



Standard Rideal Walker Broth

M2098

Intended use:

Redcommended for determination of phenol coefficient of disinfectants using *Salmonella* Typhi as a test organism.

Composition**

Ingredients	Gms / Litre
HM extract#	20.000
Sodium chloride	10.000
Final pH (at 25°C)	7.4±0.1

Equivalent to Meat extract

**Formula adjusted, standardized to suit performance parameters

Directions

Suspend 30.0 grams in 1000 ml purified/distilled water. Heat if necessary to dissolve the medium completely. Dispense in sterile test tubes or flasks as desired. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes.

Principle And Interpretation

Rideal and Walker developed phenol coefficient test in 1903 for determining the germicidal efficiency of disinfectants (4). In addition to being a satisfactory index of the germicidal value of phenol like disinfectants, the phenol coefficient is used as basis for determining the dilutions, which may safely be employed in practice. The phenol coefficient of each disinfectant was first determined by the Bureau of Indian Standards, IS : 1061:2017 (1). Culture Medium for RWC is used for testing disinfectants and especially for determining phenol coefficient of disinfectants using *Salmonella* Typhi.

The medium contains ingredients like HM extract which provide necessary nutrients to the growth of *Salmonella* Typhi when used as test organism. Presence of sodium chloride balances the osmotic equilibrium.

Type of specimen

Disinfectant samples.

Specimen Collection and Handling:

For disinfectant samples follow appropriate techniques for handling specimens as per established guidelines (4). After use, contaminated materials must be sterilized by autoclaving before discarding.

Warning and Precautions :

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 specimens. Safety guidelines may be referred in individual safety data sheets.

Limitations :

Not applicable

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

Cream to yellow homogeneous free flowing powder

Colour and Clarity of prepared medium

Yellow coloured, clear solution without any precipitate.

Reaction

Reaction of 3.0% w/v aqueous solution at 25°C. pH : 7.4±0.1

pH

7.30-7.50

Cultural Response

Cultural characteristics observed after an incubation at 35-37°C for 18-24 hours.

Organism	Inoculum (CFU)	Growth
<i>Salmonella</i> Typhi ATCC 6539	50-100	luxuriant

Storage and Shelf Life

Store between 10-30°C in a tightly closed container and the prepared medium at 15-25°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 sample must be decontaminated and disposed of in accordance with current laboratory techniques (2,3).

Reference

1. Bureau of Indian Standards, IS : 1061:2017.
2. Isenberg, H.D. Clinical Microbiology Procedures Handbook 2nd Edition.
3. 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.
4. Rideal S. and Walker J. T. A., 1903, Examination of disinfectants, J . San. Inst., 24, 424-441

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Disclaimer :

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