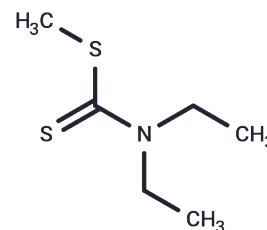


Methyl Diethyldithiocarbamate

Chemical Properties

CAS No. :	686-07-7
Formula:	C ₆ H ₁₃ NS ₂
Molecular Weight:	163.3
Storage:	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	Methyl diethyldithiocarbamate is an active metabolite of the aldehyde dehydrogenase inhibitor disulfiram. It is produced by methylation of the disulfiram metabolite diethyldithiocarbamate in mouse liver microsomes. Methyl diethyldithiocarbamate inhibits liver low Km aldehyde dehydrogenase (ALDH) in rats (ID ₅₀ = 15.5 mg/kg). It decreases mean arterial pressure (MAP) and increases heart rate during ethanol challenge in rats when administered at a dose of 20.6 mg/kg.
Targets(IC ₅₀)	Others, Dehydrogenase

Solubility Information

Solubility	Chloroform: Slightly soluble Methanol: Slightly soluble (< 1 mg/ml refers to the product slightly soluble or insoluble)
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	6.1237 mL	30.6185 mL	61.237 mL
5 mM	1.2247 mL	6.1237 mL	12.2474 mL
10 mM	0.6124 mL	3.0618 mL	6.1237 mL
50 mM	0.1225 mL	0.6124 mL	1.2247 mL

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

Hart, B.W., Yourick, J.J., and Faiman, M.D.S-methyl-N,N-diethylthiolcarbamate: A disulfiram metabolite and potent rat liver mitochondrial low Km aldehyde dehydrogenase inhibitor *Alcohol* 7(2)165-169(1990)

Gessner, T., and Jakubowski, M. Diethyldithiocarbamic acid methyl ester. A metabolite of disulfiram *Biochem. Pharmacol.* 21(2)219-230(1972)

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