

Certificate of Analysis

Date of Testing: 2025-07-08 16:29:53
 Date of Next Testing: 2028-07-07 16:29:53
 Product Name: **Poly(ethylene glycol) (PEG)**
 CAS Number: 25322-68-3
 Specifications & Purity: UltraBio™, Ultra pure, 4000
 Lot #: G2502433
 SKU #: **P615468**
 Version: **1**
 Analysis #: **514131**
 Storage Temperature: Room temperature

Parameter	Limit Values	Result
Water by Karl Fischer	0-1 (%)	0.42 %
Sulfated Ash	0-0.2 (%)	0.01300 %
Hydroxyl value	25-32 (mgKOH/g)	25.95 mgKOH/g
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)	25.00 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

ALADDIN SCIENTIFIC CORPORATION

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Parameter	Limit Values	Result
pH(1.5g in 30ml H ₂ O)	5.5-7	6.96000
UV - ABS. AT 260 NM(50 mg/mL in H ₂ O)	0-0.1	0.01000
UV - ABS. AT 280 NM(50 mg/mL in H ₂ O)	0-0.04	0.02900
Viscosity(50% in H ₂ O,20°C)	114-142 (mPa·S)	141.90000 mPa·S
Traces Peroxide(As H ₂ O ₂)	0-10 (ppm)	9.00000 ppm
Melting point	58-61 (°C)	59.85000 °C
Average Molecular Weight	3600-4400	4029.00
Appearance(P615468)	Colorless or White Powder or Crystals or Flakes	Colorless or White Powder or Crystals or Flakes
Infrared spectrum	Conforms to Structure	Conforms to Structure
Solubility(1.5g in 30ml H ₂ O),Clear colorless	Pass	Pass
Residue (filter test)	no residue	no residue



John Su
QA & QC Manager