**Heart CA**  
Cardiolipin (Heart, Bovine) (sodium salt)  
840012P-100mg

| **Molecular Weight** | 1493.9 (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** | 5484PLB551  
| **Avanti Lot Number** | 840012P-100MG-B-551

## ANALYSIS

<table>
<thead>
<tr>
<th><strong>SPECIFICATION</strong></th>
<th><strong>RESULTS</strong></th>
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<tbody>
<tr>
<td><strong>Physical Examination</strong></td>
<td><strong>Powder</strong>: White solid which contains no foreign matter</td>
</tr>
</tbody>
</table>
| **TLC** | >99% Purity  
Ninhydrin: negative  
Iodine: one major spot  
Phosphorus: positive  
Charring: positive  
Water dip: one major spot | All Pass |
| **Proton NMR** | Spectrum consistent with structure | Spectrum consistent with structure |
| **FAME (GC/FID)** | Consistent with historical data  
18:1 = ~5%  
18:2 = ~90% | Consistent with historical data |
| **UV Oxidation** | NMT 5% total all wavelengths | 5.87% 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  
or Molecular Weight: [M-2Na+H]- = 1448.92 ± 1 amu;  
[M-2Na]2- = 723.95 ± 1 amu | [M-2Na]2- = 724.4 amu |

Approved By: [Signature]

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