

APPLiA's comment paper on a document "Report summary food contact materials and packaging" accompanying the call-for-evidence process concerning the upcoming PFAS REACH restriction proposal.

APPLiA, the EU industry association representing manufacturers of home appliances, including heating, ventilating and air conditioning equipment, would like to inform competent authorities of its opinions regarding the "Report summary food contact materials and packaging"¹ ('summary report'), in the context of the upcoming per- and polyfluoroalkyl substances (PFAS) REACH restriction proposal from five Member States.

As a new call-for-evidence (CfE) exercise² has been launched by these Member States back in July 2021, APPLiA would like to provide specific input and feedback to some sections of a summary report accompanying the CfE.

APPLiA key messages on the Report are:

- *Fluoropolymers are a highly valuable group-of-substances with a unique combination of essential properties for the home appliance sector.*
- *There are no current (non-PFAS) effective alternatives to fully substitute and deliver the performances currently attained by perfluorinated-based materials, in order to reach consumers purchasing expectations for home appliances with food contact purposes.*
- *Using fluoropolymers consequently results in securing home appliances' long-lasting technology.*
- *A REACH restriction on fluoropolymers, i.e. without proper derogation to keep on using polytetrafluoroethylene (PTFE), fluorinated ethylene propylene (FEP), fluoroelastomers (e.g. FKM), and polyvinylidene fluoride (PVDF) in specific food contact material applications, would most likely close several businesses in the near future, despite the fact that the current use of such substances in our sector is fully under control from an equipment manufacturing, regulatory, and durability point-of-view.*

1. Uses/Applications – Consumer cookware product categories (Point 1.2 "Consumer cookware", p.3)

To provide some examples, APPLiA's product scope of (domestic) equipment in contact with food (i.e. food contact materials) and using fluoropolymers includes coffee machines, electrical planchas and kitchen machines as well as food processors' accessories.

As there are different categories, and a difference is made between frying pans and sauce pans, we would recommend to be more granular also with the other remaining product categories.

Regarding the next bullet point of the summary report:

¹ Report summary food contact materials and packaging, published online 19.07.2020 ([here](#)).

² Direct link to the CfE exercise available online [here](#).



"Cooking plates in electric gadgets such as sandwich toasters, waffle irons."

We would like to recommend erasing and rectifying the wording, as follows:

"Cooking plates in electric **appliances** such as sandwich toasters, waffle irons."

Furthermore, under point 1.3 of the summary report, and regarding the next bullet points:

- *Seals, O-rings, gaskets;*
- *Tubing and pipes;*

We would like to explain that these product components can also be used in home appliances, hence, they are not only for "industrial applications". We would recommend **adding these two bullet points of product components under the list of "consumer cookware."**

Indeed, our sector uses tubing and pipes constituted of fluoropolymer-based components for hot water flow under pressure in appliances like coffee machines. Other examples include tanks and linings that have fluoropolymer-based coatings and are also used in cooking appliances such as electrical barbecues, planchas, grills, cooking processors, and healthy fryers.

To conclude under point 1.3, we would also recommend providing the correct term to refer to oven accessories, that is not "ovenware" but "baking trays" or "bake pans".

2. General comments on non-PFAS alternatives in food contact materials (Point 8.2 "Alternatives – Consumer cookware", p.19)

There are no current existing (non-PFAS) alternatives that would be available for an immediate use in the home appliance sector, particularly for use in food contact materials and products listed above, such as grills and griddle coated surfaces, coffee machines components, and other kitchen appliances accessories and small parts. To be more specific, there are no current non-PFAS alternatives with similar properties to those delivered by fluoropolymer-based materials such as PTFE, FEP and FKM.

The **critical properties and indispensable benefits of using fluoropolymers** to produce components, e.g. *tubes, pipes, gaskets* in home appliances with food contact purposes are highlighted below:

- The substances deliver the technical application that need thermal resistance and stability at high temperatures, under pressure (almost 90°C under 15 to 20 bar), and under high friction;
- The substances deliver chemical inertness;
- The substances are suitable for food contact, regulatory approved by several countries (including Europe, USA, Japan);
- The substances are well-known and regulated under the plastic food contact materials legislation (EU) No. 10/2011: there is an existing homogeneous risk assessment across the Union;



- As a result of using such substances, it is possible to collect and mechanically recycle the material to produce plastic which would be used for non-food contact purposes;

As a more general comment, we would like to raise concern that banning the use of such fluoropolymer substances in electrical cooking appliances not only affects the performance, but also the longevity of the devices. This is in contradiction to the EU's goal of a transition to a circular economy, by generating less waste and the responsible use of resources.

The **crucial properties of fluoropolymer-based coatings** to be used in *kitchen and cooking processors* as coated surfaces with food contact purposes are highlighted below:

- The substances provide a non-stick coating function allowing cooking without fat that contributes to a better health of users and easy to clean with less detergent and water;
- The substances deliver thermal resistance and stability at high temperatures;
- The substances deliver chemical inertness;
- The substances are suitable for food contact, regulatory approved by several countries (including Europe, USA, Japan);
- The use of such substances creates low rates of scraps during appliance production processes, stemming from the fact that organic coatings can be sand-blasted, coated and cooked again in case it would be necessary as a result of defective materials, while ensuring there is no waste of metal substrate;

It is also important to point out that fluoropolymer-based **lubricants** are further used in electrical contacts in household appliances. Indeed, lubricants improve the safety and reliability of the appliance's electrical contacts to reduce failures.

On another note, we would like to highlight some messages concerning switching to non-PFAS alternatives for use in food contact materials in the home appliance sector. Indeed, **setting up an alternative requires years and the likelihood of success cannot be estimated before a Feasibility study is undertaken by the private company**. Also, it may be plausible that success is not at all guaranteed.

A private-company internal activity to search for a plausible alternative process would include the next steps: Feasibility study, R&D tests on technical suitability (e.g. use, life tests), liability assessment (e.g. risk referred to pipes-breaking up), and tests to check food contact materials compliance in selling countries.

We would like to highlight once again that **there are no current (non-PFAS) effective alternatives to fully substitute and deliver the performances as currently attained by perfluorinated-based materials, with a view of reaching consumers expectations purchasing home appliances with food contact purposes**.

A full ban of PFAS use in cooking appliances, without any proper derogation to keep on using PTFE/FEP/FKM in specific food contact material applications, would most likely close several businesses in the near future, despite the fact that the current use of such substances in the home appliance sector is fully under control from an equipment manufacturing point-of-view, from a food contact material regulatory point-of-view, and from a durability point-of-view.

It is also worth to highlight that the fluoropolymers which are currently being used, cannot and should not be compared to the fluoropolymers used in the past.



3. APPLiA comments on potential economic cost impacts that may be incurred as a result of a PFAS REACH restriction covering fluoropolymer use in food contact material applications under the home appliance sector (Point 9.2 “Economic impacts in case of a full PFAS ban – Consumer cookware”, p.20)

In the case scenario of a full fluoropolymer ban under a REACH restriction process, we would like to inform that the next types of costs would be incurred by APPLiA member companies using such substances in certain kitchen appliances:

- 1 The cost-impact of a REACH restriction would correspond to the cost of stopping any activity related to non-stick coatings in cooking appliances. Such losses also include the related social aspect.
- 2 The cost-impact of a REACH restriction would correspond to the cost of stopping any activity related to the development of searches for an alternative to use for pipes and other components to certify and maintain it.

We would also like to remind the authorities that in case an alternative would not be plastic-based, further FCM testing assays would need to be grounded on relevant EU country national laws and risk assessment procedures, to comply with national food contact material legislation(s).

Additionally, restricting such substances use in food contact materials would consequently **trigger the loss of complete product families of certain appliances**. A fluoropolymer-restriction would reflect in losing the substances’ complete (specific and highly valuable) set of technical properties and further functionalities, and its benefits of use in certain appliances constituted of food grade materials.

In addition, companies/businesses using fluoropolymers are doing so for good reasons, i.e. for the great benefits for users provided by using fluoropolymers in certain appliances, compared to using other substances, within the context of **reaching food-grade materials with suitable technical properties and effective functionalities**, e.g. thermal resistance and stability at high temperatures, under pressure or friction, chemical inertness, durability, non-stick properties and easy-to-clean at high temperatures resistant-coatings that allow cooking without fat.

APPLiA conclusions and further recommendations to competent authorities with regards to the use of certain fluoropolymers in specific home appliances

Taking into account above-mentioned arguments, **fluoropolymers are a highly valuable group of substances**, and there are no viable alternatives which would provide in reaching the exact same set of substance properties and further functionalities in some appliances. Also, using these substances consequently results in securing the appliances’ long-lasting technology. If there would be a fluoropolymers restriction, there would no longer be the possibility to offer these appliances with long-lasting technology. There could also be a “shift” from the use of a substance/material fit to purpose towards a less fit-to-purpose substance/material, that shall be a compromise between original material features and new features and shall need re-design of the product or of maintenance stages. We would recommend the competent authorities to consider these main messages. On another note, we would like to expand the existing list of references with an additional one addressing the evaluation of carcinogenic risks of chemicals/polymers³.

APPLiA also considers that grouping PFAS based on persistent properties only is not relevant. Risk management process should start with an identification of PFAS sub-

³ E.g. *IARC Monographs*, Volume 19, 1979, IARC Monographs, Supplement 7, 1987. Available for download [here](#).



categories based on chemical structure, molecular weight, bioavailability, mobility, and other relevant properties.

Finally, APPLiA would like to kindly remind the competent authorities that all products manufactured and placed on the market by our member-companies are fully compliant with the WEEE Directive 2012/19/EU. Therefore, the disposal of these products, including its components, is highly and well-regulated already, and must follow a proper and specific (disposal, collection, recycling) management process as requested by the national competent authorities, including any perfluorinated-based (waste) material.

We invite the five Member States to consider our input as laid down in this comment paper. We further kindly recommend those EU competent authorities to take into account and consider our arguments, as well as address our concerns and recommendations throughout their work to propose an upcoming PFAS REACH restriction dossier.

APPLiA and its members remain fully available to discuss further the points raised in this comment paper.

APPLiA - Home Appliance Europe represents home appliance manufacturers from across Europe. By promoting innovative, sustainable policies and solutions for EU homes, APPLiA has helped build the sector into an economic powerhouse, with an annual turnover of EUR 53 billion, investing over EUR 1.6 billion in R&D activities and creating nearly 1 million jobs.

