

Chemical Management at Tesco F&F clothing – our Detox progress.

August 2020 update



Introduction.

This is a very special year as most of us are facing the Covid-19 pandemic challenges. Changes happen fast and we have to deal with more uncertainty. We need to change the way we work as well as how we manage our supply chains whilst maintaining our standards and achieving important targets.

The pandemic has increased global awareness of sustainability issues and the exponential impact it can have on the existing economic system and its now very fragile business models. Research shows that the new normal post-coronavirus future is shaped with strong demand for resilience, equality and sustainability.

At F&F, our leadership team believe the importance of continuing to accelerate our effort is even greater when faced with these challenging times. We believe it is still possible to offer our customers great quality, affordable fashion and at the same time reduce our environmental impact. We commit to resolving the sustainability challenges we face through the collaborative effort in the textile and clothing industry.

Our core values have guided the way we source and manufacture our products. This includes minimising the environmental impact of chemicals used in the production of fabrics and materials, maintaining ethical standards with our workers and communities in our supply chain and driving innovation in the textile and clothing industry.

We believe it is essential to build greater transparency in our global supply chain and eliminate the use of hazardous chemicals which could potentially cause harm to human health or the environment and proactively working with our suppliers to move towards

more sustainable chemistry. We also encourage our supply chain to reduce chemicals used and move towards circularity in terms of how chemicals can be recycled in their production processes.

In 2019/2020, we have continued to strengthen our systematic approach to chemical management through three key areas:

1. Focus on input chemistry and apply tools which support our supply chain to screen their chemical inventory in moving towards the use of safer alternatives and more sustainable chemistry.
2. Using our strong relationships with suppliers to improve performance and transparency.
3. Working with industry and sector initiatives to drive best practice.

This update outlines our progress in ensuring effective chemical management in our supply chain in 2019/20, as well as progress against the Detox Commitment to promote sustainable chemical use.



Our sustainability journey.



1. Focus on inputs chemistry and apply tools

Preventing hazardous chemical formulations in the beginning of the process is the most effective means. Apart from working with chemical suppliers, we continue to focus our effort in supporting our supply chain in the implementation of a robust screening system and building strong technical knowledge in managing their chemical use.

Key highlights 2019/20

- The International Finance Corporation (IFC) launched the Partnership for Cleaner Textile (PaCT II) in 2018. The goal is to deepen the interventions and enhance competitiveness of the Textile and Apparel sector in Bangladesh through adoption of resource efficient technologies and industry best practices. Since 2012, Tesco has participated PaCTI and continue to work with IFC to expand the chemical module in PaCTII to support the implementation of the Detox commitment. This program consists of capacity building using ZDHC approved modules and tools, site visits, data tracking and engagement. It was noticed that all participating factories have shown a clear reduction in the number of non-compliant chemicals towards ZDHC MRSL v2.0, quantity of hazardous chemicals use, quantity of hazardous sludge generated when compared to the baseline in the first 2019 assessment. It was observed that up to 100% of ZDHC MRSL v2.0 non-compliant chemicals were substituted. Suppliers have also shown remarkable reduction in salt consumption from 10-20% on an average through optimising the process parameters in pre-treatment and dyeing. This has reduced the total dissolved solids (TDS) content in discharged water from wastewater treatment plant.
- We have made it mandatory for our key wet processing mills to subscribe to chemical inventory management platforms - [CleanChain](#) or [BVE3 Environmental Emission Evaluator](#) - which are based on data from the [Zero Discharge of Hazardous Chemical \(ZDHC\) Gateway](#). We also continue advocating chemical suppliers to register on the Gateway to improve its coverage. These platforms enable wet processing mills to manage their chemical procurement more proactively against the ZDHC Manufacturing Restricted Substances List (MRSL) and [Tesco's Restricted Substances List \(RSiT\)](#). This approach has enabled us to access the data shared by our wet processing units, which in turn has helped us monitor our supplier progress on use of sustainable alternatives.
- We continue to fully sponsor new business case studies at our key mills and work with industry experts to screen their input chemicals to identify the root cause of positive results found in wastewater testing. This has helped key mills to eliminate hazardous formulation even at a contamination level, by using best practice solutions which are shared with the wider supply chain.

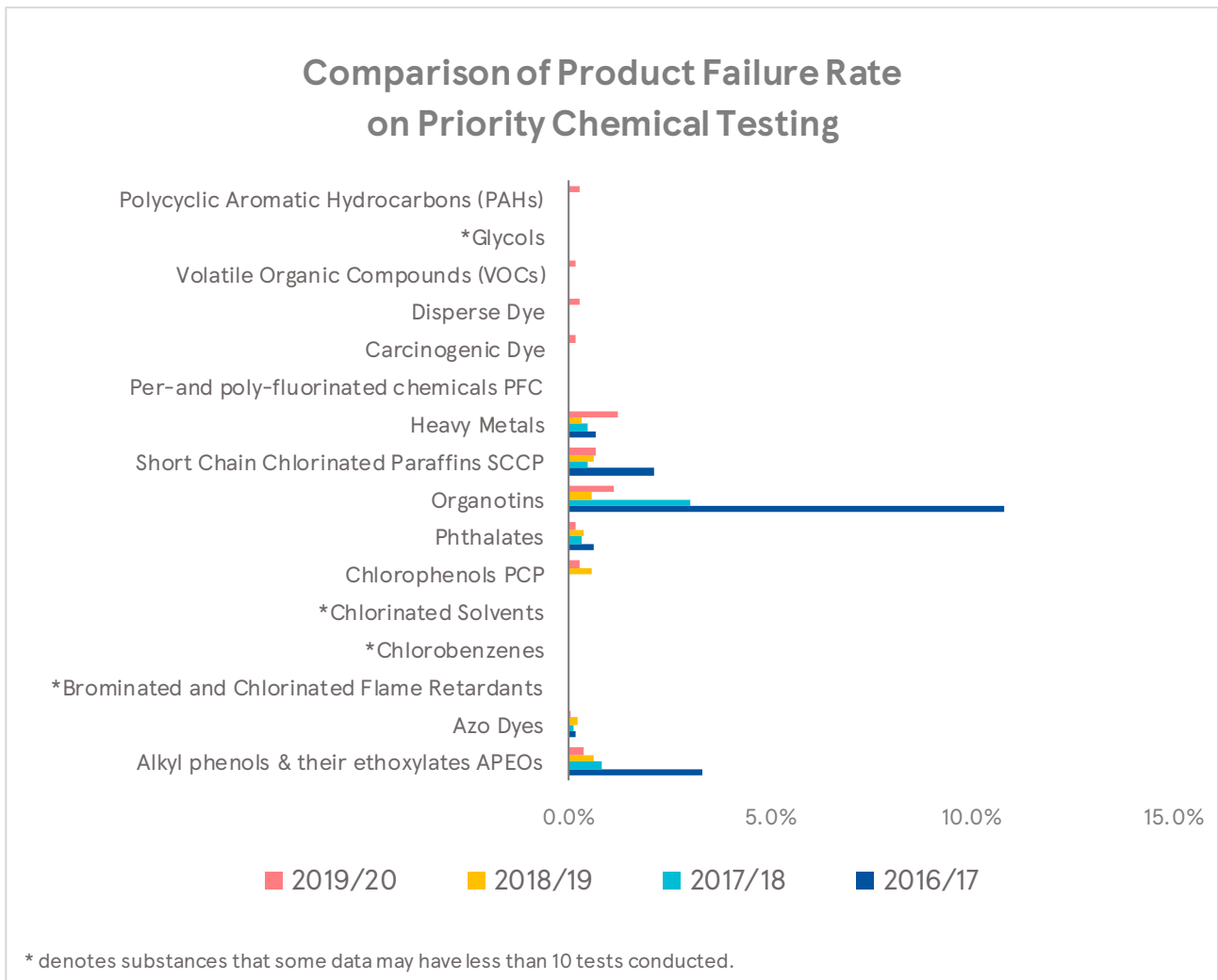
2. Using our strong relationships with suppliers to improve performance and transparency

We work in partnership with our suppliers to build long-term relationships and provide ongoing training and guidance to upskill and improve performance. This enhances trust and increases transparency, making full mapping of our supply chain more feasible.

Key highlights 2019/20

- We have improved our transparency and published our clothing supply chain list beyond first-tier (clothing and footwear manufacturing) and second-tier wet processing units as well as man-made cellulosic fibres (MMCF) producers. This list has also been published and shared in [IPE Green Supply Chain Map](#) and [Open Apparel Registry](#) to support transparency and collaboration in the industry. Our effort was recognised by IPE in their Corporate Information Transparency Index (CITI) and ranked for the first-time in the Top 20 amongst 438 companies rated in 2019. We are rated as frontrunner level in the Changing Market Foundation [Dirty Fashion Disrupted 2019 report](#) in terms of how we progress towards a more responsible viscose supply chain.
- We continue to host webinars through our Supplier Network Platform on chemical compliance, ZDHC standards and tools to support implementation. With the Covid-19 pandemic, we are aware how important it is for us to ensure suppliers can access training resources and remain up to date with new information. We organise monthly webinars open to our supply chain, inviting industry expertise as guest speakers. We have also consolidated relevant external training resources in the platform to ensure they are accessible to them to sign up. There are 11 training sessions with 470 participants, which means that since 2014 we have reached over 1,444 participants to build their capacity with practical knowledge on chemical management.
- In order to accelerate and scale up our efforts to build a more sustainable supply chain, we have expanded our training to our suppliers' technical teams, supporting them to take responsibility for managing their upstream supply chain. There are currently over 135 Tesco certified technical technologists employed by our suppliers and act as an extended team to implement our chemical management program. The challenges experienced with Covid 19 meant that plans to progress our "train the trainer" programme experienced some delay, however we know that addressing sustainability challenges is more vital than ever. As such this year we are re-starting our "train the trainer" program to upskill 60 the technical specialist trainers with soft skills on communication, factory audit skills, mill standard and best practices, root cause analysis and problem solving which also include progressive ZDHC accredited training module.

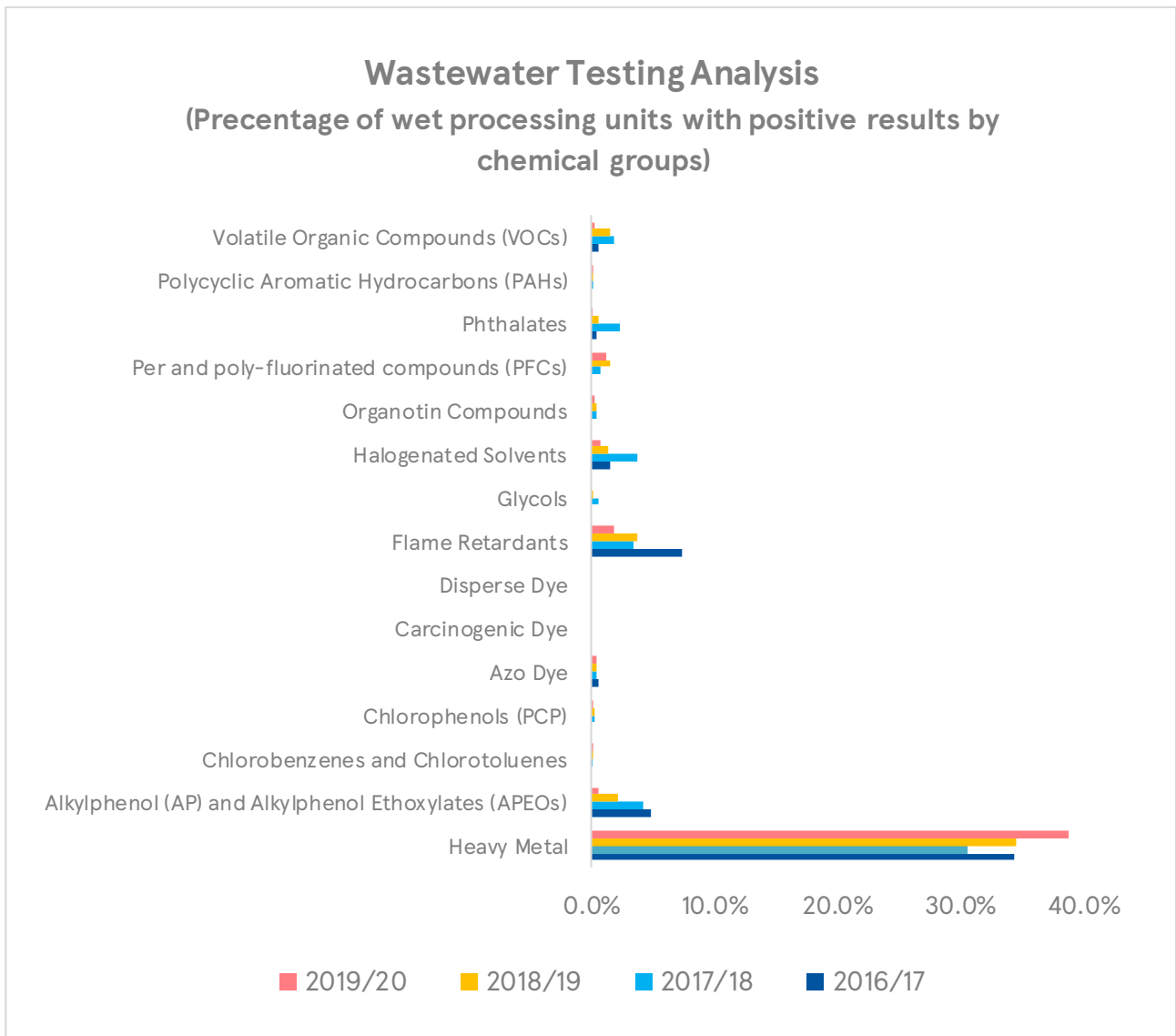
Continue improvement in product compliance



We continue to monitor levels of priority hazardous chemicals in final products, through our regular due diligence testing. The growth in awareness of different chemicals and hazardous substances has led to an increase in the number of chemical tests we have administered on products in the last four years, by 103% since 2016/17. These include chemical groups; carcinogenic dye, disperse dye, volatile organic compounds (VOCs), glycols and polycyclic aromatic hydrocarbons (PAHs) newly introduced in the product tests. We continue to deliver improvements in failure rates which have fallen from an average of 1.1% in 2016/17 to 0.6% in 2017/18, 0.4% in 2018/19 and 0.3% in 2019/20.

Phthalates, alkyl phenols & their ethoxylates (APEOs), and short chain chlorinated paraffins (SCCPs) have achieved the most significant reduction to 0.2%, 0.4% and 0.7% failure rate respectively. In 2019/20 product test program, there is no hazardous chemical found in the product test of some chemical groups; they are Azo dyes, chlorobenzenes and per- and-poly-fluorinated chemicals (PFCs). All products which fail a chemical test are removed from production and shipment, and corrective and preventive action plans are put in place.

Cleaner wastewater discharged



We continue to verify the successful implementation of our hazardous chemicals controls by regularly checking the wastewater quality from the wet processing factories operated in our supply chain. The number of wastewater tests conducted continue to increase by 132% between 2018/19 and 2019/20 which cover 80% of our production capacity. The wastewater testing results continue to show progress with positive results reduced from 2016/17 at 3.1% to 2019/20 2.6%. Chlorobenzenes and chlorotoluenes, PCPs, organotin compounds, phthalates and VOCs have managed to reduce to very low positive result between 0.1-0.2%. Four chemical groups show a steady reduction from 2018/19 to 2019/20. APEOs, flame retardants, halogenated solvents and PFCs are reduced from 2.2% to 0.6%, 3.7% to 1.9%, 1.4% to 0.8% and 1.5% to 1.2% respectively. There are no positive results for disperse dye, carcinogenic dye, glycols and PAHs. Heavy Metals remains the most challenging group of chemicals to address as there are fewer alternatives, and these chemicals therefore have the highest incidence in wastewater testing. We are engaging with chemical suppliers to develop solutions at an industry level.

3. Working with industry and sector initiatives to drive best practices

We recognise that we can only achieve the elimination of harmful chemicals and build a sustainable future by working in collaboration with other brands and retailers. We are members in a number of industry groups that are helping to establish common industry standards, provide tools to support implementation and share best practice.

Key highlights 2019/20

- Tesco committed to Science-based Targets in reducing our scope 3 GHG emissions by 17% by 2030, we collaborated with WWF 's 'Making Zero Impact Fashionable' two-year program to empower suppliers to reduce carbon emissions in China and India. In the first year, we have completed a carbon resilience screening survey, conducted two capacity building webinars and run low carbon manufacturing best practices workshops in each of the regions with 70 participants within 2019. 5 factories in the program are in the progress of managing their carbon emission and energy consumption using the LCMP tools and learning from this program to improve their energy efficiency, utilising industry best practice operational processes including the use of more sustainable chemistry results that will be verified by a certified third party in 2021.
- We were one of the first UK supermarkets to join the Zero Discharge of Hazardous Chemicals programme (ZDHC) in 2015. We are actively engaged in the development of ZDHC tools and standards as a signatory contributor as well as through our position on the ZDHC Board. We actively supported the development of ZDHC tools and standards such as the Chemical Management System (CMS) Framework and MMCF guidelines and support the implementation in our supply chain. Our wet processing mills wastewater testing results are mandatory to share in the ZDHC Gateway. We also work with our key MMCF producers to move towards close-loop production, in which Sulphur as the main solvent are recovered by nearly 95% together with 50% reduction in water use. Some of our supply chain have also strengthened their commitment to become contributors of ZDHC.
- We understand we are not able to resolve sustainability issues alone; collaboration is the key to drive changes in the industry. We have become members of [Textile Exchange \(TE\)](#) and [Industry Acting on Microfibre \(IMF\)](#) to work collaboratively with wider stakeholders. We are also contributors of the [MMCF 2030 vision](#) developed by Forum for the Future.

Progress against our Detox commitment.

The Greenpeace Detox Campaign aims to eliminate hazardous chemicals in the manufacture of clothing and textile products and promote the adoption of business models to achieve more sustainable consumption of textiles. Our Detox commitment focuses on seven areas of action where our priorities align with those of Greenpeace.

1. Supply chain disclosure

We continue to publish and update our [Restricted Substances List in Textile, Leather & Footwear \(RSiT\)](#) on our website. We have disclosed 100% of our Tier 1 clothing and footwear suppliers and expanded our disclosure of Tier 2 wet processing suppliers at 80% in 2019 by production coverage. We have also now included Tier 4 81% of man-made cellulosic fibre producers from 2019. This can be found on our policy page [here](#). Wet processing units representing 80% of our production capacity have tested their wastewater against our published requirements. We require them to publish their results on both the [IPE Detox Platform](#) and [ZDHC Wastewater Disclosure Portal](#). We continue to improve our transparency and aim to reach 100% coverage by 2025 for all our Tier 2 suppliers. We have also shared our list of suppliers located in China through the [Institute of Public Environmental Affairs \(IPE\) Green Supply Chain Brand Blue Map](#) and encourage them to disclose environmental data to the Pollutant Release and Transfer Registers (PRTR) on this platform. In 2019, we also made our supplier list available in the [Open Apparel Registry](#) which supports the industry effort in making data more robust and easier to use.

2. Priority hazardous chemical groups elimination policy

Our chemical compliance policy has moved beyond elimination of hazardous chemicals in outputs from the manufacturing process to focus on input chemistry. We have worked with our supply chain to start implementing best practices in chemical management through our Tesco Clothing and Footwear Mill Standard audit programme, which aligns with the ZDHC Chemical Management Framework (CMS). Through the [Partnership for Cleaner Textile \(PaCTII\)](#) initiative we have developed a chemical management implementation module to optimise production processes and proactively encourage our supply chain to move towards more sustainable chemistry as well as reducing use of chemicals.

3. Alkyl phenols & their ethoxylates (APEOs) elimination policy

We have achieved 100% elimination of intentionally added APEOs. As APEOs are widely used in the industry, some contamination issues remain and are being investigated. Our product testing shows that the occurrence of APEOs has reduced further from 0.6% in 2018/19 to 0.4% in 2019/20 and wastewater positive results from 2.2% in 2018/19 to 0.4% in 2019/20. In 2020, we worked with industry experts to support our mills with APEOs wastewater positive results to eliminate their input sources. Learnings are shared through webinars within our supply chain as well as others through case studies which are included with this report.

4. PFCs – Perfluorocarbon / Polyfluorinated Compounds elimination policy

Tesco has followed the Detox recommended approach by listing all relevant individual PFCs in its list of restricted substances. PFCs are banned for use in our production according to our chemical compliance policy. From Spring-Summer 2018, all of our products which require water repellent properties have used PFC-free finishes. Our product testing continues to show 100% compliance in 2019/20.

5. Targets for other hazardous chemicals

Our [Restricted Substances List in Textile, Leather & Footwear \(RSIT\)](#) is reviewed and updated every 6 months and can be found on our website. We ensure it does not only meet the minimum legal requirements of the regions in which we sell our products in but that it goes beyond these by adhering to voluntary industry standards. Our latest list was published in August 2020 with 15 new chemicals added. Our Manufacture Restricted Substance List is aligned to both [ZDHC MRL v1.1](#) and [2.0](#).

6. Responsible consumption or living (closed-loop operations across global supply-chain and product lifestyles)

As part of our [Little Helps Plan](#), we are committed to reducing the environmental impact of our supply chains, promoting

closed loop systems and encouraging responsible consumption. We know that these are issues that our customers care strongly about, and we want to make it easier for them to play their part by recycling unwanted clothing. In April 2019, we trialed a clothing take back scheme in 86 stores across the UK. Customers were able to donate clothing, shoes and textiles from any brand and of any quality in our conveniently located collection units at the front of the store. We collected over 100 tonnes of clothing, shoes and home textiles during this trial, and customer and colleague feedback was very positive. We are now working on plans to roll this scheme out to all Tesco stores with an F&F department later this year.

7. Self-reporting on the DETOX Commitment

This report is our principal account of our work to deliver our [DETOX commitments](#) and we will continue to report against our progress.



Future Priorities.

Although we continue to make some progress in elimination of hazardous chemicals and towards more sustainable chemistry in our supply chain, we recognise there are still many challenges for us to do more.

- We will continue to monitor our supply chain through wastewater testing with the aim of reaching 100% coverage by 2025. As we engage further upstream in our supply chain on Man-made cellulosic fibre supply chain (MMCF) in closed-loop production model with our commitment to “Roadmap to responsible viscose and modal manufacture”. We believe this concept is critical to circularity and will continue encourage our supply chain to explore the possibility of recycling the chemicals used in the process and thus reduce discharge in the environment with improved operational efficiencies.
- We have used learnings in our clothing supply chain and share with our home and nursery textile supply chain. Their supply chain has also joined our capacity building sessions and we share our journey with both teams and suppliers.

We started to engage our key suppliers as priority. Some of them have already demonstrated strong commitment and compliance towards the same standards and requirements as we used in clothing. This gives us confidence that maintaining the same standards across home and clothing textiles is achievable in these sectors.

- We aim by 2022, home and nursery textile strategic wet processing mills accounting for at least 80% of our production will follow the same approach to eliminate priority chemicals in production and we will disclose their mill list.
- F&F will continue to set new stretching goals and aim to raise the bar within our sector. We aim go beyond 11 priority groups of hazardous chemicals for elimination and continue to align with the industry approach through collaboration in ZDHC community. We will continue to play an active role in industry collaborations to bring about more sustainable clothing supply chains.



Key links.

Detox Commitment

[Restricted Substances list in Textile, Leather and Footwear \(RSiT\)](#)

Clothing supplier list

2019 Technical case studies on chemical substitution:

[Substitution Case Study for NPEOs \(a\)](#)

[Substitution Case Study for NPEOs \(b\)](#)

2018 Technical case studies on chemical substitution:

[Substitution Case Study for Carcinogenic aromatic amines](#)

[Substitution Case Study for Chlorophenols](#)

[Substitution Case Study for Organotin](#)

2017 Technical case studies on chemical substitution:

[Substitution Case Study for APEOs \(a\)](#)

[Substitution Case Study for APEOs \(b\)](#)

[Substitution Case Study for Chlorinated Compounds](#)

[Substitution Case Study for Phthalates](#)

[Substitution Case Study for Naphthylamine](#)