Certificate of Analysis

Certipur® Certified Reference Material

Producer: Merck KGaA, Frankfurter Str. 250, 64293 Darmstadt, Germany

Accreditation: The laboratory of Merck KGaA for reference materials in titrimetry is

accredited as calibration laboratory according to DIN EN ISO/IEC 17025.

Potassium dichromate **Description of CRM:**

Ordering number: 1.02403.0080

Lot number: 142403M

Composition: Potassium dichromate

99.98 % ± 0.05 % Certified value and uncertainty:

Mass fraction in weight percent with expanded measurement uncertainty

The expanded measurement uncertainty *U* is calculated as

 $U = k \cdot u_{\text{characterisation}}$, where k = 2 is the coverage factor for a 95% coverage probability and $u_{\text{characterisation}}$ is the combined measurement uncertainty in

accordance to DIN EN ISO/IEC 17025.

Method of analysis: The certified mass fraction was determined by potentiometric titration with

sodium thiosulfate as titration solution. The certified value is based on a

molecular mass M = 294.184 g/mol dried substance.

Traceability: This volumetric standard is directly traceable to the corresponding primary

standard NIST SRM® potassium dichromate 136f.
NIST: National Institute of Standards and Technology, Gaithersburg, USA.

Storage: Store at +15 °C to +25 °C tightly closed in the original container and

protect from light and moisture.

Application and correct use: This volumetric standard is intended for standardisation of volumetric

> solutions in accordance to the chapter reagents of the Pharmacopoeia (Ph. Eur., USP). The volumetric standard potassium dichromate must be

dried at 110 °C for 2 hours before use.

Date of release: 2014/01/13

Minimum shelf life: 2019/01/31

> Dr. Stefan Frey (Laboratory Manager)