

## Certificate of Analysis

Date of Testing: 2023-10-16 14:19:45  
Date of Next Testing: 2027-10-15 14:19:45  
Product Name: **TPPS (=Tetraphenylporphyrin Tetrasulfonic Acid ) [Ultra-high sensitive spectrophotometric reagent for transition metals]**  
CAS Number: 35218-75-8  
Specifications & Purity: >85.0%(HPLC)  
Lot #: J2311556  
SKU #: **T162693**  
Version: **1**  
Analysis #: **280232**

Parameter	Limit Values	Result
Purity(HPLC)	85-100 (%)	98.82900 %
Water by Karl Fischer	0-15 (%)	1.87 %
Carbon by Elemental Analysis(on dry basis)	47.04-56.4 (%)	50.79000 %
Nitrogen by Elemental Analysis(on dry basis)	4.99-5.99 (%)	5.34000 %
Appearance (T162693)	Dark blue to very dark green or brown powder	Dark blue to very dark green or brown powder
Proton NMR spectrum	Conforms to Structure	Conforms to Structure



John Su  
QA & QC Manager