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ProductInformation

Sodium octyl sulfate

Product Number **O 4003**
Store at Room Temperature

Product Description

Molecular Formula: $C_8H_{17}NaO_4S$
Molecular Weight: 232.3
CAS Number: 142-31-4
Synonym: Octyl sulfate sodium salt, octyl sodium sulfate, sodium capryl sulfate, SOS

Sodium octyl sulfate is an anionic detergent and ion-pairing reagent that is used in HPLC.[1] The anionic sulfonate counterion permits the separation and resolution of positively charged analytes.[2] Several HPLC methods that use sodium octyl sulfate have been published for the analysis of materials such as peptides from protein digests and michellamine B.[3,4]

Sodium octyl sulfate and other detergents have been shown to dissociate DNA intercalators from DNA.[5] An electrokinetic chromatography study of octanol/water partition coefficients using vesicles that contain sodium octyl sulfate has been published.[6] Membrane model systems that include sodium octyl sulfate as a component have been used to investigate the structural properties of bacteriophage M13 as the phage is disrupted.[7]

Precautions and Disclaimer

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

Preparation Instructions

This product is soluble in water (20 mg/ml), yielding a clear, colorless to very faint yellow solution.

References

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3. Kalghatgi, K., and Horvath, C., Rapid peptide mapping by high-performance liquid chromatography. J. Chromatogr., **443**, 343-354 (1988).
4. Supko, J. G., and Malspeis, L., Determination of michellamine B in biological fluids by high-performance liquid chromatography with fluorescence detection. Anal. Biochem., **216(1)**, 52-60 (1994).
5. Westerlund, F., et al., Micelle-sequestered dissociation of cationic DNA-intercalated drugs: unexpected surfactant-induced rate enhancement. J. Am. Chem. Soc., **125(13)**, 3773-3779 (2003).
6. Klotz, W. L., et al., Rapid estimation of octanol-water partition coefficients using synthesized vesicles in electrokinetic chromatography. J. Chromatogr. A, **962(1-2)**, 207-219 (2002).
7. Stopar, D., et al., Structural characterization of bacteriophage M13 solubilization by amphiphiles. Biochim. Biophys. Acta, **1594(1)**, 54-63 (2002).

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