

## Certificate of Analysis

Date of Testing: 2023-08-11 18:05:13  
Date of Next Testing: 2027-08-10 18:05:13  
Product Name: **Zirconium chloride**  
CAS Number: 10026-11-6  
Specifications & Purity: 98%, hafnium chloride  $\leq$ 2%  
Lot #: H2301071  
SKU #: **Z109459**  
**Analysis:** **155179**  
Storage Temperature: Argon charged

Parameter	Limit Values	Result
Cl(Titration by AgNO <sub>3</sub> )	60.2-61.5 (%)	60.35 %
hafnium(IV) chloride	0-2 (%)	0.87 %
Purity(ZrCl <sub>4</sub> )	98-100 (%)	99.52 %
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