

Case study: chemical substitution (PFOA)

This case study outlines how a finishing agent containing PFOA was identified and substituted with a PFC-free alternative.

Primark has a stringent chemical management policy in place which complies fully with, and goes beyond, EU legislation. Beyond this, Primark recognises the importance of continuing to evolve its chemical management policy in line with industry best practice and of continuing to minimise the environmental impact of textile manufacturing processes.

As a result, Primark has committed to working with industry and other stakeholders to achieve the goal of 'zero discharge' of hazardous chemicals within the textile and apparel supply chain by 2020.

In line with this, a pilot study was conducted to assess current chemical usage and to identify issues related to chemical management practices in a selected Chinese textile dyeing mill. During the pilot, traces of PFOA were detected in the mill's effluents. By assessing the mill's chemical inventory, the source of the PFOA was identified as two PFC finishing agents used by the mill and purchased from a local chemical supplier. Recommendations regarding how these chemicals could be substituted were made; Primark is continuing to support the mill to ensure phase out of the finishing agents and the effective phase in of the safer alternative.

PFOA is a chemical with known hazardous effects and is a PFC of the C8 group; as such it is a chemical that Primark has prioritised for immediate phase-out.

'Evo® Protect DWA' from DyStar was identified as a suitable alternative, as it is based on modified fatty acids and hence is free of PFC's.

The PFC-free alternative is currently slightly more expensive and provides good water repellency. It does not provide oil repellent effects like the PFOA-based chemical. It is considered a safe alternative, however, and enables the mill to be compliant with brand and governmental requirements in relation to PFC's.

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