

Product Name: Sulfapyridine sodium

Product Number: S106

CAS Number: 127-57-1

Molecular Formula: $C_{11}H_{10}N_3O_2SNa \cdot H_2O$

Molecular Weight: 289.29

Description: Sulfapyridine is a first generation sulfonamide antibiotic and was one of the first compounds used to treat and cure pneumonia. Sulfapyridine has also been found to have anti-inflammatory effects and can be used in immunodeficiency studies.

TOKU-E Company offers two forms of sulfapyridine: sulfapyridine, USP (S065) and sulfapyridine sodium (S106). In aqueous solution, sulfapyridine sodium is freely soluble (667 mg/mL) while sulfapyridine is significantly less soluble (0.29 mg/mL). Both forms have similar potencies and are suitable for microbiology use; however, sulfapyridine sodium is easier to work with in aqueous solution.

Mechanism of Action: Sulfapyridine inhibits folic acid synthesis by acting as a competitive inhibitor of dihydropteroate synthetase, an enzyme found in the folic acid synthesis pathway.

Spectrum: Sulfapyridine has a broad spectrum of activity.

Microbiology Applications Sulfapyridine can be used to study anti-inflammatory properties.

References: Henry, Richard J. "The Mode of Action of Sulfonamides." Bacteriology Reviews (n.d.): 175-84. www.ncbi.gov. Web. 27 Aug. 2012.

Paniker, U., and N. Levine. "Dapsone and Sulfapyridine." Dermatologic Clinics 19.1 (2001): 79-86. [Nih.gov](http://nih.gov). Web. 24 Feb. 2014.