

## Certificate of Analysis

Date of Testing: 2022-12-05 12:30:10  
Date of Next Testing: 2026-12-04 12:30:10  
Product Name: **p-Toluenesulfonic acid monohydrate**  
CAS Number: 6192-52-5  
Specifications & Purity: Analytical Reagent, ≥98.5%  
Lot #: K22301375  
SKU #: **T104290**  
**Analysis: 143572**  
Storage Temperature: Argon charged

Parameter	Limit Values	Result
Purity(Neutralization titration) (after drying)	98-102 (%)	99.60 %
Water by Karl Fischer	9.5-11.5 (%)	10.14 %
Purity(HPLC)	98.5-100 (%)	99.97400 %
Melting point	104-107 (°C)	103.58000 °C
Appearance (T104290)	white to off-white powder, crystals, flakes or chunk	white to off-white powder, crystals, flakes or chunk
Solubility in H <sub>2</sub> O	Almost transparency	almost transparency
Proton NMR spectrum	Conforms to structure	Conforms to Structure



John Su  
QA & QC Manager