



Buffered Glycerol Saline Base

M204

Buffered Glycerol Saline Base with added glycerol is used in the collection and transportation of faecal specimens.

Composition**

Ingredients	Gms / Litre
Sodium chloride	4.200
Dipotassium phosphate	3.100
Monopotassium phosphate	1.000
Phenol red	0.003
Final pH (at 25°C)	7.2±0.2

**Formula adjusted, standardized to suit performance parameters

Directions

Suspend 8.3 grams in 700 ml distilled water. Add 300 ml of glycerol. Heat if necessary to dissolve the medium completely. Mix well and dispense in screw capped tubes or suitable containers. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes.

Principle And Interpretation

Specimens which can't be processed immediately after collection, or those which need to be sent to a distant reference (4) laboratory, should be properly preserved to maintain the viability of the specimens. In general, most specimens should be processed in the laboratory within 1 to 2 hours after collection. Buffered Glycerol Saline Base was first reported by Teague and Clurman (1) and later modified by Sachs (2). Buffered Glycerol Saline is used for collection and transportation of faecal specimens (3).

The medium contains sodium chloride, which provides essential ions. Dipotassium and monopotassium phosphate provides buffering to the medium. Phosphate buffers along with glycerol are used to recover pathogenic bacteria (6). Prepared medium should have a light pink colour indicating slightly alkaline pH. If the medium turns yellow i.e. acidic then it should be discarded because of unfavorable effect on dysentery bacilli if they are present in the specimens (5).

Quality Control

Appearance

Light yellow to pink homogeneous free flowing powder

Colour and Clarity of prepared medium

Light pink coloured, clear solution without any precipitate

Reaction

Reaction of aqueous solution (0.83 gms in 70 ml distilled water) at 25°C. pH : 7.2±0.2

pH

7.00-7.40

Cultural Response

M204: Cultural characteristics observed with added Glycerol(30 ml), after an incubation at 35-37°C for 18-24 hours.

Organism

Growth

<i>Neisseria meningitidis</i> ATCC 13090	good-luxuriant
<i>Staphylococcus aureus</i> ATCC 25923	good-luxuriant
<i>Staphylococcus epidermidis</i> ATCC 12228	good-luxuriant
<i>Streptococcus pneumoniae</i> ATCC 6303	good-luxuriant

Streptococcus pyogenes good-luxuriant
ATCC 19615

Storage and Shelf Life

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

Reference

1. Teague and Clurman, 1916, J. Inf. Dis., 18:653.
2. Sachs, 1939, J. Roy Arury Med. Corp., 73:235.
3. Edwards and Ewing, 1962, Identification of Enterobacteriaceae, Burgess Publ. Co. Minneapolis, Minn.
4. Koneman E. W., Allen S. D., Janda W. M., Schreckenberger P. C., Winn W. C. Jr., 1992, Colour Atlas and Textbook of Diagnostic Microbiology, 4th Ed., J. B. Lippincott Company
5. Diagnostic Procedures and Reagents, 1963, 4th Ed., American Public Health Association, Inc., New York.

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