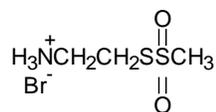


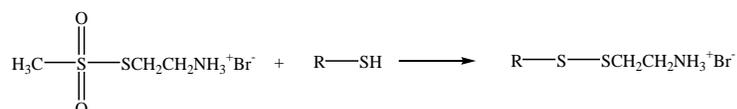
## PRODUCT AND SAFETY DATA SHEET

**PRODUCT NAME:** **MTSEA** ((2-Aminoethyl) methanethiosulfonate Hydrobromide)**CATALOG #** **91022****MOLECULAR INFORMATION:** C<sub>3</sub>H<sub>10</sub>BrNO<sub>2</sub>S<sub>2</sub>  
MWt: 236.15**PROPERTIES:**

**Color & Form** Off-white Solid  
**Purity** ≥ 95% by TLC  
**Solubility** Soluble in water or DMSO.

**STORAGE AND HANDLING:** Store desiccated at -20 °C.

**APPLICATION:** MTSEA is among the Methanethiosulfonate (MTS) derivatives that are fast-reacting and highly selective thiol-reactive compounds. Dr. Arthur Karlin and his colleagues pioneered the use of MTS reagents as useful tools for probing the structures and functions of the proteins. In conjunction with site-directed introduction of cysteines to proteins, a selected MTS reagent can add a charge (positive or negative depending on the MTS reagent) to the previously neutral cysteines. MTSEA adds a positive charge to a thiol.



At pH 7.5 and ambient temperature, MTSEA hydrolyzes with a half-life of about 15 minutes. 2.5 mM MTSEA can be routinely used and applied for 1 to 5 minutes.

Biotium offers the positively charged MTSET (91021) and MTSEA (91022) as well as the negatively charged MTSES (91020). We also offer a fluorescent MTS derivative MTS-TAMRA (MTS-tetramethylrhodamine, 91030).

Ref: 1) *Biochemistry* **33**, 6840(1994); 2) *Neuron* **13**, 919(1994); 3) *Science* **258**, 307(1992)..

**TOXICITY:** Unknown

**FIRST AID:** Potentially harmful. Avoid prolonged or repeated exposure. Avoid getting in eyes, on skin, or on clothing. Wash thoroughly after handling. If eye or skin contact occurs, wash affected areas with plenty of water for 15 minutes and seek medical advice. In case of inhaling or swallowing, move individual to fresh air and seek medical advice immediately.

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