

## sulfadiazine

A broad-spectrum antibiotic inhibiting the enzyme dihydropteroate synthetase

As a sulfonamide antibiotic, sulfadiazine powder works by competitively inhibiting the enzyme dihydropteroate synthetase, preventing bacteria from synthesizing folic acid. The synthesis of tetrahydrofolic acid, a necessary precursor for bacterial DNA and protein synthesis, depends on this enzyme.

Sulfadiazine has a wide range of antibacterial activity against different bacteria, including Gram-positive and Gram-negative species. Susceptible strains like *Staphylococcus aureus*, *Escherichia coli*, and *Streptococcus pneumoniae* are inhibited effectively with sulfadiazine powder.

Cat. Number	AS-2020
CAS Number	68-35-9
MDL Number	MFCD00006065
PubChem	310280373
Molecular Weight	250.28 g/mol
Molecular Formula	C <sub>10</sub> H <sub>10</sub> N <sub>4</sub> O <sub>2</sub> S
Storage Temperature	20°C
Form and Color	Powder, white to yellow
Assay (on dry basis)	99 – 101%
Loss on Drying	Max. 0.5%
Sulfated ash	≤ 0.1%
Heavy metals	≤ 20 ppm