

U. S. Department of Commerce
Frederick B. Dent
Secretary

National Bureau of Standards
Richard W. Roberts, Director

National Bureau of Standards

Certificate

Standard Reference Material 933

Clinical Laboratory Thermometer

This Standard Reference Material is intended for use in clinical laboratories as a primary calibrant, particularly in the area of clinical enzymology. It is comprised of three individually-calibrated thermometers. The certified corrections for each thermometer, as a computer print-out sheet, are attached, together with information relating to the calibrating details and to the International Practical Temperature Scale of 1968.

Each thermometer is a solid-stem, mercury-in-glass instrument 180 ± 5 mm in length, and marked with a 95 mm immersion line. The stems are plain front, enameled back made of lead-glass thermometer tubing 7 mm in diameter. Nitrogen gas fills the space above the mercury. Each thermometer has an auxiliary scale from -0.20 to $+0.20$ °C with 0.05 °C divisions. The main scales of the thermometers are 24.00 to 26.00 °C, 29.00 to 31.00 °C, and 36.00 to 38.00 °C, respectively, with 0.05 °C divisions. Calibrated points are 0 °C, and 25, 30, or 37 °C depending on the scale of the individual thermometer. Detailed descriptions and drawings of these thermometers are given in the following publications:

Mangum, B. W., Clin. Chem. 20, 670 (1974).

Mangum, B. W., and Wise, J. A., NBS Special Publication 260-48, U. S. Government Printing Office, Washington, D.C. 20402, 1974.

The thermometers were manufactured by Princo Instruments, Inc. of Southampton, Pa. Measurements leading to the certification were performed by J. A. Wise of the Heat Division, Institute for Basic Standards.

The general direction of the technical work was performed by B. W. Mangum of the Heat Division, Institute for Basic Standards.

Washington, D.C. 20234
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J. Paul Cali, Chief
Office of Standard Reference Materials