U. S. Department of Commerce
Malcolm Baldrige
Secretary

National Bureau of Standards
Ernest Ambler, Director

National Bureau of Standards

Certificate

Standard Reference Material 92

Soda-Lime Glass Powder

(Low Boron)

This Standard Reference Material (SRM) is intended for use in checking chemical methods of determining the content of B_2O_3 in glass.

B_2O_3	0.70 ± 0.03 percent by weight

The certified value is the best estimate of the "true" value based on the results of a cooperative analytical program. The certified value is not expected to deviate from the "true" value by more than the stated uncertainty. A remeasurement made in 1939 confirmed that the certified value had not changed due to aging of the powder.

This SRM should be dried for one hour at 105 °C before making an analysis. The determination of B_2O_3 was made by the Chapin distillation method including the recovery from the residue and correction by careful blank determinations.

The overall direction and coordination of the cooperative analytical program were performed by H. B. Knowles of the Analytical Chemistry Division of the National Bureau of Standards. The laboratories that contributed to the certification of this glass were located at:

National Bureau of Standards, Washington, D.C.
Norton Company, Worchester, Mass.
Booth, Garrett, & Blair, Philadelphia, Penn.
Sharp-Schurtz Company, Lancaster, Ohio

For information only, this soda-lime glass has, in addition to the certified B_2O_3, the following approximate composition:

SiO_2	(75.0) percent by weight
Na_2O	(13.1)
CaO	(8.3)
R_2O_3	(1.5)
K_2O	(0.6)
ZnO	(0.2)
MgO	(0.1)
Loss on Ignition	(0.42)

Washington, D.C. 20234
March 11, 1982
(Revision of Certificates
dated 4-22-30 & 4-30-71)

George A. Uriano, Chief
Office of Standard Reference Materials