

## Certificate of Analysis

Date of Testing: 2022-09-13 14:24:58

Date of Next Testing: 2025-09-12 14:24:58

Product Name: (+)-3-Bromocamphor-8-sulfonic Acid Ammonium Salt

CAS Number: 14575-84-9

Specifications & Purity: >98.0%(T)

Lot #: E2331223

SKU #: B153199

Analysis: 133966

| Parameter                                                       | Limit Values                      | Result                            |
|-----------------------------------------------------------------|-----------------------------------|-----------------------------------|
| Nitrogen by Elemental Analysis                                  | 4-4.4 (%)                         | 4.20 %                            |
| Purity(Titration by NaOH After Oxygen Combustion)               | 97.5-102.5 (%)                    | 98.03 %                           |
| Specific Rotation [α] <sub>20</sub> /D(c=4 in H <sub>2</sub> O) | 84-87 (°)                         | 85.80 °                           |
| Appearance (B153199)                                            | white to beige powder or crystals | white to beige powder or crystals |
| Proton NMR spectrum                                             | Conforms to Structure             | Conforms to Structure             |



John Su  
QA & QC Manager