

## **Certificate of Analysis**

| Product<br>Grade<br>Code No. | n-Heptane 99%<br>HPLC<br>LC1080      | Batch No.<br>Manufacturing date<br>Best before | <ul> <li>21 05 0239</li> <li>31/05/2021</li> <li>05/2025</li> </ul> |
|------------------------------|--------------------------------------|--|---|
| Items                        | Descriptions                         | Specifications                                 | Test Results  |
| <br>1                        | Assay (by GC.)                       | 99.3% min.                                     | 99.4%   |
| 2                            | Appearance                           | Clear and colorless liquid                     | Clear and colorless liquid  |
| 3                            | Identity (IR)                        | Passes test                                    | Passes test   |
| 4                            | Color (APHA)                         | 10 max.  | < 10  |
| 5                            | Water (by Coulometry)                | 0.01% max.                                     | 0.007%  |
| 6                            | Acidity (mEq./g.)                    | 0.0002 max.                                    | < 0.0002  |
| 7                            | Alkalinity (mEq./g.)                 | 0.0002 max.                                    | < 0.0002  |
| 8                            | Residue on Evaporation               | 0.0002% max.                                   | < 0.0002%   |
| 9                            | Substances darkened by sulfuric acid | Passes test                                    | Passes test   |
| 10                           | UV Transmission Levels (%T)          |  |   |
|                              | 250 nm                               | 99% min.                                       | 99.9%   |
|                              | 240 nm                               | 98% min.                                       | 99.5%   |
|                              | 230 nm                               | 95% min.                                       | 98.1%   |
|                              | 220 nm                               | 80% min.                                       | 93.9%   |
|                              | 210 nm                               | 60% min.                                       | 81.1%   |
| 11                           | Fluorescence (as quinine)            |  |   |
|                              | at 254 nm                            | 1 ppb max.                                     | < 1 ppb   |
|                              | at 365 nm                            | 1 ppb max.                                     | < 1 ppb   |
|                              |                                      |  |   |

Product passed through 0.2 micron final filter.

This is to certify the above batch has been tested and complies with this specification.

Ladaphan

Sel

Chemist

**Technical Manager**