

# **Technical Data**

## Transport Medium, Amies w/o Charcoal

**M684** 

#### Intended use

Used for transportation and preservation of clinical specimens.

## Composition\*\*

Ingredients	<b>g</b> / <b>L</b>
Sodium chloride	3.000
Potassium chloride	0.200
Calcium chloride	0.100
Magnesium chloride	0.100
Potassium dihydrogen phosphate	0.200
Disodium hydrogen phosphate	1.150
Sodium thioglycollate	1.000
Agar	4.000
Final pH ( at 25°C)	$7.3 \pm 0.2$

<sup>\*\*</sup>Formula adjusted, standardized to suit performance parameters

#### **Directions**

Suspend 9.75 grams in 1000 ml purified/distilled water. Heat to boiling to dissolve the medium completely. Dispense in screw cap bottles or tubes in 6 ml or desired quantity. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes. Cool in an upright position.

## **Principle And Interpretation**

Transport Medium is necessarily and should be a non-nutrient, semisolid, reductive medium which hampers the self-destructive enzymatic reactions within the cells and also inhibits toxic oxidation effects. Transport Medium was primarily developed by Moffett et al (1) and Stuart et al (2) for carrying gonococcal specimens. However, Cary and Blair (3) observed the problem of overgrowth of contaminating organisms while carrying faecal specimens containing *Shigellae*. It was seen that the contaminants derive their energy from the glycerophosphate and therefore a buffer having inorganic salts was a better replacement for glycerophosphate.

Amies (4) modified Stuart's Transport Medium (2,5,6) by replacing glycerophosphate with an inorganic phosphate buffer, provides a reduced environment due to the presence of sodium thioglycollate and small amount of agar. Amies Medium is devoid of methylene blue. Calcium, magnesium, potassium and sodium salts help the survival of gonococcal cells by restricting their permeability Phosphates buffer the medium.

For the collection of the specimen, use sterile cotton tipped swabs on wooden sticks. Push the swabs down to one third of the medium depth and cut the stick, so that when the cap is screwed down, the swab is forced to the bottom of the medium. Tighten the cap firmly on the bottle. The specimen will be preserved during transportation and also the viability of the organisms will be maintained but it will diminish over the time. Some growth of contaminants also may occur during longer period of transport. After the transportation, the specimen should be inoculated in proper medium as soon as possible. The cultures on transport swabs must not be kept at room temperature for more than 24 hours.

## Type of specimen

Clinical samples: faeces, urine, Nasopharyngeal swabs etc.

#### **Specimen Collection and Handling**

For clinical samples follow appropriate techniques for handling specimens as per established guidelines (7,8). After use, contaminated materials must be sterilized by autoclaving before discarding.

#### Warning and Precautions

In Vitro diagnostic use only. For professional use only. Read the label before opening the container. Wear protective gloves/ protective clothing/eye protection/face protection. Follow good microbiological lab practices while handling specimens and culture. Standard precautions as per established guidelines should be followed while handling clinical specimens. Safety guidelines may be referred in individual safety data sheets.

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#### Limitations

1. The specimen will be preserved and the viability of the organisms will be also maintained during transport, but over the time it will diminish. Therefore direct inoculation of the specimen is advised.

- 2. Some growth of accompanying contaminants may also occur during longer period of transit.
- 3. The specimen should be inoculated into a proper medium as soon as possible.
- 4. Biochemical characterization is required on colonies of pure culture for complete identification.

#### **Performance and Evaluation**

Performance of the medium is expected when used as per the direction on the label within the expiry period when stored at recommended temperature.

#### **Quality Control**

### Appearance

Off-white to yellow homogeneous free flowing powder

#### Gelling

Semisolid, comparable with 0.4% Agar gel.

#### Colour and Clarity of prepared medium

Colourless clear to slightly opalescent gel forms in tubes as butts.

#### Reaction

Reaction of 1.0% w/v aqueous solution at 25°C. pH: 7.3±0.2

#### pН

7.10-7.50

#### **Cultural Response**

Cultural characteristics observed when subcultured on Tryptone Soya Agar (M290), after an incubation at 35-37°C for 18-24 hours.

Organism	Inoculum (CFU)	Recovery on Tryptone Soya Agar (M290)
Neisseria meningitidis ATCC 13090	50-100	luxuriant
Staphylococcus aureus subsp. aureus ATCC 25923 (00034*)	50-100	luxuriant
Staphylococcus epidermidis ATCC 12228 (00036*)	50-100	luxuriant
Streptococcus pyogenes ATCC 19615	50-100	luxuriant

Key: (\*) Corresponding WDCM numbers.

#### **Storage and Shelf Life**

Store between 10-30°C in a tightly closed container and the prepared medium at 15-30°C. Use before expiry date on the label. On opening, product should be properly stored dry, after tightly capping the bottle in order to prevent lump formation due to the hygroscopic nature of the product. Improper storage of the product may lead to lump formation. Store in dry ventilated area protected from extremes of temperature and sources of ignition Seal the container tightly after use. Product performance is best if used within stated expiry period.

#### **Disposal**

User must ensure safe disposal by autoclaving and/or incineration of used or unusable preparations of this product. Follow established laboratory procedures in disposing of infectious materials and material that comes into contact with clinical sample must be decontaminated and disposed of in accordance with current laboratory techniques (7,8).

#### Reference

- 1. Moffett, Young and Stuart, 1948, Brit. Med. J., 2:241.
- 2. Stuart R. D., 1946, J. Path. Bact., 58:343.
- 3. Cary and Blair, 1964, J. Bacteriol., 88:96.
- 4. Amies C. R., 1967, Can. J. Public Health, 58:296
- 5. Stuart R. D., 1959, Pub. Hlth. Rep., 74: 431.
- 6. Stuart R. D., Toshach S. R. and Patsula T. M., 1954, Can. J. Pub. Hlth., 45:75.

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- 7. Isenberg, H.D. Clinical Microbiology Procedures Handbook 2nd Edition.
- 8. Jorgensen, J.H., Pfaller, M.A., Carroll, K.C., Funke, G., Landry, M.L., Richter, S.S and Warnock., D.W. (2015) Manual of Clinical Microbiology, 11th Edition. Vol. 1.

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In vitro diagnostic medical device





Storage temperature



Do not use if package is damaged

### Disclaimer:

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