

PRODUCT INFORMATION



Dihexadecyl Phosphate

Item No. 25727

CAS Registry No.: 2197-63-9
Formal Name: 1-hexadecanol, 1,1'-(hydrogen phosphate)
Synonyms: Dicetyl Phosphate, NSC 12429
MF: C₃₂H₆₇O₄P
FW: 546.8
Purity: ≥90%
Supplied as: A crystalline solid
Storage: -20°C
Stability: ≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

Dihexadecyl phosphate is supplied as a crystalline solid. A stock solution may be made by dissolving the dihexadecyl phosphate in the solvent of choice, which should be purged with an inert gas. Dihexadecyl phosphate is slightly soluble in chloroform.

Description

Dihexadecyl phosphate is a negatively-charged synthetic phospholipid that has been used to impart a negative charge to neutral liposomes.¹ It has also been used in the generation of micelles, liposomes, and other types of artificial membranes, including niosomes for drug delivery.^{2,3} Formulations containing dihexadecyl phosphate have been used as emulsifying agents in cosmetics.

References

1. Mortara, R.A., Quina, F.H., and Chaimovich, H. Formation of closed vesicles from a simple phosphate diester. Preparation and some properties of vesicles of dihexadecyl phosphate. *Biochem. Biophys. Res. Commun.* **81(4)**, 1080-1086 (1978).
2. Paradies, H.H. Bilayer structure of dihexadecyl phosphate. *Biochem. Biophys. Res. Commun.* **101(4)**, 1096-1101 (1981).
3. Abdelbary, A.A. and AbouGhaly, M.H.H. Design and optimization of topical methotrexate loaded niosomes for enhanced management of psoriasis: Application of Box-Behnken design, *in-vitro* evaluation and *in-vivo* skin deposition study. *Int. J. Pharm.* **485(1-2)**, 235-243 (2015).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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