



Product Information

Sodium cacodylate trihydrate

Sigma Ultra

Product Number **C 4945**

Store at Room Temperature

Product Description

Molecular Formula: $C_2H_6AsO_2Na \cdot 3H_2O$

Molecular Weight: 214.0

CAS Number: 124-65-2

pK_a : 6.27 (H_2 , 25 °C)

Synonyms: [(dimethylarsino)oxy]sodium As-oxide, sodium dimethylarsonate¹

Trace elemental analyses have been performed on the SigmaUltra sodium cacodylate. The Certificate of Analysis provides lot-specific results. SigmaUltra sodium cacodylate is for applications which require tight control of elemental content.

Sodium cacodylate is an organic arsenic compound that is metabolized to produce inorganic, trivalent arsenic *in vivo*. Sodium cacodylate has been used as a source of arsenic in toxicological research.² It is used as a buffer with an effective pH buffering range of 5.1 - 7.4. In microscopy studies, the buffering capacity of cacodylate prevents excess acidity that may result from tissue fixation.^{3,4}

Because of its structural similarity to phosphate, sodium cacodylate is widely used in protein crystallization as a precipitant.^{5,6,7} It has also been utilized to investigate DNA condensation by polyamines, DNA melting, DNA triplex formation, and ribozyme folding.^{8,9,10,11} Sodium cacodylate has been used to study the unfolding and anion binding of the protein subunit of *Bacillus subtilis* RNase P.¹²

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), yielding a clear, colorless solution. The solubility in water has also been reported at 2 g/ml, and in ethanol at 400 mg/ml. Aqueous solutions of sodium cacodylate have a pH of 8 - 9.¹

References

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