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ProductInformation

Sodium dodecyl sulfate

Product Number **L 3771**
Storage Temperature RT

Product Description
Molecular Formula: $C_{12}H_{25}NaO_4S$
Molecular Weight: 288.4
CAS Number: 151-21-3
Melting Point: 204-207 °C

The Electrophoresis grade SDS is tested for suitability as a reagent in electrophoresis. This SDS does not contain any contaminating ions that might impair proper electrophoretic mobility of test samples.

SDS is an anionic detergent and wetting agent that is effective in both acid and alkaline solutions.[1] SDS has a wide variety of applications, but is most often used as a protein and lipid solubilization reagent. As a general rule for the solubilization of proteins, SDS should be used at its critical micelle concentration.[2] SDS is also a powerful protein denaturant. The effects of SDS on protein conformation has been published.[3,4] Comparisons between SDS and other detergents for solubilization of lipids, proteins, and its effect on enzymes activity has been published.[2,5]

To remove SDS from protein samples, it is recommended to use Product No. I 6878, Dowex® Ion Retardation Resin. This resin contains paired anion and cation exchange sites. Methods for SDS removal by ion exchange chromatography have been published.[6] Methylene blue can be used to determine the amount of SDS remaining following removal of SDS by ion exchange chromatography.[7]

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

Preparation Instructions
This product can be dissolved in water (200 mg/ml), yielding a clear, colorless solution.

Storage/Stability
SDS undergoes hydrolysis at elevated temperatures especially in acidic medium. Prolonged heating at 40 °C or greater causes decomposition of alkyl sulfates into fatty alcohols and sodium sulfate.[8]

References
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3. Protein Structure: A Practical Approach, 2nd ed., Creighton, T. E., ed., IRL Press at Oxford University Press (New York, NY: 1997), pp. 1-19.
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5. Weber, K., and Kuter, D. J., Reversible Denaturation of Enzymes by Sodium Dodecyl Sulfate. J. Biol. Chem., **246(14)**, 4504-4509 (1971).
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7. Hayashi, K., A Rapid Determination of Sodium Dodecyl Sulfate with Methylene Blue. Anal. Biochem., **67(2)**, 503-506 (1975).
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