

Certificate of Analysis

STANDARD REFERENCE MATERIAL 160b

Stainless Steel

Cr 18-Ni 12-Mo 2 (AISI 316)

(This material also is available in solid form as SRM 1155, primarily for application in optical emission and x-ray spectrochemical methods of analysis)

Element	Percent by Weight ^a
Carbon	0.044
Manganese	1.64 ^c
Phosphorus	0.020 ^d
Sulfur018 ^e
Silicon509 ^f
Copper172 ^g
Nickel	12.26 ^h
Chromium	18.45 ⁱ
Vanadium	0.047 ^j
Molybdenum	2.38 ^k
Cobalt	0.101 ^l
Nitrogen039 ^m
Lead001 ⁿ

^a Analysis of this Standard Reference Material was performed in the laboratories of the Analytical Chemistry Division of the National Bureau of Standards.

^b Direct combustion followed by gravimetric determination, J. R. Baldwin, analyst.

^c Neutron activation analysis, T. D. Gills, analyst; and spectrophotometric after oxidation with ammonium persulfate, R. A. Paulson, analyst.

^d Spectrophotometric molybdenum-blue method, J. R. Baldwin, analyst.

^e Iodometric titration after combustion, J. R. Baldwin, analyst.

^f Gravimetric determination after double dehydration with sulfuric acid, R. K. Bell, analyst.

^g Isotopic dilution analysis, T. J. Murphy and W. R. Shields, analysts.

^h Gravimetric determination after precipitation with dimethylglyoxime, R. A. Paulson, analyst.

ⁱ Reduction with coulometrically generated ferrous ion, C. E. Champion, analyst.

^j Potentiometric titration with ferrous ammonium sulfate after nitric acid oxidation, S. A. Wicks, analyst; and neutron activation analysis, T. E. Gills, analyst.

^k Gravimetric after precipitation with alpha benzoinoxime and ignition to MoO₃, R. A. Paulson, analyst.

^l Neutron activation analysis, B. A. Thompson, analyst.

^m Distillation-titration, S. A. Wicks, analyst.

ⁿ Polarographic determination, E. J. Maienthal, analyst.

Washington, D.C. 20234
 August 31, 1981
 (Editorial Revision of Certificate dated 8/4/69 - change of carbon from 0.046 to 0.044)

George A. Uriano, Chief
 Office of Standard Reference Materials

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