

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

National Bureau of Standards
L. M. Branscomb, Director

Certificate

STANDARD REFERENCE MATERIAL 950a

Uranium Oxide (U_3O_8)

Uranium Oxide (U_3O_8) 99.94 percent

This sample consists of normal uranium in the form of oxide, U_3O_8 . It is intended to provide a material of known uranium content. The indicated value is based on material heated at 900 °C for one hour in an open crucible and cooled in a desiccator. The material should be freshly ignited as used.

The assay is based on high-purity normal uranium metal (dingot) using National Bureau of Standards Standard Potassium Dichromate 136a as the transfer reagent. The atomic weights used in the calculation are: uranium, 238.03, oxygen, 15.9994. It is estimated that the uncertainty in the assay does not exceed 0.02 percent.

Total impurities as determined by spectrographic analysis are less than 50 ppm. The difference between the assay and calculated purity is considered to represent deviations from the nominal stoichiometric composition.

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