



Product Information

Nickel(II) chloride hexahydrate

Product Number **N 5756**
Store at Room Temperature

Product Description

Molecular Formula: $\text{NiCl}_2 \cdot 6\text{H}_2\text{O}$

Molecular Weight: 237.7

CAS Number: 7791-20-0

Synonym: nickel dichloride hexahydrate¹

Nickel chloride is utilized in large scale applications such as electroplating and nickel-plating, and as an NH_3 absorbant in gas masks.¹ In chemistry, NiCl_2 is used to prepare nickel coordination compounds.^{2,3} In biology, NiCl_2 is a source of nickel ion for cell culture and toxicological studies, such as in the blockage of ion channel activity.^{4,5,6,7} NiCl_2 has also been utilized in environmental studies.⁸

The use of nickel chloride to study the role of nickel in the acetyl-CoA decarbonylase/synthase multienzyme complex from *Methanosarcina thermophila*, as expressed in anaerobically grown *E. coli*, has been described.⁹

Precautions and Disclaimer

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

Preparation Instructions

This product is soluble in water (100 mg/ml), with heat as needed, yielding a clear to very slightly hazy, green solution.

Storage/Stability

It is advised to keep containers of this product tightly closed.¹

References

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3. Eckert, N. A., et al., Nickel complexes of a bulky beta-diketiminato ligand. *Inorg. Chem.*, **42(5)**, 1720-1725 (2003).
4. Seoane, A. I., and Dulout, F. N., Genotoxic ability of cadmium, chromium and nickel salts studied by kinetochore staining in the cytokinesis-blocked micronucleus assay. *Mutat. Res.*, **490(2)**, 99-106 (2001).
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8. Hery, M., et al., Adaptation to nickel spiking of bacterial communities in neocaledonian soils. *Environ. Microbiol.*, **5(1)**, 3-12 (2003).
9. Gencic, S., and Grahame, D. A., Nickel in subunit β of the acetyl-CoA decarbonylase/synthase multienzyme complex in methanogens. Catalytic properties and evidence for a binuclear Ni-Ni site. *J. Biol. Chem.*, **278(8)**, 6101-6110 (2003).

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