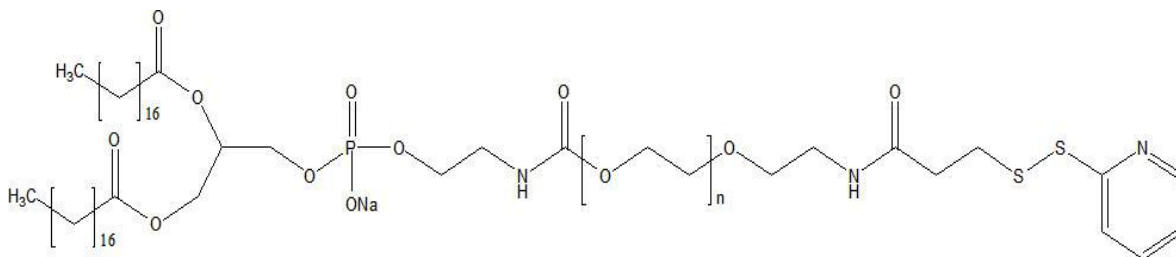


Certificate of Analysis

General properties:

Product Name: DSPE-PEG-OPSS
 Molecular Weight: PEG MW:750, 1000, 2000, 3400, 5000 Dalton
 Catalog Number: R-0051
 Lot Number: RA271326

Product Structure:



Product Specifications:

| Items | Specification | Results |
|-----------------------------|--------------------------------|--------------------------------|
| Appearance | White powder or viscous liquid | White powder or viscous liquid |
| ¹ H NMR | Identical to the structure | Identical to the structure |
| Substitution of DSPE by NMR | >90% | >90% |
| Substitution of OPSS by NMR | >90% | >90% |

Date of Analysis: 2017.09.13

Recommended Retest date: 2018.09.12

Recommended Storage: -20°C in the dark

Stability: 1 year

This product is for research use only, Not for human or animal use