

ALADDIN SCIENTIFIC CORPORATION

14078 Meridian Parkway, Riverside, CA. 92518

Certificate of Analysis

Date of Testing: 2024-04-16 11:41:43
 Date of Next Testing: 2027-04-16 11:41:43
 Product Name: **Poly(ethylene glycol)**
 CAS Number: 25322-68-3
 Specifications & Purity: Ultrapure BioReagent, 3,350
 Lot #: D2412427
 SKU #: **P432424**
Analysis: 322928

| Parameter | Limit Values | Result |
|---|----------------|-----------------|
| Water by Karl Fischer | 0-1 (%) | 0.32 % |
| Residue on Ignition | 0-0.2 (%) | 0.04000 % |
| Viscosity(50% in H ₂ O , 20°C) | 65-130 (mPa·S) | 108.80000 mPa·S |
| Molecular Number by GPC | 3015-3685 | 3567.00 |
| Aluminium(Al) | 0-5 (ppm) | 0.00000 ppm |
| Barium(Ba) | 0-5 (ppm) | 0.00 ppm |
| Bismuth(Bi) | 0-5 (ppm) | 0.00 ppm |
| Calcium(Ca) | 0-10 (ppm) | 0.00 ppm |
| Cadmium(Cd) | 0-5 (ppm) | 0.00 ppm |
| Cobalt(Co) | 0-5 (ppm) | 0.00 ppm |
| Chromium(Cr) | 0-5 (ppm) | 0.00 ppm |
| Copper(Cu) | 0-5 (ppm) | 0.00 ppm |
| Iron(Fe) | 0-5 (ppm) | 0.00 ppm |
| Potassium(K) | 0-200 (ppm) | 0.00 ppm |
| Lithium(Li) | 0-5 (ppm) | 0.00 ppm |
| Magnesium(Mg) | 0-5 (ppm) | 0.00 ppm |
| Manganese(Mn) | 0-5 (ppm) | 0.00 ppm |
| Molybdenum(Mo) | 0-5 (ppm) | 0.00 ppm |
| Sodium(Na) | 0-200 (ppm) | 109.00 ppm |
| Nickel(Ni) | 0-5 (ppm) | 0.00 ppm |
| Lead(Pb) | 0-5 (ppm) | 0.00 ppm |
| Strontium(Sr) | 0-5 (ppm) | 0.00 ppm |
| Zinc(Zn) | 0-5 (ppm) | 0.00 ppm |
| Arsenic traces(MHS-AAS) | 0-0.1 (ppm) | 0.00 ppm |
| Total sulfur as SO ₄ (ICP) | 0-50 (ppm) | 0.00 ppm |
| Chloride (Cl ⁻) | 0-50 (ppm) | 0.00 ppm |
| PH(5% in water) | 4.5-7.0 | 7.00 |

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|--|-----------------------|-----------------------|
| UV-ABS.at 260 nm | 0-0.06 | 0.03800 |
| UV-ABS.at 280 nm | 0-0.03 | 0.01900 |
| Hydroxyl value | 30.3-37.4 (mgKOH/g) | 30.31 mgKOH/g |
| Trace peroxide(As H ₂ O ₂) | 0-10 (ppm) | 9.00000 ppm |
| Appearance(P432424) | White Powder | White powder |
| Infrared spectrum | Conforms to Structure | Conforms to Structure |
| Solubility,1.500 g in 30 ml H ₂ O,clear colorless | Pass | Pass |
| Residue (filter test) | no residue | no residue |



John Su
QA & QC Manager