



Newsleather

Stay curious, informed and connected

Edition 1, 2024

Welcome

This is the inaugural edition of our scientific newsletter, dedicated to providing the latest updates on research, regulatory developments, technology, and standard methods in the leather industry. Our goal is to keep you also informed about the most recent IULTCS news from our Member Societies.

In this first issue, we aim to give you an overview of all the eight IULTCS Commissions and update you on the activities of three Commissions, highlighting the work of each commission.

Throughout the year, our newsletters will cover specific topics such as news from our members, congress information, new publications, patents, and interviews with scientists, tanners, and regulatory specialists.

We hope this newsletter becomes a valuable resource for you, fostering a deeper understanding and appreciation of the dynamic world of leather science and technology. Please invite your colleagues and friends to subscribe.

Thank you for joining us on this journey. We look forward to your feedback and contributions in future editions.

Please share your comments and suggestions to secretary@iultcs.org. Thank you.

Warm regards, *The IULTCS Officers and Commission Chairs*

IULTCS PRESIDENT MESSAGE – Dr. Joan Carles Castell

I want to take a moment to welcome the “IULTCS Newsletter”!

At the time where the debates of the future of the leather industry play out in forums and social media, it is extremely relevant that those of us who are technologists and chemists contribute with commentary and insights that are exclusively based on scientific fundamentals.

This newsletter will also provide a unique opportunity for current and future chairmen to pass along information on the activities of each commission, including updates about the coming IULTCS Congress.

I would like to thank the promoters of this initiative. There is no doubt that this newsletter will reinforce the IULTCS objective of “maintaining regular contacts and effective cooperation between the Associates”.

IULTCS SECRETARY MESSAGE – Dr. Luis A. Zugno

The Newsleather is an exciting IULTCS collaboration focusing on science and research for the leather industry. This much-needed publication aims to foster communication among leather association members and inject motivation and optimism into the industry.

A heartfelt thank you to Dr. Giancarlo Lovato for his support on this project, and to Dr. Alberto Cattazzo for organizing subscriptions and distributing the newsletters. This newsletter belongs to all IULTCS associates and the entire leather community. My role is to edit and work together with you on producing the next editions.

Keep Tanning!

The IULTCS has eight Commissions with Chairs that are responsible for specific areas of knowledge in the Leather Industry. Here is a brief overview of their activities. For additional information please consult www.IULTCS.org .

International Union Leather Test Methods Commissions (IUC-IUF-IUP)

IUC Chairman – Dr. Tiziana Gambicorti

IUF/IUP Chairman – Gustavo Defeo

The IUC-IUF-IUT Commissions have the following roles:

Under a special arrangement with ISO, the IULTCS is responsible for developing the leather test methods for publication as joint ISO Standards (ISO/IULTCS methods).

Following the Vienna Agreement, the IULTCS Commissions hold technical meetings together with the corresponding European CEN/TC 289 Working Groups to prepare new leather test methods and to revise the existing ones. These Standards are approved in parallel at the international and European levels.

CEN/TC 289 is divided into four Working Groups:

WG1 – Chemical test methods on Leather

WG2 – Physical test methods

WG3 – Fastness test methods

WG6 – Test methods for tannery chemicals.

Those interested in participating in the development of leather test methods are encouraged to join the regular online technical meetings.

International Union of Environment Commission (IUE)

Daniele Bacchi – Chairman

The IUE Commission has the following roles:

The IUE Commission, comprising representatives from nearly 30 countries, convenes annually to address environmental issues and technological solutions related to pollution in tanneries. Drawing on global field developments and experiences, the IUE has crafted technical guidelines aimed at environmental protection within the leather industry.

International Union of Liaison and Communication Commission (IUL)

Julian Osgood - Chairman

The IUL Commission has the following roles:

Establishing and maintaining a network of global contacts within the leather industry that have a legitimate interest in and an authoritative platform to express opinions on issues affecting the industry.

Establishing and maintaining external media contacts for events or issues that may require an industry response.

International Union of Sustainability Commission (IUS)

Kim Sena - IUS Chairman

The Sustainability Commission oversees activities such as advising on sustainability policies, coordinating with various stakeholders, and making Recommendations on environmental programs.

This includes areas like energy and water conservation, water management, circular economy and environmental impact assessment.

International Union of Training Commission (IUT)

Ivan Kral – Chairman

The IUT Commission has the following roles:

Establishing a framework for global leather education/training facilities;
identifying global education/training facilities for the leather industry;
identifying and “validate” a continuing professional development (CPD)
program for leather industry people.

International Union of Research Commission (IUR)

Dr. Volker Rabe – Chairman

The IUE Commission has the following roles:

The optimum basis for a sustainable leather industry is a high-performance leather article and a positive image of the leather making process. The development of best practice technology, continuous improvement of the leather making process, and development of state-of-the-art eco-friendly chemicals are keys for success. These need to be supported by sound scientific processes and entrepreneurial innovation. It is the aim of the IUR to encourage global research projects and establish technology platforms to meet these requirements.

IULTCS COMMISSIONS REPORTS



Chemical Methods Dr. Tiziana Gambicorti

LATEST PUBLISHED ISO/IULTCS TEST METHODS

ISO 11936:2023 - IULTCS/IUC 42

Leather - Determination of certain bisphenols

New: The standard specifies a method for the determination of total extractable content in solvent (methanol) of Bisphenols A, B, F and S in leather, using liquid chromatography coupled with DAD/FLD/MS/(MS/MS) detector.

- **ISO 21135:2024 - IULTCS/IUC 442**

Chemicals for the leather tanning industry - Determination of certain bisphenols

New: The standard specifies a method for the determination of total extractable content in solvent (methanol) of Bisphenols A, AF, B, F and S in chemicals for the leather tanning industry, using liquid chromatography coupled with DAD/FLD/MS/(MS/MS) detector.

- **ISO 18218-1:2023 - IULTCS/IUC 28-1**

Leather - Determination of ethoxylated alkylphenol

Part 1: Direct method

Revision: The standard has been amended to eliminate chemicals for tannery as possible samples limiting the standard only for leather's samples: in fact, only ISO 18218-2 (Indirect method) provides acceptable results for that type of matrices.

- **ISO 20137:2023 - IULTCS/IUC 36**

Leather - Chemicals tests – Guidelines for testing critical chemicals in Leather

Revision: The list of critical chemicals has been updated, as well as related standards.

- **ISO 23702-1:2023 - IULTCS/IUC 39-1**

Leather — Per- and polyfluoroalkyl substances

Part 1: Determination of non-volatile compounds by extraction method using liquid chromatography

Revision: The list of determinable substances has been updated, in accordance with the corresponding standard for Footwear sector.

STANDARDS UNDER DEVELOPMENT:

- **ISO/FDIS 17234-1 - IULTCS/IUC 20-1**

Leather — Chemical tests for the determination of certain azo colourants in dyed leathers

Part 1: Determination of certain aromatic amines derived from azo colourants

Revision: The standard has been updated, adding Annex E for including colourants as samples and Annex F for describing a procedure for determination of free aromatic aniline in colourant and leather

▪ **ISO/DIS 23649 - IULTCS/IUC 400**

Chemicals for the leather tanning industry – Determination of cyclosiloxanes

New: The standard specifies a method for the determination of the total content of octamethylcyclotetrasiloxane (D4), decamethylcyclopentasiloxane (D5) and dodecamethylcyclohexasiloxane (D6) in chemicals for the leather. This method requires the use of Gas chromatography (GC) equipped with a single quadrupole mass spectrometer (MS).

▪ **ISO/CD 25202 - IULTCS/IUC 40**

Leather - Chemical analysis – Determination of glutaraldehyde content

New: The standard specifies a method for the determination of free and released glutaraldehyde in leathers, based on liquid chromatography (LC).

RECENT ACTIVITIES OF THE WORKGROUPS

For **WG1**, the group is working on skin testing, we do not have the date for the next meeting nor the agenda.

For **WG6**, of which I am the coordinator, instead, the last meeting was held October 9th, with the following agenda items:

- Interlaboratory results of the determination of melamine on chemicals
- Advancement of the standard on the determination of glutaraldehyde on chemicals



Two topics will be addressed in this Newsleather: the current status of the bisphenol regulation, which has been the subject of much discussion in recent years and the IULTCS Young Leather Scientist Grants (YLSG) 2025.

The leather industry is currently facing a variety of challenges. In addition to the current economically challenging environment and the recruitment of adequately trained young talent, the industry is also faced with an increasing number of legal regulations, particularly from Europe. This not only affects the chemicals used in leather production, but also increasingly the leather article itself.

BISPHENOLS

Since only two bisphenols are relevant to leather tanning—Bisphenol S (BPS) and Bisphenol F (BPF)—the overview in Table 1 focuses solely on these two. To provide a comprehensive update, I reached out to the European Chemistry for Textile and Leather (EUCTL) and obtained the latest information, for which I would like to thank the EUCTL Secretariat.

As of mid-2023, following the decision by Germany's Federal Office for Chemicals (the authority for REACH) to temporarily withdraw the dossier, neither BPS nor BPF is currently restricted or banned by legislation. However, the authorities have indicated that a new proposal will be available by mid-2025. This suggests that any restrictions on bisphenols for chemicals and leather articles would not come into effect until late 2027 at the earliest.

On a related note, ISO 11936:2023, a new standard for the determination of total bisphenol content in leather, was introduced this year to help measure these substances. Despite the regulatory delays, efforts to reduce

bisphenol levels are ongoing.

Regulatory information EU	BPS	BPF
Hazard identification (CLP) relevant for chemicals	Classified as Repr. 1B, H360FD Consequences if concentration in chemical mixtures is: – ≥ 0.1 % (w/w) listing in SDS section 3 – ≥ 0.3 % (w/w): labelling as Repr. 1B, H360FD	Not classified at the moment. CLH intention: proposal to classify as Repr. 1B, H360FD Expectation: inclusion in CLP Annex VI end of 2024 Consequences: same labelling as for BPS from 2025 onwards.
SVHC Candidate List relevant for chemicals	Included since 17/01/2023 Consequences if concentration in chemical mixtures is: – ≥ 0.1 % (w/w) listing in SDS section 3	Not listed at the moment Expectation: to be submitted as SVHC Candidate after CLP Annex VI (starting Q1/2025 maybe finalized in 2025) Consequences: same obligations as for BPS
relevant for leather articles	Consequences if concentration in leather article is ≥ 0.1 % (w/w): a. Communication duties according to REACH Art. 33 (article supplier provide the recipient with sufficient information (minimum the name of substance)) Consequences if ≥ 0.1 % (w/w) and total volume exceeds 1 t/a BPS b. Notification in the ECHA database SCIP necessary by manufacturer or importer (but not distributor)	Expectation: as soon as on the SVHC Candidate list (starting Q1/2025 maybe finalized in 2025) Consequences: same obligations as for BPS
REACH Annex XVII restriction relevant for chemicals and leather articles	BosC restriction proposal withdrawn 31/08/2023 → Authorities indicated new proposal 2 nd half of 2025 → In case of new proposal, process earliest finalized end of 2027	Due to the withdrawal of REACH Annex XVII restriction BPF (and also BPS) are currently not restricted or banned
Regulatory information U.S.		
California Proposition 65 relevant for leather articles	Listed since 29/12/2023 (Rep-Tox.) – consumer articles have to be labelled with a warning: article contains ... (no lower limit!) – BPS is neither restricted nor banned	Not listed

Table 1: Regulatory information on Bisphenols – Status September 2024

YLSG 2025

I would like to take this opportunity to once again highlight the IULTCS Young Leather Scientist Grants (YLSG) 2025. As part of the IULTCS’s commitment to nurturing young talent in the leather industry, these grants were established. The awards are open to scientists under the age of 35 who are affiliated with a university or leather school and are working on projects aimed at improving leather production, whether through chemical or mechanical innovations. Detailed information about the specific requirements for each award can be found on the IUR Research Commission page on the IULTCS website

<https://iultcs.org/commissions/iur-research-commission/>

Please not only consider potential projects but also actively promote YLSG

2025 to ensure a dynamic and diverse selection of submissions. A big thank you once again to the sponsors of these awards!



Test Methods Gustavo Defeo

Report of the activities in the IULTCS IUF and IUP Technical Committees - November 2023 to October 2024

The meetings of the IUP / CEN TC 289 WG2 and IUF / CEN TC 289 WG3 commissions were convened on the same days one after the other. In the period November 2023 / October 2024 we organized both technical committees in five opportunities each on the following dates: November 24, 2023; January 25, April 8, June 17 and September 24, 2024. We participated in the plenary on 10 October 2024, and we have planned a final meeting on December 2 to conclude the 2024. In abstract: ten ordinary meetings, one plenary, two meetings scheduled by the end of the year.

Activities

During this period, we have completed the review and published the new versions of **the ISO 2418:2023 Leather - Chemical, Physical, Mechanical and Fastness tests - Position and Preparation of Specimens for Testing**, and the **ISO 2419:2012 Leather - Physical and Mechanical Tests - Specimen and Test Piece Conditioning** standards, both initiated by the past convener.

In the new versions of both standards, we've eliminated the repetitions of some scopes. Among the decisions made, we chose to leave the placement and preparation of samples in the new ISO 2418, limiting ISO 2419 to the only conditioning. We have improved the English language terminology on both standards according to ISO requirements.

Following this activity, we continue with the revision of a series of standards considering that:

- Both these standards are transversal for the IUC (Chemical tests), IUP (physical-mechanical tests) and IUF (fastness tests) standards and therefore each of the three commissions will have to take them into account for future updates.
- During our meetings we came across the correct wording to be used on future standards updates, following ISO recommendations. The representatives of the different countries participating to our committees, will be responsible to translate these expressions to their respective languages.

The completion of both these updated represent the final step begun three years ago in IUF / CEN TC 289 WG3 with the replacement of the old textile ISO 105 A 01 with the more specific **ISO 7906 Leather — Tests for color fastness — General principles of testing** standard, which transversalities obliged our commission to initiate an updates campaign that will gradually occur following the usual regular revisions.

The first standards that we have updated are listed in the activities described for each working group:

IUP Commission / CEN TC 289 WG2

ISO 2419:2024 Leather - Physical and mechanical tests – Specimen and test piece conditioning.

ISO 2417:2016 Leather - Physical and mechanical tests - Determination of the static absorption of water

ISO 3377-2:2016 Leather - Physical and mechanical tests - Determination of tear load - Part 2: Double edge tear

ISO 17236:2016 Leather - Physical and mechanical tests - Determination of extension set.

ISO 3379:2015 Leather - Determination of distension and strength of surface (Ball burst method)

ISO 17232 - Leather - Physical and mechanical tests - Determination of heat resistance of patent leather

ISO 5403-1 - Leather - Determination of water resistance of flexible leather - Part 1: Repeated linear compression (penetrometer)

IUF Commission / CEN TC 289 WG3

ISO 20433:2012 Leather - Tests for color fastness – Color fastness to crocking.

ISO 20701:2018 Leather - Tests for color fastness – Color fastness to saliva

ISO 11641 - Leather - Tests for color fastness - Color fastness to perspiration

ISO 11642 - Leather - Tests for color fastness - Color fastness to water

In addition of these updates, we have finished drafting two new standards:

ISO/DIS 25089 - Leather - Tests for color fastness – Color fastness to sea water which is an adaptation to the leather matrix of the ISO 105-E02:1994 "Textiles — Tests for color fastness — Part E02: Color fastness to sea water standard.

ISO/DIS 7979 Leather – Tests for color fastness – Color fastness to hydroalcoholic mixtures