Sodium dodecyl sulfate

Product Number L 4390
Store at Room Temperature

Product Description
Molecular Formula: C_{12}H_{25}NaO_{4}S
Molecular Weight: 288.4
CAS Number: 151-21-3
Melting Point: 204-207 °C

The Molecular Biology grade SDS is certified DNase and RNase free, so it is recommended for any molecular biology applications.

SDS is an anionic detergent and wetting agent that is effective in both acid and alkaline solutions. 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. SDS is also a powerful protein denaturant. The effects of SDS on protein conformation has been published. Comparisons between SDS and other detergents for solubilization of lipids, proteins, and its effect on enzymes activity has been published.

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. Methylene blue can be used to determine the amount of SDS remaining following removal of SDS by ion exchange chromatography.

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.

References

Dowex is a registered trademark of the Dow Chemical Co.

Sigma brand products are sold through Sigma-Aldrich, Inc. Sigma-Aldrich, Inc. warrants that its products conform to the information contained in this and other Sigma-Aldrich publications. Purchaser must determine the suitability of the product(s) for their particular use. Additional terms and conditions may apply. Please see reverse side of the invoice or packing slip.