



National Institute of Standards & Technology

Certificate of Analysis

Standard Reference Material 143c

Cystine



This Standard Reference Material (SRM) is a highly purified and homogeneous lot of crystalline cystine. It is intended primarily for use in checking microchemical procedures for the determination of carbon, hydrogen, sulfur, and nitrogen in organic matter. A total of 56 determinations made on 11 samples from the lot yielded values that confirmed the theoretical composition within the limits of experimental error. In addition, no significant statistical inhomogeneity among the 11 samples was detected from these measurements. The recommended composition of this SRM is given below and is based on theoretical percentages by weight.

<u>Element</u>	<u>% by Wt.</u>
Carbon	29.99
Hydrogen	5.03
Sulfur	26.69
Nitrogen	11.66
Oxygen	26.63

The uncertainty of the certified values is expressed in significant digits. The value listed is not expected to deviate from the true value by more than ± 1 in the last significant figure reported.

Use: It is not hygroscopic under ordinary conditions of storage and can be used without preliminary drying.

The overall direction and coordination of the technical measurements leading to certification were performed under the chairmanship of J.K. Taylor of the NBS Analytical Chemistry Division.

Microchemical measurements were made at the National Institute of Standards and Technology by E.R. Deardorff and at the Butterworth Microanalytical Consultancy, Teddington, Middlesex, U.K.

The original coordination of certification efforts was performed by T.W. Mears and R.K. Kirby.

The technical and support aspects concerning the revision, update and issuance of this Standard Reference Material were coordinated through the Standard Reference Materials Program by J.C. Colbert.

This certificate has undergone revision to reflect program and organizational changes at NIST and at the Department of Commerce. No attempt was made to reevaluate the certificate value or any technical data presented in this certificate.

Gaithersburg, MD 20899
November 5, 1991
(Revision of certificate dated 9-27-76)

William P. Reed, Chief
Standard Reference Materials Program