

U. S. Department of Commerce  
Maurice H. Stans  
Secretary

National Bureau of Standards  
L. M. Branscomb, Director

# Certificate of Analysis

## STANDARD REFERENCE MATERIAL 136c

### Potassium Dichromate

### (Oxidimetric Standard)

Purity on basis of effective oxidizing power . . . . .  $99.98 \pm 0.02$  percent

This lot of material was prepared to ensure material of high purity and uniformity. It conforms to the American Chemical Society specification for analytical reagent grade material, but is not to be considered as entirely free from traces of impurities. It is certified only for its effective oxidizing power.

Standardizations have been made by the coulometric method by G. Marmenko (see NBS J. Res. 67A, 453 (1963)), by direct comparison with arsenic trioxide SRM 83c, and by comparison with the previous SRM 136b through ferrous ammonium sulfate by K. Sappenfield. Impurity tests to the ACS specifications were made by W. P. Schmidt, emission spectrography by V. Stewart, and spark-source mass spectrography by C. W. Mueller.

Drying tests indicate that losses of the order of 0.005 percent are obtained on a few hours drying at 105 °C; long time drying indicates that losses approach 0.01 percent. The problem of occluded and surface moisture will be studied before a final certificate is issued. The effective assay is based on the sample as issued. The tolerance indicated is at least as large as the 95 percent confidence limits for a single determination, and include terms for inhomogeneities in the material as well as analytical error.

The overall direction and technical measurements leading to certification were performed under the chairmanship of R. A. Durst.

The technical and support aspects in the preparation, certification, and issuance of this standard reference material were coordinated through the Office of Standard Reference Materials by J. L. Hague.

Washington, D. C. 20234  
March 24, 1970

J. Paul Cali, Acting Chief  
Office of Standard Reference Materials