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#### **TECHNICAL DATA SHEET**

# DMPE PEG Maleimide, MW 1000, 2000, 3400, 5000, 10k, 20k

Catalog Numbers: PG2-DMML-1k, 2k, 3k, 5k, 10k, 20k.

Synonym: Maleimide PEG DMPE

## **Description:**

DMPE PEG Maleimide is one of Nanocs' reactive phospholipid PEG derivatives that can react with sulfhydryl groups. DMPE (1,2-dimyristoyl-sn-glycero-3-phosphoethanolamine) is a 14 carbon phospholipid that is highly hydrophobic. PEG backbone, on the other hand, offers good hydrophilicity and water solubility. Maleimide functionalized DMPE PEG has excellent reactivity towards sulfhydryl/thiol groups. Reaction between Maleimide and thiol group allows conjugation of DMPE PEG to various thiol bearing substrates quickly and efficiently. This reaction proceeds easily at neutral pH. Maleimide PEG DMPE is one of most commonly used reactive phospholipids to conjugate antibodies, peptides or other ligands to the surface of liposome and other lipid PEG nanoparticles. Pegylated phospholipids show significantly longer blood circulation time and higher stability. Nanocs has developed a comprehensive collection of reactive phospholipid PEG products that have high purity, various molecular weights and excellent chemical reactivity. These lipid PEG conjugates demonstrate excellent amphilphilic properties and offer superior advantages for small and large molecule drug labeling, formulation and delivery.

## **Product Structure:**

$$C_{13}H_{27}-C-O-C-C_{13}H_{27} \\ O \\ O \\ O-P-O-NH \\$$

### **Product Specifications:**

Composition: DMPE PEG Maleimide.

Appearance: White to off-white solid.

Solubility: >10 mg/mL in hot water, chloroform.

Reactive group: Maleimide.

Reactive to: Sulfhydryl/thiol.

### Handling and Use:

**DMPE PEG Maleimide** should always be kept in low temperature in dry condition. Prepare fresh solution right before use. Avoid frequent thaw and freezing. For more information about using this product, visit **www.nanocs.net**.

#### **Storage Conditions:**

Maleimide PEG DMPE should be stored at -20 °C. Desiccate. Re-test material after 6 months.

This product is for research use only and is not intended for use in humans or for diagnostic use.

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