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**NATIONAL STANDARD OF THE  
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**Leather - Chemical tests - Guidelines for testing critical  
chemicals**

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### Foreword

This document complies with the provisions of GB/T 1.1-2020 "Standardization Work Guidelines Part 1. Structure and Drafting Rules of Standardization Documents"

Drafting.

This document has been modified to adopt ISO.20137.2017 "Leather Chemical Testing Guidelines for Testing of Key Chemical Substances in Leather".

Compared with ISO.20137.2017, this document has made the following structural adjustments.

---Added Appendix A "Technical differences between this document and ISO.20137.2017 and their reasons";

---Appendix B corresponds to Appendix A in ISO.20137.2017;

---Appendix C has been added, corresponding to column 5 of 4.2 Table 2 and column 5 of 4.3 Table 3 in ISO.20137.2017.

Compared with ISO.20137.2017, there are many technical differences between this document and the clauses involved in the outer margin of the page.

Single lines (I) are marked. A list of these technical differences and their causes is provided in Appendix A.

The following editorial changes have been made to this document.

---The name of the standard is modified to "Testing Guidelines for Key Chemical Substances in Leather Chemical Testing";

---Adjust the description of limited chemical substances not involved in the leather industry to the introduction;

---Change the table notes on pH in Table 1 to footnotes;

---Deleted the CAS numbers of chlorophenols and cadmium in Table 2;

- Added the note "See Appendix C for domestic and foreign laws, regulations and standards on the restriction of some chemical substances" in Table 2;
  - Added the note "See Appendix C for domestic and foreign laws, regulations and standards on the restriction of some chemical substances" in Table 3;
  - Added a column of serial numbers in each table of Appendix B (Informative) "Substance List";
  - Refined the material information of alkylphenols and alkylphenol polyoxyethylene ethers in Table B.1;
  - Added allergenic disperse dyes, carcinogenic dyes, chlorophenols and polycyclic aromatic hydrocarbons in Table B.3, Table B.4, Table B.5 and Table B.7
- qualitative information;
- Deleted some information in the phthalate substance information table in Table A.3 of ISO.20137.2017;
  - Deleted the material information of organotin compounds in Table A.5 of ISO.20137.2017;
  - ISO /T R16178 and CEN/T R16417 have been deleted from the references, and GB 30585 has been added.

Please note that some content in this document may be subject to patents. The publisher of this document assumes no responsibility for identifying patents.

## Introduction

This document outlines the current standards for key chemical testing methods in the leather industry and is intended to provide guidance for those involved in the leather industry.

For convenience, especially to provide reference for setting limit requirements for chemical substances.

In recent years, domestic and foreign standards and regulations have restricted the use of certain chemical substances in consumer products, and the leather industry has also taken relevant measures

Responding to these restrictions, such as requiring their suppliers to provide certificates of conformity, the analytical test methods involved in these certificates are often not applicable on leather.

Leather is a material with a relatively complex chemical composition. Tanned leather is usually soluble in water at low temperatures (< 60°C) and pH 3.5~5.5.

Wet processing in liquid, mainly through the use of a range of anionic retanning agents (natural and/or synthetic), polymers, oils and anionic

Dyes, etc. to achieve the desired properties and colors. When analyzing and testing leather, some substances may dissolve in the extraction solution to form complexes during the extraction process.

It is a complex analysis system, so its impact on the detection results needs to be considered when establishing quantitative testing methods.

This document provides an overview of the testing method standards for special chemical substances in the domestic leather industry. Most of the method standards are provided by international standards.

Some standards are independently developed based on my country's actual conditions.

The lists of limited chemical substances mentioned in many domestic and foreign standards and regulations include many substances that have nothing to do with leather and are not mentioned in this document.

Chemical substances do not need to be considered in the leather industry to reduce unnecessary testing costs.

Testing Guidelines for Key Chemical Substances in Leather Chemistry Testing

## 1 Scope

This document provides guidance on testing methods for key chemicals in leather.

This document is applicable to the determination of various key chemical substances (especially limited chemical substances) in leather.

## 2 Normative reference documents

The contents of the following documents constitute essential provisions of this document through normative references in the text. Among them, the dated quotations

For undated referenced documents, only the version corresponding to that date applies to this document; for undated referenced documents, the latest version (including all amendments) applies to

this document.

GB/T 19941.1 Determination of formaldehyde content in leather and fur Part 1.High performance liquid chromatography (GB/T 19941.1-

2019,ISO 17226-1.2018,MOD)

GB/T 19941.2 Determination of formaldehyde content in leather and fur Part

2.Spectrophotometric method (GB/T 19941.2-2019,  
ISO 17226-2.2018,MOD)

GB/T 19941.3 Determination of formaldehyde content in leather and fur Part  
3.Formaldehyde release (GB/T 19941.3-2019,  
ISO 17226-3.2011, MOD)

GB/T 19942 Determination of banned azo dyes for chemical testing of leather and fur  
(GB/T 19942-2019, ISO 17234-1.  
2015,MOD)

GB/T 22807 Determination of hexavalent chromium content for chemical testing of leather  
and fur. Spectrophotometric method (GB/T 22807-2019,  
ISO 17075-1.2017,MOD)

GB/T 22808 Determination of chlorophenols for chemical testing of leather and fur (GB/T  
22808-2021, ISO 17070.2015,  
MOD)

GB/T 22930.1 Chemical determination of metal content in leather and fur Part 1.Extractable  
metals (GB/T 22930.1-  
2021,ISO 17072-1.2019,MOD)

GB/T 22930.2 Chemical determination of metal content in leather and fur Part 2.Total metal  
content (GB/T 22930.2-2021,  
ISO 17072-2.2019,MOD)

GB/T 22931 Determination of plasticizers for chemical testing of leather and fur

GB/T 26702 Chemical testing of leather and fur Determination of dimethyl fumarate content

GB/T 30398 Chemical testing of leather and fur Determination of allergenic disperse dyes

GB/T 30399 Chemical testing of leather and fur Determination of carcinogenic dyes

GB/T 33285 Chemical testing of leather and fur Determination of nonylphenol and  
nonylphenol polyoxyethylene ether content

GB/T 33392 Determination of 4-aminoazobenzene in banned azo dyes for chemical testing  
of leather and fur (GB/T 33392-  
2016,ISO 17234-2.2011,MOD)

GB/T 36929 Chemical testing of leather and fur Perfluorooctane sulfonyl compounds  
(PFOS) and perfluorooctanoic acid substances