

Certificate of Analysis

ALC-0315

6-((2-hexyldecanoyl)oxy)-N-(6-((2-hexyldecanoyl)oxy)hexyl)-N-(4-hydroxybutyl)hexan-1-aminium

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 $\begin{array}{ll} \mbox{Molecular Weight} & 767.30 \\ \mbox{Chemical Formula} & C_{48} H_{96} NO_5 \end{array}$

Physical State Oil Storage -20°C

Expiration Date One year from date of receipt

M Lot Number 7049OPA013

Avanti Lot Number 8909000-500MG-A-013

ANALYSIS	SPECIFICATION	RESULTS
Physical Examination	Neat Oil: Colorless to pale yellow oil with no foreign matter	Pass
TLC (90:10:0.5 Chloroform: Methanol: Ammonium Hydroxide)	>99% Purity Ninhydrin: negative lodine: one major spot Phosphorus: negative Charring: negative to faint positive Water dip: one major spot	All Pass
Proton NMR	NMR spectrum consistent with structure	Consistent with structure
Impurities by UHPLC-CAD	NLT 95% ALC-0315 NMT 5% sum of all impurities	95% ALC-0315 5% sum of all impurities
Mass Spectroscopy	[M+H] ⁺ = 767.3 ± 1 amu	[M+H] ⁺ = 766.8 amu

Approved By:

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