

TM 305 – BREWER THIOGLYCOLLATE MEDIUM

INTENDED USE

For sterility testing of biological products and for isolation of aerobes and anaerobes.

PRODUCT SUMMARY AND EXPLANATION

Brewer thioglycollate medium is prepared as per the original formula of Brewer. The uninoculated medium shows bluish green colour at the top indicating presence of oxygen in that part. Organisms that ferment dextrose and lower the pH to critical levels may not survive in this medium after growth has taken place.

COMPOSITION

Ingredients	Gms / Ltr
Proteose peptone	10.000
Beef, infusion from	500.000
Dextrose (Glucose)	5.000
Sodium chloride	5.000
Dipotassium hydrogen phosphate	2.000
Sodium thioglycollate	0.500
Methylene blue	0.002
Agar	0.500

PRINCIPLE

It contains highly nutritious proteose peptone and beef infusion that provides carbon, nitrogen substances, long chain amino acids, vitamins and minerals which support luxuriant growth of even fastidious bacteria. Sodium thioglycollate helps to create anaerobic condition as well as neutralizes toxicity of mercurial compounds if present in the inoculum of the test material. Sodium chloride maintains the osmotic equilibrium while dipotassium phosphate buffers the medium. Very small amount of agar present maintains anaerobic conditions at the bottom of the broth. Methylene blue indicates oxygen content of the medium by exhibiting bluish-green colour to the medium in presence of oxygen.

INSTRUCTION FOR USE

- Dissolve 40.5 grams in 1000 ml purified/distilled water.
- Heat to boiling to dissolve the medium completely.
- Dispense in tubes or in suitable containers as desired and sterilize by autoclaving at 15 psi pressure (121°C) for 15 minutes.
- Note: If more than the upper one third layer acquires bluish-green colour (absorbs oxygen), the dissolved oxygen can be removed by heating the medium in free flowing steam for 5-10 minutes or in a water bath until the green colour disappears, and the prepared medium should be stored in the dark till use.

QUALITY CONTROL SPECIFICATIONS

Appearance of Powder	: Cream to yellow homogeneous free flowing powder.
Appearance of prepared medium	: Yellow coloured clear to slightly opalescent fluid with upper 10% or less medium bluish green on standing.
pH (at 25°C)	: 7.2±0.2



INTERPRETATION

Cultural characteristics observed after incubation. (*Clostridium* and *Bacteroides* species incubated anaerobically)

Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Incubation Temperature	Incubation Period
<i>Bacteroides melaninogenicus</i>	25848	50-100	Good-luxuriant	35-37°C	18-48 Hours
<i>Clostridium sporogenes</i>	11437	50-100	Good-luxuriant	35-37°C	18-48 Hours
<i>Streptococcus mitis</i>	9895	50-100	Good-luxuriant	35-37°C	18-48 Hours
<i>Streptococcus pyogenes</i>	19615	50-100	Good-luxuriant	35-37°C	18-48 Hours
<i>Bacteroides fragilis</i>	25285	50-100	Good-luxuriant	35-37°C	18-48 Hours
<i>Staphylococcus aureus subsp.aureus</i>	25923	50-100	Good-luxuriant	35-37°C	18-48 Hours

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 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. Brewer J. H., 1940, J. Bacteriol., 39:10
2. Brewer J. H., 1940, J.A.M.A., 115:598.



 GMP Good Manufacturing Practices Certified	 IVD For In Vitro Diagnostic Use	 QTY. Quantity	 LOT/ B. NO. Lot / Batch Number	 REF Catalogue Number	 Manufacturer
 Temperature Unit	 EC REP Authorized Representative <small>MedNet GmbH Buckstrasse 10 48163 Muenster, Germany</small>	 European Conformity	 QR Code	 Consults Instructions for Use	 Best Before

NOTE: Please consult the Material Safety Data Sheet for information regarding hazards and safe handling Practices.

***For Lab Use Only**
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