

Product Name:	Sulfathiazole sodium
Product Number:	S014
CAS Number:	144-74-1
Molecular Formula:	$C_9H_8N_3NaO_2S_2$
Molecular Weight:	277.30 g/mol
Form:	Powder
Appearance:	White or yellowish crystalline powder
pH:	(1% in water) 9.0 - 10.0
Density:	Not less than 0.5 g/cm ³
Storage Conditions:	<30°C, protected from light
Description:	Sulfathiazole sodium is a bacteriostatic sulfonamide antibiotic. Sulfathiazole acts as a competitor with para-aminobenzoic acid (PABA) in the folic acid synthesis pathway. Sulfathiazole sodium is sparingly soluble in aqueous solution 0.373 mg/mL.
Mechanism of Action:	Sulfonamide will be catalyzed to competitive combine with the pteridine in stead of the PABA in synthesis of folic acid, inhibiting production of folic acid.
Spectrum:	Sulfathiazole is a broad spectrum antibiotic targeting a wide range of gram positive and gram negative bacteria.
Microbiology Applications	Sulfathiazole sodium is commonly used in clinical in vitro microbiological antimicrobial susceptibility tests (panels, discs, and MIC strips) against gram positive and gram negative microbial isolates. Medical microbiologists use AST results to recommend antibiotic treatment options for infected patients. Representative MIC values include: <ul style="list-style-type: none">• <i>Haemophilus parasuis</i> 32 µg/mL - 512 µg/mL• For a complete list of sulfathiazole MIC values, click here.
References:	Henry, Richard J. "The Mode of Action of Sulfonamides." <i>Bacteriology Reviews</i> (n.d.): 175-84. www.ncbi.gov . Web. 27 Aug. 2012.