

Analytical Results	
<p><b>% Carbon</b> Value = 0.015 Expanded Uncertainty = <math>\pm 0.003</math> Method &amp; Detection = Combustion/IR n = 40 k = 2.0</p>	<p><b>% Sulfur</b> Value = 0.029 Expanded Uncertainty = <math>\pm 0.003</math> Method &amp; Detection = Combustion/IR n = 40 k = 2.0%</p>
<p><b>Nitrogen</b> Value = 0.0384 Expanded Uncertainty = 0.0038 Method &amp; Detection = Inert Gas Fusion/TC n = 40 k = 2.0</p>	
<p><b>Primary reference standards employed:</b> NIST SRM: 2166, 125b, 101g, 20g JK: 12A BAM: 231-2, 284-2, 227-1, 64c JSS: 611-11</p>	
<p><b>Methods Employed:</b> ASTM E1019-18 – Standard Test Methods for Determination of Carbon, Sulfur, Nitrogen, and Oxygen in Steel, Iron, Nickel, and Cobalt Alloys by Various Combustion and Inert Gas Fusion Techniques.</p>	

*\*The analytical results above are provided by an accredited reference material manufacturer with a current certification in ISO 17025 and 17034.*

The intended use of this Reference Material (RM) is for the verification and calibration of induction furnace combustion and inert gas fusion (or other appropriate) analysers for the determination of Carbon, Sulfur, and Nitrogen.

Typical sample size for analytical testing is dependent upon the test method and instrumentation used, however, a minimum sample size of 1.0 g is recommended.

The Period of Validity for this RM should be reviewed 15 years after the date below.

This bottle contains 150g of Steel chips to be used per the test method you follow. Keep sealed tightly and store under normal laboratory conditions.

Refer to your test methods and or manufacturer manual for expanded uncertainties, repeatability/reproducibility factors.

For good laboratory practice, we recommend that all reference materials be verified as fit for purpose prior to use. 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.

**Certified on the 12<sup>th</sup> of September 2024**

Elemental Microanalysis Ltd