

Towards toxic free fashion report 2021

Introduction

H&M Group has a long history of working with chemical management. Since 2011 we have committed to Greenpeace's [Detox commitment](#). In line with this commitment, we are transparently communicating our chemical management achievements and learnings on a yearly basis. However, we have widened the reporting scope to also include our 2030 goal of toxic free fashion. Progressive chemical management is a crucial part of reaching our ambition to become circular.

H&M Group's chemical management is cross functional and collaborative, therefore a variety interrelated topics are covered in this report such as chemical restrictions, the ZDHC programme and our stakeholder engagement. This report also describes our ambition to move beyond compliance, as well as recent external acknowledgements.

H&M Group chemical restrictions

We have adopted common and strict industry standards for our [H&M Group Chemical Restrictions](#), which is based on the [AFIRM RSL](#) and [ZDHC MRSL 2:0](#).

In addition to these industry restrictions, H&M Group has strategically phased out, and/or will phase out, some specific chemical substances or materials such as:

- DMF solvent (by 2021 we achieved 100% phase out), commonly used in synthetic leather production.
- Substances on the REACH Candidate List are always restricted
- Complete ban for biocide treated articles
- Complete ban for flame retardants
- Complete PFC /PFAS ban
- Potassium Permanganate (PP) used to distress denim will be banned from January 2023. During 2021 we already reached 79 % free of PP. We also advocated for PP to be included in ZDHC MRSL 3:0.

H&M Group approach to chemicals in recycled materials

We completed our large-scale study with IKEA and others on [chemicals in recycled textiles](#). Through broad industry collaboration we have been able to create a large-scale database to understand potentials and challenges presented by recycled textiles from a chemical contamination perspective. Findings included:

- **Post-consumer cotton:** NPEO had a high detection rate of 62% (but still with values below RSL-limits)
- **Post-consumer wool:** High detection rate for formaldehyde of just above 50 % (but still with values below RSL-limits). The substance that really stands out here is NPEO which was detected above the RSL limit in 94% of the tests.
- **Post-consumer polyester:** polycyclic aromatic hydrocarbons had the highest detection rate of 45% (but still with values below RSL-limits). But chlorinated benzene and toluene substances, extractable cadmium, and the phthalate DEHP failed against RSL limits in many of the tested samples.

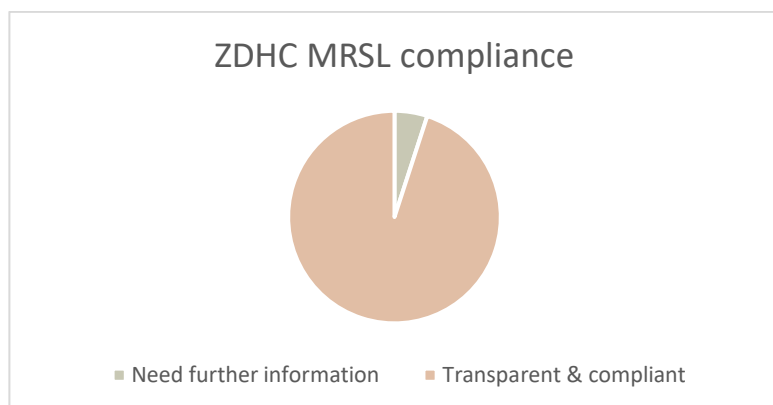
We will use the findings to raise awareness concerning the chemical content of recycled textiles and to support legislation around the circular economy. We have also used the data to further develop and improve our internal chemical testing strategies and restrictions.

ZDHC programmes

Having enrolled all our suppliers in the ZDHC programme [Roadmap To Zero](#), we continue to monitor waste water as well as our suppliers' input chemicals. We have goals related to our suppliers using the ZDHC Gateway, a database for chemical products fulfilling the ZDHC MRSL. To see our work in practice please watch our [video](#).

Input chemical management

- We achieved 95 % ZDHC MRSL compliance and will continue to work towards our goal of 100%. Full ZDHC MRSL compliance is proving challenging due to the variety and complexity of our supply chain. Our wide and dynamic product assortment means that our suppliers must use many variations of recipes in their production. Achieving 100% is a complex and concerted effort between us, our suppliers, and their chemical suppliers including the certification bodies that evaluate the chemical compliance.



- 81% ZDHC Gateway utilisation. We believe that the best way to reach 100% ZDHC MRSL compliance is by using the chemicals that are listed on ZDHC's Gateway database. These chemicals are tested and reviewed against ZDHC's standards. This achievement is based on the ZDHC Performance InCheck of our collective supply chain.

Wastewater testing

- In 2021 we reached 99.9 % ZDHC MRSL compliance for wastewater across our supply chain.
- 98% of our tier one and two suppliers that have on-site effluent treatment plant (ETP) are treated to achieve or exceed ZDHC foundational level discharge limits for BOD, COD and TSS— indicating functionality of their ETP system.
- We have root cause analysis routines in place to handle each failure to help us and our suppliers reach 100%. By sharing our results, we encourage transparency. All wastewater results are also published on ZDHC's platform, DetoxLive <https://www.detox.live/>.
- For more specific information on our wastewater testing and the results, please also see our latest [discharge analysis](#)

Capacity Building and Chemical Management System

We started our training program with ZDHC Academy platform for Chemical Management System Technical Industry Guide by partnering with Nimkartek. This supported our suppliers to develop

their chemical management system for more sustainable production. Additionally, we are training 20 suppliers in Introduction of ZDHC through the ZDHC Academy platform to secure understanding of ZDHC and its programmes for input control, chemical management and output control.

Moreover, we are implementing ZDHC's Supplier to Zero platform with ZDHC's Brand Implementation Support Token in 100 of our suppliers. Supplier to Zero is both an assessment and development platform on chemical management. Participants in the Supplier to Zero programme have access to personalised action plans based on their current condition.

On the local level, we also had various capacity building engagements with our supply chain partners, strengthening our program implementation on the ground.

Indonesia

Indonesia team hosted ZDHC Gateway Introduction for local Indonesian chemical suppliers in May 2021 in collaboration with ZDHC South Asia. The intention was to address the gap in the local chemical industry and enable higher usage of ZDHC Gateway because Indonesian suppliers also use local chemical suppliers in their production.

Indonesia team also held one-on-one BVE3 training for 14 new tier 2 suppliers between June 7th – 14th 2021 in collaboration with BV. The idea was to give understanding and technical instructions to these new suppliers regarding BVE3 and how to improve their MRSL compliance.

India

India team hosted chemical goals and expectation training for over 50 existing tier one and two in January and February 2021 to improve MRSL compliance and discuss performance gaps in previous years. In March to April 2021, we introduced new tier one and two suppliers to the ZDHC Program and India expanded the program scope to cover footwear, bags and belts suppliers.

Aside from these collective trainings, India team also conducted one-on-one training throughout July to September 2021 to low performing units to improve performance related to input chemical management and chemical management system.

For wastewater quality management, India performed training on Effluent Treatment Plant management for selected suppliers in June 2021 to further secure wastewater quality and public disclosure of the results.

Bangladesh

Bangladesh team hosted a training for H&M Kids' suppliers in April 2021 on how to achieve the elevated goal of using ZDHC Gateway, which indicates the suppliers' maturity level on chemical selection.

Aside from this training, Bangladesh also delivered screened chemistry pilot, which included special capacity building in June 2021, on how to scale up screened chemistry and the importance of hazard assessment to fully secure our products are free from hazardous chemicals.

Turkey

In May 2021, the Turkey team performed detailed technical training on BVE3 input chemical management system, with the focus on how to fully secure ZDHC MRSL compliance and ZDHC Gateway utilisation.

In addition, Turkey also had further engagement in June 2021 with footwear, bags and belts suppliers on program enrollment and implementation, as well as the importance of following industry solutions like ZDHC MRSL and supporting input chemical management system as well as wastewater testing.

China

China team hosted a chemical program implementation training in March 2021 regarding input chemical management, focusing on the importance of ZDHC Gateway as the industry's database for reviewed and tested chemicals. The team also highlighted the workflow of ZDHC Wastewater testing with focus on public disclosure through the ZDHC's platform Detox Live.

Additionally, the China team engaged in intensive capacity building with low performing units throughout May to June 2021 to address the performance gap and improve their understanding on how to achieve better result in chemical program.

In September 2021, China started a pilot on sustainable chemistry and process optimization (SCOPI) with Bluwin Sustainable Textile Solutions (STS) with six units. This project focused on the reviewing recipes to identify chemical substitution for more sustainable process by achieving increase in resource efficiency or minimizing potential of hazardous chemical use.

In addition to our supply chain training, we also constantly improve our internal team's capacity beyond the sustainability scope for our chemical works through webinars and monthly collaborative meetings.

Moving beyond compliance

We apply a stepwise approach moving beyond MRSL compliant chemicals. RSLs and MRSLs to make sure that specific chemicals of high concern are not used in products or processes. However, RSLs and testing do not provide any information about the safety of the chemicals present in a formulation, nor do they allow brands to make informed comparisons of chemicals to select preferred chemicals or identify chemicals for phase out.

To address this lack of transparency, we have adopted "screened chemistry v3" as our preferred methodology to ensure safe chemicals while protecting intellectual property. This program is the result of a collaboration that aligned LS&Co.'s *Screened Chemistry Program* and Nike's *Chemistry Assessment Program*. Aligning these two programs facilitates the widespread implementation of safer chemical selection and informed substitution.

Implementing screened chemistry

- We have adopted screened chemistry methodology as our way to assure safer alternatives in substitutions for textile and leather.
- In line with our approach, we have engaged with peers and experts to pilot version 3 of the screened chemistry methodology, which includes prints and dyes.
- We also mapped prevalence of screened chemistry certified in our denim supply chain and will use the learnings to scale coverage with these suppliers.

Engagement

Public Affairs

We engaged in the EU chemical strategy and advocated for a common hazard assessment methodology to enable us to choose the best available chemicals from a hazard perspective. Read more about our position on safe-by-design chemicals definition to drive the circular economy [on ChemSec](#).

Additionally, we advocated for inclusion of more hazard endpoints in CLP (ED, Combinatory endpoint such as PMT) to enable scientifically correct and up to date hazard assessment. Through our collaboration with the Ellen MacArthur Foundation's Jeans Redesign Project we voiced our concern and need for inclusion of screened chemistry criteria: As a result, it is now included as "optional", which we see as a great step towards more transparency on chemicals to enable brands choosing the best ones.

Collaboration

- We continued to collaborate with ZDHC through the brand advisory group and in task teams relating to safer chemistry, MRSL review, wastewater guideline and solvent task team.
- We are members of the AFIRM steering committee as well as the RSL, data management, public policy and compliance strategy committees.

- We actively participate in [ChemSec](#) business group to share and exchange knowledge on cross industry chemical management. For example, we shared our way of working with mapping of EDC and PFAS with the other brands.
- We are part of the SAC FEM task team to develop FEM 4.0 chapter on chemical management. Here we aim to improve application and accuracy of the scores to reflect the current industry situation. We also want to promote stronger industry alignment through ZDHC's Supplier to Zero platform.

External acknowledgement

Our chemical program was awarded 'Aspirational Level' during the annual assessment of the Brands to Zero leader programme. Out of the 30 ZDHC contributor brands, five achieved this level. (reference: www.roadmaptozero.com/brands-to-zero)

In the report [Fashion Fairytale](#), Greenpeace follows up on brands that aligned with the detox commitment as well as pledged to slow and close the loop.

Greenpeace comments, “the majority of the brands keep up the implementation and transparent reporting of their detox commitments. The trend towards zero discharge continues, even though more work by the entire industry needs to be done to achieve it completely.” They also state, “More than half of the brands ensure that their suppliers publish wastewater data for 80% - 100% of their wet processing facilities at least once a year”. We are one of the top brands leading the way and testing all our suppliers.

Our Circular Approach

Below covers some of our progress during 2021. For more specific information on our work related to resource use and circular impact please see our [circularity pages on our website](#).

Circular Products

- Big progress towards our 2030 material goal, including strong progress on increasing share of recycled materials. Results will be published shortly in our annual sustainability report.
- Officially [launched the first version of the Circulator](#), our circular design guide and tool.
- First collections launched using Circulator – [both H&M brand](#) and Monki.
- H&M brand, Weekday and Monki confirmed participation of [Jeans Redesign](#) version 2

Circular Supply Chain

- H&M Group and IKEA study, as detailed above
- Joined [Sorting for Circularity project](#) with Fashion for Good
- [Circular Fashion Partnership](#) with GFA and Reverse Resources

Circular Customer Journeys

Access: Offering customers different ways to enjoy and experience fashion, while keeping products in circulation for as long as possible.

We expanded ways for customers to purchase pre-loved products:

- H&M Group is a majority shareholder in Sellpy.
- Customers in 24 markets can now shop second-hand garments through Sellpy, and customers in four markets can sell at Sellpy.
- In seven markets H&M has a H&M X Sellpy collaboration on the website.
- H&M customers in Sweden can now [shop second-hand garments](#) from multiple brands alongside new H&M garments. The customer will find a curated assortment from Sellpys website that is integrated on hm.com
- Customers in three markets can now [buy and sell pre-owned clothes](#) through our collaboration with business technology provider Reflaunt. H&M launched [H&M Rewear](#) in Canada, while COS offers COS Resell in Germany and the United Kingdom.

- Weekday offers Weekday Curated “in store” 2nd Hand in three cities in Sweden giving customers the chance to buy and sell pre-owned clothes.

We expanded options to rent our products:

- Customers in 19 markets can [rent kids' clothing](#) through ARKET's collaboration with Circos.
- Selected H&M stores in Amsterdam, Berlin and Stockholm offer clothing rental services for specific collections.
- H&M HOME started offering rental for occasions and celebrations. Rent a Christmas offered customers the chance to loan festive decorations in five markets.

Use & care: Encouraging customers to love their clothes for longer and extend the life of their fashion favourites through care and repair.

- H&M's Take Care initiative offers customers in 46 markets ways to care, repair and customise their clothing. The Take Care product range, which helps customers extend the life of their clothing, is available in 17 markets. Plus, the brand offers repair services through repair studios in six stores.
- Monki customers in Sweden and Denmark can access care and repair tips through the brand's collaboration with M.IN.T Care.

Collect: We offer our customers instore collection for post-consumer garments across all our brands. Working with our partners, we sort these garments for rewear, reuse and recycling.