

| Certificate of Analysis  |  |  |            |  |                   |                              |
|--|--|--|------------|--|-------------------|------------------------------|
| Name:  | SPA [10-(3-Sulfopyropyl)acridinium betaine]<br>N-(3-Sulfopyropyl)acridinium inner salt |  |            |  |                   |                              |
| Catalog Number:  | 9097   | Lot: 51908   |            |  |                   |                              |
| CAS Number:  | 83907-41-9   | Formula: C <sub>16</sub> H <sub>15</sub> NO <sub>3</sub> S |            |  | NO <sub>3</sub> S |                              |
| Molecular Weight:  | 301.36 (g/mol)   |  |            |  |                   |                              |
|  |  |  |            |  |                   |                              |
|  | Observed   | Standard   |            |  |                   |                              |
| HPLC Purity:   | 98% at 254 nm  | ≥ 95% at 25  |            | 54 nm                                  |                   |                              |
| Absorption (Methanol)  |  |  |            |  |                   |                              |
| Wavelength ( $\lambda_{max}$ ):                                    | 358 nm   |  | 358 ± 3 nm |  |                   |                              |
| Extinction:  | 17,300 cm <sup>-1</sup> M <sup>-1</sup>  | 16,500 ± 1,500 cm <sup>-1</sup> M <sup>-1</sup>            |            | 7,300 cm <sup>-1</sup> M <sup>-1</sup> |                   | <sup>1</sup> M <sup>-1</sup> |
| Fluorescence (Methanol)  |  |  |            |  |                   |                              |
| Emission Max:  | 490 nm   |  | 490 ± 4 nm |  |                   |                              |
| Storage:   | Refrigerate: Store at 4-8°C (Ref), Protect from moisture (D), Protect from light (L)   |  |            |  |                   |                              |
| Production Lot: 149  | 002 Release:   | 07-May-20  | 15 Exp     | oiration:                              | 07-May-2025       |                              |
| Structure:   |  | _  |            |  |                   |                              |
| CH2CH2CH2SO3   |  |  |            |  |                   |                              |
| This data reflects the accuracy of the analysis of the subject lot |  |  |            |  |                   |                              |

This data reflects the accuracy of the analysis of the subject lot For research use only. Not for human use. No animal source. This material is chemically synthesized and manufactured in the USA

| Approved by: | Dianna M Wineinger          | Date: | 07-May-2015 |
|--------------|-----------------------------|-------|-------------|
|              | Analytical Services Manager |       |             |
| Signature:   | Dianna M Wineinger          | ~     |             |