

MM0069 Thioglycollate Medium USP**Use and description:**

For the cultivation of anaerobic, microaerophilic and aerobic microorganisms in sterility testing formulation recommended by USP. The medium can be used for confirmation test in the enumeration of *Clostridium perfringens* in food products. The reducing agents (thioglycollate, cystine) decrease the redox potential and cystine helps the growth of fastidious anaerobes. It also neutralizes arsenic, mercury and other heavy metal compounds. Resazurine is used as oxidation-reduction indicator; the medium is colourless in the reduced state and becomes pink when oxidised.

Composition per liter:

Peptones.....	15.00 g
Glucose.....	5.50 g
Yeast extract.....	5.00 g
Sodium chloride.....	2.500 g
Agar.....	0.750 g
L-cystine.....	0.500 g
Sodium thioglycollate.....	0.75 g
Resazurine.....	0.002 g

Final pH of the ready to use medium: 7.1 ± 0.2

Medium preparation:

Add 30.0 grams of dehydrated culture medium to 1 liter of distilled water. Mix thoroughly. Gently heat and bring to the boiling. Distribute into tubes or flasks. Autoclave for 15 min at 121°C. If the upper portion of the is pink because of oxidation, anaerobic conditions can be restored (once only) by heating in a boiling water bath or by steam.

Quality specifications:

Dehydrated medium: homogeneous, cream-white fine powder.
Ready to use medium: straw-coloured, clear fluid.

Microbiological response:

Organism	Result
<i>Clostridium perfringens</i> ATCC13124	Growth
<i>Staphylococcus aureus</i> ATCC 25923	Growth
<i>Bacteroides vulgatus</i> ATCC 8482	Growth
<i>Candida albicans</i> ATCC 10231	Growth
<i>Bacillus subtilis</i> ATCC 6633	Growth

Storage:

Dehydrated medium should be stored between 10 to 25°C. Once opened, place the container in a dark, dry place. The dehydrated medium should not be used if there is any lump or the color has changed from the original.