

PRIMARK®

# CHEMISTRY

Primark Environmental Insights 2021/22



## WHY IT MATTERS

**Chemistry is essential in the fashion industry as it enables the creation of a wide array of materials and colours used in the manufacturing of clothes. From the polymers used to make fibres like polyester, to the complex molecules used to dye and finish fabrics, chemistry brings many benefits to our industry. Chemical technologies will also play a vital role in helping to solve a number of key industry challenges, such as improving the durability, and recyclability, of our clothes. Given our use of cotton, if we look deeper into our supply chain, we also find that chemistry can be used within agriculture, in the form of fertilisers and pesticides.**

Many of the targets under our Primark Cares strategy have strong ties to chemistry. For example, most chemicals in our supply chain are used during the 'wet processing' phase, which includes dyeing, printing, bleaching, tanning or washing of materials. It is within these processes that we see the greatest demand for water and energy.

By making considered choices in the chemicals used, and ensuring they are used effectively, improved chemical management can enable a manufacturing facility to lower greenhouse gas emissions and reduce water use. Although a number of finished goods factories are able to carry out these processes on site, the majority of wet processes are carried out at specialist factories further up our supply chain. Given the importance of selecting and using chemicals in the right way, it is crucial that we support our suppliers and provide them with the tools and guidance needed to use chemicals safely.

There are also potential risks associated with the mismanagement of chemicals. Chemicals must be managed responsibly to ensure they are used safely and that hazards are avoided or reduced.

### Our commitments and partnerships

Chemical management is a foundational component of our Environmental Sustainability programme. Yet, the complexity of our shared supply chain and the global chemical industry represent a challenge. Therefore, collaboration in this area is key to improving chemicals management practices within our supply chain.

- **Zero Discharge of Hazardous Chemicals (ZDHC) Foundation:** We are longstanding members of ZDHC Foundation since 2015, and as a board member, are helping to steer the direction of sustainable chemical management across the industry. This year, ZDHC has published a Third Impact Report to demonstrate collective progress and the remaining challenges across textiles, apparel, leather and footwear.
- **Sustainable Apparel Coalition (SAC):** We are members of the SAC, a multi-stakeholder non-profit focused upon measuring, improving and sharing performance around environmental and social impact. The SAC's work includes the development of the Higg Index, a suite of tools and modules which members use to measure environmental and social performance in a standardised way at brand, facility and product levels. The Higg Index is used by Primark and widely adopted by our supply chain to improve environmental performance.
- **Apparel and Footwear International RSL Management (AFIRM):** We joined the AFIRM Group in 2021, allowing us to collaborate with other brands and further shape the evolution of tools used to manage chemicals within our industry, with a strong focus on finished goods compliance.

# OUR APPROACH

Our long-established chemical management programme has been in place for almost a decade. In that time, we have worked hard to restrict the use of hazardous chemicals in our supply chain with a focus on three areas:

- input chemistry compliance against the ZDHC Manufacturing Restricted Substances List (MRSL);
- better chemical management practices in our supply chain; and
- compliance of product and factory emissions with industry guidelines.

While collaboration is key in this space, we are continuously pushing ourselves to accelerate our transition to more sustainable chemistry. This is supported by our on-the-ground Environmental Sustainability team who engage directly with the factories that make our products and materials and gather feedback on what is working or areas for improvement.

## What we're doing

Responsible chemical management represents an effective and systematic approach to controlling which chemicals are used, and – importantly – how they are used. Once the right chemical is selected and used, there may also be waste generated during the process. In accordance with good management practices, a robust approach to chemical management must also consider how such waste is treated and disposed of, to minimise the impact on people or the environment.

### Managing input chemistry

When a chemical is delivered into a facility, it must be managed safely and in accordance with local law. Depending on the type of chemical, the approach to management could differ. To reduce the possible risks associated with using certain chemicals, we use several tools.

We communicate our Restricted Substances List (RSL) to our suppliers, which sets strict limits for the chemicals used in manufacturing processes.

Primark's RSL is aligned with the ZDHC MRSL Version 2.0, and the substances and their associated limits which are defined by the ZDHC MRSL have been maintained. However, additional substances are included to align with existing product compliance limits.

Once the correct chemistry has been procured and delivered to a site, a factory must maintain a Chemical Inventory List (CIL). This is a foundational part of chemical management, as it allows a facility to track and manage chemicals onsite.

This year we have continued to roll out a chemical inventory management tool called [Cleanchain](#), which is managed by ADEC Innovations, a ZDHC-approved solution provider. This solution provides several benefits, as it allows the factories within our supply chain to electronically upload their chemical inventory and share it with us. Importantly, the CleanChain solution connects to the ZDHC Gateway, and we're able to track the MRSL compliance levels of those factories and gain visibility into the choice of chemicals used on site to process the materials in our products. The platform also enables ClearStream reports to be analysed with increased automation, which promotes performance monitoring and helps to verify conformance to the [ZDHC MRSL](#) and [Wastewater Guidelines](#). To date, we were able to track that 177 suppliers and factories have adopted the [CleanChain Chemical Module](#) – representing 53% of the strategic factories connected to our top 100 suppliers in scope of ZDHC. We are working to increase this number across our priority factories over the coming year.

### Smarter processes

To make sure our expectations are met, it is important that our suppliers and their factories understand our requirements and have the capability to manage chemicals effectively. Our regional Environmental Sustainability team is located across our key sourcing markets, and they engage directly with our factories to provide awareness and training in relation to chemical management.

### Supplier training

In 2021, our in-country Environmental Sustainability team delivered more than 5,000 hours of chemical management training to our suppliers and their factories. By equipping our supply chain with the skills and understanding of our strict requirements, we're helping to elevate their capacity and reduce the likelihood of chemical management errors.

ZDHC's Supplier to Zero (StZ) programme sets out a roadmap for suppliers to help them meet the requirements associated with the ZDHC programme. It focuses on equipping them with the skills needed to set up and implement effective chemicals management systems, which is paramount for both worker and environmental safety.

Last year, we included 37 wet processing factories in our supply chain in a pilot of the StZ programme. Feedback has been positive, with participants noting that the pilot helped them establish an integrated approach to chemical management. It has also helped them raise their scores in industry benchmarking assessments. Now, we are exploring options for scaling up StZ, which links to training on Chemical Management Systems and implementation of ZDHC's Technical Industry Guide.

In addition, as a member of the SAC, we also widely deploy the Higg Facility Environmental Module (FEM) across our supply chain. This tool provides us with insight into the chemical management practices within our supply chain where this tool is implemented. We continue to scale the Higg FEM across our supply base and rank supplier performance.

### Testing wastewater

Our Wastewater Testing Programme helps us confirm that key factories within our supply chain are adhering to the ZDHC Wastewater Guidelines. It allows us to monitor the chemical composition of wastewater discharge, which we can also use as a proxy for MRSL compliance. We require key factories in our supply chain to test their wastewater and disclose test results on the ZDHC Gateway.

To date, our programme of testing has focused on Bangladesh. The majority of key factories in Bangladesh tested their wastewater in 2021 and the results were encouraging. There were no breaches of legal limits and 94% of factories met the ZDHC limits. We're working on remediation with the small number of factories that did not meet the ZDHC limits. We're also looking at how to scale this up to our other key sourcing countries. For more information about our approach to water stewardship, please refer to our [Environmental Insights on Water](#).

### Testing finished products

Compliance with our RSL is a requirement of doing business with us. If any product fails to meet our RSL requirements, the supplier and factory responsible for the failure is subject to remediation. They must carry out root-cause analysis and share a corrective and preventative action plan with us.

Our Compliance Chemical Testing Programme covers a number of restricted substance classes, including:

- alkyl phenol ethoxylates (APEOs);
- per- and polyfluorinated chemicals (PFCs);
- phthalates;
- chlorinated organic carriers;
- formaldehydes;
- heavy metals (lead, nickel, chromium VI);
- organotin; and
- polycyclic aromatic hydrocarbons.

### Compliance action

If a supplier is found to be over the permitted limit of a restricted chemical, we'll engage with them to quickly rectify the problem. As set out above, many chemical processes, such as wet processing, take place at factories in the second tier of our supply chain. As a result, our chemical testing and broader management programme is incredibly important. Our stringent programme of monitoring and supporting our suppliers through our regional Environmental Sustainability team, ongoing testing, and use of chemicals management software, helps us spot issues as they arise.

We continue to train factories and suppliers, outlining our specific requirements for restricted substance management to ensure they understand their responsibilities. Our Environmental Sustainability team will also carry out more stringent reviews to make sure no further issues arise.

### Supporting more effective chemical management within factories

We take chemical failures extremely seriously and prioritise chemicals that we deem to be high risk. If an issue is identified, we work quickly with the supplier to implement a remediation process that includes a root cause analysis and corrective action plan. This includes the following actions:

- immediately identify and dispose of the chemicals responsible for the failure;
- collect the declaration letter from the chemical manufacturer for full disclosure of an alternative formulation;
- ensure all new purchased formulations were listed on the ZDHC gateway;
- update chemical purchase policies and procedures;
- retrain workers on the topic of chemicals management and product compliance;
- upload their chemical inventory into CleanChain; and
- communicate with the upstream suppliers about Primark's MRSL and RSL requirements.

# OUR PROGRESS

## 2014

We signed up to Greenpeace's [Detox Commitment](#).

## 2015

We committed to ZDHC's Roadmap to Zero programme. We also published a [Restricted Substances List \(RSL\)](#) that incorporated ZDHC's Manufacturing Restricted Substances List (MRSL).

## 2016

We updated our [Code of Conduct](#) and [Environmental Policy](#) to include our commitments to the ZDHC MRSL and Wastewater Guidelines.

## 2017

We launched a Wastewater Testing Programme in Bangladesh.

## 2018

We developed our Chemical Management Implementation Toolkit to support suppliers with implementing ZDHC's requirements. We also identified a global network of laboratory providers to support our supplier testing and training programmes.

## 2019

We introduced remediation programmes for chemical test failures on product and in wastewater in our supply chain, which identify root-causes of failures and develop corrective action plans to prevent them reoccurring.

## 2020

We launched our Chemicals Management Guidance and updated our [Restricted Substance List \(RSL\)](#) in line with [ZDHC MRSL version 2.0](#).