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Product Information

Osmium tetroxide

Product Number **O5500**
Store at Room Temperature

Product Description

Molecular Formula: OsO₄
Molecular Weight: 254.2
CAS Number: 20816-12-0
Synonyms: osmic acid, osmium-(VIII)-oxide

Osmium tetroxide is a reagent that is used in synthetic organic chemistry and as a fixing and staining agent in cell and tissue studies. OsO₄ is an oxidizing agent that is particularly used to convert olefins to glycols. Because of its toxicity, OsO₄ is commonly utilized in catalytic quantities in conjunction with other oxidizing agents to recycle the osmium back to its tetroxide form.^{1,2,3,4,5,6}

Several protocols have been published on the use of OsO₄ in staining biological specimens such as neurons, fibroblasts, and cultured mammalian cells.^{7,8,9} OsO₄ reacts with lipids and proteins and provides electron density to tissue for analysis by such techniques as transmission electron microscopy. Other procedures have utilized OsO₄ for analysis of viruses and bacteria.^{10,11,12}

Precautions and Disclaimer

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

Preparation Instructions

This product has been reported to be soluble in water (72 mg/ml) and chloroform (3.75 g/ml).¹

References

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