

Product Information

Sodium Oleate

Product Number **O 7501**

Storage Temperature $-20\text{ }^{\circ}\text{C}$

Product Description

Molecular Formula: $\text{C}_{18}\text{H}_{33}\text{O}_2\text{Na}$

Molecular Weight: 3.4.4

CAS Number: 143-19-1

Synonyms: oleic acid sodium salt, *cis*-9-octadecenoic acid sodium salt, sodium 9-octadecenoate

Sodium oleate is the sodium salt of oleic acid, a monounsaturated fatty acid. This anionic surfactant and emulsifier is a component of commercial soaps. An investigation of the effects of pH and temperature on the equilibrium and dynamic surface tension of aqueous sodium oleate solutions has been published. The complex of sodium oleate with oleic acid has been studied by X-ray diffraction, FT-IR photo acoustic spectroscopy, FT-Raman spectroscopy, and differential scanning calorimetry.

The influence of sodium oleate and other emulsifiers has been studied in the crystallization temperature and polymorphism of tripalmitin nanoparticles in colloidal dispersions.³ the stability of the enzyme prolidase has been investigated in poly(lactide-co-glycolide) micro particulate formulations that include sodium oleate as an emulsifier.

Sodium oleate has been utilized in a study of long-chain fatty acid transport into phosphatidylcholine vesicles.⁵ the use of sodium oleate in the formation of apolipoprotein-specific high-density lipoprotein particles from lipid-free apolipoproteins A-I and A-II has been described.

Precautions and Disclaimer

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

Preparation Instructions

This product is soluble in methanol (50 mg/ml), with heat as needed, yielding a clear, colorless solution. It is also soluble in water (approximately 100 mg/ml).⁷

References

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2. Tandon, P., et al., X-ray diffraction and spectroscopic studies of oleic acid-sodium oleate. *Chem. Phys. Lipids*, **109(1)**, 37-45 (2001).
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4. Perugini, P., et al., Evaluation of enzyme stability during preparation of polylactide-co-glycolide microspheres. *J. Microencapsul.*, **19(5)**, 591-602 (2002).
5. Thomas, R. M., et al., Kinetics and mechanism of long-chain fatty acid transport into phosphatidylcholine vesicles from various donor systems. *Biochemistry*, **41(5)**, 1591-1601 (2002).
6. Clay, M.A., et al., Formulation of apolipoprotein-specific high-density lipoprotein particles from lipid-free apolipoproteins A-I and A-II. *Biochem. J.*, **337(Pt 3)**, 445-451 (1999).
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GCY/RXR 8/03

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