

Shanghai Aladdin Biochemical Technology Co., LTD
809 Chuhua Branch Road, Fengxian District, Shanghai 201400, China

Certificate of Analysis

Date of Testing: 2023-09-20 11:08:47
Date of Next Testing: 2026-09-19 11:08:47
Product Name: **Poly(ethylene glycol)**
CAS Number: 25322-68-3
Specifications & Purity: Ultrapure BioReagent, 35,000
Lot #: I2319524
SKU #: **P432425**
Analysis: **274216**

Parameter	Limit Values	Result
Melting point	64-66 (°C)	65.00000 °C
Water by Karl Fischer	0-1 (%)	0.10000 %
Sulfated Ash	0-0.2 (%)	0.09000 %
Viscosity(50% in H ₂ O , 20°C)	11000-14000 (mPa·S)	12200.00000 mPa·S
Molecular mass(calculated from hydroxyl value)	25000-45000	32063.00000
Hydroxyl value	2.5-4.5 (mgKOH/g)	3.50000 mgKOH/g
traces peroxide (as H ₂ O ₂)	0-50 (ppm)	33.00000 ppm
Aluminium(Al)	0-5 (ppm)	2.11000 ppm
Barium(Ba)	0-5 (ppm)	1.02300 ppm
Bismuth(Bi)	0-5 (ppm)	2.30000 ppm
Calcium(Ca)	0-10 (ppm)	6.00000 ppm
Cadmium(Cd)	0-5 (ppm)	1.22000 ppm
Cobalt(Co)	0-5 (ppm)	0.26600 ppm
Chromium(Cr)	0-5 (ppm)	0.00000 ppm
Copper(Cu)	0-5 (ppm)	0.00000 ppm
Iron(Fe)	0-5 (ppm)	2.60000 ppm
Potassium(K)	0-200 (ppm)	100.00000 ppm
Lithium(Li)	0-5 (ppm)	3.10000 ppm
Magnesium(Mg)	0-5 (ppm)	0.20000 ppm
Manganese(Mn)	0-5 (ppm)	0.10000 ppm
Molybdenum(Mo)	0-5 (ppm)	0.10000 ppm
Sodium(Na)	0-200 (ppm)	199.00000 ppm
Nickel(Ni)	0-5 (ppm)	0.00000 ppm
Lead(Pb)	0-5 (ppm)	2.01000 ppm
Strontium(Sr)	0-5 (ppm)	0.00000 ppm
Zinc(Zn)	0-5 (ppm)	0.00000 ppm

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Parameter	Limit Values	Result
Arsenic traces(MHS-AAS)	0-0.1 (ppm)	0.02000 ppm
Total sulfur as SO4 (ICP)	0-50 (ppm)	29.00000 ppm
Chloride (Cl-)	0-50 (ppm)	20.30000 ppm
pH(1.5g in 30ml H2O)	5.5-7	5.80000
UV-ABS.at 260 nm	0-0.12	0.08000
UV-ABS.at 280 nm	0-0.12	0.11000
Appearance(P432425)	Colorless or White Powder or Crystals or Flakes	Colorless or White Powder or Crystals or Flakes
Infrared spectrum	Conforms to Structure	Conforms to Structure
Residue (filter test)	no residue	no residue

A handwritten signature in black ink that reads "John Su".

John Su
QA & QC Manager