

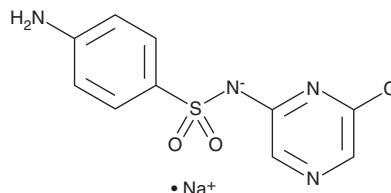
# PRODUCT INFORMATION



## Sulfaclozine (sodium salt)

Item No. 31223

**CAS Registry No.:** 23307-72-4  
**Formal Name:** 4-amino-N-(6-chloro-2-pyrazinyl)-benzenesulfonamide, monosodium salt  
**Synonyms:** Sulfachloropyrazine, Sulphachloropyrazine  
**MF:** C<sub>10</sub>H<sub>8</sub>ClN<sub>4</sub>O<sub>2</sub>S • Na  
**FW:** 306.7  
**Purity:** ≥98%  
**UV/Vis.:** λ<sub>max</sub>: 261, 323 nm  
**Supplied as:** A crystalline solid  
**Storage:** -20°C  
**Stability:** ≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

### Laboratory Procedures

Sulfaclozine (sodium salt) is supplied as a crystalline solid. A stock solution may be made by dissolving the sulfaclozine (sodium salt) in the solvent of choice, which should be purged with an inert gas. Sulfaclozine (sodium salt) is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of sulfaclozine (sodium salt) in these solvents is approximately 1 mg/ml.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of sulfaclozine (sodium salt) can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of sulfaclozine (sodium salt) in PBS, pH 7.2, is approximately 1 mg/ml. We do not recommend storing the aqueous solution for more than one day.

### Description

Sulfaclozine is a sulfonamide antibiotic with antiprotozoal activity.<sup>1,2</sup> Dietary administration of sulfaclozine reduces cecal lesion score and oocyst production in a chick model of *E. tenella* infection in a dose-dependent manner.<sup>1</sup> It increases average survival time in a mouse model of *T. gondii* infection when administered at a dose of 250 mg/kg per day.<sup>2</sup> Sulfaclozine has been found in chicken muscle samples from domestic markets and as an environmental contaminant in fish pond water, biogas digester water, and lagoon wastewater from pig farms.<sup>3,4</sup> Formulations containing sulfaclozine have been used in the treatment of coccidiosis in poultry.

### References

1. Matsuzawa, T. and Kitano, N. Studies on the mode of action of sulfachloropyrazine against coccidia in chickens. *Japan Poultry Sci.* **11(3)**, 75-85 (1974).
2. Zeng, Y.-B., Zhu, S.-H., Dong, H., et al. Great efficacy of sulfachloropyrazine-sodium against acute murine toxoplasmosis. *Asian Pac. J. Trop. Biomed.* **2(1)**, 70-75 (2012).
3. Cao, G., Zhan, J., Shi, X., et al. Analysis of 140 veterinary drugs and other contaminants in poultry muscle by ultrahigh-performance liquid chromatography-tandem mass spectrometry. *Chromatographia* **81**, 707-718 (2018).
4. Hu, F.-Y., He, L.-M., Yang, J.-W., et al. Determination of 26 veterinary antibiotics residues in water matrices by lyophilization in combination with LC-MS/MS. *J. Chromatogr. B* **949-950**, 79-86 (2014).

#### WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

#### SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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