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**Leather — Chemical tests —
Determination of pentachlorophenol
content**

*Cuir — Essais chimiques — Détermination de la teneur en
pentachlorophénol*



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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.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

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.

ISO 17070 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 Standardisation (CEN) Technical Committee CEN/TC 289, *Leather*, the secretariat of which is held by UNI, in accordance with the Agreement on technical co-operation 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 17070 cancels and replaces the first edition of CEN TS 14494:2003, which has been technically revised.

Introduction

This document is based on the English translation of *DIN 53313 Draft 1999* and describes a procedure where PCP is acetylated before the chromatographic detection and the amount of the detected PCP acetate is quantified via an internal standard correction.

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Leather — Chemical tests — Determination of pentachlorophenol content

1 Scope

This International Standard specifies a method for determining the content of pentachlorophenol (PCP), its salts and esters in leather.

2 Normative references

The following referenced documents are indispensable for the application 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 4684, *Leather — Chemical tests — Determination of volatile matter*

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

ISO 4044, *Leather — Preparation of chemical test samples*

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

3 Principle

First of all, the leather sample is submitted to steam-distillation.

After extraction into *n*-hexane the PCP is acetylated by acetic anhydride and the PCP acetates are analysed by gas-chromatography with an electron capture detector (ECD) or mass selective detector (MSD). Quantification is performed by an external standard and correction made with an internal standard.

4 Apparatus

- 4.1 **Gas chromatography with ECD or MSD.**
- 4.2 **Analytical balance**, weighing to 0,1 mg.
- 4.3 **Suitable apparatus designed for steam distillation.**
- 4.4 **Shaking machine.**
- 4.5 **Volumetric flasks**, 500 ml, 50 ml.
- 4.6 **Erlenmeyer (conical) flask**, 100 ml.