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Leather — Chemical determination of chromium(VI) content in leather —

Part 1: Colorimetric method

Cuir — Détermination chimique de la teneur en chrome(VI) du cuir — Partie 1: Méthode colorimétrique

Reference numbers
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Contents

Page

Foreword ... **iv**

1 Scope ... **1**

2 Normative references ... **1**

3 Terms and definitions ... **1**

4 Principle ... **2**

5 Chemicals ... **2**

6 Apparatus and materials ... **3**

7 Procedure ... **3**
7.1 Sampling and preparation of samples ... 3
7.2 Preparation of analytical solution ... 3
7.3 Determination of chromium(VI) in the solution obtained from the extraction procedure ... 4
7.4 Blank solution ... 4
7.5 Calibration ... 5
7.6 Determination of the recovery rate ... 5
7.6.1 Influence of the matrix ... 5
7.6.2 Influence of the SPE material (6.9) ... 5

8 Calculation and expression of results ... **6**
8.1 Calculation of chromium(VI) content ... 6
8.2 Recovery rate (according to 7.6.1) ... 6
8.3 Expression of results ... 7

9 Test report ... **7**

Annex A (informative) **Solid phase extraction (SPE) material** ... **8**

Annex B (informative) **Accuracy** ... **9**

Annex C (informative) **Comparison between the colorimetric method (ISO 17075-1) and the ionic chromatography method (ISO 17075-2)** ... **11**

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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see www.iso.org/patents).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation on the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT) see the following URL: www.iso.org/iso/foreword.html

ISO 17075-1 was prepared by the Chemical Test Commission of the International Union of Leather Technologists and Chemists Societies (IUC Commission, IULTCS) in collaboration with the European Committee for Standardization (CEN) Technical Committee CEN/TC 289, *Leather*, the secretariat of which is held by UNI, in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

IULTCS, originally formed in 1897, is a world-wide organization of professional leather societies to further the advancement of leather science and technology. IULTCS has three Commissions, which are responsible for establishing international methods for the sampling and testing of leather. ISO recognizes IULTCS as an international standardizing body for the preparation of test methods for leather.

This first edition of ISO 17075-1, together with ISO 17075-2, cancels and replaces ISO 17075:2007, which has been technically revised.

The main changes compared to ISO 17075:2007 are as follows:

— the sample preparation has been revised;

— mechanical shaking in 7.1, 7.2 and 7.3 has been revised.

A list of all parts in the ISO 17075 series can be found on the ISO website.

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Leather — Chemical determination of chromium(VI) content in leather —

Part 1: Colorimetric method

1 Scope

This document specifies a method for determining chromium(VI) in solutions leached from leather under defined conditions. The method described is suitable to quantify the chromium(VI) content in leathers down to 3 mg/kg.

This document is applicable to all leather types.

The results obtained from this method are strictly dependent on the extraction conditions. Results obtained by using other extraction procedures (extraction solution, pH, extraction time, etc.) are not comparable with the results produced by the procedure described in this document.

If a leather sample is tested with both this document and ISO 17075-2, the results obtained with ISO 17075-2 are considered as the reference. The advantage of the method described in ISO 17075-2 is that there are no interferences from the colour of the extract. Nevertheless, interlaboratory trials do not show significant differences (see Annex C) and the results are comparable between both methods.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 2418, *Leather — Chemical, physical and mechanical and fastness tests — Sampling location*

ISO 3696, *Water for analytical laboratory use — Specification and test methods*

ISO 4044:2017, *Leather — Chemical tests — Preparation of chemical test samples*

ISO 4684, *Leather — Chemical tests — Determination of volatile matter*

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

— ISO Online browsing platform: available at http://www.iso.org/obp

— IEC Electropedia: available at http://www.electropedia.org/

3.1
chromium(VI) content
amount of chromium(VI) in leather determined after extraction with an aqueous salt solution at pH 7,0 to 8,0

Note 1 to entry: The chromium(VI) content is reported as chromium(VI) in milligrams per kilogram (mg/kg), expressed as the dry mass of the sample.

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