



Certificate of Analysis

OQ/PV Standard for UV-Vis Holmium Oxide – Perchloric Acid

Agilent Part Number: 5191-3931

Sample Lot Number: 0006732157

This analytical reference material was manufactured and verified in accordance with an ISO 9001 registered quality system, and the analyte concentrations were verified by an ISO 17025 accredited laboratory. The certified value for each analyte was determined gravimetrically. The standards were qualified photometrically using a Cary 4000 spectrophotometer calibrated using the Deuterium Emission and Double Aperture methods for wavelength and absorbance respectively.

Vial	Lot #	Analyte	CAS#	Certified Value
5063-6521-1	0006688958	holmium oxide	012055-62-8	40.1 g/L

Solvent: perchloric acid, 10% (v/v) aqueous

The transmittance spectra of the holmium oxide solution should show minima at the following wavelength in nanometers. The standard values are certified to be within ± 0.3 nm of the value listed below when measured at 2 nm spectral bandwidth.

Spectral Bandwidth	
1 nm	2 nm
241.1	241.1
249.9	250.0
278.1	278.1
287.2	287.5
333.5	333.5
345.4	345.4
361.2	361.1
385.6	385.8
416.2	416.6
451.4	451.3
467.8	467.9
485.2	485.2
536.6	536.9
640.5	640.8

Calibrated Class A glassware and clean bottles were used in the manufacture of this standard. Balances used in the manufacture of this standard are calibrated with weights traceable to NIST in compliance with ANSI/NCSL Z-540-1 and ISO 9001.

Date of release: 06 July 2022
Date of expiration: 31 July 2024


Monica Bourgeois
QMS Representative