

## Certificate of Analysis

Date of Testing: 2024-11-30 10:52:00  
Date of Next Testing: 2028-11-29 10:52:00  
Product Name: **Zirconium chloride**  
CAS Number: 10026-11-6  
Specifications & Purity:  $\geq 98\%$ , hafnium chloride  $\leq 2\%$   
Lot #: K2426780  
SKU #: **Z109459**  
Version: **0**  
Analysis #: **434027**  
Storage Temperature: Argon charged

Parameter	Limit Values	Result
hafnium(IV) chloride	0-2 (%)	1.27 %
Cl(Titration by AgNO <sub>3</sub> )	60.2-61.5 (%)	60.16 %
Purity(ZrCl <sub>4</sub> )	98-100 (%)	98.61 %
Appearance (Z109459)	White to Light Yellow Powder or Solid or chunks	White to Light Yellow Powder or Solid or chunks
ICP: Confirms Zirconium Component	Confirmed	Confirmed



John Su  
QA & QC Manager