

ALADDIN SCIENTIFIC CORPORATION

14078 Meridian Parkway, Riverside, CA. 92518

## Certificate of Analysis

Date of Testing: 2023-06-26 18:20:32  
Date of Next Testing: 2027-06-25 18:20:32  
Product Name: 4,4',4'',4'''-(Porphine-5,10,15,20-tetrayl) tetrakis(benzoic acid)  
CAS Number: 14609-54-2  
Specifications & Purity: 97%  
Lot #: F2316716  
SKU #: P115336  
Analysis: 236619

| Parameter                        | Limit Values                                   | Result   |
|----------------------------------|--|--|
| Purity(Neutralization titration) | 96.5-103.5 (%)                                 | 98.78 %  |
| Purity(HPLC)                     | 97-100 (%)                                     | 98.14300 %                                     |
| Appearance (P115336)             | Dark Blue to Purple to Black Powder to Crystal | Dark Blue to Purple to Black Powder to Crystal |
| Suitability for HPLC-analysis    | pass test                                      | pass test                                      |
| Infrared spectrum                | Conforms to Structure                          | Conforms to Structure                          |
| NMR (1H-NMR)                     | complies                                       | complies                                       |



John Su  
QA & QC Manager