

## Certificate of Analysis

Date of Testing: 2022-08-12 12:10:58  
Date of Next Testing: 2024-08-01 12:10:58  
Product Name: **Poly(4-styrenesulfonic acid-co-maleic acid) sodium salt**  
CAS Number: 68037-40-1  
Specifications & Purity: average Mw ~20,000, powder, molar ratio 3:1  
Lot #: H2209594  
SKU #: **P107092**  
Analysis: **118679**

Parameter	Limit Values	Result
PH(1%,in Water)	5-9	8.70
Viscosity(25 wt.% in H2O)	28-32 (cP)	29.60 cP
Solid Content	90-100 (%)	95.90%
Average Molecular Weight	19500-20500	20000.00
Appearance (P107092)	yellow to tan powder	yellow to tan powder
ICP:Confirms Na and S Component	Confirmed	Confirmed
Infrared spectrum	Conforms to Structure	Conforms to Structure



John Su  
QA & QC Manager