

ISO 23821:2022-08 (E)

Cosmetics - Analytical methods - Determination of traces of mercury in cosmetics by atomic absorption spectrometry (AAS) cold vapour technology after pressure digestion

| Contents | | Page |
|---|---|-------------|
| Foreword | | iv |
| Introduction | | v |
| 1 | Scope | 1 |
| 2 | Normative references | 1 |
| 3 | Terms and definitions | 1 |
| 4 | Principle | 1 |
| 5 | Reagents | 1 |
| 6 | Apparatus and equipment | 3 |
| 7 | Procedure | 4 |
| 7.1 | General | 4 |
| 7.2 | Preparation of samples | 4 |
| 7.3 | Pressure assisted digestion | 4 |
| 7.3.1 | General | 4 |
| 7.3.2 | Preparation of sample by digestion -- General case | 4 |
| 7.3.3 | Preparation of sample by digestion -- Specific cases | 4 |
| 7.3.4 | Microwave digestion procedure | 5 |
| 7.3.5 | Preparation of measurement solutions | 5 |
| 7.4 | Atomic absorption spectrometry (cold vapour AAS) | 6 |
| 7.4.1 | Spectrometry settings | 6 |
| 7.4.2 | Example for AAS determination using cold vapour technology | 6 |
| 7.5 | Quality control of the analysis | 6 |
| 8 | Evaluation | 6 |
| 8.1 | Calculation | 6 |
| 8.2 | Limit of quantification | 7 |
| 8.3 | Reliability of the method | 7 |
| 9 | Test report | 7 |
| 10 | Alternative stabilizing reagents | 8 |
| 11 | Short-term stabilization when measuring with potassium permanganate solution | 8 |
| Annex A (informative) Performance of the method determined via ISO 5725 statistical approach | | 9 |
| Annex B (informative) Common interlaboratory test results of ISO 23674[4] and this document | | 12 |
| Bibliography | | 15 |