

# PRODUCT INFORMATION



## DSPE-PEG(2000) Maleimide (ammonium salt)

Item No. 34272

CAS Registry No.: 474922-22-0

Formal Name:  $\alpha$ -[(9R)-6-hydroxy-6-oxido-1,12-dioxo-9-[(1-oxooctadecyl)oxy]-5,7,11-trioxa-2-aza-6-phosphanonacos-1-yl]- $\omega$ -[2-[[3-(2,5-dihydro-2,5-dioxo-1H-pyrrol-1-yl)-1-oxopropyl]amino]ethoxy]-poly(oxy-1,2-ethanediyl), monoammonium salt

Synonyms: 1,2-Distearoyl-*sn*-glycero-3-PE-N-[maleimide(polyethylene glycol)-2000], 1,2-Distearoyl-*sn*-glycero-3-phosphatidylethanolamine-N-[maleimide(polyethylene glycol)-2000], 1,2-Distearoyl-*sn*-glycero-3-phosphoethanolamine-N-[maleimide(polyethylene glycol)-2000], 1,2-DSPE-PEG(2000) Mal, DSPE-PEG-Mal

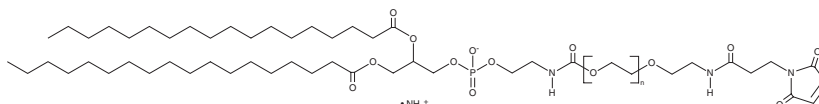
MF:  $(C_{2}H_{4}O)_n C_{51}H_{91}N_3O_{13}P \cdot NH_4$

Purity:  $\geq 90\%$

Supplied as: A solid

Storage:  $-20^{\circ}C$

Stability:  $\geq 4$  years



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

### Laboratory Procedures

DSPE-PEG(2000) maleimide (ammonium salt) is supplied as a solid. A stock solution may be made by dissolving the DSPE-PEG(2000) maleimide (ammonium salt) in the solvent of choice, which should be purged with an inert gas. DSPE-PEG(2000) maleimide (ammonium salt) is soluble in the organic solvent dimethyl formamide (DMF) at a concentration of approximately 10 mg/ml.

DSPE-PEG(2000) maleimide (ammonium salt) is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, DSPE-PEG(2000) maleimide (ammonium salt) should first be dissolved in DMF and then diluted with the aqueous buffer of choice. DSPE-PEG(2000) maleimide (ammonium salt) has a solubility of approximately 0.25 mg/ml in a 1:3 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

### Description

DSPE-PEG(2000) maleimide is a PEGylated derivative of 1,2-distearoyl-*sn*-glycero-PE (DSPE; Item No. 15095). It has been used in the synthesis of immunoliposomes for the delivery of siRNA and anticancer agents.<sup>1-3</sup>

### References

1. Gao, J., Liu, W., Xia, Y., et al. *Biomaterials* **32**(13), 3459-3470 (2011).
2. van der Meel, R., Oliveira, S., Altintas, I., et al. *J. Control. Release* **159**(2), 281-289 (2012).
3. Zhang, Y., Tian, Z., Zhao, X., et al. *Colloid. Surface. A* **571**, 72-79 (2019).

#### 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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