

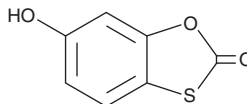
# PRODUCT INFORMATION



## Tioxolone

Item No. 31372

**CAS Registry No.:** 4991-65-5  
**Formal Name:** 6-hydroxy-1,3-benzoxathiol-2-one  
**Synonym:** Thioxolone  
**MF:** C<sub>7</sub>H<sub>4</sub>O<sub>3</sub>S  
**FW:** 168.2  
**Purity:** ≥95%  
**UV/Vis.:** λ<sub>max</sub>: 233 nm  
**Supplied as:** A 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

Tioxolone is supplied as a solid. A stock solution may be made by dissolving the tioxolone in the solvent of choice, which should be purged with an inert gas. Tioxolone is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of tioxolone in these solvents is approximately 30 mg/ml.

Tioxolone is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, tioxolone should first be dissolved in ethanol and then diluted with the aqueous buffer of choice. Tioxolone has a solubility of approximately 0.1 mg/ml in a 1:9 solution of ethanol:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

### Description

Tioxolone is an inhibitor of carbonic anhydrase I (CAI; K<sub>i</sub> = 91 nM).<sup>1</sup> It is selective for CAI over CAII, -III, -IV, -VA, -VB, -VI, -VII, -IX, -XII, and -XIV (K<sub>i</sub>s = 4,930-9,040 nM). Tioxolone is active against Gram-positive or -negative bacteria, including *M. tuberculosis*.<sup>2</sup> It is also active against dermatophytes, yeasts, and molds.

### References

1. Innocenti, A., Maresca, A., Scozzafava, A., *et al.* Carbonic anhydrase inhibitors: Thioxolone versus sulfonamides for obtaining isozyme-selective inhibitors? *Bioorg. Med. Chem. Lett.* **18(14)**, 3938-3941 (2008).
2. Goeth, H. and Wildfeuer, A. Antimicrobial and cytostatic properties of 6-hydroxy-1,3-benzoxathiol-2-one (ol 1). *Arznei-Forschung* **19(8)**, 1298-1304 (1969).

#### 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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