

ALADDIN SCIENTIFIC CORPORATION

14078 Meridian Parkway, Riverside, CA. 92518

## Certificate of Analysis

Date of Testing: 2023-06-16 15:52:26  
Date of Next Testing: 2026-06-15 15:52:26  
Product Name: **Polyethylenimine hydrochloride**  
CAS Number: P485512  
Specifications & Purity: linear, average  $M_n$  20,000, PDI  $\leq$  1.4  
Lot #: F2312415  
SKU #: **P485512**  
**Analysis:** **222748**  
Storage Temperature: Store at 2-8°C, Argon charged

Parameter	Limit Values	Result
Chlorine(Titration by AgNO <sub>3</sub> , After Oxygen Combustion)	39.2-49.9 (%)	41.60 %
Molecular Number by GPC	15000-25000	17557.00
Polydispersity Index (PDI)	0-1.4	1.40000
Appearance(P485512)	White to Faint Yellow and Faint Beige and Faint Brown Powder or Crystals	White to Faint Yellow and Faint Beige and Faint Brown Powder or Crystals
Proton NMR spectrum	Conforms to Structure	Conforms to Structure



John Su  
QA & QC Manager