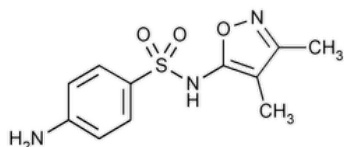


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Sulfisoxazole



$C_{11}H_{13}N_3O_3S$ 267.30

Benzenesulfonamide, 4-amino-*N*-(3,4-dimethyl-5-isoxazolyl)-.

*N*¹-(3,4-Dimethyl-5-isoxazolyl)sulfanilamide CAS RN[®]: 127-69-5; UNII: 740T4C525W.

» Sulfisoxazole contains not less than 99.0 percent and not more than 101.0 percent of $C_{11}H_{13}N_3O_3S$, calculated on the dried basis.

Packaging and storage—Preserve in tight, light-resistant containers.

USP REFERENCE STANDARDS (11).—

[USP Sulfisoxazole RS](#)

Identification—

A: [Spectroscopic Identification Tests \(197\)](#), [Infrared Spectroscopy: 197K](#).

B: The UV absorption spectrum of a 1 in 100,000 solution in pH 7.5 phosphate buffer (see *Buffer Solutions* in the section [Reagents, Indicators, and Solutions](#)), prepared by dissolving about 100 mg of Sulfisoxazole, accurately weighed, in 10 mL of sodium hydroxide solution (1 in 250) and adding sufficient amounts of the buffer solution to make 100 mL, then diluting 10 mL of the resulting solution with the buffer solution to 1000 mL, exhibits maxima and minima at the same wavelengths as that of a similar solution of [USP Sulfisoxazole RS](#), concomitantly measured.

C: Dissolve about 10 mg in 2 mL of 3 N hydrochloric acid with the aid of heat, cool for 5 minutes in an ice bath, add 3 drops of sodium nitrite solution (1 in 100), and dilute with water to 4 mL: a yellow solution is produced. Add 1 mL of sodium hydroxide solution (1 in 10) containing 10 mg of 2-naphthol: an orange-red precipitate is formed.

MELTING RANGE (741): between 194° and 199°.

LOSS ON DRYING (731).—Dry it at 105° for 2 hours: it loses not more than 0.5% of its weight.

RESIDUE ON IGNITION (281): not more than 0.1%.

Change to read:

▲ [SELENIUM \(291\)](#), [Procedures, Procedure 1](#) ▲ (CN 1-Jun-2023) : 0.003%, a 200-mg test specimen being used.

ORDINARY IMPURITIES (466).—

Test solution: ethyl acetate.

Standard solution: ethyl acetate.

Eluant: a mixture of acetone, cyclohexane, and glacial acetic acid (5:4:1).

Visualization: 1.

Assay—Place about 800 mg of Sulfisoxazole, accurately weighed, in a 250-mL conical flask, add 50 mL of dimethylformamide, shake thoroughly to dissolve the solid, add 5 drops of a 1 in 100 solution of thymol blue in dimethylformamide, and titrate with 0.1 N lithium methoxide in toluene VS to a blue endpoint, taking precautions against absorption of atmospheric carbon dioxide. Perform a blank determination, and make any necessary correction. Each mL of 0.1 N lithium methoxide is equivalent to 26.73 mg of $C_{11}H_{13}N_3O_3S$.

Auxiliary Information - Please [check for your question in the FAQs](#) before contacting USP.

Topic/Question	Contact	Expert Committee
SULFISOXAZOLE	Documentary Standards Support	SM12020 Small Molecules 1
REFERENCE STANDARD SUPPORT	RS Technical Services RSTECH@usp.org	SM12020 Small Molecules 1

Chromatographic Database Information: [Chromatographic Database](#)

Most Recently Appeared In:

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