No: SPEC-01-011\_00

**Precious Metals** 

Valid from: 14.11.2023 Released Chemical Products

## **Specification**

IUPAC Name: Ruthenium(III) Chloride Hydrate

Heraeus Material / Type: Ru(III) Chloride Hyd. HSTDP

**Description / Formula:** RuCl<sub>3</sub>· n H2O

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| Parameter  | Unit | Specification | Test Method                        |
|--|------|---------------|------------------------------------|
| Precious metal                                     |      |               |                                    |
| Ruthenium content*                                 | %    | 39 - 42       | 00083/xx<br>Ru-content gravimetric |
| Precious metal purity*                             | %    | ≥ 99.95       | 00195/xx<br>ICP-OES                |
| Chemical and physical properties related to sample |      |               |                                    |
| Water insoluble matter*                            | %    | ≤ 0.3         | 00088/xx<br>PM-Compound insoluble  |
| Impurities relating to precious metal              |      |               | 00195/xx<br>ICP-OES                |
| Sum of Pd+ Pt+ Ir+ Rh*                             | ppm  | ≤ 200         |                                    |
| Sum of Ca+ Al+ Si+ Mg*                             | ppm  | ≤ 200         |                                    |
| Cu (Copper)*                                       | ppm  | ≤ 20          |                                    |
| Fe (Iron)*   | ppm  | ≤ 100         |                                    |
| K (Potassium)*                                     | ppm  | ≤ 100         | 0086/xx AAS                        |
| Na (Sodium)*                                       | ppm  | ≤ 100         | 0086/xx AAS                        |
| Os (Osmium)*                                       | ppm  | ≤ 100         |                                    |

## Value determination

All values determined in accordance with 08170/xx



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**Information:** 

Color: dark brown, black

Other relevant document(s):

xx = current revision

## Inspection Certificate (IC)

Heraeus Precious Metals GmbH & Co.KG will issue an Inspection Certificate according to DIN EN 10204-3.1 for each delivered batch. Parameters which are marked with [\*] will be given in the Inspection Certificate.

This document has been generated automatically and is valid without signature.

This specification and all information contained therein represent confidential information of Heraeus Precious Metals GmbH & Co.KG which must be kept strictly confidential by the recipient and may not be passed on to third parties. The properties stated above have been obtained under controlled test methods. Under other test conditions or productive use, the measured results may vary, in particular depending on the specific ambient conditions. In particular, the results from Heraeus Precious Metals GmbH & Co.KG inspection certificate do not release the customer from verifying itself and on its own responsibility whether the end product specified by Heraeus Precious Metals GmbH & Co.KG is suited for the intended purpose of use of the customer.