

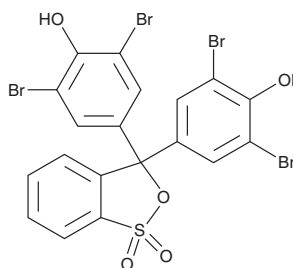
# PRODUCT INFORMATION



## Bromophenol Blue

Item No. 14331

**CAS Registry No.:** 115-39-9  
**Formal Name:** 4,4'-(1,1-dioxido-3H-2,1-benzoxathiol-3-ylidene)bis-2,6-dibromo-phenol  
**Synonyms:** Albutest, NSC 7818  
**MF:** C<sub>19</sub>H<sub>10</sub>Br<sub>4</sub>O<sub>5</sub>S  
**FW:** 670.0  
**UV/Vis.:** λ<sub>max</sub>: 206, 282, 424 nm  
**Supplied as:** A crystalline solid  
**Storage:** Room temperature  
**Stability:** ≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

### Laboratory Procedures

Bromophenol blue is supplied as a crystalline solid. A stock solution may be made by dissolving the bromophenol blue in the solvent of choice, which should be purged with an inert gas. Bromophenol blue is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of bromophenol blue in ethanol is approximately 10 mg/ml and approximately 30 mg/ml in DMSO and DMF.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of bromophenol blue can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of bromophenol blue in PBS (pH 7.2) is approximately 1 mg/ml. We do not recommend storing the aqueous solution for more than one day.

### Description

Bromophenol blue is commonly used as a pH indicator, a color marker to monitor the progress of agarose or polyacrylamide gel electrophoresis, and a dye to detect proteins and nucleic acids (absorbance at 610 nm), particularly when staining living tissues.<sup>1-3</sup> As an acid-base indicator its useful pH range is 3-4.6 where the color changes from yellow at pH 3.0 to purple at pH 4.6.<sup>4</sup>

### References

1. Burford, G.D. and Pickering, B.T. The number of neurophysins in the rat. Influence of the concentration of Bromophenol Blue, used as a tracking dye, on the resolution of proteins by polyacrylamide-gel electrophoresis. *Biochem. J.* **128(4)**, 941-944 (1972).
2. Harris, P. and Mazia, D. The use of mercuric Bromophenol Blue as a stain for electron microscopy. *J. Biophys. Biochem. Cytol.* **5(2)**, 343-346 (1959).
3. Morales, M.-C., Freire, V., Asumendi, A., et al. Comparative effects of six intraocular vital dyes on retinal pigment epithelial cells. *Invest. Ophthalmol. Vis. Sci.* **51(11)**, 6018-6029 (2010).
4. Suzuki, Y. Protein error of pH indicators in the presence of detergents. *Anal. Sci.* **23(6)**, 733-738 (2007).

#### WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

#### SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

#### WARRANTY AND LIMITATION OF REMEDY

Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

Copyright Cayman Chemical Company, 11/14/2022

#### CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD

ANN ARBOR, MI 48108 · USA

**PHONE:** [800] 364-9897

[734] 971-3335

**FAX:** [734] 971-3640

CUSTSERV@CAYMANCHEM.COM

WWW.CAYMANCHEM.COM