

## Bithionol sulfoxide

## Chemical Properties

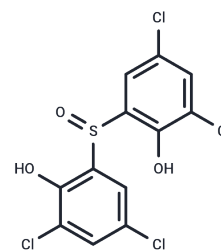
CAS No. : 844-26-8

Formula: C<sub>12</sub>H<sub>6</sub>Cl<sub>4</sub>O<sub>3</sub>S

Molecular Weight: 372.05

Storage: Store at low temperature, Keep away from moisture  
Powder: -20°C for 3 years | In solvent: -80°C for 1 year

Actual storage temperature shall be subject to the COA.



## Biological Description

|               |   |
|---------------|---|
| Description   | Bithionol sulfoxide (Bithionoloxide) is a compound with inhibitory effects on parasites, suppressing the activity of Schistosoma japonicum and Fasciola hepatica.   |
| Targets(IC50) | Parasite  |
| In vitro      | Bithionol sulfoxide (0.1-10 mg/mL, 72 hours) showed toxicity to Neoparamoeba parasites in seawater. [1]   |
| In vivo       | Bithionol sulfoxide significantly inhibited C.S. administration The oviposition of a worm. Bithionol sulfoxide showed a slight insecticidal effect at high doses of 100 mg/kg. [2]<br>Bithionol sulfoxide is mutagenic against Salmonella typhimurium strains TA98 and TA100. [3] |

## Solubility Information

|                     |   |
|---------------------|---|
| Solubility          | DMSO: 245 mg/mL (658.51 mM),Sonication is recommended.<br>(< 1 mg/ml refers to the product slightly soluble or insoluble)   |
| In vivo Formulation | 10% DMSO+40% PEG300+5% Tween 80+45% Saline: 5 mg/mL (13.44 mM),Sonication is recommended.<br><i>Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.</i> |

### Preparing Stock Solutions

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|       | <b>1mg</b> | <b>5mg</b> | <b>10mg</b> |
|-------|------------|------------|-------------|
| 1 mM  | 2.6878 mL  | 13.4391 mL | 26.8781 mL  |
| 5 mM  | 0.5376 mL  | 2.6878 mL  | 5.3756 mL   |
| 10 mM | 0.2688 mL  | 1.3439 mL  | 2.6878 mL   |
| 50 mM | 0.0538 mL  | 0.2688 mL  | 0.5376 mL   |

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Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

### Reference

Florent RL, et al. In vitro toxicity of bithionol and bithionol sulphoxide to Neoparamoeba spp., the causative agent of amoebic gill disease (AGD). Dis Aquat Organ. 2010 Sep 17;91(3):257-62.

Kang SY, et al. [A Study On The Chemotherapy In Clonorchiasis: Report 1. An Experimental Study On Chemotherapy With Dithiazanine Iodide And Bithionol Sulfoxide In Clonorchiasis]. Kisaengchunghak Chapchi. 1965 Jun;3(1):19-30. Korean.

Mourot D, Mourot A. Mutagenicity of bithionol sulfoxide and its metabolites in the salmonella/mammalian microsome test. Mutat Res. 1987 May;188(1):53-5.

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