TM 1094 - SULPHATE REDUCING MEDIUM (DOUBLE PACK)

INTENDED USE

For detection, differentiation and estimation of sulphate reducing bacteria *Thiobacillus thioparus.*

PRODUCT SUMMARY AND EXPLANATION

Sulphate Reducing Medium (*Thiobacillus thioparus*) is formulated as per APHA. This Sulphate Reducing Medium is suitable for enumeration of *Thiobacillus thioparus* 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.

COMPOSITION

Ingredients	Gms / Ltr
Part I	
Dipotassium hydrogen phosphate	2.000
Magnesium sulphate heptahydrate	0.100
Calcium chloride	0.100
Ammonium sulphate	0.100
Ferric chloride	0.020
Part II	
Sodium thiosulphate	10.000

PRINCIPLE

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. Growth of Thiobacilli produces elemental sulphur which sinks to the bottom with decrease in pH and turbidity of the medium.

INSTRUCTION FOR USE

- Dissolve 2.32 grams of Part A and 10 grams of Part B in 1000 ml distilled water.
- Heat if necessary to dissolve the medium completely.
- Sterilize by autoclaving at 15 psi pressure (121°C) for 15 minutes.

QUALITY CONTROL SPECIFICATIONS

Appearance of Powder : Part I: White to cream homogeneous free flowing powder.
Part II: White to cream homogeneous free flowing powder.

Appearance of prepared medium : Colourless clear solution without any precipitate

pH (at 25°C) : 7.8±0.2

INTERPRETATION

Cultural characteristics observed after an incubation.

Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Incubation Temperature	Incubation Period

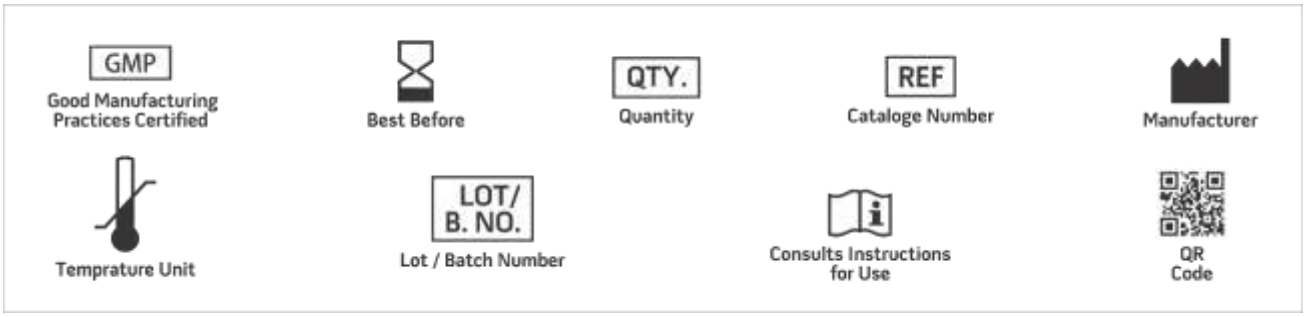
Thiobacillus thioparus	8158	50-100	Luxuriant	25-30°C	Upto 5 days

PACKAGING:
In pack size of 100 gm and 500 gm bottles.

STORAGE
Dehydrated powder, hygroscopic in nature, store in a dry place, in tightly-sealed containers between 2-8°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
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. Microbiol., 41:357.
3. Hutchinson M., Johnstone K.I. and White D., 1966, J. Gen. Microbiol., 44:373.
4. Starkey R.L., 1937, J. Bacteriol., 33:545.



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