

Certificate of Analysis

Date of Testing:	2024-04-16 15:32:17
Date of Next Testing:	2027-04-16 15:32:17
Product Name:	Poly(ethylene glycol)
CAS Number:	25322-68-3
Specifications & Purity:	Ultrapure BioReagent, 35,000
Lot #:	D2410349
SKU #	P432425
Version	1
Analysis #:	336540

Parameter	Limit Values	Result
Melting point	64-66 (°C)	64.00000 °C
Water by Karl Fischer	0-1 (%)	1.00 %
Sulfated Ash	0-0.2 (%)	0.10000 %
Viscosity(50% in H ₂ O , 20°C)	11000-14000 (mPa·S)	11700.00000 mPa·S
Molecular mass(calculated from hydroxyl value)	25000-45000	34006.00000
Hydroxyl value	2.5-4.5 (mgKOH/g)	3.30 mgKOH/g
pH(1.5g in 30ml H ₂ O)	5.5-7	6.00000
UV-ABS.at 260 nm	0-0.12	0.05000
UV-ABS.at 280 nm	0-0.12	0.10000
Aluminium(Al)	0-5 (ppm)	4.80000 ppm
Barium(Ba)	0-5 (ppm)	4.00 ppm
Bismuth(Bi)	0-5 (ppm)	4.20 ppm
Calcium(Ca)	0-10 (ppm)	9.60 ppm
Cadmium(Cd)	0-5 (ppm)	3.90 ppm
Cobalt(Co)	0-5 (ppm)	4.70 ppm
Chromium(Cr)	0-5 (ppm)	4.00 ppm
Copper(Cu)	0-5 (ppm)	4.20 ppm
Iron(Fe)	0-5 (ppm)	3.70 ppm
Potassium(K)	0-200 (ppm)	186.00 ppm
Lithium(Li)	0-5 (ppm)	4.80 ppm
Magnesium(Mg)	0-5 (ppm)	2.60 ppm
Manganese(Mn)	0-5 (ppm)	4.60 ppm
Molybdenum(Mo)	0-5 (ppm)	4.55 ppm
Sodium(Na)	0-200 (ppm)	191.00 ppm
Nickel(Ni)	0-5 (ppm)	4.00 ppm

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Parameter	Limit Values	Result
Lead(Pb)	0-5 (ppm)	4.10 ppm
Strontium(Sr)	0-5 (ppm)	1.60 ppm
Zinc(Zn)	0-5 (ppm)	3.80 ppm
Arsenic traces(MHS-AAS)	0-0.1 (ppm)	0.10 ppm
Total sulfur as SO4 (ICP)	0-50 (ppm)	44.00 ppm
Chloride (Cl-)	0-50 (ppm)	39.00 ppm
traces peroxide (as H2O2)	0-50 (ppm)	29.00000 ppm
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

John Su
QA & QC Manager