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INFORMATION LEAFLET Ph. Eur. Reference Standard

Cadmium solution CRS batch 1

1. Identification

Catalogue code: Y0001997 Unit Quantity: ca 10 mL

2. Scientific Information

2.1 Intended use

Reference Standard for laboratory tests as prescribed in the European Pharmacopoeia.
Established for use with chapter: 20420.

2.2 Analytical information

Mass fraction of cadmium in the solution:	1.0012 mg/g
Associated expanded uncertainty:	U = 0.0050 mg/g, k = 2
Density of the solution:	1.016 g/mL at 20.0 °C
Solvent composition:	about 2.5 % m/m nitric acid

Traceability to the SI base units kilogram and mole is achieved through an uninterrupted chain of calibration measurements that link cadmium solution CRS 1 to a primary material characterised by a National Metrology Institute at the highest metrological level (High purity zinc BAM-Y014).
The IUPAC standard atomic weight for cadmium shall be applied.
Dilutions of cadmium solution CRS 1 should be made with 2.5 % nitric acid.

2.3 Uncertainty of the assigned value, when applicable

See Chapter 2.2 Analytical information.

2.4 Validity

Ph. Eur. RS are periodically tested to ensure their continuous fitness for purpose. For each valid Ph. Eur. RS, a Batch Validity Statement at the time of use can be downloaded and printed from the EDQM website (Reference Standards Database).

2.5 Instructions for use

The container should not be opened until required for use. Once the container has been opened, its entire content must be used immediately. Any further storage and re-use are not warranted.

Opening One point Cut (OPC) ampoules

- Pick up the ampoule and hold its lower part between your thumb and index finger. Make sure to remove all the liquid from the top of the ampoule by gently tapping it with a finger of the other hand. Hold the ampoule so that the blue dot faces you.
- Grasp the top of the ampoule with your other hand. Place your thumb onto the blue dot and the index finger on the opposite side (back) of the bulbous part of the ampoule.
- Hold the bottom of the ampoule firmly in an upright position and push the top section away from the blue dot with light, even pressure. The ampoule should break with a clean snap. Using too much force can cause the ampoule to shatter!
- If the ampoule does not break open, readjust its position in your hands and try again.

Safety measures:

- To prevent shattering of the glass, never try to break ampoules by force!
- Always protect your hands from broken glass by using a paper towel, light cloth or cut resistant glove.
- Always apply pressure away from the blue dot, never in any other direction.
- Avoid any pushing, pulling, or twisting actions while applying pressure on the ampoule to open it.
- Pressure between the index finger and the thumb of either hand can cause the ampoule to break in an unintended manner and may cause injuries to the operator.

3. Storage conditions

In the original container at ambient temperature, protected from light. Re-instate promptly upon receipt.

4. Safety

For scientific research, development and analysis only. Handle in accordance with good occupational hygiene, safety and laboratory practices and take precautions to avoid exposure. More information is available at the EDQM website (Reference Standards Database): Safety Data Sheet for hazardous chemicals and Safety Data Statement for other materials.

5. Shipping conditions

Each Ph. Eur. RS is shipped under conditions that preserve its suitability for use and comply with the relevant regulations. For more details see EDQM website (Reference Standards Database).

6. Warranties, Liabilities and responsibility

- Safety

In the event of any safety concerns, please read carefully the safety data sheets or safety data statements available for each product. It is for Purchasers to determine independently the risks associated with the items and to take appropriate safety measures, including the provision of appropriate information, equipment and training of those persons coming into contact with the item.

- Warranties

Except for the use of Reference Standards in tests and assays carried out in accordance with the official methods of the European Pharmacopoeia and by professionals with the necessary technical skills and at their own discretion and risk, the EDQM makes no representation, contractual statement, or expression of opinion concerning the quality or safety of any item supplied, the presence of any defect in it, or its fitness for any particular purpose except that as described above.

The EDQM does not guarantee that the items will meet the Purchaser's specific expectations. The EDQM only guarantees that the items (i) were fit for use according to EDQM's intended use of the product ;(ii) were fit for use at the moment that they were handed over to the carrier being responsible for the delivery of the items to the Purchaser with such accessories including packaging, delivery instructions or other instructions for the item's delivery and reception as the Purchaser may expect to receive; and (iii) possess qualities and performance capabilities which are normal in goods of the same type and which the Purchaser may expect given the nature of the goods and the information provided on the EDQM's website and (iv) the carrier and the Purchaser received clear and accurate instructions for the item's delivery and reception. No other guarantees, whether explicitly or implied, are given by the EDQM. The EDQM does not guarantee that the purchase or use of the items will not infringe any intellectual property rights, in particular patents.

- Limitation of Liability

In no event shall the EDQM be liable for any damages due to the use of items, included, but not limited to loss of business, loss of profit, loss of use, loss of opportunity, costs of procurement of substitute goods, services or systems or for any indirect, special, incidental, punitive or consequential damages, however caused and, whether in contract, tort or under any other theory of liability, whether or not the Purchaser has been advised of the possibility of such damages or costs.

Any liability of the EDQM for injury, loss or damage arising from the supply or use of any such item is in any event hereby excluded to the fullest extent permitted internationally accepted commercial standards; in particular, no liability is accepted for loss of profits or indirect or consequential loss.

7. Arbitration & Applicable Law

The aim of the EDQM is to settle any disputes amicably in the framework of its Terms and Conditions. In accordance with the provisions of article 21 of the General Agreement on the Privileges and Immunities of the Council of Europe, all disputes between the EDQM and the Purchaser as regards the application of these General Terms shall be submitted, if a mutual agreement cannot be reached between the parties, to arbitration as laid down in Order No. 481 of the Secretary General, approved by the Committee of Ministers.

This transaction shall be governed by the Council of Europe's relevant regulatory framework, complemented, where necessary, by French national substantive law.

8. Citation

Users shall ensure that any reference made to an EDQM Reference Standard in any publication, presentation or public document (ex. scientific articles, data sheets for kits) bears the exact name, and catalogue code of the Reference Standard and the exact name and address of EDQM as given on the first page of this information leaflet.

9. Adoption

The suitability for intended use has been officially adopted by the European Pharmacopoeia Commission.

10. Signature

This document is electronically signed by:

Dr Pierre Leveau
Head of the Quality, Safety and Environment Division