

Certificate of Analysis

Product Name:

Silver nanospheres – 60 nm avg. part. size, 1 mg/mL in water, PVP functionalized

Product Number: 807079
Batch Number: MKBX2879
Brand: ALDRICH
Formula Weight: 18.02 g/mol
Storage Temperature: Store at 2-8 DEGREE C
Quality Release Date: 08 JAN 2016
Date Retested: 22 MAR 2021
Recommended Retest Date: MAR 2022

| Test | Specification | Result |
|----------------------------|--|-----------------------|
| Appearance (Color) | Light Yellow to Yellow and Light Brown to Brown | Light Brown |
| Appearance (Form) | Liquid | Liquid |
| Wavelength | | 429 nm |
| Specification: Report Only | | |
| ICP Major Analysis | Confirmed | Confirmed |
| Confirms Silver Component | | |
| Diameter | | 59.3 nm |
| Specification: Report Only | | |
| Surface Area | | 9.5 m ² /g |
| (TEM) | | |
| Specification: Report Only | | |
| Concentration | | 1.09 mg/ml |
| Mass (Ag) | | |
| Specification: Report Only | | |
| Particles/ml | Confirmed | Confirmed |
| 9.5E+ 11 | | |
| Diameter | | 75.1 nm |
| Hydrodynamic | | |
| Specification: Report Only | | |
| Zeta Potential | | -35.0 mV |
| Specification: Report Only | | |
| pH | | 6.1 |
| Specification: Report Only | | |

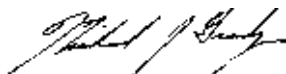
Sigma-Aldrich warrants, that at the time of the quality release or subsequent retest date this product conformed to the information contained in this publication. The current Specification sheet may be available at Sigma-Aldrich.com. For further inquiries, please contact Technical Service. Purchaser must determine the suitability of the product for its particular use. See reverse side of invoice or packing slip for additional terms and conditions of sale.



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Product Number: 807079
Batch Number: MKBX2879

| Test | Specification | Result |
|-------------------------------------|---------------|-----------|
| Silver (Ag) 99.99% | Confirmed | Confirmed |
| Particle Surface PVP | Confirmed | Confirmed |
| Recommended Retest Period 1 Year | ----- | ----- |



Michael Grady, Manager
Quality Control
Milwaukee, WI US

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