Manganese(II) chloride tetrahydrate

Product Information

Product Number  M3634
Store at Room Temperature

Product Description
Molecular Formula:  MnCl₂ • 4H₂O
Molecular Weight:  197.9
CAS Number:  13446-34-9
Synonyms:  manganous chloride tetrahydrate, manganese dichloride tetrahydrate

Manganese chloride occurs in nature as the mineral scacchite.  It is used in industrial applications such as dyeing and disinfecting, the purification of natural gas, and as a drying agent for linseed oil.¹

In biochemistry, manganese is a cofactor in restriction enzymes such as BamH I and EcoRV.²,³ MnCl₂ is used as a source of manganese ion in biological research, such as in studies of manganese uptake in rat liver and of inhibition of Mycoplasma strain growth. The alteration in gene expression of glutamate/aspartate transporter, taurine transporter, and metallothionein I in astrocytes that have been exposed to MnCl₂ has been studied.⁴

Manganese chloride has been substituted for magnesium chloride to investigate alterations in activity of the Herpes simplex virus type 1 DNA polymerase.⁷ MnCl₂ has been shown to inhibit choline transport at the blood brain barrier in rats.⁹

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

Preparation Instructions
This product is soluble in water (130 mg/ml), yielding a clear, pink solution. It is also soluble in alcohol.¹

References
1. The Merck Index, 12th ed., Entry# 5768.

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