TM 882 – THIOSULPHATE AGAR

INTENDED USE
For cultivation of sulphur metabolizing bacteria present in soil samples.

PRODUCT SUMMARY AND EXPLANATION
The various transformations of sulphur in the biosphere can be summed up as a cyclic reaction involving
a) decomposition of organic sulphur compounds into subunits which are in turn converted into inorganic compounds through a process of mineralization,
b) assimilation of sulphur into the protoplasm of microorganisms, a process referred to as immobilization,
c) oxidation of inorganic sulphur compounds into elemental sulphur, and
d) reduction of sulphate.
Desulfovibrio desulfuricans is a species of sulphate-reducing bacteria that reduce inorganic sulphate into hydrogen sulphide. Thiosulphate Agar is used for cultivation of sulphur metabolizing bacteria. *D. desulfuricans* reduces sodium thiosulphate in the medium to hydrogen sulphide. Other salts serve to fulfill the essential ion requirement of bacteria.

COMPOSITION

Ingredients	Gms / Ltr
Sodium thiosulphate	5.000
Dipotassium hydrogen phosphate	0.100
Sodium bicarbonate	0.200
Ammonium chloride	0.100
Agar	20.000

PRINCIPLE
The salts fulfill essential iron requirements and provide nutrition to the media. Agar present act as a solidifying media.

INSTRUCTION FOR USE
- Dissolve 25.4 grams in 1000 ml distilled water.
- Heat to boiling to dissolve the medium completely.
- Add excess of calcium carbonate if desired.
- Sterilize by autoclaving at 15 psi pressure (121°C) for 15 minutes. Mix well and dispense as desired.

QUALITY CONTROL SPECIFICATIONS
Appearance of Powder : Cream to yellow coarse powder.
Appearance of prepared medium : Light yellow coloured clear to slightly opalescent gel forms in Petri plates or tubes.
pH (at 25°C) : 6.8±0.2

INTERPRETATION
Cultural characteristics observed after incubation under anaerobic conditions.

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

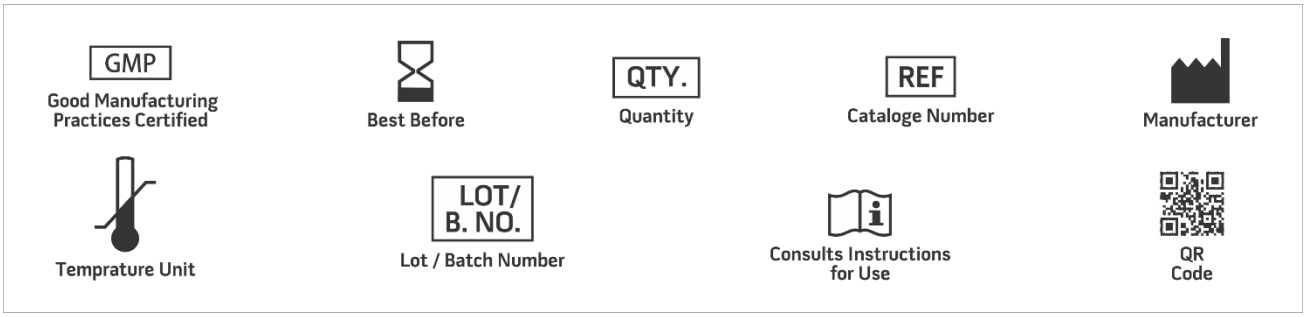
Desulfovibrio desulfuricans	13541	50-100	Luxuriant	>=70%	30°C	7 Days

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
1. Subba Rao N. S., Soil Microorganisms and Plant Growth, (Oxford and IBH Publishing Co.)



NOTE: Please consult the Material Safety Data Sheet for information regarding hazards and safe handling Practices.
***For Lab Use Only**
Revision: 08 Nov., 2019