

ALADDIN SCIENTIFIC CORPORATION

14078 Meridian Parkway, Riverside, CA. 92518

Certificate of Analysis

Date of Testing: 2026-07-23 11:10:35
 Date of Next Testing: 2029-07-22 11:10:35
 Product Name: **Hafnium chloride**
 CAS Number: 13499-05-3
 Specifications & Purity: Ultra dry, ≥99.9% metals basis, Zr < 0.5%
 Lot #: G2617247
 SKU #: **H284098**
 Version: **1**
 Analysis #: **741003**
 Storage Temperature: Room temperature, Argon charged

Parameter	Limit Values	Result
Purity(Based On Trace Rare Earth Analysis)	99.9-100(%)	99.99000 %
Trace Metal Analysis	0-1500(ppm)	100.00000 ppm
Water by Karl Fischer	< 50 (ppm)	8.00000 ppm
Purity (Chloride Titration by AgNO ₃)	43.4-45.2 (%)	44.26000 %
Zirconium(Zr)	0-0.5(%)	0.01200 %
Appearance(H284098)	White Powder	White powder
ICP:Confirms Hafnium Component	Confirmed	Confirmed



John Su
QA & QC Manager