

2015

VALENTINO SPA

DETOX COMMITMENT UPDATE

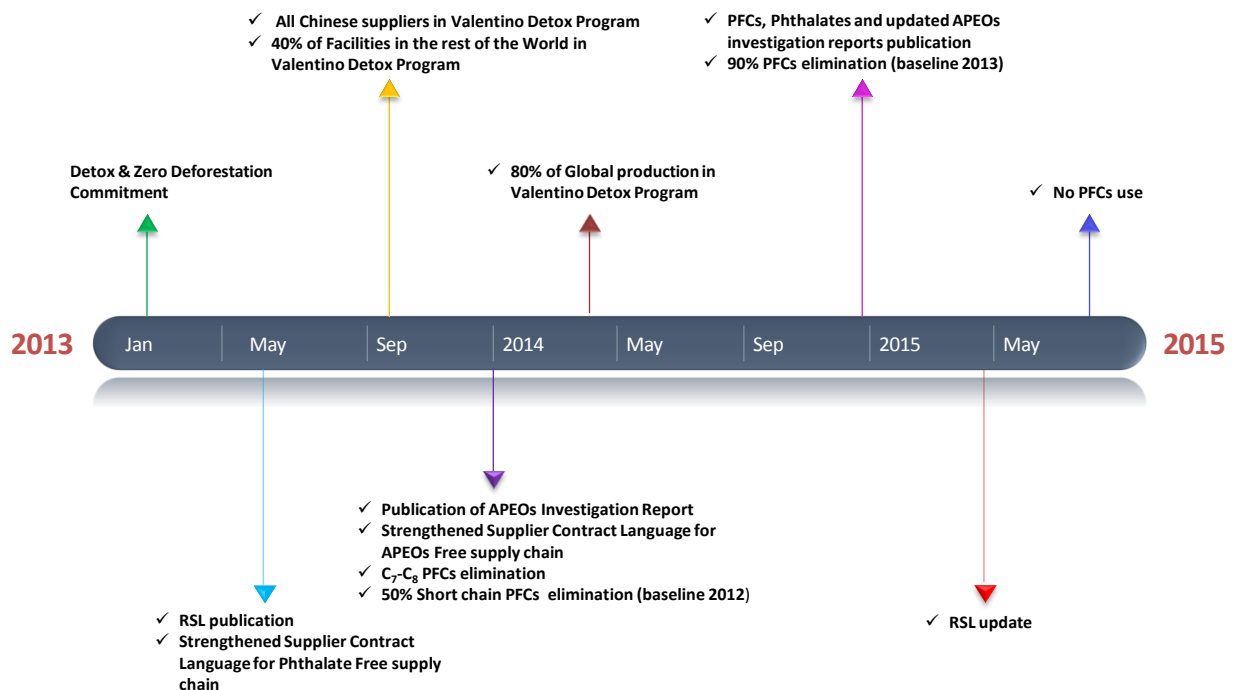
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1. COMMITMENT OVERVIEW

Following VALENTINO SPA's (VSPA) Detox Commitment of February 6th 2013, and in line with the public's "right to know", this document discloses the actions undertaken by VSPA in the supervision of its global supply chain up to October 2015, on the road towards zero emissions of hazardous chemical substances by 2020.

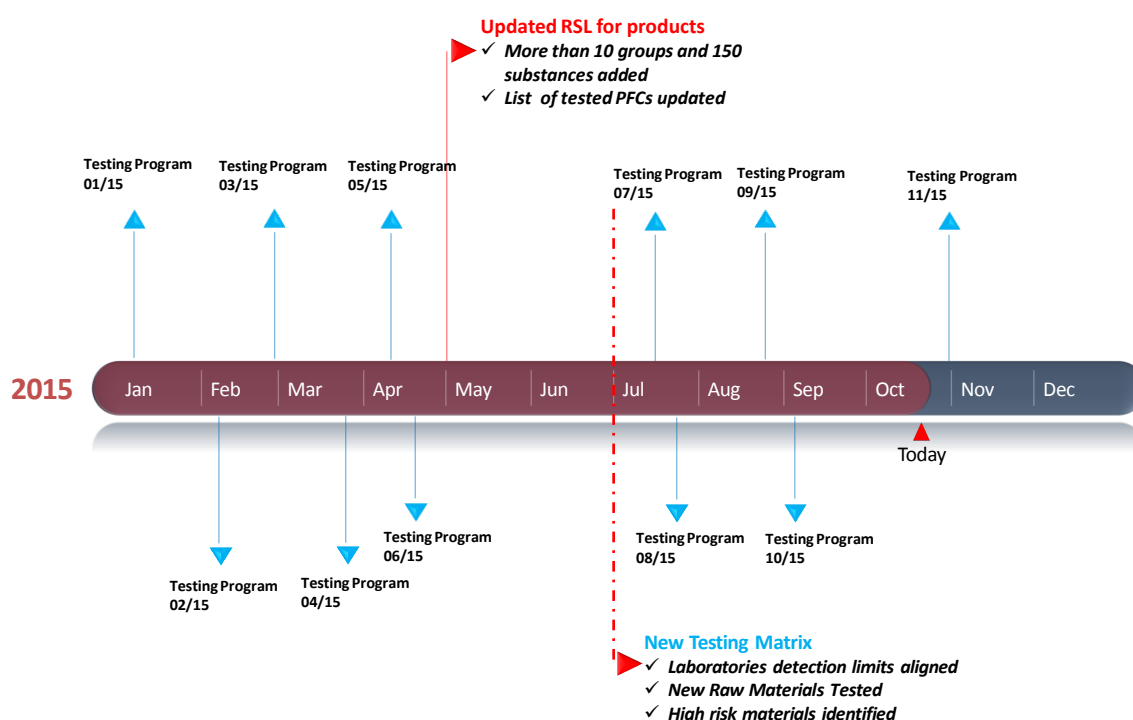
As of 2013, VSPA has performed a series of steps in order to achieve the commitment objectives. The timeline below shows the principal milestones on this path.



The focus of our research and control is on materials testing, audits and water sampling/testing, in addition to training and research into alternative products in collaboration with our suppliers. In particular, activities in 2015 aimed to optimize existing initiatives and to deepen and broaden the scope of testing activities.

2. MATERIALS TESTING

Screening for hazardous substances in materials is conducted on a seasonal basis within the scope of VSPA's product compliance procedures. The screening process is based on the testing packages created for each type of material. Each package contains multiple groups of substances subject to mandatory testing depending on the materials involved, applying for each substance the best available techniques.

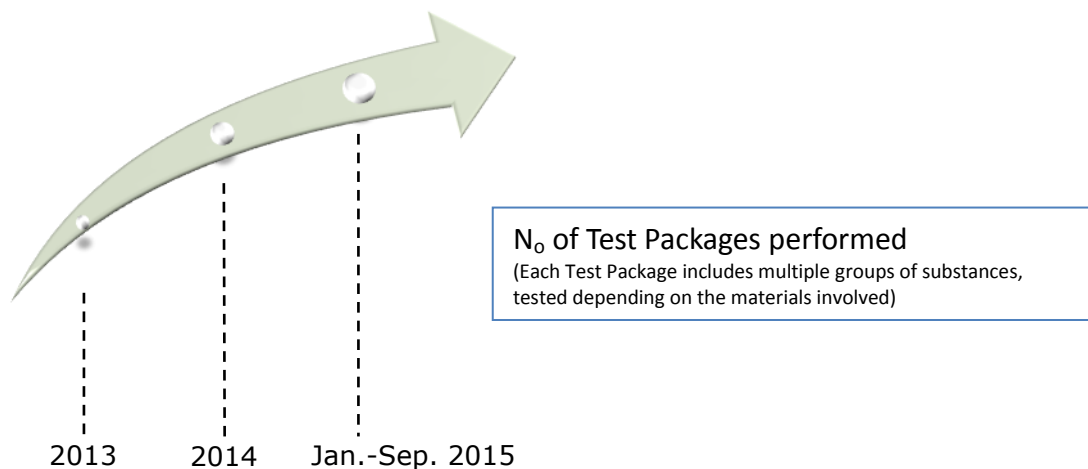


Testing activities depart from research, and continue through prototypes, sampling and production. Suppliers are active participants in the process; test results and knowledge are shared with them to ensure that the goal of complete elimination is achieved.

Continuous testing of our finished products and raw materials has enabled us to create a detailed Database to support hazardous chemical screening and provide statistically valuable information.

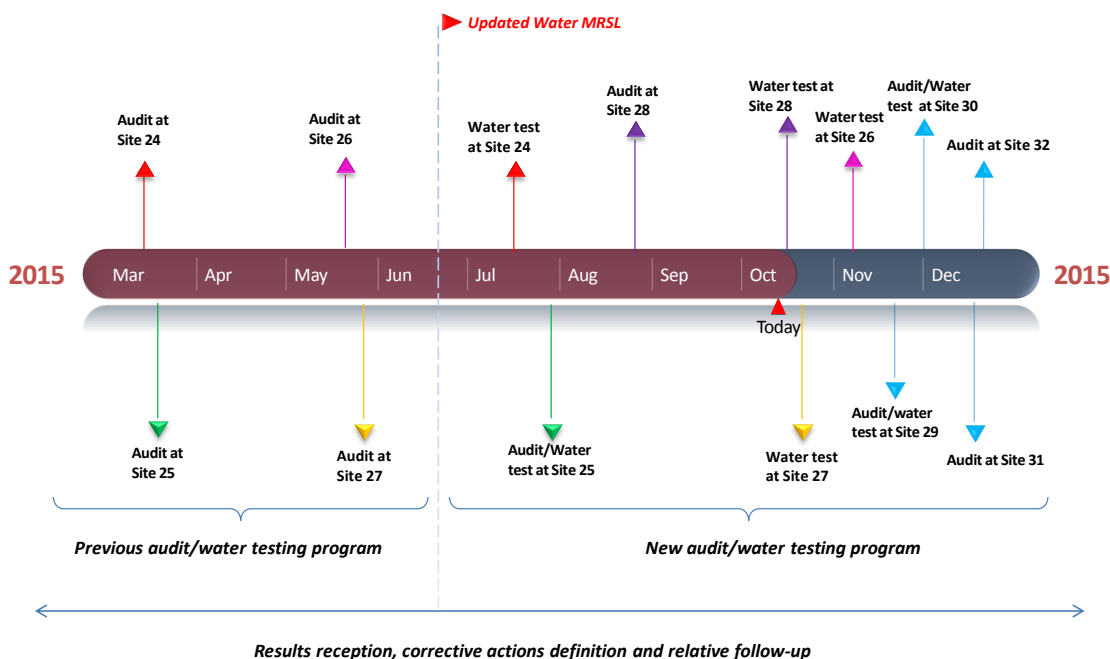
In April 2015 the new updated RSL (Restricted Substances List) was released with more than 10 groups and 150 substances added and updated lists of PFCs (perfluorinated/polyfluorinated compounds) and phthalates for testing.

From 2013 the number of tests performed has increased by 60%:



3. AUDIT/WATER TESTING PROGRAMS

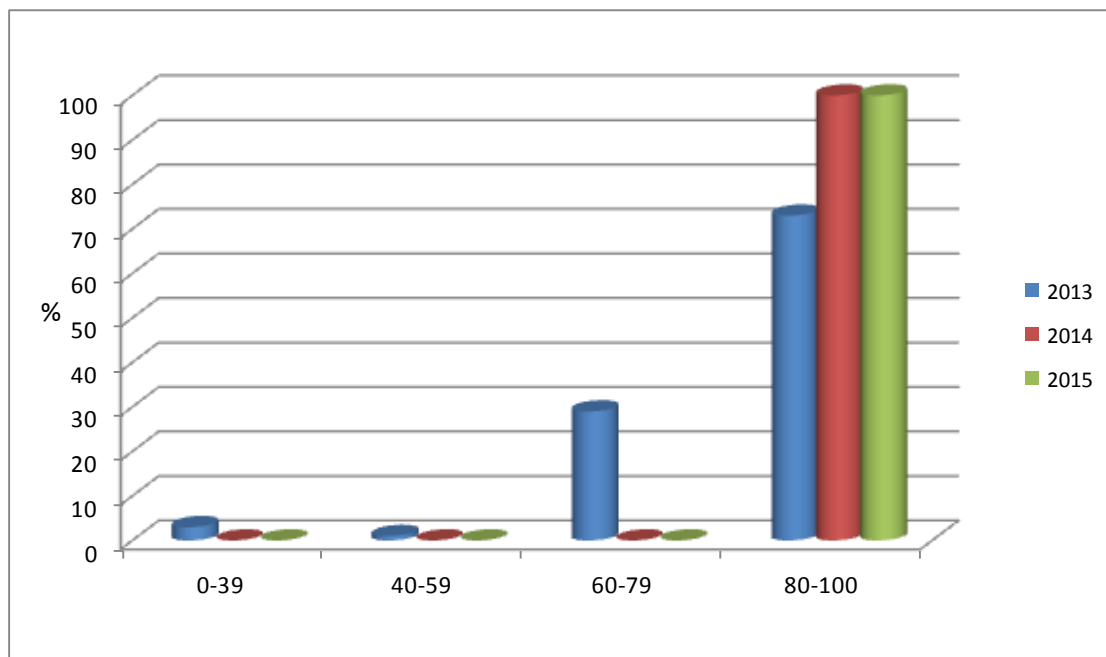
In 2015, in compliance with the Detox Commitment, VSPA continued a program of factory audits and waste water analysis at production sites where wet processes (dyeing, printing and tanning) are carried out. The list of tested substances was updated starting in June 2015, adding more Phthalates, PFCs and PCPs (Chlorinated Solvents).



Overall Audit Performances

28 sites have been audited since the beginning of the program of facility audits in 2013.

The following chart describes the overall performances of all the audited sites.

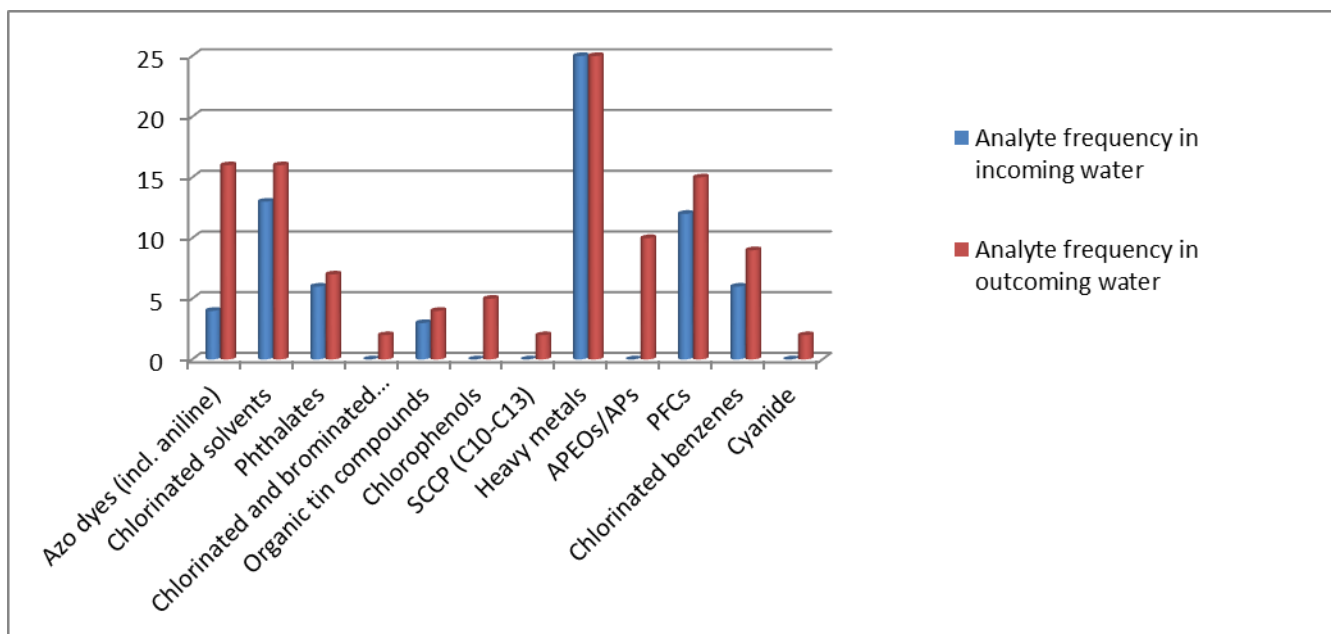


More than 85% of audits present a high performance rate (80-100%). All sites audited during 2014 and 2015 achieved higher scores than 2013, thanks also to the training and communication programs developed from 2013 onwards.

Water Testing

As of September 30th 2015, 25 waste-water sample analyses were performed monitoring incoming and untreated outgoing waters. All water samples were tested to check for the 11 priority chemical groups and additional substances. This kind of screening process helps to identify the use of these chemicals in manufacturing processes.

The following graph represents the frequency of the analyzed groups of substances in the incoming and outgoing untreated wastewater.



Analysis of results shows that certain groups of substances are detected in incoming water as well as in outgoing wastewater. The groups involved are: Chlorinated Solvents, Phthalates, Heavy Metals, PFCs and chlorinated benzenes. Further research showed that certain facilities reuse part of the treated wastewater, demonstrating that some of these substances accumulate in water.

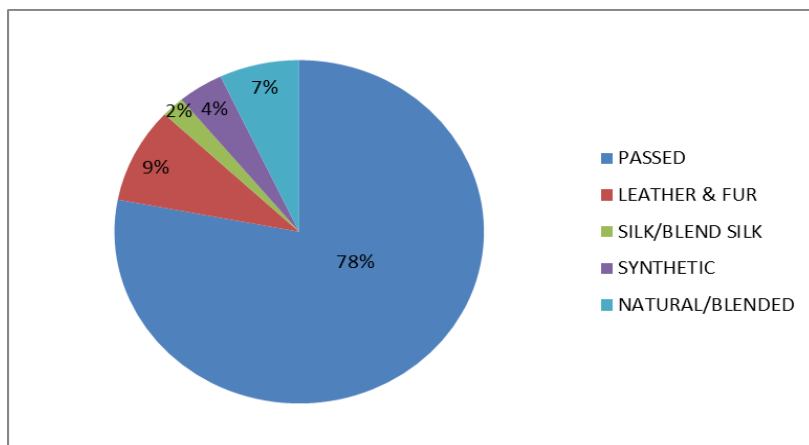
4. FOCUS ON APs/APEOs

APs/APEOs in materials

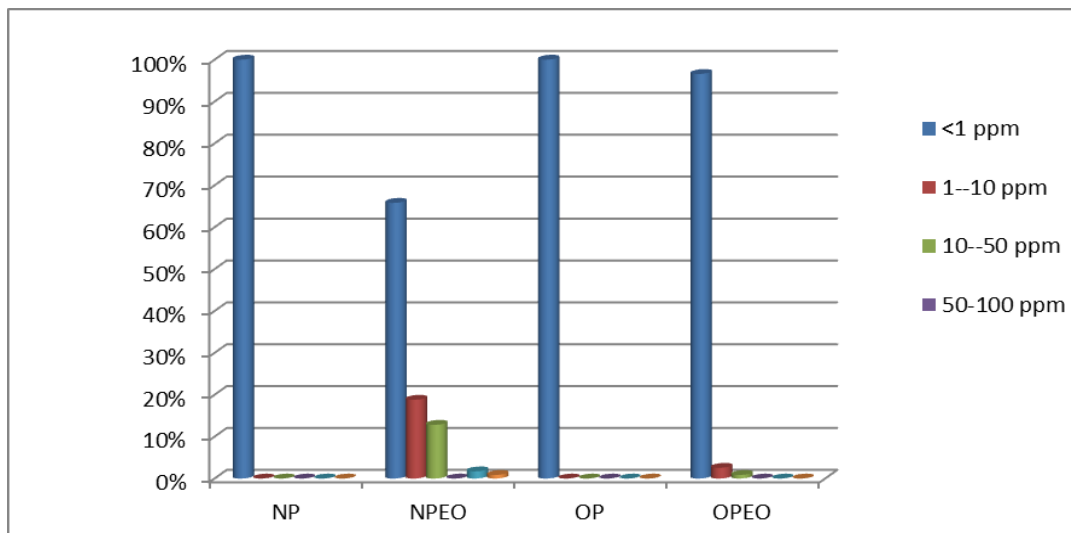
From January to September 2015, 406 APs/APEOs (Alkylphenols/Alkylphenol Ethoxylates) tests on raw materials and finished products were carried out. Testing activity revealed the presence of APs/APEOs in 22% of cases. A more detailed analysis per material composition (see following table/graph) suggests that “leather and fur” is the type of material in which alkylphenols are most present (9%).

TOTAL TESTS	FAILED TESTS	FAILED %
406	90	22

July - September 2015 Fail % per material type:



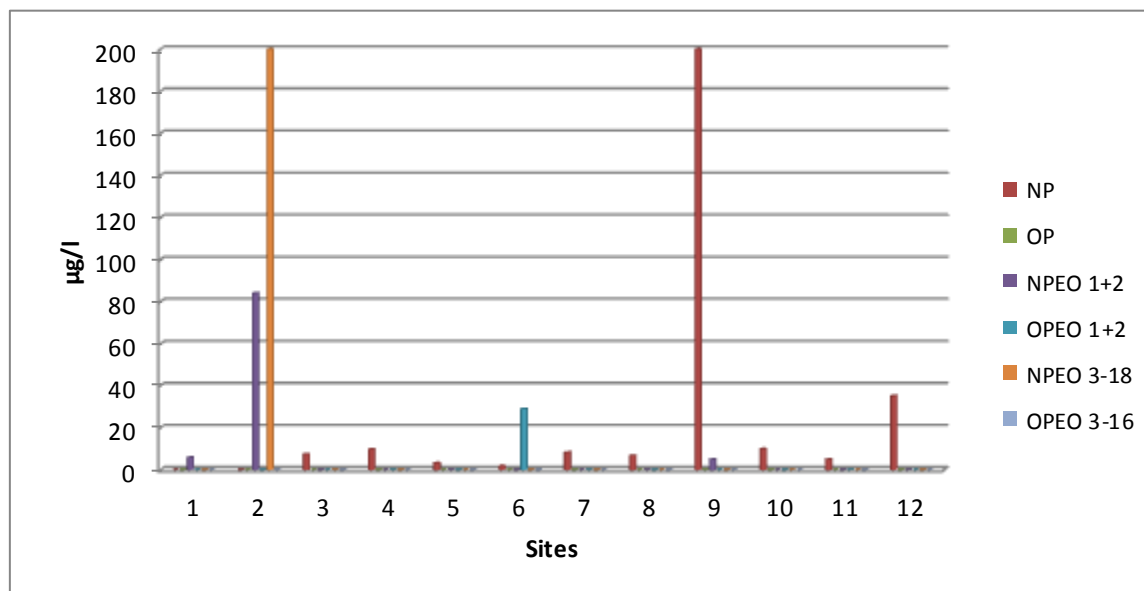
In order to identify which tested APs/APEOs were most present in materials, an analysis of incidence per concentration range was carried out.



The graph above shows that NP (Nonylphenols) and OPEO (Octylphenols Etoxylates) were never noticeable in materials (always below 1 mg/kg (ppm)). OPEO was only found in traces, between 1 and 10 ppm in the 3% of analytes. NPEO (Nonylphenol Ethoxylates) was the most frequently revealed Alkylphenol Ethoxylates; however, in 97% of the cases at a concentration below 50 ppm.

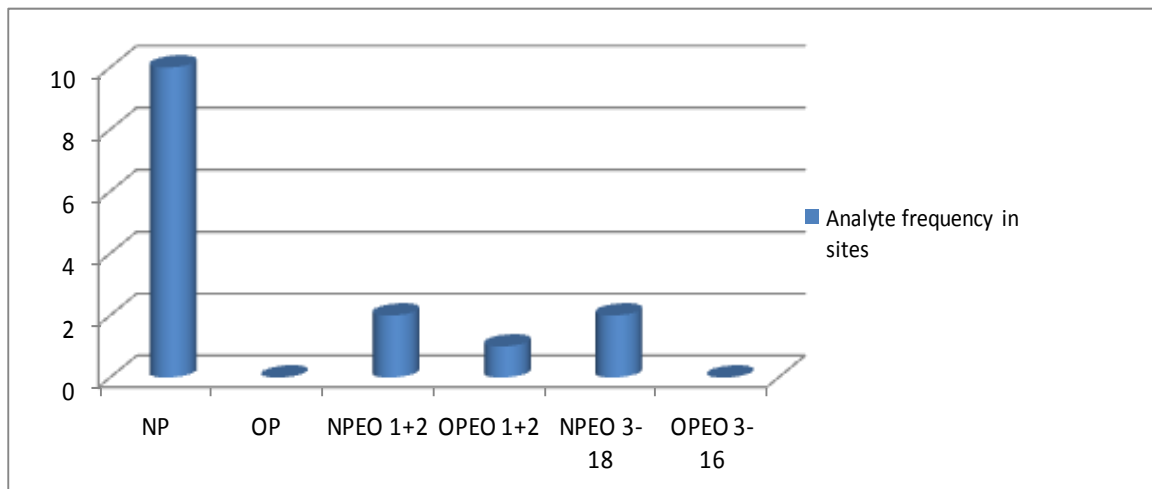
APs/APEOs in wastewater

The analysis of the APs/APEOs was performed on 25 production sites. At twelve facilities alkylphenols were present in outgoing waters, but the analysis excluded any APEO contamination of incoming waters.



Two sites presented an APEO concentration higher than 200 µg/l (ppb); at all of the other sites the APEO concentration was lower than 40 ppb.

As showed on the chart below, more accurate analysis of results highlights that NP is the most commonly detected analyte in wastewaters.



Conclusions on APs/APEOs

- When APEOs are found, all suppliers are always notified and supported in identifying possible sources;
- Leather & fur present the highest APEOs concentration and frequency rate: some raw-materials sub-suppliers continue to use APEOs as degreasing agents in countries where these substances are not regulated yet;
- APEOs are found in materials in higher frequency than in the past months, but at lower concentrations, since:
 - Some chemicals contain undeclared APEOs, and for this reason may be unintentionally used (e.g. a dye powder containing high concentrations of NPEOs);
 - In washing mills/dye houses, materials coming from different countries (including those where APEOs are not regulated yet) are processed in the same machines, easily leading to cross-contamination
 - Suppliers still have difficulties in involving their supply chain tiers;
 - Recycled materials used in production increase the probability of APEO contamination.

5. FOCUS ON PFCs

PFCs in materials

- *January - June 2015 (materials tested for PFOS and PFOA)*

From January to June 2015 a total number of 129 (PFOA-PFOS) tests were performed. No fails were reported.

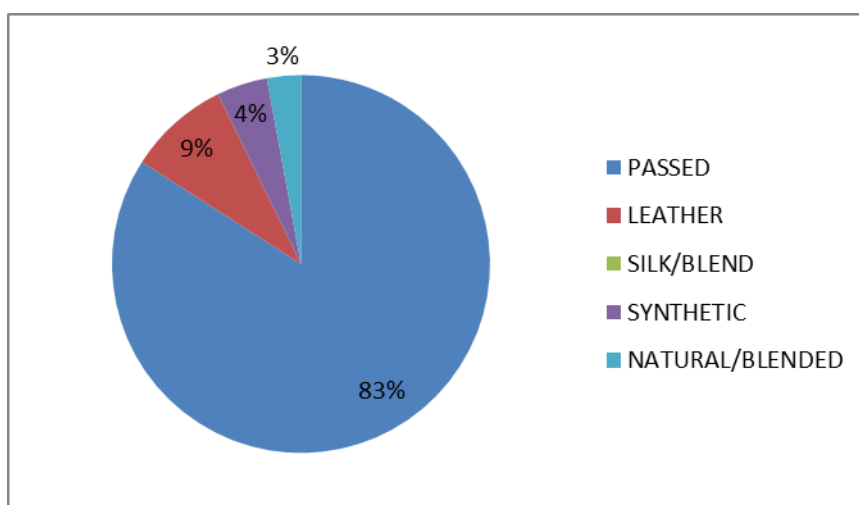
TOTAL TESTS	FAILED TESTS	FAILED %
129	0	0

- *July - September 2015 (up to 40 PFCs tested)*

Between July and September 2015, the adoption of the new testing matrix implied up to 40 PFCs tested on materials. The fail percentage was 17% (see following table/graph).

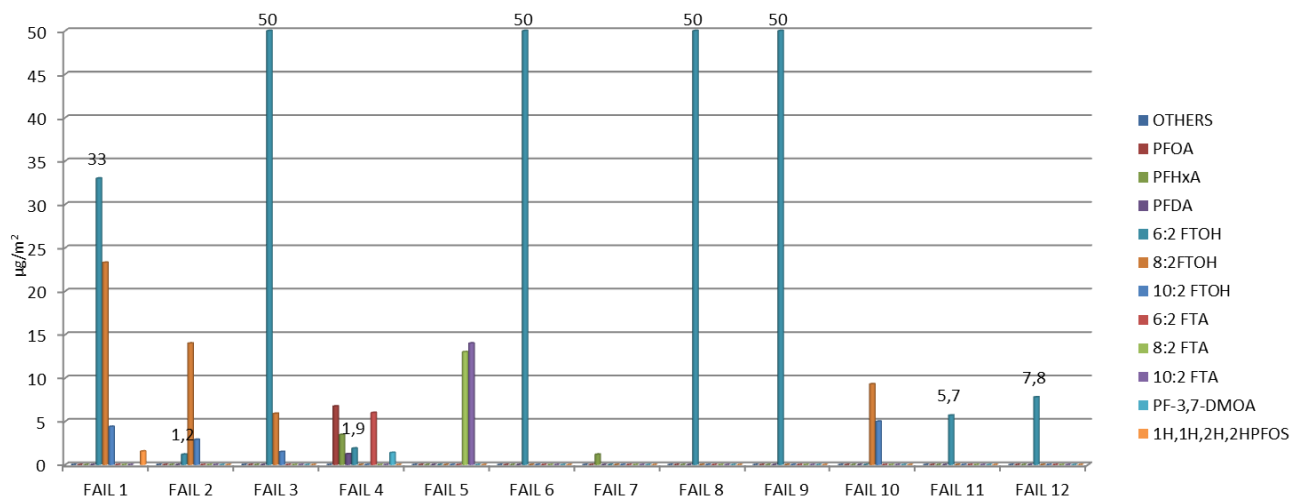
TOTAL TESTS	FAILED TESTS	FAILED %
70	12	17

July-Sep. 2015 Fail % per material composition:

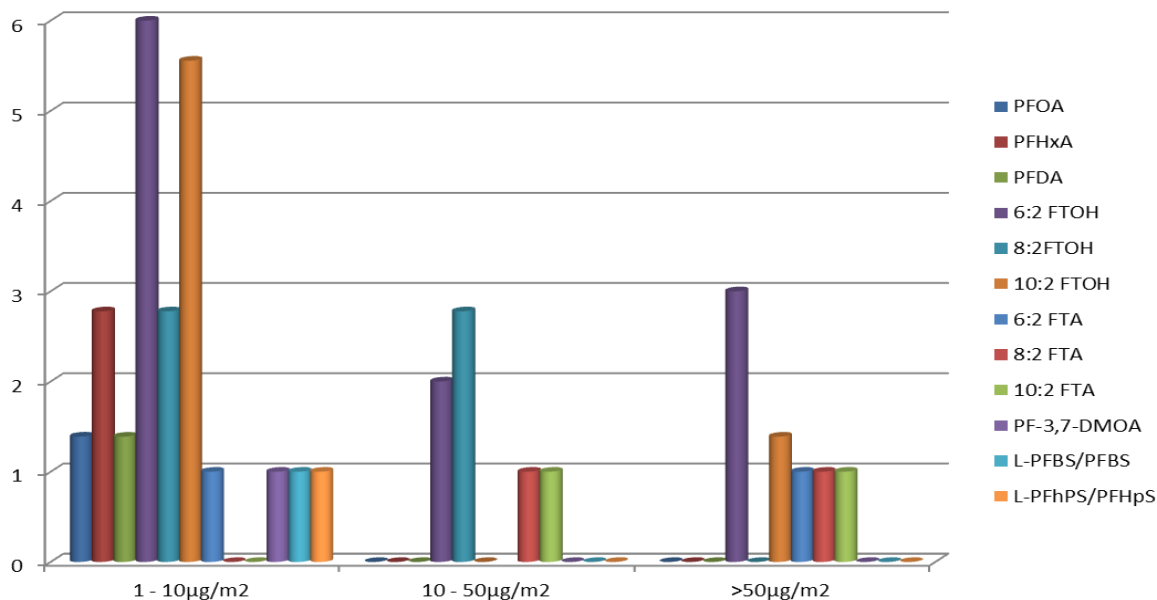


PFCs were mostly found in leather (9% of cases), followed by synthetic fibers (4%) and natural/blended fibers (3%). No PFCs were detected in silk/blended fibers.

Of all PFCs tested, 12 were found in materials. The concentration per failed sample and substance is shown in the following chart.



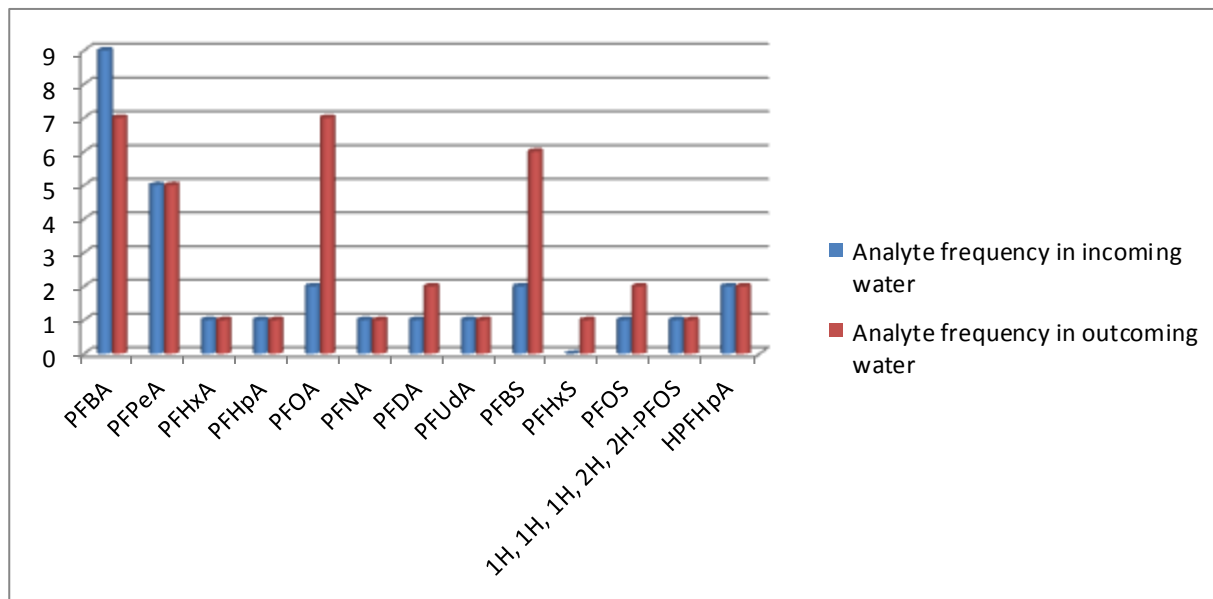
In the same article, multiple PFCs can be present. The higher number of fails is related to volatile PFCs (FTOHs, FTAs): these were detected in 12 of the 70 tested articles. In some cases PFOA traces can be found as a by-product of other PFC production.



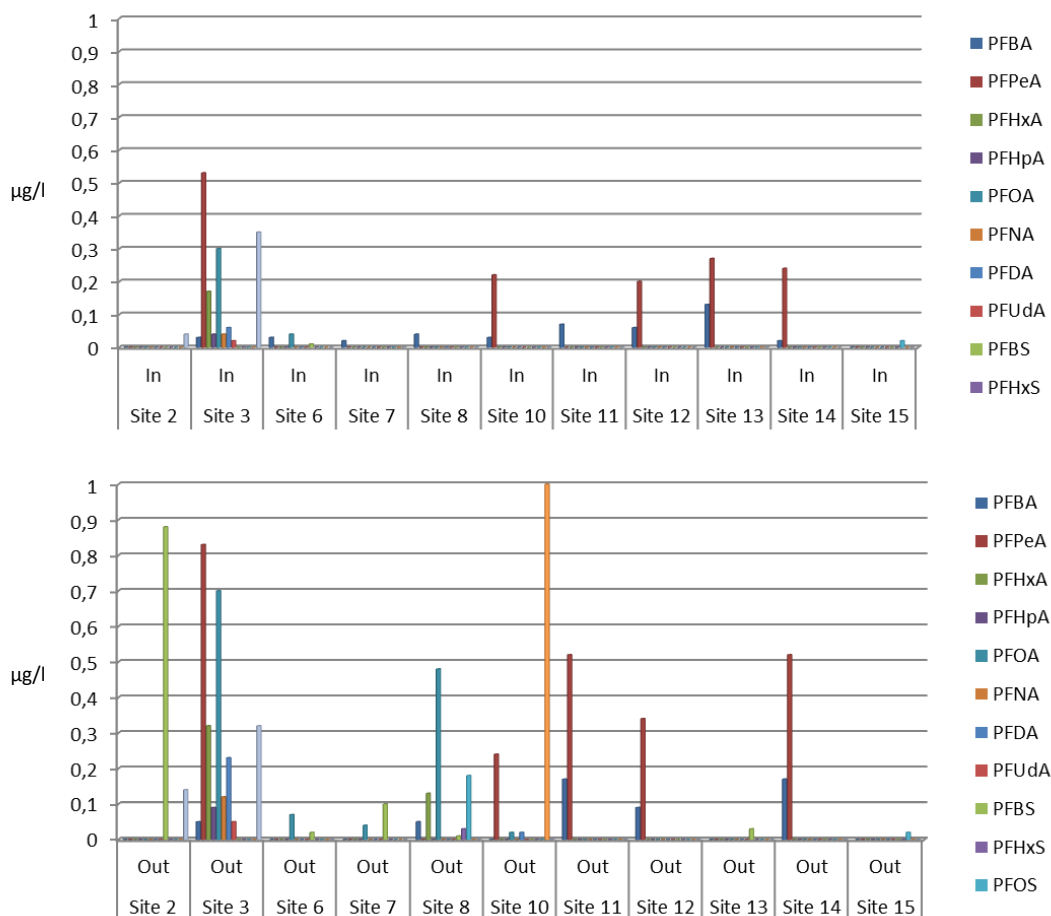
As shown by the above graph, most of the detected PFCs are present in a concentration range of 1-10 µg/m². The volatile 6:2 FTOH is the most frequent substance, and in some cases it is present in > 50 µg/m² concentrations.

PFCs in wastewater

Water testing results show that effluents at 16 out of 25 facilities contained PFCs in incoming as well as outgoing untreated waters. The most frequent PFCs were PFBA, PFOA, PFBS and PFPeA.



PFCs comparison in incoming and untreated outgoing waters



In some sites, a direct relationship between PFCs present in incoming and untreated outgoing water can be noticed; the relationship is stronger for those facilities having a partial water recycle.

Conclusions on PFCs

- All suppliers replaced PFOS and PFOA in their recipes but some of them have been unintentionally using other PFCs. We will keep working with them to find possible sources and substitutes:
 - Some chemical products are sold as PFC-Free but they only avoid the use of PFOS and PFOA;
 - Leather presents the highest fail %, due also to the use of certain finishing products with no declared PFC content;
 - We are currently in contact with Subsport to publish a substitution case study.

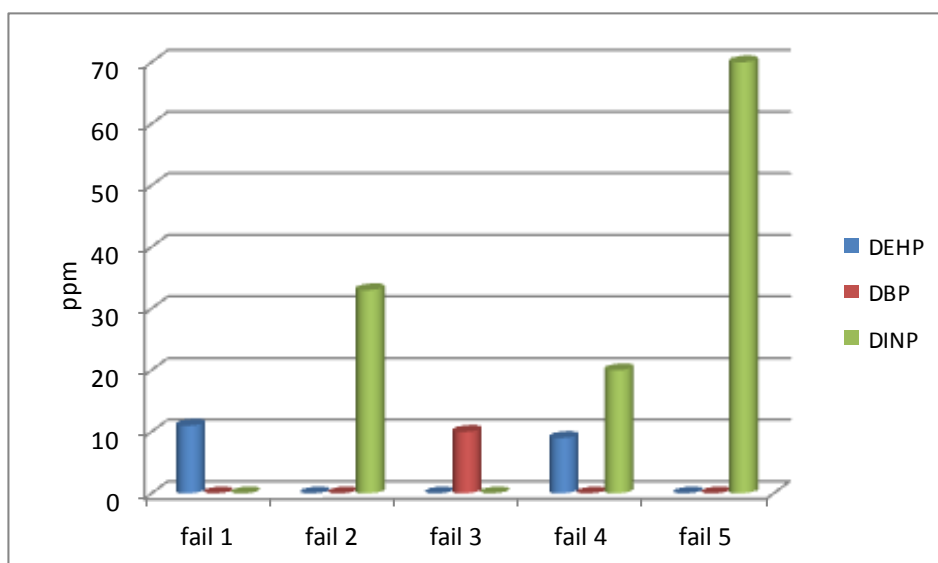
6. FOCUS ON PHTHALATES

Phthalates in materials

From January to September 2015, 104 tests on materials for up to 22 phthalates were performed; the fail percentage was just below 5% (see following table).

TOTAL TESTS	FAILED TESTS	FAILED %
104	5	4,8

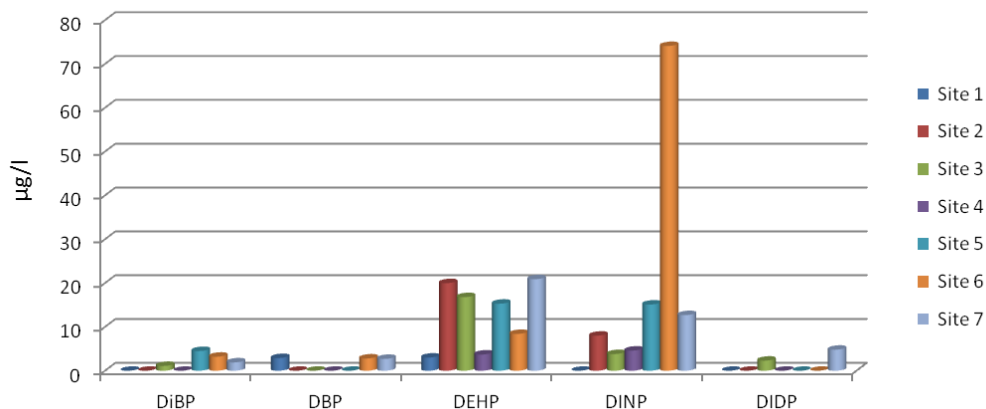
Out of 22 monitored phthalates, only DEHP, DBP and DINP were found. The following graph shows the analyte concentration for each fail .



All detected analytes showed concentrations below 70 mg/kg (ppm), possibly related to cross-contamination.

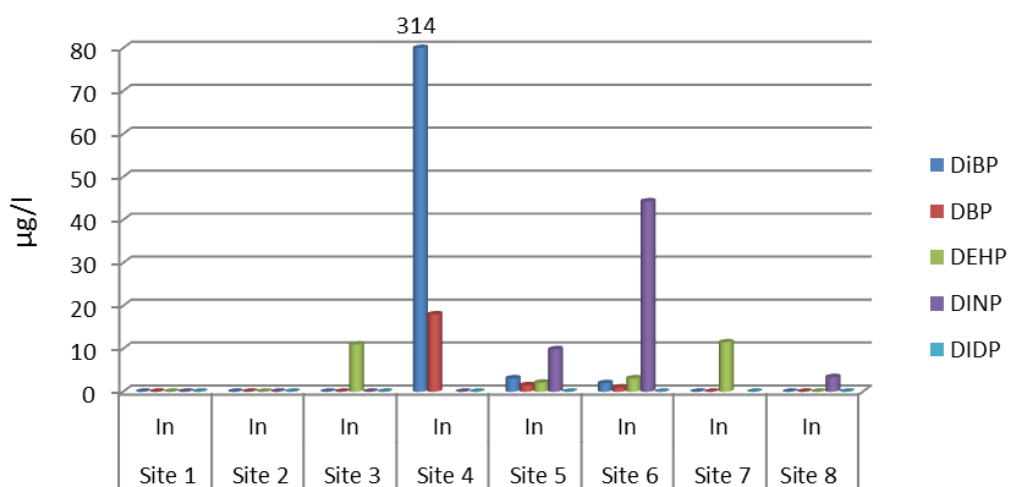
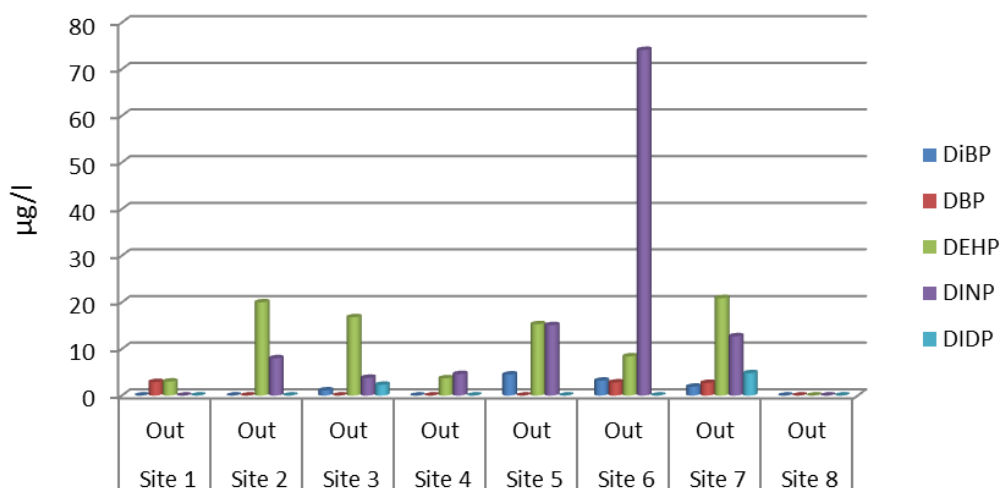
Phthalates in wastewater

In 7 of 25 tested sites, phthalates in outgoing untreated wastewater were found (see following graph).



The comparison between the materials and the wastewater analysis highlights that mostly the same three phthalates found during materials testing were also detected in waters: DEHP, DINP, DiBP.

Phthalates comparison in incoming and untreated outgoing waters



As seen in the charts above, as for the PFCs, in some sites a direct relationship between phthalates present in incoming and untreated outgoing water can be seen.

Conclusions on phthalates:

- Valentino SpA continues to actively monitor and prevent phthalate use;
- When phthalates are found, all suppliers are always notified and supported in identifying possible sources and substitutes;
- Cross contamination from chemicals/environment easily occurs;
- Mostly the same phthalates found in products are detected in waters.