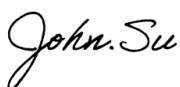


Certificate of Analysis

Date of Testing: 2022-12-16 17:55:36
Date of Next Testing: 2026-12-15 17:55:36
Product Name: **Polyquaternium - 11**
CAS Number: 53633-54-8
Specifications & Purity: 20 wt. % in H2O
Lot #: L2209867
SKU #: **P101212**
Analysis: **141755**

Parameter	Limit Values	Result
Miscellaneous Assay(Vinylpyrrolidone)	0-1 (%)	0.50 %
PH at 25°C(5% in water)	5.5-8.5	5.71
Solid Content	19-21 (%)	19.30 %
Viscosity(25 °C,neat)	20000-60000 (cP)	25590.00 cP
Appearance (P101212)	Colorless Viscous Liquid , May be Hazy	Colorless Viscous Liquid , May be Hazy
Biological Stain Test	Pass	Pass
Infrared spectrum	Conforms to Structure	Conforms to Structure



John Su
QA & QC Manager