



DALIAN HANDOM CHEMICALS CO.,LTD.

Add.: RM702, Unit 1, Building 21, Liuhe Road, Ganjingzi Dist, Dalian, Liaoning, China
E-mail: info@handom-chem.com Web.: www.handom-chem.com

Certificate of Analysis

Product Name: 1,2-dioleoyl-sn-glycero-3-phosphoethanolamine

CAS No.: 4004-05-1

Molecular Formula: C₄₁H₇₈NO₈P

Batch No.: HDC20230406

Manufacturing Date: Apr 6th, 2023

Abbreviation: DOPE

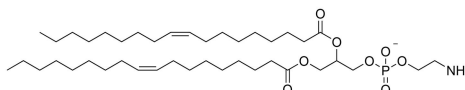
EINECS No.: 200-663-8

Molecular Weight: 744.05

Batch Quantity: 20.85g

Retest Date: Apr 5th, 2025

Chemical Structural Formula:



Recommended Storage Conditions:

Kept at -20±5°C under an inert atmosphere.

For reducing the absorption of the moisture, it should be slowly warmed to ambient temperature before opened.

Test Items		Specifications	Test Results	Test Methods
Appearance		White wax solid	Conforms	Visual
Identity	IR	Meets the requirements	Conforms	IR
	¹ H-NMR	Meets the requirements	Conforms	¹ H-NMR
Molecular Weight		Meets the requirements	743.75 Da	ESI-MS
Assay		90.0% ~ 110.0%	94.8%	HPLC
Purity		Not less than 90.0%	95.3%	HPLC
Impurities	Lyso-PE	Not more than 1.00%	<0.20%	HPLC
	DOPE-Ac	Not more than 1.00%	0.57%	HPLC
	OSPE	Not more than 1.00%	<0.20%	HPLC
	DOPE(β)	Not more than 3.00%	0.91%	HPLC
Residual Solvents	Dichloromethane	Not more than 600 ppm	Not detected	GC
	n-Hexane	Not more than 290 ppm	Not detected	GC
	Ethyl acetate	Not more than 5000 ppm	Not detected	GC
	Tetrahydrofuran	Not more than 720 ppm	Not detected	GC
	Methanol	Not more than 3000 ppm	Not detected	GC
Moisture		Not more than 2.0%	0.04%	KF



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Elemental Impurities		Not more than 20 ppm	<20 ppm	ICP-MS
Bacteriological Data	TAMC/g	Not more than 100 CFU/g	<10 CFU/g	ChP<1105>
	TYMC/g	Not more than 10 CFU/g	<10 CFU/g	ChP<1105>
Endotoxin		Not more than 0.1 EU/mg	<0.1 EU/mg	ChP<1143>
Conclusion	The testing results of this batch of product are complied with the Enterprise Standard.			

***Warnings:** HANDOM CHEM declares that its products comply with the information contained in this and other HANDOM's publications. Purchasers must determine the suitability of the products for their specific uses. The values indicated in the "Certificate of Analysis" are the results determined at the time of analysis.