

# TM 884 – TRANSPORT CHARCOAL MEDIUM

#### **INTENDED USE**

For transportation of clinical samples.

#### **PRODUCT SUMMARY AND EXPLANATION**

Muffett, Young and Stuart described a medium and method for transporting gonococcal specimens from the site of collection to the laboratory. Stuart, Toshach and Potsula elaborated upon the rationale of their transport method and presented the formulation in which they observed that coliform organisms were occasionally encountered in gonococcal specimens and that they were able to propagate in the transport medium and overgrow the *Gonococci*. Transport Medium with Charcoal is a modified medium based on the transport medium originally developed by Moffett et al and Stuart et al and is formulated for the transportation of clinical specimens containing moulds, yeasts and bacteria especially gonococci. Transport media is generally formulated to provide enrichment to maintain viability of the organisms.

As compared to the fresh specimen or direct inoculation, transport medium will not show optimal growth. The specimen will be undoubtedly preserved during transportation and also the viability of the organisms will be maintained but it will diminish over time. Some growth of contaminants also may occur during longer period of transport. After transportation, the specimen should be inoculated in proper medium as soon as possible.

#### COMPOSITION

Ingredients	Gms / Ltr	
Sodium thioglycollate	0.900	
Sodium glycerophosphate	10.000	
Charcoal	10.000	
Calcium chloride	0.100	
Methylene blue	0.002	
Agar	3.000	

# PRINCIPLE

Transport Charcoal Medium is devoid of inorganic phosphate buffer but contains glycerophosphate and methylene blue in addition to thioglycollate. Small amount of agar together with sodium thioglycollate creates a reduced atmosphere in the medium. Charcoal neutralizes the toxic metabolic products. Like the Amies Transport Medium, this medium is also semisolid and reductive thereby inhibiting the contaminants and avoiding the toxic oxidative effects.

#### **INSTRUCTION FOR USE**

- Dissolve 24 grams in 1000 ml distilled water.
- Heat to boiling to dissolve the medium completely.
- Dispense in screw capped tubes with constant stirring to maintain charcoal particles in suspension.
- Sterilize by autoclaving at 15 psi pressure (121°C) for 15 minutes.
- Shake gently to distribute charcoal particles evenly, just before the medium gels.
- Cool the tubed medium in an upright position.

# QUALITY CONTROL SPECIFICATIONS

A- 902A, RIICO Industrial Area, Phase III, Bhiwadi-301019.





Appearance of Powder	: Grey to black homogeneous free flowing powder.
Appearance of prepared medium	: Black coloured opaque gel forms in tubes as butts.
pH (at 25°C)	: 7.4±0.2

# INTERPRETATION

Cultural characteristics observed after incubation upon subculturing on Tryptone Soya Agar.

Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Incubation Temperature	Incubation Period
Klebsiella pneumoniae	13883	50-100	Luxuriant	25-30°C	5 Days
Pseudomonas aeruginosa	27853	50-100	Luxuriant	25-30°C	5 Days
Salmonella Typhi	6539	50-100	Luxuriant	25-30°C	5 Days
Shigella flexneri	12022	50-100	Luxuriant	25-30°C	5 Days
Staphylococcus aureus	25923	50-100	Luxuriant	25-30°C	5 Days
Vibrio cholerae	15748	50-100	Luxuriant	25-30°C	5 Days
Neisseria gonorrhoea	43069	50-100	Good	25-30°C	5 Days
Neisseria meningitidis	13090	50-100	Good	25-30°C	5 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. Moffett M., Young J. and Stuart R. D., 1948, Brit. Med. J., 2:241.
- 2. Stuart R. D., Toshach S. R. and Patsula T. M., 1954, Can. J. Public Health, 45:73.
- 3. Amies C. S., 1967, Can. J. Public Health, 58:296.



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

