

Certificate of Analysis

18:1 TAP (DOTAP)

1,2-dioleoyl-3-trimethylammonium-propane (chloride salt)

890890P-200mg Page 1 of 1

Molecular Weight698.542Chemical FormulaC42H80NO4CIPhysical StatePowderStorage-20°C

Expiration Date One year from date of receipt

M Lot Number 6361PNM179

Avanti Lot Number 890890P-200MG-M-179

| ANALYSIS | SPECIFICATION | RESULTS |
|----------------------|--------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------|
| Physical Examination | Powder : White solid which contains no foreign matter | Pass |
| TLC | >99% Purity Ninhydrin: negative Iodine: one major spot Phosphorus: negative Charring: positive Water dip: one major spot | All Pass |
| FAME (GC/FID) | NLT 99% 18:1 (AUC) | 100% (AUC) |
| HPLC-ELSD | NLT 99% Purity NMT 1% Impurities Retention Time Matches Standard | 100% Purity None Detected Matches Standard |
| Proton NMR | NMR spectrum consistent with reference structure | Consistent with structure |
| Mass Spectroscopy | $[M-Cl]^{-} = 663.112 \pm 1 \text{ amu}$ | [M-CI] ⁻ = 662.8 amu |

Melissa Bolin

Approved By: