

# PRODUCT INFORMATION



## Tetradecyltrimethylammonium (bromide)

Item No. 23248

CAS Registry No.: 1119-97-7

Formal Name: N,N,N-trimethyl-1-tetradecanaminium, monobromide

Synonyms: TTABr, TTAB

MF:  $C_{17}H_{38}N \cdot Br$

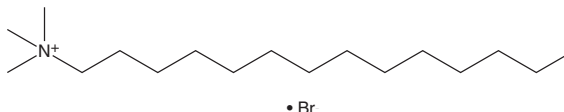
FW: 336.4

Purity:  $\geq 98\%$

Supplied as: A crystalline solid

Storage:  $-20^{\circ}C$

Stability:  $\geq 4$  years



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

### Laboratory Procedures

Tetradecyltrimethylammonium (bromide) (TTABr) is supplied as a crystalline solid. A stock solution may be made by dissolving the TTABr in the solvent of choice, which should be purged with an inert gas. TTABr is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of TTABr in these solvents is approximately 33, 16, and 2 mg/ml, respectively.

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 TTABr can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of TTABr in PBS (pH 7.2) is approximately 5 mg/ml. We do not recommend storing the aqueous solution for more than one day.

### Description

TTABr is an organic building block and quaternary ammonium-containing cationic surfactant.<sup>1,2</sup> It forms hemimicelles and is used as a surface active aid in capillary separation of acid-derived anionic species.

### References

1. Gorski, N., Gradzielski, M., and Hoffmann, H. Mixtures of nonionic and ionic surfactants. The effect of counterion binding in mixtures of tetradecyldimethylamine oxide and tetradecyltrimethylammonium bromide. *Langmuir* **10**(8), 2594-2603 (1994).
2. Cocke, D.L., Schennach, R., and Yu, Z. The surface properties of tetradecyltrimethylammonium bromide observed by capillary electrophoresis. *J. Chromatogr. Sci.* **40**(4), 187-190 (2002).

#### 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.

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