H&M Group "Towards Zero Discharge of Hazardous Chemicals" report 2018/2019

Our approach

Leading the Change towards Safe Products and a Toxic Free Fashion Future is the vision for Chemical Management within the H&M Group. Along with the vision a roadmap has been created. The roadmap includes our goal of zero discharge however it also sets the direction and goals beyond 2020.

A key goal is 100% traceability of input chemicals in 2030. This is also crucial in our overall company ambition to become 100% circular. In the circular economy, the material and chemical input must be known and safe. Therefore, we are working towards positive listed chemicals with Screened Chemistry, a hazard-based approach that enables brands to choose the best available chemicals for each product to secure traceability and transparency.

This report includes our actions towards achieving zero discharge of hazardous chemicals in the past year and is divided into 4 parts: Disclosure & Transparency, Phase Out/Manufacturing Restricted Substance List (MRSL), Systemic Change and Circularity.

Disclosure & Transparency

Public list of suppliers

Public supplier factory list includes our first tier supplier factories that account for 95% of the total order volume for all H&M brands and fabric and yarn mills involved in about 50% of our most strategic mills based on business relationship. As our business grows, our supply chain is dynamic and our supplier factory list is a best representation of our production.

Waste water discharge analysis 2018

In line with the right-to-know principle in ZDHC commitment, H&M are working with suppliers to disclose environmental data. In 2018, the H&M Group fully adopted the ZDHC Wastewater Guideline version 2016 and tested incoming water, raw wastewater and discharged wastewater across our supply chain. Based on this guideline, we tested and analyzed ZDHC MRSL (which includes Detox 11 priority groups), heavy metals, and conventional parameters. The 14 priority chemical groups from ZDHC MRSL are AP&APEOs, Chlorobenzenes and Chlorotoluenes, Chlorophenols, Azo dyes, Carcinogenic dyes, Disperse dyes, Flame retardants, Glycols, Halogenated solvents, Organotin compounds, Perfluorinated and polyfluorinated chemicals (PFCs), Phthalates, Poly aromatic

hydrocarbons (PAHs), and Volatile organic compound (VOCs). By end of 2018, 227 suppliers participated in waste water testing according to the ZDHC waste water guideline and the results were published on ZDHC Gateway and IPE platform. 227 suppliers cover 30% of our scope from textile and leather supply chain and by 2020 we will cover 100% of the scope. Aside from the results, we have also published Corrective Action Plans for each participating unit on ZDHC Gateway based on the available findings. We are also pushing ZDHC to have greater transparency for ZDHC Gateway platform to be a fully publicly accessible platform and for alignment with IPE platform.

The key findings and conclusions from discharge analysis 2018 are (for more information please see published report on our website):

- In 2018, we tested at **227** of our suppliers' facilities according to ZDHC Wastewater Guidelines. This is **30%** of our scope units from textile and leather supply chain in both T1 and T2 (garment and textile manufacturers).
- We had **64%** of our tested scope units achieved **no detection** of hazardous chemicals–while the rest (36%) had at least one finding of hazardous chemical.
- Focusing to the units with findings, **99.81%** of our test result had no detection of **183** chemical analytes tested from ZDHC MRSL. In the **0.19%** findings of ZDHC MRSL, the most common findings were AP&APEOs, Halogenated Solvents.
- We see findings both in incoming water and in treated waste water. This shows that chemicals in MRSL cannot be eliminated by ETP's but must be enforced though input control.

Input control and tools

In-Check and Ecube are tools accepted by ZDHC for input control that measure the chemical management performance in a factory. In 2018, 204 business partners used Ecube and we also allowed the use of CleanChain for units that are shared with fellow ZDHC brands. For more information regarding Ecube, please see: http://www.bureauveritas.com/services+sheet/bve3++environmental+emission+evaluator

Through E-cube we are able to review how many of the chemicals used in our supply chain are transparent and compliant to all our chemical restrictions, non-transparent and non-compliant. Based on these insights, we are actively working with our suppliers to secure 100% transparent and compliant input chemicals.

Phase Out/Manufacturing Restricted Substance List (MRSL)

To reach our goal of zero discharge we cooperate within our industry. Therefore, H&M are active in the ZDHC Input Focus Area.

H&M Group's Positive List

H&M Group's Positive List contains all chemical products which conform to the latest H&M Group Chemical Restrictions (MRSL and RSL) and ZDHC MRSL. This Positive List is a part of our efforts in securing Zero Discharge of Hazardous Chemicals by 2020 and to foster sustainable production in our industry. We highly encourage the use of this Positive List within our supply chain to foster clean production using safer chemicals. The Positive List, is updated monthly and available publicly on our website as well as our internal network. Since our knowledge changes with the progress of scientific research, the Positive List will also change to reflect the most current state.

In building this updated Positive List, a methodology that encourages transparency for chemical industry was adopted. H&M Group Positive List methodology is as Screened Chemistry through ZDHC approved assessors.
Chemical products (non-dyestuff) that have undergone hazard assessment using SciVeraLENS® Rapid Screen for Screened Chemistry (by Scivera) or Tox Services' Full Material Disclosure (ToxFMD®) or other GreenScreen assessment programs by NSF and CPA.
Screened Chemistry is currently limited to non-colorants product and we are supporting the on-going method development for colorants products by Scivera and Toxservices. As interim solution until Screened Chemistry is fully developed for colorants, we accept dyestuff, pigments, and other colorants that are listed publicly on ZDHC Gateway Level 1 or above for inclusion to our Positive List.

Product testing

During 2018 H&M conducted 48 700 chemical tests at third party labs to ensure compliance with our Restricted Substances List (RSL) and even more tests were conducted on our supplier's initiative at third party labs. The H&M quality management requires suppliers to take the responsibility to assure good chemical management. Therefore, suppliers themselves send samples to third party testing and the test reports are submitted to H&M for review and final approval. H&M is currently reviewing the best approach to include all test statistics from different stakeholders in one system.

Systemic Change

ZDHC Safer Chemistry Task Team

In beginning of 2019, ZDHC Safer Chemistry Task Team was established. Whilst being aligned with the ZDHC MRSL (ZDHC Manufacturing Restricted Substances List) approach, Screened Chemistry aims to go much further by recognizing that the elimination of

hazardous chemicals requires a clear process for identifying and evaluating alternatives to make sure they are less harmful. https://www.roadmaptozero.com/news/post/zdhc-signatory-brands-to-converge-their-screened-chemistry-programmes/

The leading brands in the task team Safer / Screened Chemistry also agreed on a seven-month grace period with immediate effect, to allow the alignment of methodology under the leadership of ZDHC Foundation into a converged transparent science-based, simple and reasonable scoring system, that evaluates chemical formulations to holistically support sustainable chemistry and prevent regrettable substitutions. This grace period only applies only for products that are in the Gateway with MRSL Conformance Level 1 of higher.

Exceptions applying to MRSL conformance screenings that are already agreed and in process, as well as, exclusive design of chemical formulations in collaboration of brands and chemical suppliers.

Screening of Dyes and Commodities

H&M group and other brands have also initiated dialogue with service providers (SciVera and ToxServices and NSF) and chemical industry the development to develop a screening method to be developed for colorants. In a similar way there is also an ongoing project on how to include commodities in Screened Chemistry together with Nimkartek.

Capacity Building

We invested in train-the-trainer program based on Best Chemical Management Practice, (BCMP), to implement clean production. We also cooperated within ZDHC task team to create a common chemical management system. In February 2019, we also collaborated with Sustainable Textile Solutions for advanced capacity building with our chemical team in Production Sustainability to secure implementation across our regions.

Towards becoming 100% circular

H&M has set out the vision to become 100% circular (please see separate document). H&M promotes a circular approach in how products are made and used, and works towards a clean, closed and effective circular life cycle for textiles, maximizing the utility and the value of the products. As part of this we have set a long-term goal to only use recycled or other sustainably sourced materials.

Updates towards 100% circular

Goal set to use 100% recycled or other sustainably sourced materials by 2030. In 2018, 57% of our material use is either recycled or sustainably sourced. The H&M Group is one of the largest users of sustainable cotton including organic, recycled and better cotton as well as TENCEL™ lyocell and recycled polyester.

Goal set to collect 25 000 tons annually in the global garment collecting initiative by 2030. In 2018 the collection amount was 20 649 tons.

After the initial Take Care pilot, we launched the concept in several markets including France, UK, Sweden and Norway. The Take Care concept consist of guidance and inspiration, services and products.

Sustainable collections and design: In 2018/2019 the H&M Group launched several collections and products made in upcycled, recycled or sustainably sourced materials.

Acceleration of innovation towards circular, recycled and sustainably sourced materials, processes and business models: During 2018/2019 the H&M Group were involved in research projects such as DEMETO and H&M Foundation's Hong Kong Research Institute of Textiles and Apparel (HKRITA) to support breakthroughs and make solutions more mainstream.

H&M Group's the Laboratory also joined IDEO's Circular Economy CoLab, a collaborative innovation lab exploring circular business models.

During 2019, the H&M Group started to explore the field of re-commerce to start finding out in which different ways it can become a profitable future business segment. The brand &OtherStories commenced a pilot collaboration with Sellpy, which is a Swedish web-based retailer of pre-used items. Within the frame of the pilot collaboration, &OtherStories offers their customers a specially designed web-based shop at www.stories.com/sellpy filled with previously used garments from & Other Stories.

Through the H&M Foundation,the annual Global Change Award supported early stage innovations on circular materials, processes and business models.

H&M Group invested in Colorifix, a UK based company developing sustainable pigments, and we participated in the EU project EFFECTIVE for developing bio-based nylon. H&M Group has also invested in Ambercycle and Infinited Fiber Company, both developing promising recycling technologies for textiles. H&M Group investment TreeToTextile got another partner in Stora Enso and is moving into the next phase to build a demonstration plant.

To fulfill our 100% Circular & Renewable ambition, we are building circularity into every stage of our value chain and during 2018, H&M Group collaborated with the Ellen MacArthur Foundation to develop and launch a circular packaging strategy.

For more information see H&M Group Sustainability Report.
https://hmgroup.com/content/dam/hmgroup/groupsite/documents/masterlanguage/CSR/reports/2018_Sustainability_report/HM_Group_SustainabilityReport_2018_%20FullReport.pdf

Chemicals in recycled materials

In May 2016, H&M published our approach to chemicals in recycled materials. For detailed document please see separate document. In short, the H&M approach for using recycled

materials is based on precaution and aims to avoid recirculation of hazardous chemicals. The H&M objectives regarding hazardous chemicals in recycled materials are that consumer products should comply with the same chemical requirements regardless of their recycled content. Any exceptions to this should be justified and transparently communicated.

During 2018, we have continued to collect and analyses chemicals in recycled material. Samples used in this analysis were pre- and post-consumer cotton in various colors. Findings from the testing include that 62,5% of the pre-consumer samples had no detection of any of the tested substances. Comparing to only 6,4% of the post-consumer samples that didn´t contain any of the tested substances.

H&M Group also initiated a cooperation regarding data gathering and information sharing of chemicals in recycled materials within AFIRM, Apparel and Footwear International RSL Management Group (https://www.afirm-group.com/).