

Product Information

Sodium cacodylate trihydrate, Sigma Ultra

Catalog Number **C4945**
Store at Room Temperature

CAS RN: 6131-99-3
124-65-2 (anhydrous)

Synonyms: [(Dimethylarsino)oxy]sodium As-oxide trihydrate; sodium dimethylarsonate trihydrate

Molecular Formula: $C_2H_6AsNaO_2 \cdot 3H_2O$
Molecular Weight: 214.03

Aqueous solutions of sodium cacodylate have a pH of 8-9.¹

Product Description

Trace elemental analyses are performed on Sodium cacodylate trihydrate, SigmaUltra and the Certificates of Analysis provide lot-specific results. This product is intended 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

This product is for R&D use only, not for drug, household, or other uses. Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices.

Preparation Instructions

This product is soluble in water (100 mg/ml), yielding a clear, colorless solution.

References

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10. Protozanova, E., and Macgregor, R. B., Jr., Kinetic footprinting of DNA triplex formation. *Anal. Biochem.*, **243(1)**, 92-99 (1996).

11. Silverman, S. K., et al., Multiple folding pathways for the P4-P6 RNA domain. *Biochemistry*, **39(40)**, 12465-12475 (2000).

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