

Product Data Sheet

Product Name: Endosulfan sulfate

Cat. No.: GC47290

Chemical Properties

Cas. No. 1031-07-8

SMILES ClC1(C2(Cl)Cl)C(COS(OC3)(=O)=O)C3C2(Cl)C(Cl)=C1Cl

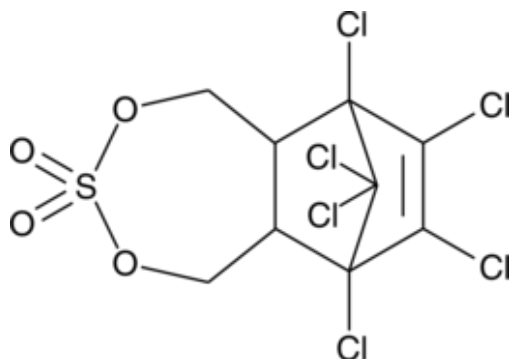
Formula C₉H₆Cl₆O₄S M.Wt 422.9

Solubility DMSO: Slightly Soluble, Methanol: Slightly Soluble
Storage Store at -20°C

General tips For obtaining a higher solubility, please warm the tube at 37 °C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Condition Evaluation sample solution: ship with blue ice All other available size: ship with RT, or blue ice upon request.

Structure



Background

Endosulfan sulfate is a major metabolite of endosulfan, a broad-spectrum organochlorine insecticide.¹ Endosulfan sulfate is formed through oxidation of endosulfan by bacteria and fungi in the environment, where it is considered a persistent organic pollutant (POP). It accumulates in the liver and gonads of wild silverside fish (*O. bonariensis*) and is found in higher amounts in mature fish than pre-spawning fish.² Levels of endosulfan sulfate in the gills of mature *O. bonariensis* correlate with increased levels of lipid peroxidation. It is toxic to freshwater fish, including *G. affinis*, *H. formosa*, *P. latipinna*, and *P. promelas*, with LC₅₀ values ranging from 2.1 to 3.5 µg/L after a 96-hour exposure.³ Endosulfan sulfate is the main metabolite found in the liver of mice following endosulfan

Caution: Product has not been fully validated for medical applications. For research use only.

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administration at doses of 0.3 and 3 mg/kg.⁴ It decreases the levels of glutathione (GSH) and malondialdehyde (MDA), a product of lipid peroxidation, in the liver, but increases MDA in the kidney when administered at a dose of 3 mg/kg.

1.Kataoka, R., and Takagi, K.Biodegradability and biodegradation pathways of endosulfan and endosulfan sulfateAppl. Microbiol. Biotechnol.97(8)3285-3292(2013) 2.Barni, M.F.Assessment of persistent organic pollutants accumulation and lipid peroxidation in two reproductive stages of wild silverside (Odontesthes bonariensis)Ecotoxicol. Environ. Saf.9945-53(2014) 3.Carriger, J.F., Hoang, T.C., Rand, G.M., et al.Acute toxicity and effects analysis of endosulfan sulfate to freshwater fish speciesArch. Environ. Contam. Toxicol.60(2)281-289(2011) 4.Yan, J., Wang, D., Miao, J., et al.Discrepant effects of α -endosulfan, β -endosulfan, and endosulfan sulfate on oxidative stress and energy metabolism in the livers and kidneys of miceChemosphere205223-233(2018)

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