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Leather — Chemical determination of the preservative (TCMTB, PCMC, OPP, OIT) content in leather by liquid chromatography —

Part 2: Artificial perspiration extraction method

Cuir — Dosage chimique des agents de conservation (TCMTB, PCMC, OPP, OIT) dans le cuir par chromatographie en phase liquide —

Partie 2: Extraction à la sueur artificielle

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ISO copyright office
CP 401 • Ch. de Blandonnet 8
CH-1214 Vernier, Geneva
Phone: +41 22 749 01 11
Email: copyright@iso.org
Website: www.iso.org

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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 of the voluntary nature of standards, 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 www.iso.org/iso/foreword.html.

This document 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 13365-2, together with ISO 13365-1, cancels and replaces ISO 13365:2011, which has been technically revised and split into two parts. The main changes in ISO 13365-2 from ISO 13365:2011 are as follows:

— the title has been changed to indicate the method of extraction;

— the use of HPLC with mass spectrometric (MS) detection has been included;

— Clause 5 (former Clause 4) has been technically modified. In addition, the calibration information (previously in 6.4) is now included in Clause 5;

— the chromatographic conditions (previously in 6.3) are now included in a new Annex A. Annex A also includes additional conditions for use with MS detection.

A list of all parts in the ISO 13365 series can be found on the ISO website.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

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Leather — Chemical determination of the preservative (TCMTB, PCMC, OPP, OIT) content in leather by liquid chromatography —

Part 2: Artificial perspiration extraction method

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1 Scope

This document specifies a test method by artificial perspiration solution aqueous extraction for the determination of the aqueous extractable content of the following preservative agents in leather by liquid chromatography:

— 2-(thiocyanomethylthio)-benzothiazole (TCMTB);

— 4-chloro-3-methylphenol (PCMC);

— 2-phenylphenol (OPP);

— 2-octylisothiazol-3(2H)-one (OIT);

This method can also be used to determine breakdown products of these preservative agents, which protect leather from microbiological attack.

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, *Leather — Chemical tests — Preparation of chemical test samples*

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

3 Terms and definitions

No terms and definitions are listed in this document.

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

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

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

4 Principle

Extraction of the leather is performed with an aqueous solution in a thermostatic flask shaker. The filtered extract is analysed by high-performance liquid chromatography (HPLC) with ultraviolet (UV) or mass (MS) detection.

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