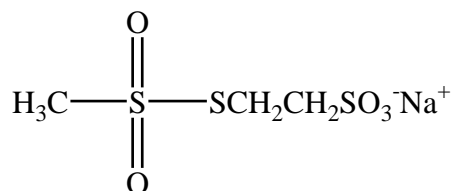


PRODUCT AND SAFETY DATA SHEET

PRODUCT NAME: **MTSES** (Sodium (2-sulfonatoethyl) methanethiosulfonate)**CATALOG #** **91020****MOLECULAR INFORMATION:** C₃H₇NaO₅S₃
MWt: 242.21**PROPERTIES:**

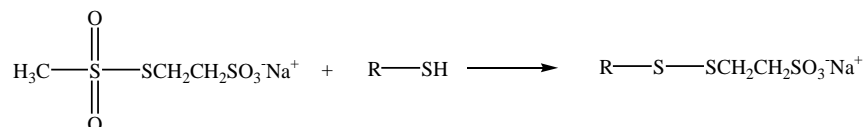
Color & Form	White Solid
Purity	≥ 95%
Solubility	Soluble in DMSO or water

STORAGE AND HANDLING:

Store desiccated at -20 °C. If dissolved in water, the solution should be used right away. If dissolved in **anhydrous** DMSO and kept frozen at -20 °C, the solution is good for 3 months. The shelf life for the solid is one year from the date of receipt if stored desiccated at -20 °C.

APPLICATION:

MTSES 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. MTSES adds a negative charge to a thiol.



At pH 7.5 and ambient temperature, MTSES hydrolyzes with a half-life of about 20 minutes. 10mM MTSES 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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Disclaimer: <i>Materials from Biotium are sold for research use only, and are not intended for food, drug, household, or cosmetic use. Biotium is not liable for any damage resulting from handling or contact with this product.</i>
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