

2024 Quantitative Chemical (Cocaine) Proficiency Test

FTS-24-QUANT2 Manufacturer's Information

The Submission Deadline for this test was **November 22, 2024**

The test was manufactured by FTS at the FTS Laboratory Facility (127 W. Grand River Avenue, Williamston, MI 48895) and all activities were coordinated by Rebecca Smith (rsmith@forsci.com), Proficiency Test Program Manager. Ms. Smith is also authorizing the release of this report. No activities were subcontracted regarding this test. This is the manufacturer's information issued on 12/13/24. FTS considers all reports confidential and does not release information regarding participant's results without authorization from that participant.

Manufacturer's Information

Preparation of Questioned Sample

The questioned samples were prepared by weighing 14.07 grams of Cocaine Hydrochloride Standard (Cayman Chemical, COA 100.0%, Batch# 0644260-1, Item# 22165) and 28.48 grams Inositol (#101106, Jarrow Formulas, Lot #SG618) on a calibrated Mettler AE163 balance. The sample was combined and sifted three times. The sample was ground with a mortar and pestle in several batches that were recombined, shaken together and re-ground with a mortar and pestle multiple times. The mixture was transferred into a stainless-steel grinding container and was manually shaken for 10 minutes. The mixture was further ground with a mortar and pestle in batches and sifted to recombine.

After homogenization, individual samples were weighed on a calibrated Mettler AE163 analytical balance and consisted of at least 0.50 gram of the mixture. These samples were packaged in glassine paper folded packets utilized for sample weighing and glassine envelopes that were hand numbered in the order that they were filled from the bulk sample. After homogeneity testing, the glassine envelopes were labeled with a UTIC number, further sealed in a heatsealed evidence envelope and labeled per FTS guidelines.

Homogeneity & Stability Quality Control Testing

Homogeneity testing was performed after the samples were packaged in paper folds, hand labeled in fill order. Ten of the packaged units were selected by random sampling throughout the fill sequence by selection of the hand labeled fill number with computer random number generation software (Ablebits Random Number Generator, Add-in Express, Ltd., Belarus, BY).

Each selected sample was homogenized, and then two approximately 0.025g test portions were weighed from each. The test portions were labeled as "48A", "48B", etc. and prepared for UV-VIS analysis by diluting with distilled water to a concentration of approximately 1 mg/ml in 50ml volumetric flasks.

The samples were quantitated via UV-VIS (Perkin-Elmer Lambda 2) in the FTS laboratory facility. The samples were quantitated at 274.9 nm based on four-point cocaine standard calibration curve that ranged from 0.40 mg/ml – 0.05 mg/ml. Five replicates of each sample were examined and analytical data averaged.

Stability was not tested as the samples are not reasonably expected to change when sealed in heatsealed envelopes.