

Product Information

Sodium 1-decanesulfonate

Product Number **D 3412**

Store at Room Temperature

Replacement for Product Code **22,157-0**

Product Description

Molecular Formula: $C_{10}H_{21}O_3SNa$

Molecular Weight: 244.3

CAS Number: 13419-61-9

Synonym: 1-decanesulfonic acid sodium salt

Sodium decanesulfonate is used as an ion pairing reagent for HPLC and as an anionic surfactant.¹ The anionic sulfonate counterion permits the separation and resolution of positively charged analytes.² The critical micelle concentration (CMC) of sodium 1-decanesulfonate has been investigated by capillary electrophoresis.³

Sodium 1-decanesulfonate is utilized in the analysis of organic small molecule compounds by HPLC and by ion-pair liquid chromatography.^{4,5,6,7} A study of the interactions between hydroxymethylcellulose and various ionic surfactants, including sodium 1-decanesulfonate, has been reported.⁸

Precautions and Disclaimer

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

Preparation Instructions

This product is soluble in water (50 mg/ml), with heat as needed, yielding a clear, colorless solution.

References

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3. Nakamura, H., et al., Determination of Critical Micelle Concentration of Anionic Surfactants by Capillary Electrophoresis Using 2-Naphthalenemethanol as a Marker for Micelle Formation. *Anal. Sci.*, **14**, 379-382 (1998).
4. Ogata, M., and Taguchi, T., Simultaneous determination of urinary creatinine and metabolites of toluene, xylene, styrene, ethylbenzene and phenol by automated high performance liquid chromatography. *Int. Arch. Occup. Environ. Health*, **61(1-2)**, 131-140 (1988).
5. Takeba, K., et al., Simultaneous determination of β -lactam antibiotics in milk by ion-pair liquid chromatography. *J. Chromatogr. A*, **812(1-2)**, 205-211 (1998).
6. Moats, W. A., Determination of tetracycline antibiotics in beef and pork tissues using ion-paired liquid chromatography. *J. Agric. Food Chem.*, **48(6)**, 2244-2248 (2000).
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8. Avranas, A., and Iliou, P., Interaction between hydroxypropylmethylcellulose and the anionic surfactants hexane-, octane-, and decanesulfonic acid sodium salts, as studied by dynamic surface tension measurements. *J. Colloid Interface Sci.*, **258(1)**, 102-109 (2003).

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