Fluid Thioglycollate Medium IP

Intended Use
Fluid Thioglycollate Medium IP is a medium used for sterility testing of biologicals and cultivation of aerobes, anaerobes and microaerophiles, in accordance with IP.

Summary
Brewer formulated Fluid Thioglycollate Medium for rapid cultivation of aerobes as well as anaerobes by adding a reducing agent and small amount of agar. The Indian Pharmacopoeia and AOAC have recommended the media for sterility testing of antibiotics, biologicals and foods, and for determining the phenol coefficient and sporicidal effect of disinfectants. However, it is intended for the examination of clear liquid or water-soluble materials.

Principle
Dextrose monohydrate, pancreatic digest of casein, yeast extract, L-cystine provide the growth factors necessary for bacterial multiplication. Sodium thioglycollate and L-cystine act as a reducing agent lowering the oxidation-reduction potential by removal of oxygen. This condition helps to prevent the accumulation of peroxides which is toxic in nature. The SH group also neutralizes the antibacterial effect of mercurial preservatives and other heavy metal compounds which exert a bacteriostatic effect in the materials under examination. Any increase in the oxygen content is indicated by a colour change of redox indicator, resazurin to red. The small amount of agar helps in maintaining low redox potential for stabilizing the medium.

Formula*

Ingredients	**g/L**
Pancreatic Digest of Casein	15.0
Yeast Extract (Water soluble)	5.0
Dextrose Monohydrate	5.5
Sodium Chloride	2.5
L-Cystine	0.5
Sodium Thioglycollate	0.5
Resazurin	0.001
Agar	0.75
Final pH (at 25°C)	7.1 ± 0.2

*Adjusted to suit performance parameters.

Storage and Stability
Store dehydrated medium below 30°C in tightly closed container and the prepared medium at 2°C-8°C. Avoid freezing and overheating. Use before expiry date on the label.

Type of Specimen
Food and Dairy samples, pharmaceutical samples

Specimen Collection and Handling
Ensure that all samples are properly labelled.
Follow appropriate techniques for handling samples as per established guidelines.
Some samples may require special handling, such as immediate refrigeration or protection from light, follow the standard procedure. The samples must be stored and tested within the permissible time duration.
After use, contaminated materials must be sterilized by autoclaving before discarding.

Directions
1. Suspend 29.25 g of (the equivalent weight of dehydrated medium per litre) powder in 1000 mL purified / distilled water & mix well.
2. Boil with frequent agitation to dissolve the powder completely.
3. Dispense as desired into containers.
4. Sterilize by autoclaving at 121°C (15 psi) for 15 minutes as per validated cycle.
5. Tighten the lids of the container immediately (while still warm) to reduce oxidation.
6. Cool to 25°C and store in cool dark place preferably below 25°C.

Note: If more than the upper one third of the medium is pink prior to use, reheat once (100°C) in a water bath to drive off absorbed oxygen (till pink colour disappears.)

Quality Control

Dehydrated Appearance: Light yellow to yellow coloured, homogeneous, free flowing powder.
Prepared Appearance: Light straw coloured, very slightly opalescent solution with upper portion less than 10% medium turning pink on standing.
Growth Promotion Test: Growth promotion was carried out in accordance with the method of IP and growth was observed after an incubation at 30°C - 35°C for ≤ 3 days.
Growth promoting properties: The test results observed are within the specified temperature and shortest period of time, inoculating 10 - 100 cfu (at 30°C - 35°C for ≤ 3 days).

Organisms (ATCC)	Growth
Staphylococcus aureus subsp. *aureus* (6538)	Good
Pseudomonas aeruginosa (9027)	Good
Kocuria rhizophila Strain PCI 1001 (9341)	Good
Bacteroides vulgatus (8482)	Good
Clostridium sporogenes (11437)	Good
Clostridium sporogenes (19404)	Good

Validation and Growth Promotion: Growth promotion is carried out at an incubation of 20°C - 25°C for ≤ 3 days for bacteria and ≤ 5 days for fungi as per USP/EP/JP/IP.

Organisms (ATCC)	Growth
Candida albicans 3147 (10231)	Good
Bacillus spizizenii (6633)	Good
Aspergillus brasiliensis WLRI 034(120) (16404)	Good

Performance and Evaluation

Performance of the product is dependent on following parameters as per product label claim:

1. Directions
2. Storage
3. Expiry

Warranty

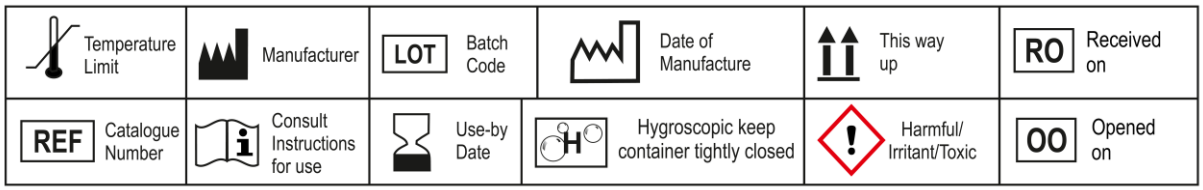
This product is designed to perform as described on the label and package insert. The manufacturer disclaims any implied warranty of use and sale for any other purpose.

Reference

1. Brewer, 1940, J. Am. Med. Assoc., 115:598.
2. Indian Pharmocoepoeia, 2010 , Ministry of Health and Family Welfare, Govt. of India
3. Data on file: Microxpress®, A Division of Tulip Diagnostics (P) Ltd.

Product Presentation:

Cat No.	Product description	Pack Size
201060390500	Dehydrated Culture Media	500 g



Revision: 0825/VER-03

Disclaimer

Information provided is based on our inhouse technical data on file, it is recommended that user should validate at his end for suitable use of the product.