

ALADDIN SCIENTIFIC CORPORATION  
14078 Meridian Parkway, Riverside, CA. 92518

### Certificate of Analysis

Date of Testing: 2025-12-09 14:19:13  
Date of Next Testing: 2029-12-08 14:19:13  
Product Name: **Zirconium dioxide**  
CAS Number: 1314-23-4  
Specifications & Purity:  $\geq 99.99\%$  metals basis, excluding Hf or HfO<sub>2</sub>, powder,  $\leq 100\text{nm}$   
Lot #: L2504548  
SKU #: **Z104402**  
Version: **0**  
Analysis #: **614611**

Parameter	Limit Values	Result
Particle size	0-100 (nm)	43.82 nm
Purity Based On Trace Metals Analysis (excluding Hf or HfO <sub>2</sub> )	99.99-100 (%)	99.99%
Trace Metal Analysis(excluding Hf or HfO <sub>2</sub> )	0-200 (ppm)	98.00 ppm
Appearance (Z104402)	white powder	White powder
ICP Major Analysis	Confirmed to structure	Confirmed to structure
X-Ray Diffraction	Conforms to Structure	Conforms to Structure



John Su  
QA & QC Manager