



Ongetta and Partners
Ongetta Srl - Italtexsil Sarata Srl
APEOs Elimination Investigation Report

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The APEOs Elimination Investigation Report is in fulfillment of the [Ongetta Srl](#) and [Italtexil Sarata Srl](#) commitments to the DETOX solution which were made public on 1st June, 2016

Ongetta and Partners support the Detox solution to ban hazardous chemicals from fashion



The report was prepared on behalf of Ongetta and Partners by Blumine srl

Blumine srl is an independent consulting company specialized in supporting textile and fashion companies in sustainability projects.



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1 APEOs in textile processes

Alkylphenol ethoxylates (APEOs) are a group of nonionic surfactants, the most commonly used being nonylphenol ethoxylates (NPEOs) and octylphenol ethoxylates (OPEOs).

The chemical structure of these molecules has led to a widespread use in textile processes, especially in wet processes, owing to their dispersant, detergent and emulsifying action.

APEOs are hazardous for the environment and for aquatic organisms. Recent research confirms that APEOs are potential endocrine disruptors, as well as being highly bio-accumulative and persistent. APEOs contamination has been detected in riverbeds, water tables and even in the human food chain.

APEOs are already subject to restrictions in Europe since 2005. The EU 2003/53/EG directive has prohibited the use of the main group of APEOs, the NPEOs, in concentrations greater than 0.1% in chemical intermediates. The presence of this group of substances in the processes of European companies and the final products can however be induced by semi-finished and chemicals produced in countries where the use of APEOs is allowed.

Ongetta and Partners understand that there are multiple supply-chain pathways for potential APEO contamination, including chemical formulations, and is committed to enhancing both training and auditing of its supply chain to ensure that suppliers have the latest information on APEOs, highlighting where there is a risk that APEOs may enter in the undocumented contamination of chemical supplier formulations.

To safeguard the health and safety of consumers, producers and local communities, **Ongetta and Partners** starting from **June 2016** has introduced the ban on APEOs in the Manufacture Restricted Substances List (M-RSL) that suppliers are required to comply with.

2 Overview of Ongetta and Partners processes

Ongetta and Partners are specialized in silk thread twisting, which has been a family business tradition since the beginning of the 20th century (1900). Such activity is carried out in two production sites/twist mills:

- Ponte di Piave (TV, Italy), which belongs to the mother company **Ongetta Srl**
- Sarata (Rumania), which belongs to **Italtexsil Sarata Srl**, partially owned (49%) by **Ongetta Srl**.

The most important products are continuous silk yarns, discontinuous silk yarns (spun silk, tussah and noil), and a vast range of mixed yarns, representing more than 75% of the turnover. Continuous silk yarn accounts for a rough 90% in quantity versus 10% of discontinuous yarn.

Since 2008 Ongetta and Partners have also extended its activity to the import and trading of ready-to-print silk, linen, viscose, polyester and mix raw fabrics, which do not imply any productive processing and account for less than 25% of the turnover.

Main facilities owned by **Ongetta and Partners** are listed in Table 1

Table 1 - Facilities directly owned by **Ongetta and Partners**

Code	Facility	Processes
1	Ponte di Piave (TV, Italy), owned by Ongetta Srl	Silk thread twisting
2	Sarata (Rumania), owned by Italtexsil Sarata Srl	Silk thread twisting

3 Risk of APEOs use in the Ongetta and Partners processes

In the process of twisting, raw silk skeins are first sized with oil and water for dilution, then processed (doubling, twisting, winding) until yarn reels. The only possible way APEOs can find their way into **Ongetta and Partners** products at this stage is through the chemical auxiliaries, namely in formulation of sizing oils and lubricants.

As APEOs are currently used in many sizing and lubricants oils available on the market, **Ongetta and Partners** have started a research and innovation project in cooperation with a leading Italian R&D center specialized on silk fibers and a chemicals supplier to develop new and innovative APEO free formulations.

The R&D project has led to the realization of the SETOL RE NEW oil, that has been formulated APEOs free, with the collaboration of the Innovhub - Stazione Sperimentale per la Seta research center in Milan, and is produced for **Ongetta and Partners** by an Italian supplier. The SETOL RE NEW oil is progressively substituting all the traditional oils in the **Ongetta and Partners** processes. We plan to finalize full substitution by: February 2017.

4 Risk of APEOs use in the Ongetta and Partners supply chain

APEOs can however be found on yarns and textiles, especially in raw materials sourced in Countries where the use of APEOs is allowed¹.

The risk is higher in the first stage of fiber production as APEOs can be found in surfactants formulations used in the de-gumming of silk fiber - this is a critical issue for **Ongetta and Partners** as all raw material suppliers are in China/Hong Kong - and in discontinuous silk yarns spinning, due to the large use of detergents for pulping wastes.

Chemicals auxiliaries used by **Ongetta and Partners** internal processes are all supplied in Italy, thus minimizing, but not excluding, the risk of unintentional use of APEOs.

Compliance with the APEO ban requirement is a key criterion currently adopted by **Ongetta and Partners** to select raw material suppliers. Constant monitoring and cooperation with suppliers must however complement the supplier declarations.

5 The investigation plan

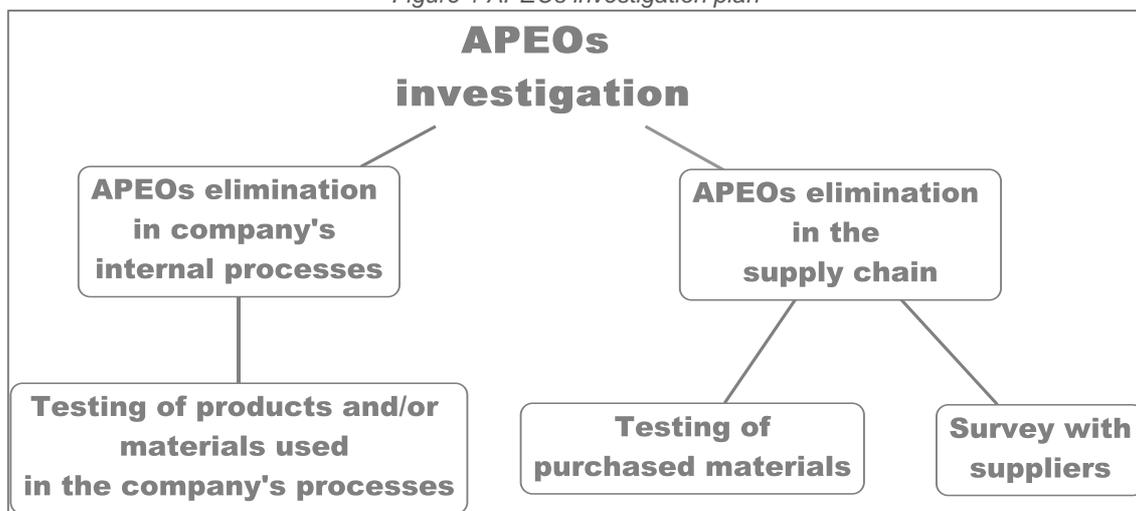
Consistent with the Detox commitments signed in **June 2016**, and as part of a program of work to eliminate from the supply chain the use of APEOs and all hazardous chemicals from its processes and supply chain, **Ongetta and Partners** carried out a fact-finding investigation to check if any APEOs enters, or risk to enter, intentionally or unintentionally, in its processes and products.

A further component of the investigation was a questionnaire based survey with the suppliers to check their awareness about the APEOs toxic features and to assess the risk APEOs can enter manufacturing processes in the supply chain.

¹ In Europe, the use of NPEO has been banned or voluntarily restricted since 1986. Since 1998, the use of APEO in detergents has been forbidden in Germany – and since [month] 2005 the EU directive 2003/53/ EG has forbidden the use of NPEO in higher concentrations than 0.1% in product formulations.

See: <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2003:178:0024:0027:en:PDF> (last seen Nov. 2016)

Figure 1 APEOs investigation plan



The survey was undertaken at an individual supplier level, and was based on suppliers' self-declaration, self-assessment. All the measures were taken to incentivize the supplier to provide an open and honest evaluation. It is however important to note that the self-assessment nature of the survey brings some limitations to survey results and ensuing conclusions.

Further to evaluate awareness and risk, the survey played also the role to inform the suppliers about the health risks relevant to APEOs and to reinforce information about the APEOs ban policy of **Ongetta and partners**.

6 APEOs elimination in Ongetta and Partners' internal processes

Internal processes imply the use of water only in the skein bath preparation phase, where the silk skeins are treated with some oil and water in order to be twisted without problem. The only possible way APEOs can find their way into **Ongetta and Partners** products at this stage is through chemical auxiliaries, namely in formulation of sizing oils and lubricants. The investigation on **Ongetta and Partners** internal processes was thus focused on testing the sizing and lubricant oil. Testing was carried on the innovative APEOs free SETOL RE NEW oil that was recently introduced to substitute traditional market standard oils, that are known to have APEOs in their formulation. The test followed the introduction of the new oil in some of the processes that will be extended to all Ongetta and Partners processes by February 2017.

6.1 Method

The SETOL RE NEW oil was tested for presence of all the 11 DETOX priority chemical groups, including APEOs.

A test is considered “Pass” if the substance is “not detectable” at the specific method LOD. Best testing methods available at independent certified laboratories were used. For all APEOs the LOD is set at 1 mg/kg. LODs of the other 10 priority groups can be found in the full test reports at [this link](#) in the **Ongetta Srl** website and at [this link](#) at the **Italtexsil Sarata Srl** website.

The test was made in **May 2016**.

Results of the APEOs testing are summarized in the table below.

Table 2 - Test results by product

Product Code	Sample Type	Substance name	Cas n.	LOD	Pass/ Fail
SETOL NEW	RE Auxiliary chemical	All APEOs	various	1 mg/kg	Pass

6.2 Summary of results

Test was “Non detectable” for all APEOs in the sample. Thus, the test provided evidence that no APEOs are used in **Ongetta and Partners** processes.

✓ Future sampling plan & calendar

A supplement of investigation on the elimination of APEOs in our internal processes will be carried out as part of our ongoing testing activities. In 2017 we will select for testing, besides the SETOL RE NEW oil, a sample of our final products.

7 APEOs elimination in the Ongetta and Partners’ supply chain

Two investigation methods were implemented:

1. Testing of purchased materials
2. Questionnaire survey to global suppliers

7.1 Testing of purchased input materials

Ongetta and Partners are aware of the risks related to the weak regulations on APEOs in the Chinese market, from where all its purchases of silk raw materials originate.

Therefore, a big and extended effort has been made over time, and is still ongoing, to select the most advanced and reliable silk producers in the market, and to establish a strong and highly collaborative relationship with them, with the common goal of ensuring a high performing, sustainable and low risk supply chain to the customers.

7.1.1 Method

A product testing campaign has been implemented by **Ongetta and Partners** on purchased materials to strengthen the company policy against chemical risk and to provide a more APEOs focused monitoring system

The testing was implemented by an independent certified lab, to check the presence of all the 11 DETOX priority chemical groups, including APEOs in May and June 2016, on the products listed below:

- 4 samples of continuous yarns (in May 2016)
- 1 mix sample of ready-to-print textiles (in May 2016)
- 7 samples of raw spun silk yarns (in June 2016)

The sampled batches cover:

- 74% of our continuous silk yarns purchases
- 99% of our discontinuous silk yarns (spun silk, tussah and noil) purchases
- 66% of our total ready-to-print fabrics

Overall 12 samples were tested, from 8 suppliers and covering approximately 74% of our raw materials purchases (Continuous Yarn, Spun silk Yarn, ready-to-print Textiles) and 67% of our suppliers of raw materials.

All suppliers are located in China (one in Hong Kong).

✓ Pass / Fail threshold

A test is considered “Pass” if the substance is “not detectable” at the specific method LOD. Best testing methods available at independent certified laboratories were used. For all APEOs the LOD is set at 1 mg/kg. LODs of the other 10 priority groups can be found in the full test reports at [this link](#) in the **Ongetta Srl** website and at [this link](#) at the **Italtexil Sarata Srl** website.

7.1.2 Summary of results

Tests were “Pass” – i.e. “Non detectable” at LODs - for all APEOs investigated in all samples. Thus, the tests provided evidence that no APEOs are used in **Ongetta and Partners** processes. Nevertheless, routine investigation on the elimination of APEOs in our purchases will be carried out as part of our ongoing testing activities.

Figure 2 - Summary % of pass/fail test results

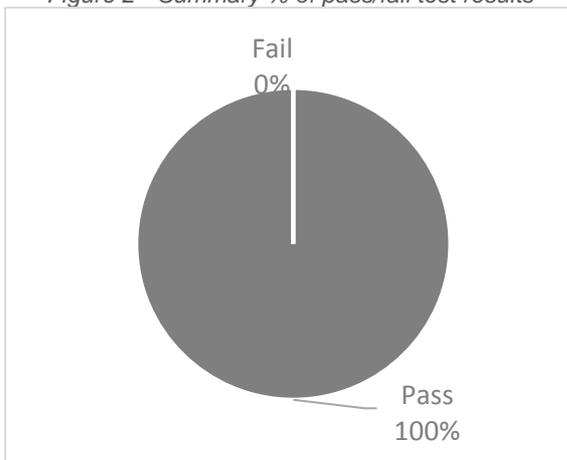


Figure 3 Tested suppliers by type of product

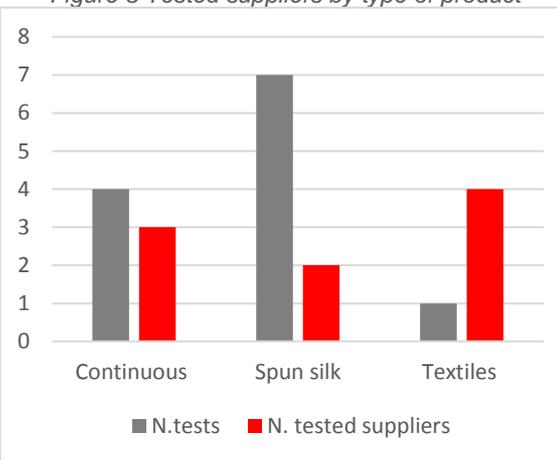


Table 3 Tested samples results

Test report N.	Product code	Raw Silk Sample type	Substance name	LOD	Pass/Fail
16/19798	lot 10	Continuous Yarn	all NPEOs/OPEOs	1 mg/kg	Pass
16/19799	lot 8	Continuous Yarn	all NPEOs/OPEOs	1 mg/kg	Pass
16/19800	lot 9	Continuous Yarn	all NPEOs/OPEOs	1 mg/kg	Pass
16/19801	textiles mix	Textiles mix	all NPEOs/OPEOs	1 mg/kg	Pass
16/19803	lot 7	Continuous Yarn	all NPEOs/OPEOs	1 mg/kg	Pass
16000256	lot 120H336A	Spun silk Yarn	all NPEOs/OPEOs	1 mg/kg	Pass
16000257	lot 120H329A	Spun silk Yarn	all NPEOs/OPEOs	1 mg/kg	Pass
16000258	lot 120H318A	Spun silk Yarn	all NPEOs/OPEOs	1 mg/kg	Pass
16000259	lot 120G034A	Spun silk Yarn	all NPEOs/OPEOs	1 mg/kg	Pass
16000260	lot 120G032A	Spun silk Yarn	all NPEOs/OPEOs	1 mg/kg	Pass
16000261	lot 120G031A	Spun silk Yarn	all NPEOs/OPEOs	1 mg/kg	Pass
16000262	lot 120G029A	Spun silk Yarn	all NPEOs/OPEOs	1 mg/kg	Pass

7.2 Survey with Ongetta and Partners' suppliers

Ongetta and Partners recognize that all suppliers must be involved in the process of the substitution of APEOs from the supply chain. Therefore, even if no APEOs were found in the raw materials purchased by **Ongetta and Partners**, an investigation on the use of APEOs by suppliers was launched in October 2016.

7.2.1 Method: survey frame

In **October 2016 Ongetta and Partners** conducted a global survey with our suppliers to assess:

- the APEOs (intentional) use risk within the raw material and wet processes suppliers
- the raw material and wet processes suppliers' awareness of APEOs impact on human health

- the cooperation willingness of all suppliers, including chemicals', to investigate the presence of APEOs in the supply chain

A survey questionnaire was sent to 9 suppliers (8 purchased materials and 1 chemicals) accounting for 75% of relevant **Ongetta and Partners'** suppliers, for 75% of purchased materials and for 100% of purchased chemicals. The survey redemption rate was 100%.

The survey was based on suppliers' self-declaration, self-assessment. All the measures were taken to incentivize the supplier to provide an open and honest evaluation. It is however important to note that the self-assessment nature of the survey brings some limitations to survey results and ensuing conclusions.

The answers helped in the assessment of suppliers' M-RSL non-compliance in APEO use risk assessment, including an assessment of the awareness and the monitoring capacity of the suppliers.

7.2.2 *APEOs Intentional use risk*

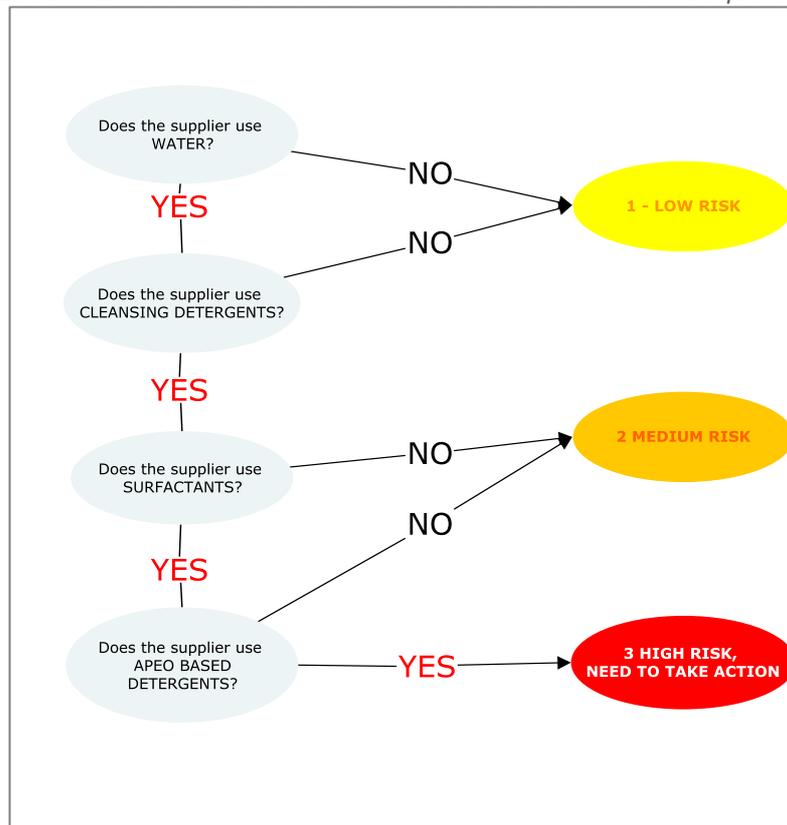
The intentional use of surfactants by suppliers was investigated with a funnel questioning approach:

- Q7. Does Your Company use WATER in any manufacturing stage?
- Q8. (if yes to Q7) Does Your Company use cleansing detergents?
- Q9. (If yes to Q8) Does Your Company use surfactants?
- Q10. (If yes to Q9) Does Your Company use APEO based cleansing detergents?

The risk assessment model, assumes that if the supplier does not use water in the industrial processes: a) the potential intentional uses of APEOs by the supplier in its own processes are very limited and b) some risk remain as the 1st tier supplier can be unaware of APEOs use by their own wet processes suppliers, if they have any. The assessment model, shown in Figure 4 APEOs intentional use risk assessment model, identifies 3 level of risk:

- **Low risk:** ask supplier to investigate its own wet processes suppliers
- **Medium risk:** check supplier APEOs awareness, set monitoring plan
- **High risk:** take action with the supplier for APEOs elimination or change supplier

Figure 4 APEOs intentional use risk assessment model for raw material and wet processes suppliers



Three **Ongetta Srl** suppliers declared in the survey to use water in their processes. Six **Italtexil Sarata Srl** suppliers declared to use water in their processes.

Two **Ongetta Srl** suppliers were classified as LOW RISK. The remaining two suppliers do not use surfactants and were classified as MEDIUM RISK. One of them is also supplier for **Italtexil Sarata Srl**. Six **Italtexil Sarata Srl's** suppliers do not use water or cleansing detergents and were classified as LOW RISK.

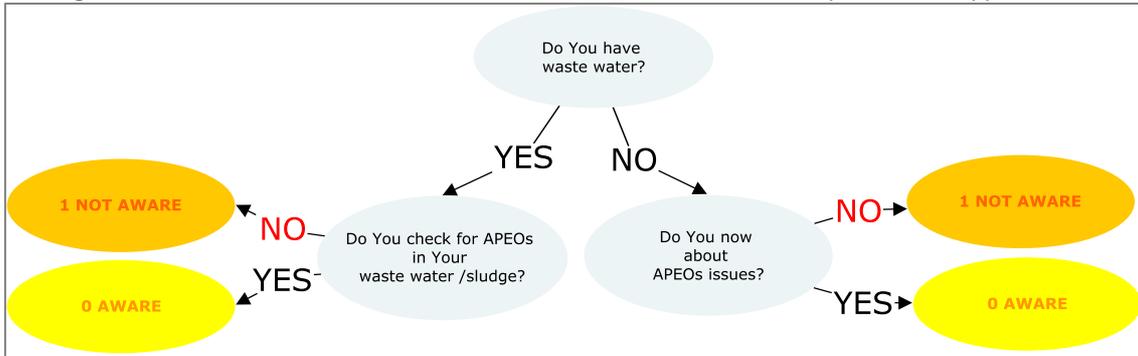
Overall, six **Ongetta and Partners** suppliers are classified LOW RISK and will be asked to investigate their own wet processes suppliers. Two **Ongetta and Partners** suppliers are classified as MEDIUM RISK and will be monitored.

7.2.3 Suppliers' awareness of APEOs impact on human health

The **Ongetta and Partners** suppliers' level of awareness about APEOs impact on human health was surveyed with specific questions:

- Q20. Do You know or have You heard about the presence of surfactants like Alkylphenol, Nonylphenol or Octylphenol Ethoxylates (APEOs) in cleansing detergents?
- Q21. Do You check for the presence of Alkylphenol, Nonylphenol or Octylphenol Ethoxylates (APEOs) in Your discharge waste waters/sludge?

Figure 5 APEOs awareness assessment model for raw material and wet processes suppliers



The survey found one supplier of both **Ongetta Srl** and **Italtexsil Sarata Srl** not having knowledge about APEOs. An information action to improve its awareness on APEOs will be taken. The survey also found one **Italtexsil Sarata Srl** supplier declaring to have no releases of post processes water, thus not having knowledge about APEOs. An information action to improve its awareness on APEOs will be taken.

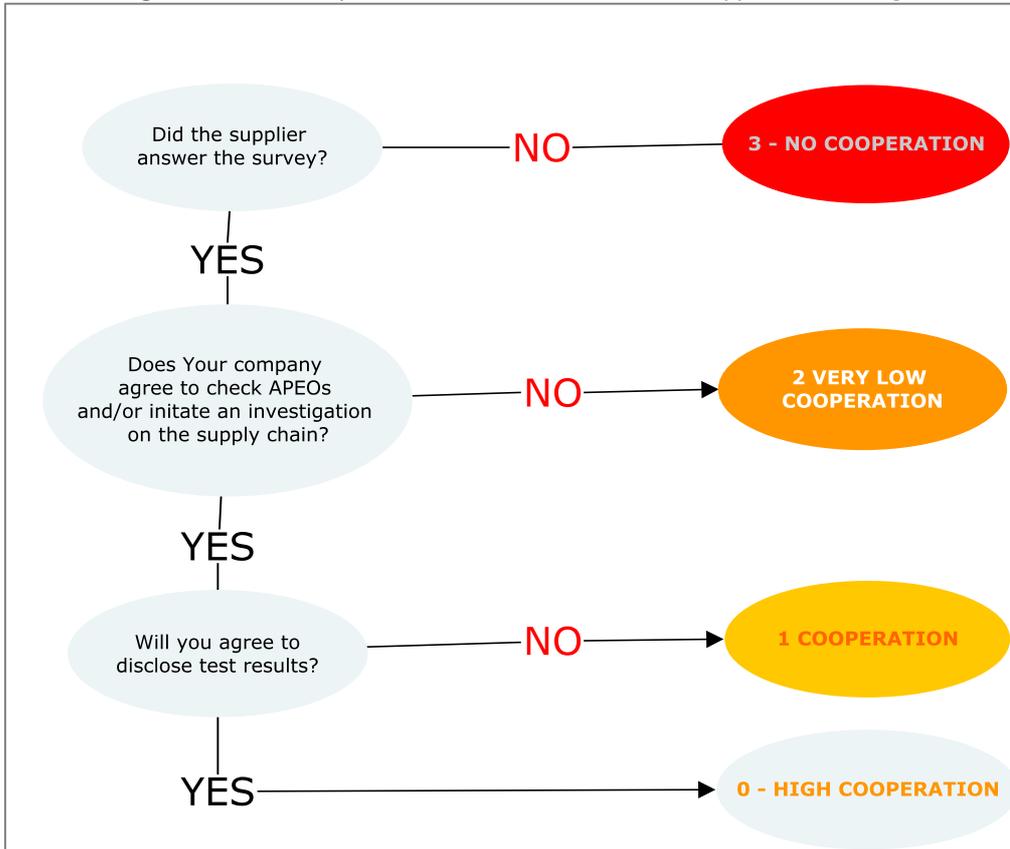
All the suppliers declared to be aware of the limitations the EU will implement in the coming years about the import of textile products where APEOs are detected.

7.2.4 Cooperation in investigating APEOs in the supply chain

The suppliers' level of cooperation was surveyed with specific questions:

- Q22. (if presence already checked) Will You agree to disclose the test reports of your water/sludge lab analysis?
- Q23. (if presence not already checked) Will You agree to check for the presence of Alkylphenol, Nonylphenol or Octylphenol Ethoxylates (APEOs) in Your discharge waters/sludge through water/sludge lab analysis?
- Q24. Will You agree to disclose the lab analysis results on APEOs? ?
- Q26. Will You agree to initiate an investigation on the presence of APEOs in the cleansing detergents consumed by Your Company and/or by your suppliers?
- Q27. In case APEOs are detected on the products You sell to our company will You agree to initiate an investigation to eliminate them and to have APEOs based detergents substituted with environmentally friendly ones (in your processes and/or by your suppliers)?

Figure 6 APEOs cooperation assessment model of all suppliers, including chemicals'



All the 9 suppliers involved in the survey participated and agreed to initiate an investigation for elimination and substitution with their suppliers in case APEOs were to be found in their products in the future.

Since the ratio of high cooperation is 100%, it is not necessary to undertake further actions on present suppliers.

8 Conclusions from the investigation and Ongetta and Partners' next steps

Ongetta and Partners understand that there are multiple supply-chain pathways for potential APEO contamination (including chemical formulations) and is committed to enhancing both training and auditing of the supply chain to ensure suppliers have the latest information on APEOs, highlighting where there is a risk that APEOs may enter into the undocumented contamination of chemical supplier formulations.

The elimination of APEOs across the supply chain is a key success metric for the individual action plans of **Ongetta Srl and Italtexsil Sarata Srl**.

A number of initiatives are already in progress or implemented to ensure no APEOs can enter **Ongetta and Partners** products at different stages in the supply chain:

- According to the **Ongetta Srl** and **Italtexsil Sarata Srl** public M-RSLs, which set detection limits in line with best available technology, APEOs are banned since **June 2016**.
- Supply contracts are being reformulated to reinforce full supply chain compliance with **Ongetta Srl** and **Italtexsil Sarata Srl** APEOs elimination commitments;
- A focused testing program was implemented in **May** and **June 2016** on **Ongetta and Partners'** purchased of chemicals and raw materials.
- A questionnaire survey was delivered to relevant suppliers in October 2016, to investigate:
 - o the APEOs (intentional) use risk within the raw material and wet processes suppliers
 - o the raw material and wet processes suppliers' awareness of APEOs impact on human health
 - o the cooperation willingness of all suppliers, including chemicals', to investigate the presence of APEOs in the supply chain

Ongetta and Partners are aware of the risks related to the weak regulations on APEOs in the Chinese market, from where all its purchases of silk raw materials originate.

Therefore, a big and extended effort has been made over time, and is still ongoing, to select the most advanced and reliable silk producers in the market, and to establish a strong and highly collaborative relationship with them, with the common goal of ensuring a high performing, sustainable and low risk supply chain to the customers.

Main findings

- No traces of APEOs were found on **Ongetta and Partners'** purchased raw materials and chemicals. We are proud of these results that are the outcome of the effort in the last years:
 - o to ban APESs from the raw materials supply chain through cooperation with Chinese suppliers to eliminate APEOs from the first stages of silk processing and through suppliers' selection;
 - o to develop innovation in chemicals through cooperation with chemicals suppliers aimed at the substitution of traditional market standard oils - that are known to have APEOs in their formulation with new APEOs free chemicals.
- The supplier survey was answered by 100% of the 9 suppliers involved in the survey by the **Ongetta and Partners**: 8 of them located in China (raw materials) and 1 in Italy (auxiliaries).
- The survey highlighted a low risk overall of APEOs intentional use with the **Ongetta and Partners** suppliers, with six LOW RISK suppliers that will be

asked to investigate their own wet processes suppliers, and two MEDIUM RISK suppliers which will be monitored.

- The survey found that cooperation for APEOs elimination is very satisfactory, with an overall 100% of high cooperation and no action needed to be taken on this issue at present.
- The survey found that awareness about APEOs issue is good with just two suppliers unaware, which will be addressed with an information action.
- The survey found all suppliers open to disclose full information about APEOs related water testing to **Ongetta and Partners** and to initiate further investigations with the supply chain if necessary, and no further action needed to be taken on this issue at present.

Ongetta and Partners are taking action to converge by February 2017 its auxiliary purchases on a single APEOs free product, SETOL RE NEW by an Italian supplier, for all internal processes.

More in general, **Ongetta and Partners** are working to achieve active involvement across the supply chain in order to:

- Disseminate information about APEOs substitutes;
- Identify chemical formulations containing APEOs still in use;
- Identify alternative formulations or substances that guarantee equivalent results in industrial processing;
- Undertake systematic substitution to achieve total elimination across the supply chain.

Ongetta and Partners, as part of the Italian DETOXLeader Group together with Canepa Spa, Miroglio Group, Italdenim Spa, Berbrand srl, Tessitura Attilio Imperiali Spa, Zip Gfd Spa, Ditta Gaetano Lanfranchi Spa, Taroni Spa, Fellicolor Spa, Mabo Spa, Cotonificio Olcese Spa, Itaclab Srl, Filmar Spa, Filmar Nile Textile S.A.E., Dienpi Srl, Maglificio Ripa Spa, Monticolor Spa, Imbotex Srl, Alesilk Sas is fully aware that only with the active participation of the entire fashion industry it is possible to deliver the desired outcomes on a global scale.