Heart CA
Cardiolipin (Heart, Bovine) (sodium salt)

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**Molecular Weight** 1493.895 (average based on fatty acid distribution in product)
**Physical State** Powder
**Storage** -20°C
**Expiration Date** Three months from date of receipt
**M Lot Number** 5484PJC540
**Avanti Lot Number** 840012P-25MG-C-540

### ANALYSIS

<table>
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<tr>
<th>SPECIFICATION</th>
<th>RESULTS</th>
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### Physical Examination
- **Powder**: White solid which contains no foreign matter
- **>99% Purity**
- **Ninhydrin**: negative
- **Iodine**: one major spot
- **Phosphorus**: positive
- **Charring**: positive
- **Water dip**: one major spot
- **Pass**

### TLC
- **>99% Purity**
- **Ninhydrin**: negative
- **Iodine**: one major spot
- **Phosphorus**: positive
- **Charring**: positive
- **Water dip**: one major spot
- **All Pass**

### FAME (GC/FID)
- **Consistent with historical data**
- **18:1 = ~5%**
- **18:2 = ~90%**
- **Consistent with historical data**

### UV Oxidation
- **NMT 5% total all wavelengths**
- **5% total**

### Calcium (ICP/MS)
- **NMT 500 ppm**
- **None Detected**

### Mass Spectroscopy
- **Exact Mass**: [M-2Na+H]⁻ = 1447.94 ± 1 amu; [M-2Na]²⁻ = 723.47 ± 1 amu
- **Molecular Weight**: [M-2Na+H]⁻ = 1448.92 ± 1 amu; [M-2Na]²⁻ = 723.95 ± 1 amu
- **[M-2Na+H]⁻ = 1448.7 amu**
- **[M-2Na]²⁻ = 724.0 amu**

Approved By: [Signature]