



Bromo Thymol Blue Indicator

I005

Intended use

Bromo Thymol Blue Indicator is recommended as a pH indicator used in applications that require measuring substances that would have a relatively neutral pH.

Composition**

Ingredients

Bromothymol blue sodium salt	0.04 gm
Distilled water	100.0 ml

Note: Grind the indicator in mortar and then dilute to 100 ml by using distilled water.

**Formula adjusted, standardized to suit performance parameters

Directions

1. Bromo Thymol Blue has wide range of application so follow appropriate direction as per application protocol.

Principle And Interpretation

Bromothymol blue (also known as bromothymol sulfone phthalein, and BTB) is a pH indicator. It is mostly used in applications that require measuring substances that would have a relatively neutral pH (near 7). A common use is for measuring the presence of carbonic acid in a liquid. Bromothymol blue acts as a weak acid in solution. It can thus be in protonated or deprotonated form, appearing yellow or blue, respectively. It is bluish green in neutral solution. The deprotonation of the neutral form results in a highly conjugated structure, accounting for the difference in color. An intermediate of the deprotonation mechanism is responsible for the greenish color in neutral solution.

Type of specimen

Biological sample

Specimen Collection and Handling

Follow appropriate techniques for handling specimens as per established guidelines.

Warning and Precautions

In Vitro diagnostic 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.

Limitations

1. An indicator is not functional above its pH range because the indicator does not change color at these pH values.
2. If the substance or sample is contaminated, the color may be wrong.
3. Acid-base indicators show just one or two color changes.
4. Indicators measure pH at low accuracy, they only indicate sample acidity or alkalinity and not exact pH.

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** : Dark ink blue coloured solution
- **Reaction** : At pH 6.0, the solution turns yellow and at pH 7.6, the solution is blue.
- **Clarity** : Clear without any particles
- **Sensitivity Test** : A mixture of 0.3 ml of the solution and 100ml of carbon dioxide free water is yellow. Not more than 0.1ml of 0.02M sodium hydroxide is required to change the colour to blue.

Storage and Shelf Life

Store between 10-30°C in tightly closed container and away from bright light. Use before expiry date on label. On opening, product should be properly stored in dry ventilated area protected from extremes of temperature and sources of ignition. Seal the container tightly after use.

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.

Reference

1. Godkar B. P., 1996, Textbook of medical laboratory technology: 24(326)
2. Horobin R. W. and Kiernan J. A., 2002, 10th ed., CONN'S Biological Stains, A Handbook of Dyes, Stains and Flurochromes for for Use in Biology and Medicine: 15(214).
3. INDIAN PHARMACOPOEIA 2018, VOL-I, 4.3(958).



Storage temperature



Do not use if package is damaged



In vitro diagnostic medical device



CE Marking



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