

# ZDHC and chemical management solutions for the textile and leather industries

UL Solutions is your strategic partner in helping you achieve your sustainable chemistry goals



Safety. Science. Transformation.™



## Reducing discharge of hazardous chemicals

The textile and leather industries are under increasing pressure to minimize their impact on the environment and improve the sustainability of supply chains. One aspect of textile and leather supply chain management under particular scrutiny is the use of hazardous chemicals in the manufacturing process that can be discharged into wastewater.

Numerous initiatives have emerged to address this issue, including the Joint Roadmap toward Zero Discharge of Hazardous Chemicals (ZDHC), developed in response to the Greenpeace Detox campaign, which demands that hazardous chemicals are eliminated from textile and leather supply chains to be replaced by safer alternatives.

The ZDHC Roadmap to Zero Program evaluates different steps of the value chain and establishes specific modules, guidelines, requirements and tools in the following focus areas to improve chemical management:



### Input

Guide the industry to adopt safer chemicals with the ZDHC Manufacturing Restricted Substances List (ZDHC MRSL), the ZDHC Gateway – Chemical Module, the ZDHC InCheck™ and various conformance parameters.



### Process

Harmonize good chemical management guidelines with the ZDHC Chemical Management System (CMS) Framework, the Technical Industry Guide (TIG) and the Chemical Inventory List (CIL).



### Output

Verify input and process work with the ZDHC Wastewater Guidelines, including the ZDHC Wastewater and Sludge Laboratory Sampling and Analysis Plan and the ZDHC Gateway – Wastewater Module.

To meet the ambitious requirements of these initiatives or even understand how your company already meets them, it is vital to have in-depth supply chain knowledge in order to identify areas for improvement, develop corporate policies and seek alternative services. UL Solutions can help.

## Key steps for sustainable chemical management in the textile and leather supply chains



1

### Commitment and engagement

Creating a corporate chemical management policy. A plan for implementation of the commitments of the policy should be elaborated and clarified in a strategy document.



2

### Supply chain transparency

Including in the chemical management policy procedures and practices adopted for purchasing, transparency and traceability of the chemicals used.



3

### Implementation

Conducting assessments, implementing health and safety actions, managing a Chemical Inventory List (CIL) and Safety Data Sheet (SDS), ensuring safe storage and handling procedures



4

### Output management

Controlling wastewater, sludge, air and solid waste outputs to reduce pollution.



5

### Process control

Ensuring proper implementation of a CMS through records and documents control, incidence management and general maintenance.



6

### Continuous improvement

Reviewing of CMS, internal or external audits and improving in identified areas. Training at the workplace to minimize accidents and environmental risk.



## How UL Solutions can help

UL Solutions offers comprehensive ZDHC solutions and can assist you in the development of a Detox action plan.

We offer advisory services to help keep you up to date on the current regulatory information so you can better comply with the continuously evolving safety requirements for consumer products. We monitor the developments of new international laws and standards and support you regarding technical issues, chemical requirements and compliance demands.

Whether it is testing and analyzing your wastewater according to the latest ZDHC requirements, increasing sustainable chemistry skills within your global supply chain, or implementing a chemical management program, UL Solutions can help.



### **Chemical management program development**

A chemical management system is a systematic approach to the procurement, storage, usage and recycling of chemicals within a system or plant. Key points in a chemical management program are:

- Manufacturing Restricted Substances List (MRSL) implementation.
- Chemical products inventory setup.
- Certification and testing of chemicals for compliance.
- Chemical purchasing policy creation.
- Environmental, health and safety (EHS) process improvements.

Our chemical experts can support you in all aspects of the chemical management program: from the development of a restricted substances list, the inventory of chemicals and the implementation of a suitable test program that takes the entire supply chain into consideration.

UL Solutions offers Level 1 certification to ZDHC MRSL, helping you to demonstrate that the chemical formulations used in a product's manufacturing do not contain any restricted ZDHC MRSL substances.

Using a thorough document review coupled with verification testing, UL Solutions validates compliance and provides the corresponding documentation to demonstrate conformance with Level 1 ZDHC requirements. Level 1 conformance is the first step chemical companies can take to support stakeholders in the apparel, textile, leather and footwear industry in sourcing safer chemicals.

### Testing and analysis

Wastewater testing requires specific knowledge, experience and equipment. Correct sampling is the first phase of the analysis process and significantly impacts the assessment of wastewater quality per the specific technical standards of ZDHC wastewater requirements.

Our ZDHC-approved laboratories can conduct wastewater and sludge analysis according to the ZDHC Wastewater Guidelines and submit data on behalf of suppliers to the ZDHC Gateway – Wastewater Module. Wastewater tests determine the safety measures against the use of prohibited and high-risk chemicals.

### Audits

In addition to the testing activity, UL Solutions can be your partner for the implementation of a chemical management strategy through audit activities focused on several environmental-related topics such as:

- Chemical management systems
- Environmental management systems
- Adherence to environmental regulations

- Wastewater management
- Existence of suitable treatment systems
- Water consumption
- Quality and monitoring
- Emergency response

### Training and education

Our ZDHC-approved trainers can present official ZDHC trainings in many languages, all over the globe, in-person and online sessions.

We offer different opportunities to increase awareness and skills of your company and your suppliers: from the basic introductory ZDHC training on the introduction to chemical management for the textile and leather industries to wastewater sessions, as well as more structured training on the ZDHC Chemical Management System – Technical Industry Guidelines.

We organize open sessions through the ZDHC Academy tool, but we also schedule private sessions for brands, retailers and their suppliers.





## UL Solutions is your strategic partner for sustainability

Together with ZDHC and chemical management offerings, our global team can support the textile and leather industry with many sustainability services, including:

- Textile Exchange Standard services for Global Recycled Standard (GRS) and Recycled Claim Standard (RCS)
- Durability solutions
- Environmental Claim Validation
- Responsible sourcing for sustainable supply chains
- HIGG Index services
- Environmental, social and governance (ESG) reporting software



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