

Cobalt sulfate heptahydrate

Chemical Properties

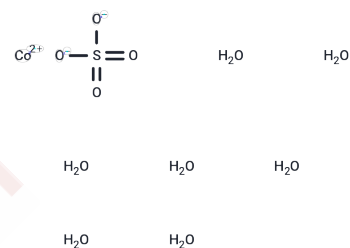
CAS No. : 10026-24-1

Formula: CoH14O11S

Molecular Weight: 281.1

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	Cobalt sulfate heptahydrate is an inorganic cobalt salt that releases Co^{2+} in solution and participates in redox reactions, and is commonly used as a catalyst or precursor in materials science and chemical reaction research. Cobalt sulfate heptahydrate can induce hypoxia-related signaling in biological systems.
Targets(IC50)	Others
In vivo	Cobalt sulfate heptahydrate (25-100 mg/kg; Oral; Heptahydrate has embryotoxicity and teratogenicity to OFA-SD rats [2]. Cobalt sulfate heptahydrate (50 mg/kg; Oral; Heptahydrate is teratogenic to C57Bl mice [2].

Solubility Information

Solubility	H2O: 100.00 mg/mL (355.75 mM) (< 1 mg/ml refers to the product slightly soluble or insoluble)
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.5575 mL	17.7873 mL	35.5745 mL
5 mM	0.7115 mL	3.5575 mL	7.1149 mL
10 mM	0.3557 mL	1.7787 mL	3.5575 mL
50 mM	0.0711 mL	0.3557 mL	0.7115 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

Peng J, et al. Kinetics of heterogeneous ammonia sulfite oxidation in wet desulfurization with cobalt sulfate catalyst. *Reaction Kinetics, Mechanisms and Catalysis*, 2024, 137(6): 3191-3203.

Szarmány E, et al. Effects of cobalt sulfate on prenatal development of mice, rats, and rabbits, and on early postnatal development of rats. *J Toxicol Environ Health A*. 2001 Mar 9;62(5):367-86.

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Tel:781-999-4286 E_mail:info@targetmol.com Address:34 Washington Street,Wellesley Hills,MA 02481