



*Laysan Bio Inc.*

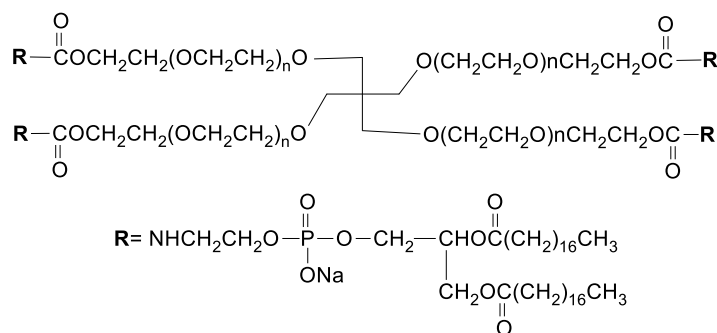
## MATERIAL SAFETY DATA SHEET

**Chemical Name: 4-Arm-Poly (Ethylene Glycol)- 1,2-Distearoyl-*sn*-Glycero-3-Phosphoethanolamine-N, Average MW 10,000 or 20,000**

**Item Number: 4Arm-PEG-DSPE-10K or 20K**

### 1. IDENTIFICATION

Structure:



#### 4 Arm-PEG-DSPE

### 2. PHYSICAL DATA

|                             |                                                   |
|-----------------------------|---------------------------------------------------|
| Boiling Point, 760 mm Hg:   | Decomposes >200 °C                                |
| Specific Gravity (H2O = 1): | 1.08 AT 68 °F/20 °C                               |
| Melting Point:              | 55-60 °C                                          |
| Vapor Pressure:             | Very Low                                          |
| Density:                    | PEG density is approximately 1.125 g/mL.          |
| Appearance:                 | White to off-white powder which may contain lumps |

### 3. FIRE AND EXPLOSION HAZARD DATA

|                             |                                                                      |                                     |
|-----------------------------|----------------------------------------------------------------------|-------------------------------------|
| Flash Point (test method) : | >350 °F                                                              | Pensky-Martens Closed cup ASTM D 93 |
| Extinguishing Media:        | water spray, alcohol-resistant foam, dry chemical or carbon dioxide. |                                     |

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## **MATERIAL SAFETY DATA SHEET**

Hazardous Combustion or  
Decomposition Products:

Carbon monoxide, carbon dioxide

### **4. HEALTH HAZARD DATA**

NFPA RATINGS:

Health: 0 Flammability: 1 Reactivity: 0

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. State and local disposal regulations may differ from federal disposal regulations. Dispose of container and unused contents in accordance with federal, state and local requirements using a licensed waste removal company.

### **6. HANDLING**

Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166 (EU). 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.

### **7. TRANSPORT**

DOT (US)

Not dangerous goods

IMDG

Not dangerous goods

IATA

Not dangerous goods

**NON-HAZARDOUS MATERIAL; APPROVED FOR AIR TRANSPORT**

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