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Product Information

Sodium cacodylate trihydrate

Catalog Number **C0250**

Store at Room Temperature

CAS RN 6131-99-3

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

Product Description

Molecular Formula: $C_2H_6AsO_2Na \cdot 3H_2O$

Molecular Weight: 214.0

pK_A: 6.27 (H₂, 25 °C)

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.¹ 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.^{2,3}

Because of its structural similarity to phosphate, sodium cacodylate is widely used in protein crystallization as a precipitant.⁴⁻⁶ It has also been utilized to investigate DNA condensation by polyamines, DNA melting, DNA triplex formation, and ribozyme folding.⁷⁻¹⁰ Sodium cacodylate has been used to study the unfolding and anion binding of the protein subunit of *Bacillus subtilis* RNase P.¹¹

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. 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 8–9.¹²

References

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GCY,RXR,MAM 11/06-1

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