

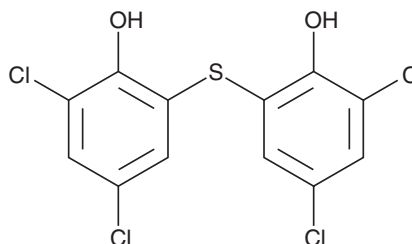
PRODUCT INFORMATION



Bithionol

Item No. 21844

CAS Registry No.: 97-18-7
Formal Name: 2,2'-thiobis[4,6-dichloro-phenol]
Synonyms: CP 3438, NSC 9872, NSC 47129
MF: C₁₂H₆Cl₄O₂S
FW: 356.1
Purity: ≥98%
UV/Vis.: λ_{max}: 308 nm
Supplied as: A crystalline solid
Storage: Room temperature
Stability: ≥4 years



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

Laboratory Procedures

Bithionol is supplied as a crystalline solid. A stock solution may be made by dissolving the bithionol in the solvent of choice, which should be purged with an inert gas. Bithionol is soluble in the organic solvent DMSO at a concentration of approximately 20 mg/ml.

Description

Bithionol is an anthelmintic drug. Formulations containing bithionol have demonstrated efficacy against cestodes and trematodes, as well as other parasitic worms.¹⁻³ Bithionol inhibits host caspases, including caspases-1, -3, -6, -7, and -9, which act as hub proteins that mediate the lethality of multiple pathogenic agents.⁴ By blocking host caspases, bithionol reduces the detrimental effects of anthrax lethal toxin, diphtheria toxin, cholera toxin, *P. aeruginosa* exotoxin A, *Botulinum* neurotoxin, ricin, and Zika virus.⁴ Bithionol also inhibits NF-κB activation by blocking phosphorylation of IκBα (IC₅₀ = 15.8 μM in a reporter gene assay).⁵

References

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2. Choi, D.W. Paragonimus and paragonimiasis in Korea. *Kisaengchunghak Chapchi*. **28 Suppl.**, 79-102 (1990).
3. Cruz, A.C. Treatment of human taeniasis in the Philippines: A review. *Southeast Asian J. Trop. Med. Public Health* **22 Suppl**, 271-274 (1991).
4. Leonardi, W., Zilbermintz, L., Cheng, L.W., *et al.* Bithionol blocks pathogenicity of bacterial toxins, ricin, and Zika virus. *Sci. Rep.* **6:34475**, 1-12 (2016).
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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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