



NSAI
Standards

Irish Standard
I.S. EN ISO 17070:2015

Leather - Chemical tests - Determination of tetrachlorophenol-, trichlorophenol-, dichlorophenol-, monochlorophenol-isomers and pentachlorophenol content (ISO 17070:2015)

I.S. EN ISO 17070:2015

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English Version

Leather - Chemical tests - Determination of tetrachlorophenol-, trichlorophenol-, dichlorophenol-, monochlorophenol-isomers and pentachlorophenol content (ISO 17070:2015)

Cuir - Essais chimiques - Détermination de la teneur en isomères de monochlorophénol, dichlorophénol, trichlorophénol, tétrachlorophénol et en pentachlorophénol (ISO 17070:2015)

Leder - Chemische Prüfungen - Bestimmung des Gehalts an Tetrachlorphenol-, Trichlorphenol-, Dichlorphenol-, Monochlorphenol-Isomeren und Pentachlorphenol (ISO 17070:2015)

This European Standard was approved by CEN on 3 January 2015.

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EN ISO 17070:2015 (E)

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Foreword

This document (EN ISO 17070:2015) has been prepared by Technical Committee ISO/TC IULTCS "International Union of Leather Technologists and Chemists Societies" in collaboration with Technical Committee CEN/TC 289 "Leather" the secretariat of which is held by UNI.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by August 2015, and conflicting national standards shall be withdrawn at the latest by August 2015.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN [and/or CENELEC] shall not be held responsible for identifying any or all such patent rights.

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According to the CEN-CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

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The text of ISO 17070:2015 has been approved by CEN as EN ISO 17070:2015 without any modification.

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**INTERNATIONAL
STANDARD**

**ISO
17070**

IULTCS/IUC 25

Second edition
2015-02-15

**Leather — Chemical tests —
Determination of tetrachlorophenol-,
trichlorophenol-, dichlorophenol-,
monochlorophenol-isomers and
pentachlorophenol content**

*Cuir — Essais chimiques — Détermination de la teneur en
isomères de monochlorophénol, dichlorophénol, trichlorophénol,
tétrachlorophénol et 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.

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).

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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 WTO principles in the Technical Barriers to Trade (TBT) see the following URL: Foreword - Supplementary information

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 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 second edition of ISO 17070 cancels and replaces the first edition (ISO 17070:2006), which has been technically revised. ISO 17070:2006 previously replaced CEN/TS 14494.

The following changes have been made:

- the additional chlorinated phenol substances tetrachlorophenol-, trichlorophenol-, dichlorophenol-, and monochlorophenol-isomers are included;
- a new [Clause 3](#) has been inserted to list the chlorophenol abbreviations;
- the examples of chromatographic conditions, previously in 7.4, have been moved to a new [Annex A](#) (the previous [Annex A](#) becomes [Annex B](#)).

[Annexes A](#) and [B](#) are informative.

Introduction

This International Standard describes a procedure where the chlorinated phenols (CP) are acetylated before the chromatographic detection and the amount of the detected chlorinated phenyl acetate is quantified via an internal standard correction.

Leather — Chemical tests — Determination of tetrachlorophenol-, trichlorophenol-, dichlorophenol-, monochlorophenol-isomers and pentachlorophenol content

1 Scope

This International Standard specifies a method for determining the content of tetrachlorophenol-, trichlorophenol-, dichlorophenol-, monochlorophenol-isomers, and pentachlorophenol, its salts, and esters in leather.

NOTE Bromophenol isomers can also be determined using this method.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. 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 Abbreviations

The following abbreviations are used for chlorinated phenols in this International Standard:

CP chlorinated phenols

DiCP dichlorophenol

MoCP monochlorophenol

PCP pentachlorophenol

TCG tetrachloroguaiacol (tetrachloro-*o*-methoxyphenol)

TeCP tetrachlorophenol

TriCP trichlorophenol

4 Principle

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

After extraction into *n*-hexane, the chlorinated phenols (CP) are acetylated by acetic anhydride and the chlorinated phenyl 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 a correction made with an internal standard.



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