

## Certificate of Analysis

Date of Testing: 2022-07-18 15:45:03  
Date of Next Testing: 2026-07-17 15:45:03  
Product Name: **Polyquaternium - 11**  
CAS Number: 53633-54-8  
Specifications & Purity: 20 wt. % in H2O  
Lot #: G2214651  
SKU #: **P101212**  
Analysis: **101681**

Parameter	Limit Values	Result
Miscellaneous Assay(Vinylpyrrolidone)	0-1 (%)	0.64 %
Viscosity(25 °C,neat)	20000-60000 (cP)	23150.00 cP
PH at 25°C(5% in water)	5.5-8.5	5.85
Solid Content	19-21 (%)	20.98 %
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