

Draft proposal to restrict PFOA, its salts and related substances

Recommendation



The current draft proposal for restriction of PFOA

Euratex, the European Textile and Apparel confederation, welcomes the efforts of the European Commission to propose derogations for the textile industry in the draft proposal for restriction of PFOA, its salts and PFOA related substances. However, Euratex expresses great concern on the consequences of current proposal and draws attention on the 3 considerations:

1. The current derogation proposal endorses the need of derogation to meet safety standards for the protection of people. However, the proposal fails to include derogations which are crucial for European industries and Europeans workers
2. The wording of the proposal significantly diverges from the SEAC opinion
3. A change in the formula in the draft proposal might result in market distortion

Recommendation

Euratex advocates for the inclusion of derogations enabling repellency for oil and chemicals as well as high-tech solutions in other industries, by rewording the draft proposal as it follows: paragraph 3(b)(i):

“textiles for the protection of workers that must meet durable water repellency (DWR) performance standards;”

Shall be changed into:

“professional, technical and protective textiles that must meet durable repellency performance standards;”

Impact

The above change would enable the European textile manufacturers to:

- supply high performance fabrics protecting workers from life-threatening risks (see points 1 and 2)
- use the needed 6 years transitional period to research, find and apply suitable alternatives to C-8 chemistry, which nowadays do not exist (see point 3)
- enable innovation across other EU industries with high tech products (see points 3 and 5)
- emit less total PFC/PFOA and related substance in the EU and worldwide, as well as over the life cycle of a treated article (see points 3, 4 and 5)
- avoid market distortion (see point 4)

Explanations for the recommended change

Point 1. The current proposal fails to include all derogations crucial for industries and workers

In the current restriction proposal the need for fulfilling the standards is acknowledged only for water repellency, disregarding oil and chemicals repellency. This restricts the scope of the derogation initially proposed by the SEAC opinion in September 2015.

The C-8 Telomer Chemistry is not only necessary for textiles due to its effective low surface tension to meet the DWR-standards, but also because of its consistent high performance in terms of repellency to other liquids/dust (also in combination with other textile functions), and of its hydrolysis resistance against aggressive chemicals, repeated hot washing, dry-cleaning, steam sterilization etc.

It shall be noted that technical textiles are not only protecting “workers” (such as firefighters, paramedics, surgeons etc.), but also safeguarding patients and equipment to not be contaminated by liquids/dangerous substances such as:

- Infective liquids like blood with HIV, Ebola, etc.
- Pesticides
- Fuel (petrochemical-production)
- Strong acids/chemicals (chemical production)
- Solvents with low surface tension (chemical fire fighter and equipment protection)
- Radioactive dust
- High hydrolyses stability (e.g. fuel cell for e-mobility, disinfection of reusable medical textiles, long term filtration of wasted hot air, polluted wastewater etc.)

Point 2. The wording of the proposal significantly diverges from the SEAC opinion

The current proposal (entry 68 paragraph 3(b)) diverges from the original formulation on “*protective professional textiles*” proposed by the SEAC in September 2015 to state “*textiles for the protection of workers that must meet durable water repellency (DWR) performance standards*” in the draft restriction. This wording only considers water repellency and excludes oil and chemical repellency which are more important for workers’ protection.

Point 3. Why C-6 chemistry cannot replace C-8 in several professional, technical and protective textiles

Protective textile finished with C-6 chemistry will need repeated re-impregnation after each washing to meet the criteria required for testing. Such re-impregnation will result in additional emissions of PFOA. This would not be the case with C-8 chemistry as the repellency would remain even after washing.

The protective clothing needs to be multifunctional for oil and water repellency, flame retardation and anti-static properties. It is crucial that one chemical (water repellent) does not detriment the effect of the other chemical (flame retardant). The advantage of C-8 chemistry is that it can fulfill the high requirements for water repellence (water column – ISO 811) while having a minor detrimental effect on flame retardation (ISO 15025). The combination of the two effects cannot be reached by applying C-6 chemistry. In addition, the same can be understood for water and oil

repellency: longer carbon chains such as C-8 chemistry can achieve both hydrophobic (water repellency) and oleophobic (oil repellency) requirements: surface tension of oils is lower than the one from water (20-30 mN/m, 72mN/m respectively) and in order to achieve both repellency effects, the surface free energy of the material must be lower than surface tensions of water and oil. Only long chain fluoro-carbons can achieve the more demanding oil repellency effect. Although it is possible to achieve hydrophobic effect by using fluoro-carbon free and short chain chemicals, the same does not apply for achieving oleophobicity.

The higher C8-effects performance combined with lower total-emission is also needed for other fields of technical textiles like fuel cell separators for e-mobility innovations etc., but not on standard clothing or standard outdoor textiles, which are approx. 95 % of global production of textiles, formerly treated with fluorinated polymers related to PFOA.

Point 4. Risk of market distortion

In the updated version of the draft proposal, the following substance is excluded from the designation: $C_8F_{17}-C(=O)O-X'$. Compared to the previous version of the draft proposal, the formula was changed from $C_8F_{17}-C(=O)OH$ to $C_8F_{17}-C(=O)O-X'$, where X' is any group. X' = any group could be considered/not clear analytically differentiated e.g. as the polymer backbone of a C8-based fluorinated polymer. This might lead to market distortion, because with this change the C8-polymer is allowed on a treated article which was "cleaned" with special processes to be compliant with the proposed limits for PFOA and related substances. This would allow import from non-EU countries, because if the imported products meet the threshold values, they can be sold in the EU, as the C-8 chemistry is still allowed/growing outside the EU. This would lead to a significant competitive disadvantage of European companies.

Point 5. Further advantages of the proposed change

- Most of the globally, fluorinated polymer treated textiles (over 95%) are shifted towards a fluorine-free treatment
- Less total PFC/PFOA and related substance emissions in the EU, in global scale and over the life cycle of a treated article
- Keeping high protective EU-textile standards also with other combined features like flame-retardancy, antistatic properties etc.
- Keeping technical/protective textile production inside Europe and not shifting it further to Asia
- The 6-year transitional period would enable ongoing and new projects to delivery results for better performing and environmentally friendly fluorinated and non-fluorinated polymer alternatives

Conclusion

Euratex as well as its concerned national member associations look forward for the positive consideration of the above recommendation and remain at disposal of the European Commission, the Members States and any other stakeholders to provide additional information or clarifications as appropriate.