteriol., 33:545.

Disclaimer :

- User must ensure suitability of the product(s) in their application prior to use.
- The product conforms solely to the technical information provided in this booklet and to the best of knowledge research and development work carried at **CDH** is true and accurate.
- **Central Drug House Pvt. Ltd.** reserves the right to make changes to specifications and information related to the products at any time.
- Products are not intended for human or animal diagnostic or therapeutic use but for laboratory, research or further manufacturing of diagnostic reagents extra.
- Statements contained herein should not be considered as a warranty of any kind, expressed or implied, and no liability is accepted for infringement of any patents.
- Do not use the products if it fails to meet specifications for identity and performance parameters.

