



Laysan Bio Inc.

**MATERIAL SAFETY DATA SHEET**

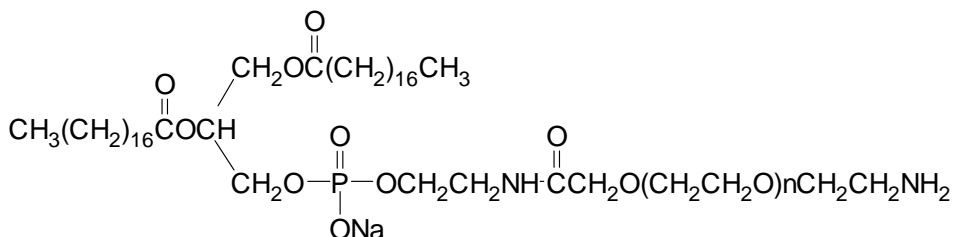
Effective Date: April 2, 2013

**Material Name: 1, 2-Distearoyl-*sn*-Glycero-3-Phosphoethanolamine-N -Poly (Ethylene Glycol)-Amine, Average MW 3400**

**Catalog Number: DSPE-PEG-NH2-3400**

**1. IDENTIFICATION**

**Structure:**



DSPE-PEG-NH2

**2. PHYSICAL DATA**

Boiling Point, 760 mm Hg:	Decomposes >200 °C
Specific Gravity (H <sub>2</sub> O = 1):	1.08 AT 68 °F/20 °C
Melting Point:	55-60 °C
Vapor Pressure:	N/A
Vapor Density (AIR = 1):	N/A
Evaporation Rate (Butyl acetate = 1):	N/A
Appearance and Odor:	White/ off-white powder, mild odor

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### 3. FIRE AND EXPLOSION HAZARD DATA

Flash Point (test method) : >350 °F Pensky-Martens Closed cup ASTM D 93  
Flammable limits in Air: Lower: Not determined  
Upper: Not determined  
Extinguishing Media: Carbon dioxide or dry chemical extinguisher  
Hazardous Combustion or Decomposition Products: Carbon monoxide, carbon dioxide

### 4. HEALTH HAZARD DATA

#### Exposure Limits:

In compliance with OSHA, a PEL of 5 mg/m<sup>3</sup> for respirable dust and 15 mg/m<sup>3</sup> for total dust has been established. A TLV limit of 10 mg/m<sup>3</sup> for nuisance particulates has been established by ACGIH.

#### Effect of Single Overexposure:

There is no information available for the effects of single or repeated overexposure in the form of swallowing, skin absorption, skin contact, or eye contact. Short term harmful health effects are not expected from vapor inhalation at ambient temperatures.

#### Emergency and First Aid Procedures:

In case of physical contact, wash or flush point of contact immediately with copious amounts of water.  
If inhaled, move to a fresh air environment. If breathing is difficult, provide oxygen, and if breathing has ceased, perform artificial respiration.  
If swallowed, drink copious amounts of water.

### 5. SPILL OR LEAK PROCEDURES

Collect all escaped material for proper disposal. If solid, dissolve in water and adjust pH to 7. Discard in aqueous waste. If liquid, dispose of by following procedures for the specific fluid in which collected.

### 6. HANDLING

Wear appropriate safety apparel when handling all materials. Avoid contact with eyes, skin and clothing. Do not directly breathe in vapors. Ensure access to a safety shower and eye bath. Wash thoroughly after handling.

**NON-HAZARDOUS RESEARCH MATERIAL; SAFE FOR AIR TRANSPORT**

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