

LOI = 30.1%

Expanded Uncertainty =  $\pm 0.3$   
( $k=2$ , @95% confidence limit,  $n=32$ )

Method of analysis – ARI-LAB-620, ARI-LAB-633 (muffle furnace and TGA)

References used for validation – AR4108-419D, AR4107-419C, AR4106-419B, AR5029-420Y

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 nominal. Refer to your instrument manufacturer or test method for your required sample size and overall test method repeatability and reproducibility factors if needed.

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 sulphur and no determination or corrections are needed. This bottle contains 100g powder material to be used directly and per your test method requirements. While unable to determine a definite shelf life this RM should be reviewed 10 years after the date of certification. 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 Elemental Microanalysis Ltd be liable for incidental or consequential damages.

For good laboratory practice, it is recommended that all reference materials be verified as fit for purpose prior to use.

Certified on the 7<sup>th</sup> of March 2023

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