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ProductInformation

Zinc chloride

Product Number **Z 4875**
Store at Room Temperature

Product Description

Molecular Formula: $ZnCl_2$
Molecular Weight: 136.3
CAS Number: 7646-85-7
Melting Point: approximately 290 °C[1]

Zinc chloride is a widely used reagent in various industrial processes. These include textile finishing, the etching of metals, the manufacture of parchment paper, and the preparation of galvanizing, soldering, and tinning fluxes.[1] Zinc chloride is also used in organic chemical synthesis, such as in the formation of amines from azides.[2]

Zinc chloride is used in biochemistry and molecular biology research as a source of zinc ion. A study has been published on the zinc mediated inhibition of cAMP production in N18TG2 neuroblastoma cells.[3] The use of zinc chloride in crystal studies of cytochrome c oxidase and of cytochrome c oxidoreductase has been described.[4,5] Zinc chloride has been utilized to investigate the relationship of glutathione and glutathione synthesis rates to cellular toxicity.[6]

Precautions and Disclaimer

For Laboratory Use Only. Not for drug, household or other uses.

Preparation Instructions

This product is soluble in 0.029 M HCl (97 mg/ml), yielding a clear to slightly hazy, colorless solution. It is also soluble in alcohol, glycerol, and acetone.[1]

References

1. The Merck Index, 12th ed, Entry# 10261.
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3. Klein, C., et al., Zinc inhibition of cAMP signaling. J. Biol. Chem., **277(14)**, 11859-11865 (2002).
4. Zamudio, I., et al., Preliminary studies on the crystallization of beef heart cytochrome c oxidase by vapor diffusion. Biochem. Biophys. Res Commun., **169(3)**, 1105-1110 (1990).
5. Berry, E. A., et al., Crystallographic location of two Zn^{2+}-binding sites in the avian cytochrome bc(1) complex. Biochim. Biophys. Acta., **1459(2-3)**, 440-448 (2000).
6. Wilhelm, B., et al., Effects of zinc chloride on glutathione and glutathione synthesis rates in various lung cell lines. Arch. Toxicol., **75(7)**, 388-394 (2001).

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