

Certificate of Analysis

Date of Testing:	2024-08-31 10:21:46
Date of Next Testing:	2027-08-31 10:21:46
Product Name:	Poly(ethylene glycol)
CAS Number:	25322-68-3
Specifications & Purity:	BioUltra, 600
Lot #:	H2427040
SKU #	P615496
Version	1
Analysis #:	405540
Storage Temperature:	Room temperature

Parameter	Limit Values	Result
Molecular mass(calculated from hydroxyl value)	570-630	600.00000
Density(D20/4°C)	1.115-1.144	1.12
Refractive index n20/D	1.468-1.470	1.47
Water by Karl Fischer	0-1 (%)	0.03 %
Sulfated Ash	0-0.2 (%)	0.01000 %
Viscosity(neat/20 °C)	150-190 (mPa·S)	180.00000 mPa·S
Hydroxyl value	178-197 (mgKOH/g)	179.90 mgKOH/g
Traces Peroxide(As H2O2)	0-20 (ppm)	6.00000 ppm
Aluminium(Al)	0-5 (ppm)	1.00000 ppm
Barium(Ba)	0-5 (ppm)	3.00 ppm
Bismuth(Bi)	0-5 (ppm)	2.96 ppm
Calcium(Ca)	0-10 (ppm)	5.00 ppm
Cadmium(Cd)	0-5 (ppm)	2.91 ppm
Cobalt(Co)	0-5 (ppm)	3.00 ppm
Chromium(Cr)	0-5 (ppm)	0.99 ppm
Copper(Cu)	0-5 (ppm)	1.00 ppm
Iron(Fe)	0-5 (ppm)	1.81 ppm
Potassium(K)	0-500 (ppm)	80.00 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)	100.00 ppm
Nickel(Ni)	0-5 (ppm)	3.99 ppm

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Parameter	Limit Values	Result
Lead(Pb)	0-5 (ppm)	4.00 ppm
Strontium(Sr)	0-5 (ppm)	1.00 ppm
Zinc(Zn)	0-5 (ppm)	0.99 ppm
Arsenic traces(MHS-AAS)	0-0.1 (ppm)	0.00 ppm
Total sulfur as SO ₄ (ICP)	0-50 (ppm)	30.00 ppm
Chloride (Cl ⁻)	0-50 (ppm)	18.90 ppm
PH(1.500g in 30ml H ₂ O)	5.5-7	5.60840
UV-ABS.at 260 nm	0-0.06	0.03100
UV-ABS.at 280 nm	0-0.03	0.01500
Appearance(P615496)	Colorless or White Liquid or Viscous Liquid or Paste	Colorless or White Liquid or Viscous Liquid or Paste
Infrared spectrum	Conforms to Structure	Conforms to Structure
Solubility 1.500g in 30ml H ₂ O	Clear colorless	Clear Colorless
Residue (filter test)	no residue	no residue

John Su
QA & QC Manager