



## Certificate of Analysis

AR4105

LOT 1122R

LOSS ON IGNITION CRM

LOI = 5.13%

EXPANDED UNCERTAINTY =  $\pm 0.09$

(k=2, @ 95% confidence limit, n=31)

Verified using ASTM C25-19 referee method ARI-LAB-620, and TGA ARI-LAB-633  
References used - AR4105-419A, AR4107-419C, AR4105-1016A, AR4106-419B, AR5029-420Y

### NOTES:

This standard was produced using high purity materials based upon their empirical and stoichiometric properties. These materials were blended and weighed on balances that are calibrated using NIST traceable weights. Metrological traceability is to the SI derived unit of mass fraction expressed as percent. This reference was produced and sampled for testing in accordance with ARI-LAB-608. The sample size used for the verification tests were 1g. Refer to your instrument manufacturer or test method for your required sample size and overall test method repeatability and reproducibility factors if needed. The overall coordination, direction, and evaluation of statistical information was performed by K.E. Dyer, Chief Chemist.

The intended use of this standard is for the verification and quality check of LOI using ASTM methods utilizing a muffle furnace or TGA (Thermal Gravimetric Analysis) instrumentation. It is recommended this standard be dried per your test method, instrument manufacturer recommendations, or at 105° C to a constant mass prior to use. Ample amounts of air must be available for complete combustion, do not use covers. This reference does not contain any sulfur and no determination or corrections are needed. This bottle contains 100g powder material to be used directly and per your test method requirements. This certificate cannot be reproduced except in full. Remedies for any claimed defect in this product will be limited to product replacement or refund of the purchase price. In no event shall Alpha Resources be liable for incidental or consequential damages.

This is a Certified Reference Material CRM produced in accordance with ISO 17034. These test results are accredited under the Alpha Resources, LLC laboratory's ISO/IEC 17025 and ISO 17034 accreditation (RMP) issued by ANSI ANAB. Refer to certificate and scope of accreditation(s) AT-1200 and AR-1920.

Values are valid for 15 years from the date of certification.

Certified March 22, 2023  
Updated February 14, 2025  
Dustin Jenkins, Ph.D.  
Global Technical Director