



## **Progress Report on Chemical Management - Summary January 2017 including the 2016 Wastewater Review**

The information below provides an update on adidas' progress against essential chemical management goals and targets that have been set and communicated to the public.

### **1) Goal/target: the public's right to know - disclosure**

We will deliver on full transparency of hazardous chemical use in our global supply chain. We will deliver public reporting of hazardous chemical use, starting with at least 99% of all 'wet processes' for China-based suppliers by no later than 31 December 2014 via the IPE Detox platform, at least 50% of all wet processes across our global supply chain by no later than 31 December 2015 via the IPE Detox platform and at least 80% of all wet processes across our global supply chain by no later than 1 July 2016 via the [IPE Detox platform](#). We will ensure full details of our complete wet process global supply chain are always publicly available.

### **Progress/achievement to date**

In 2015, we further expanded our work with wet process suppliers and supported them in the disclosure of their wastewater data on the IPE platform. This included uploading data to the PRTR and Detox section of the IPE platform.

All our strategic suppliers based in China have disclosed their data on the IPE PRTR platform. From 2014 onwards, all major China-based wet process suppliers (who account for approx. 99% of the total material volume sourced in China) also disclosed their data on the IPE Detox platform.

Since the end of 2015, 50% of our global wet processes by volume across footwear, apparel and accessories & gear have been disclosed on the IPE platform. The suppliers disclosed on IPE are located in China, Vietnam, Taiwan, Thailand, Cambodia, Indonesia, India, Pakistan, Korea, Japan and Turkey.

As in 2014 and 2015, we have encouraged our suppliers to include information on their respective customers when disclosing their wastewater data. In order to further enhance transparency for all our stakeholders, we have expanded our publicly available supplier list with the strategic T2 wet process suppliers. It is shared on our website ([T2 wet process supplier list](#)).

Detox protocol/findings to date: The vast majority of Detox priority chemicals have either been used in production processes unintentionally (as part of auxiliaries and dyestuffs) or have been effectively removed in wastewater treatment processes, as test results are mostly ND (not detectable). Those chemicals include: phthalates, brominated and chlorinated flame retardants, azo dyes, organotin compounds, chlorinated solvents, chlorophenols, SCCPs, heavy metals (lead, mercury, chromium (VI)), cyanide and APEOs/NPEs. Some heavy metals have been detected at levels significantly lower than the applicable national standards in treated wastewater, including cadmium, antimony, arsenic, chromium (total), cobalt, copper, nickel, zinc and manganese. Not all heavy metals have come from production materials. Some of the

heavy metals, such as manganese and zinc, have probably been introduced from incoming water. Antimony is used as a catalyst in the polyester polymerisation process, and, reportedly, an economically viable alternative is not yet available.

Since 2011, we have screened our China-based factories on the IPE environmental violation record database. If suppliers are listed, we take action and support them in their remediation plan with the ultimate goal to get them removed from the blacklist.

Due to technical problems with the Detox platform in late 2015 and early 2016 lasting over five months, our suppliers were only able to upload wastewater data to a limited extent during this time. But, by speeding up our processes and supplier training and by allocating additional resources to this project, we were able to have 80% of the suppliers' wastewater data disclosed by September 2016.

In 2016, we contributed to the development of the ZDHC Wastewater Guidelines, which were officially released in November 2016. This document provides an international wastewater standard with the goal to harmonise the process, sampling, test methods and TLVs.

In order to confirm the effectiveness of our holistic chemical management programme, we piloted testing of wastewater intake prior to the wastewater treatment process, as well as sludge. By comparing the results from wastewater tests before and after treatment, we found that detected substances were at similar levels (results in the ppb range), but a regular trend between the two results could not be identified, because it is not possible to ensure that the wastewater before and after treatment derive from the same production batch. Most samples showed a non-detectable test result for measurements both before and after wastewater treatment. At the same time, we could see some examples where the detected concentration of a Detox priority chemical after wastewater treatment exceeded the concentration of the test result before wastewater treatment. (Chlorophenols before treatment: ND; after treatment: 0.0017 ppm. Lead before treatment: 0.002 ppm; after treatment: 0.004 ppm.) Our clear target is to reduce these very small amounts of Detox priority chemicals, most probably used unintentionally, until we achieve non-detectable results in all of our wastewater tests.

The sludge test results show consistency with the wastewater results, because substances accumulate in sludge after effluent treatment.

In 2017, we will continue with our current approach to support our suppliers in disclosing relevant data sets and adapt our procedures. We will pilot testing incoming water, wastewater after treatment and sludge according to the ZDHC wastewater guidelines.

As part of our global stakeholder engagement strategy, we are continuously engaging different trade associations, including the China National Textile & Apparel Council (CNTAC), in order to discuss current standards and future trends in chemical management.

In the latest IPE report '[Greening the Supply Chain](#)' issued on 27 October 2016, adidas ranked as the leader in the apparel and footwear industry. This shows recognition of our programme on a global and local level.

## **2) Goal/target: PFC elimination**

As adidas is fully implementing the precautionary principle, we publicly committed to eliminating all long-chain (i.e. C7, C8 and longer) PFCs (defined as all poly- and perfluorinated substances and their precursors and metabolites) by no later than 1 January 2015 (across all products we produce or sell globally). The elimination of all PFCs used in any of the products we sell will be supported by the following next steps:

- i. adidas has committed to being 90% PFC-free as of 15 June 2014;
- ii. adidas has committed to eliminating any other PFCs in any of the products adidas produces and/or sells across its global supply chain, and to be at least 99% PFC-free by no later than 31 December 2017;
- iii. full, public and detailed disclosure on our main public website of all PFC use by no later than 31 December 2017;
- iv. documentation of how PFCs have been substituted with safer alternatives and publication of these case studies via the online Subsport.org platform;
- v. implementation of a rigorous system of control to ensure that no traces of PFCs find their way into our supply chain in line with the above;
- vi. working in partnership with our supply chain and other global industry leaders to accelerate the move to non-PFC technologies.

### **Progress/achievement to date**

In 2016, we have successfully built in-depth chemical expertise in our teams and strengthened our research capacities for finding PFC alternatives which meet our high performance and quality standards for apparel, footwear and sporting goods providing water repellency. We are constantly and carefully testing alternative concepts to achieve our commitment and provide the best products to our consumers. We also work in close collaboration with leading chemical companies to explore formulations which are still in the R&D phase.

However, the transition to PFC-free finished products continues to cause challenges, taking into consideration our diverse product portfolio in footwear, apparel and accessories, and our global supply chain.

During the initial R&D phase, we found performance differences in lab vs. wear tests. Therefore, we had to adjust our overall testing procedure. At the same time, we also detected differences in the performance of the same PFC-free solution from one supplier to another. With the support of our in-house production specialists from the manufacturing excellence team, these initial application issues have been solved.

We also realised that, due to the newness of certain alternatives, application processes had to be adjusted significantly. With our technical team, we supported our material suppliers in adjusting key production processes and applied them across the supply chain.

Through our research and innovation efforts, we have achieved significant progress towards developing PFC-free water-repellent materials which meet our standards for many of our product types, in order to provide consumers with water-repellent equipment for apparel, footwear and sporting goods.

We have been successful in applying PFC-free solutions as water-repellent finishes to many different end uses, especially in lifestyle and entry-level performance products. We now have 26 approved PFC-free solutions.

At the same time, extensive training and education efforts have been undertaken internally with our product development teams and with our suppliers to ensure that water-repellent chemistry and PFCs are only used as exceptions, when it is absolutely necessary to achieve the highest performance level. See also our website: [The chemistry must be right](#).

As there are no global standards to define 'PFC-free', we have created and implemented an adidas PFC-free policy:

- It summarises the most up-to-date findings of our research work and describes a sophisticated procedure to ensure compliance with our PFC-free programme and eliminates the intentional use of PFCs. The policy covers the full supply chain, end to end: from input chemistry to production through to the final product.
- We have engaged with universities, leading testing laboratories and many other stakeholders to identify the right tests in the right place to ensure compliance throughout our supply chain.
- The policy provides an approved list of formulations to be used by all adidas suppliers as well as an approved list of suppliers who meet our requirements to produce PFC-free products.

We have been testing not only the newly developed materials on their content of fluorinated compounds, but also established smart end-to-end testing: every PFC-free formulation that is used to produce the water-repellent materials is tested. This test for fluorinated compounds is also applied to every newly developed material containing water-repellent treatments, as well as to finished garments using a random-test approach. Overall we carried out more than 1000 tests.

In our continuous efforts to create further transparency in our supply chain, we also detected PFCs in processes where we did not expect to. One area is the manufacturing of some of our PU synthetics which are used in a wide range of our footwear materials. By working closely with our suppliers, we have started to eliminate the use of PFCs for these applications and will phase them out fully in the immediate future.

We are currently finalizing a case study that will be submitted on the Subsport platform which describes the elimination of PFCs from the manufacturing of PU synthetics.

All these steps and achievements have put us in a strong position to replace further key water-repellent materials with non-PFC alternatives. By the end of 2016, approximately 96% of our released products for the FW 2017 season will be PFC-free.

### **3) Communication with suppliers and capacity building**

#### **Progress/achievement to date**

In 2016, we continued to further strengthen our global environmental supplier programme. One of the key elements of this programme is a tailored audit of T1 and T2 suppliers. The audit programme is designed to measure the performance of the suppliers and to support their improvement. The applied method for our T2 audits is the ZDHC audit protocol 2.0, which was developed with a specific focus on chemical management. Overall, we conducted over 140 environmental audits.

Alongside our audit programme, we developed a new, innovative capacity-building programme for suppliers, called the Chemical Management Guideline (CMG). The guideline was developed in close collaboration with the chemical company Huntsman Textile Effects, who contributed their extensive expertise in chemical management at textile mills. Workshops were conducted by Huntsman across all strategic apparel material suppliers in order to train them on this new tool and approach.

Over 450 people from 49 of our strategic apparel suppliers (including 21 trims suppliers) in eight countries have undergone CMG training. Firstly, this strengthened their overall knowledge on how to record, understand and monitor the chemical inventory as well as on the safe handling of chemical products from storage to use and, ultimately, disposal. And secondly, they have cascaded this knowledge to their internal colleagues. This has led to an important and efficient multiplier effect. The training will also help suppliers to avoid contamination at mill level and is applied to all their production lines.

In 2016, as a follow-up to the previous CMG training and to assist suppliers in continuously enhancing the effectiveness of chemical management, the training content has been refined to address the findings identified in previous audits and enhance MRSL conformity, so as to enable chemical management improvements in terms of input chemistry and facility environmental, health and safety management.

Additionally, together with our suppliers, we have re-iterated our commitment to phase out PFCs and to further improve our global chemical footprint and transparency at several public-facing conferences and supplier events around the world. As a major player in the sporting goods industry, we truly believe that our commitments and holistic chemical management programme will lead to changes in the entire footwear and apparel industry. See [2015 Sustainability Progress Report](#) and [ECHA Guest Column](#).

In November 2016, we hosted an adidas supplier workshop in Shanghai to which we invited more than 20 of our strategic T2 and T3 suppliers, as well as some of our key collaboration partners, with the goal to reiterate and clarify our direction and guidance. This tailored engagement is critical to further strengthening our chemical management program. A keynote was delivered by adidas at the annual ZDHC/CNTAC conference in which the importance of sound chemical management practices was stressed. More than 700 participants attended.

#### **4) Chemical input management - bluesign and MRSL**

##### **Progress/achievement to date**

In 2016, we further strengthened our focus on chemical input management. As part of our partnership with bluesign, we continued to record the chemical inventory of our strategic apparel material suppliers and started to set targets for the use of bluesign-approved chemicals. They are actively using the bluesign® bluefinder positive chemistry database in their day-to-day chemical selection. The ease of use of this simple tool accelerates the use of more sustainable chemistry significantly. The bluesign® bluefinder tool is based on the strict bluesign systems substances list ([BSSL](#)).

We met our 2016 target '30% of auxiliaries and 70% of dyestuffs to be bluesign-approved'. The suppliers actually exceeded this target: 41% of auxiliaries and 76% of dyestuffs are now bluesign-approved. Looking forward, our 2017 targets for our strategic apparel material suppliers are: 50% of auxiliaries and 80% of dyestuffs.

The chemical inventory of those suppliers who produce more than 90% of our apparel material volume was recorded twice in 2016, in order to monitor their progress. The chemical inventory was recorded and monitored for the full production volumes of the suppliers.

Additionally, we further collaborated with the ZDHC organisation and have contributed to the first industry-wide Manufacturing Restricted Substances List (MRSL), an important breakthrough in the industry. In 2015, the MRSL was further extended to cover leather processes and will be continuously updated by an expert group. The MRSL is a strong base for the industry to start managing the chemical input in a harmonised manner.

In 2016, we contributed to the MRSL Conformance Guidance, a highly sophisticated document that aims to support the implementation of the ZDHC-MRSL, which will be released early 2017. We have started to implement the ZDHC-MRSL and have set it as a basic expectation for our suppliers. The communication, supported by adidas internal hands-on guidance documents, was released to all T2 wet process suppliers in July 2016. We are currently evaluating the suppliers' feedback in order to set clear MRSL targets for the next years. [ZDHC MRSL](#)

You will find more information about our comprehensive chemical management programme on our website: [Chemical Footprint](#) and [A partnership with good chemistry](#).

## **5) 2016 Wastewater Review**

Over the course of the years, transparency has become a key cornerstone in the adidas sustainability programs. A dedicated focus is definitely the disclosure of our wet-process supplier's wastewater data on the Detox platform of the Chinese non-governmental organization Institute of Public and Environmental Affairs (IPE). adidas has successfully committed to disclosing 80% of its wet-process supplier's wastewater data on this platform, which includes suppliers across the entire supply chain: Vietnam, Taiwan, Thailand, Cambodia, Indonesia, India, Pakistan, Korea, Japan and Turkey. It represents 30 % increase in the disclosure of the global wet processes by volume across footwear, apparel and hardware compared to 2015.

To complement the efforts in its supply chain transparency and ensure constant improvements of the supplier's waste water management program, adidas performed a review of its 2016 supplier's wastewater test reports. adidas successfully screened more than 113 test reports under the Detox protocol from IPE which represents the wastewater data of more than 80% of adidas global wet-process T2 suppliers.

These wastewater tests are conducted by an accredited third party laboratory according to international standard testing procedures. Each supplier was tested against Heavy Metals, Alkylphenols, Phthalates, Brominated & Chlorinated Flame Retardants, Amines from Azodyes, Organotin Compounds, Poly & Perfluorinated Chemicals and Chlorinated Chemicals.

The results clearly showed the effectiveness and strength of the environmental program as more than 94% of the suppliers' wastewater tests resulted in non-detectable (ND) for the chemical groups of phthalates, brominated and chlorinated flame retardants, azo dyes, organotin compounds, cyanides and APEOs/NPEs. There is also a variety of T2 suppliers with test results of ND across all groups of priority chemicals: textile mills, dye houses, tanneries and PU-production facilities.

The remaining 6% showed areas where adidas can make further improvement and focus its efforts. For example, around 5% of the results showed concentrations of substances in trace amounts which are still below the applicable national standards in treated wastewater. However it is an area in which adidas can improve. The remaining 0.5 of its supplier's waste water results showed elevated levels of Heavy metals, Chlorinated chemicals, Poly & Perfluorinated chemicals.

These trace amounts are of no concern to the environment and close to the detection limit of the testing method itself: Mercury for instance was detected in a concentration of 0.00009 ppm (Strictest limit for mercury from the recently released ZDHC Wastewater Guidelines is 0.001 ppm). A similar situation occurred with Cyanide which was detected in a concentration of 0.00003 ppm and the strictest limit for Cyanide in the ZDHC Wastewater Guideline is 0.005 ppm. These observations are valid for almost every of these test results showing trace amounts of priority chemicals.

The most common heavy metals detected here are Copper, Manganese, Zinc, Lead and Antimony. It is likely that some of the heavy metals are not being introduced into the waste water by any of the production processes, but rather by the incoming water used in production (Zinc and Manganese). The detection of Antimony in certain values is due to its use as a catalyst in the polyester polymerization process and an economically viable alternative is not yet available.

A clear target and ambition for adidas and its supply chain is to reduce the detected chemicals until our suppliers achieve a non-detectable result in their wastewater tests. adidas is committed to working with its suppliers to ensure that they have remediation plans in place, targeting the specific issue that was detected in the wastewater tests of their facility. adidas will continuously report on the progress.