



A Guide for Grocery Chains: Banning PFAS in food-contact materials

Why were these recommendations created?

It may be challenging to ensure suppliers follow through on a retailer's plans to phase per- and polyfluoroalkyl substances (PFAS) out of paper and fiber-based food-contact materials. Retailers may have a large variety of those materials, and they also need to consider the many possible sources of PFAS in them and ensure substitutes are truly safer.

To learn why it is critical to ban all PFAS in food-contact materials, see our 2020 study entitled [*Packaged in Pollution: Are food chains using PFAS in packaging?*](#) and our 2018 report entitled [*Take Out Toxics: PFAS Chemicals in Food Packaging*](#).

The movement to eliminate PFAS from food packaging is part of a broader trend to ensure the safety of all food-contact materials.

PFAS are not the only chemicals used in food packaging and other food-contact materials. We encourage retailers to critically examine their safer chemicals policies to take into account the wide variety of harmful chemical classes and toxic

plastics that may be present in food packaging. Harmful chemical classes include, but are not limited to, ortho-phthalates, bisphenols, and heavy metals. Examples of toxic plastics are polystyrene and polyvinyl chloride (PVC). For more information on harmful chemicals in food packaging, please see Food Safety Alliance for Packaging's [recommendations](#) on minimizing or eliminating chemicals of concern in food packaging.

The ideal substitute for food packaging containing PFAS is a safer reusable material.

This can be used for on-site dining or as part of a reusable takeout container program for regular customers taking food to go. While safer reusable materials are ideal, we realize most retailers currently use paper packaging for at least some applications and are in need of strong policies to ensure the safety of this packaging.

The following is a process that the Mind the Store campaign recommends grocery retailers follow to eliminate PFAS from food packaging and other food-contact materials.

1. Establish a strong policy

Adopt a public policy to phase PFAS out of paper and fiber-based food-contact materials (including packaging). It should include:

- Clear, quantifiable goals for phasing out and eliminating the entire PFAS class from these materials in stores and supply chains;
- Timelines for the phaseout;
 - An aggressive timeline is recommended, given the growing environmental health concerns about the production, use, and disposal of PFAS-containing food-contact materials. For example, in March 2020 Sweetgreen and Chipotle both announced they were phasing PFAS out of their molded fiber bowls by the end of 2020.
- A plan to clearly communicate goals, requirements, and timelines to suppliers; and
- A plan to address PFAS in these materials.

The plan to address PFAS should proceed according to the following priorities (highest listed first), focusing on food-contact materials for which grease or water resistance may be desired:

A. Food-contact materials used to provide food served in-store or packaged in-store.

- This includes food-contact materials used to prepare the food (such as parchment paper), serve the food (such as bakery tissue), or hold the food that customers take away (such as molded fiber containers).

- Self-serve food-contact material examples: plates, cartons, or clamshells for salad bars; bags or paper liners for bakery items; bags for bulk bins; bags for rotisserie chicken; bags for loaves of bread; containers for self-serve pizza; other containers for food in self-serve refrigerated cases that were packaged in-store; and any other container made from molded fiber.
- Store-served food-contact material examples: plates, clamshells, or other containers for prepared food; papers to package deli meat and cheese, raw meat, and seafood; plates, paper liners, or clamshells used to serve cakes or other pastries; and any other container made from molded fiber.

B. Food-contact materials for all private-label food that is packaged before it arrives in the store.

- Focus on categories that have been found to have likely PFAS treatment from previous testing. This includes microwave popcorn bags, butter wrappers, pre-packaged baked items, molded fiber plates or bowls sold in bulk packages, and any other container made from molded fiber.

C. Food-contact materials holding brand-name food.

- Focus on the categories listed above, expanding to food-contact materials for brand-name food.

Addressing plastics containing PFAS

Although this document focuses on paper or fiber food-contact materials for which grease or water resistance may be desired, FDA has [approved](#) at least one PFAS for use as a processing aid in plastic food packaging and testing has [found](#) high levels of fluorine in a black rigid polylactic acid (PLA) plate. Accordingly, the retailer may wish to address plastic food packaging as specified below.

2. Request supplier information, including test results

As soon as possible, require suppliers to (a) submit an attestation that the relevant food-contact materials (those listed above on page 2) are PFAS-free and (b) submit total fluorine test results for those same food-contact materials.

- Testing:
 - Since there are thousands of chemicals in the PFAS class, and a supplier may not know which PFAS are used in materials it receives from a manufacturer, testing for total fluorine is a straightforward way to screen for likely treatment with PFAS. All PFAS have fluorine and if fluorine is detected in a food-contact material, it shows PFAS are likely present.
 - A commercial lab, such as [Galbraith Laboratories, Inc.](#) or [SGS North America, Inc.](#) (Fairfield, New Jersey Consumer and Retail location), can conduct total fluorine testing and provide results in parts per million (ppm), which are units commonly used to indicate total fluorine content. The detection limit depends on the method and the mass of the sample, and should be 10 ppm or below.
 - Suppliers should be required to re-test annually (at a minimum) to ensure PFAS are not introduced into the materials by changes in product formulation or manufacturing facility. Suppliers should also re-submit the attestation that their materials are PFAS-free on an annual basis.

Requesting information on PFAS in plastics

In addition to asking for attestation and test results for paper or fiber-based food-contact materials for which grease or water resistance is desired, it may be beneficial to confirm with your supply chain whether any PFAS are used in the manufacturing process for plastic food packaging, including for mold release or lubrication. Along with this, ask suppliers to attest that no PFAS are used in the manufacturing process and to conduct “spot testing” of selected items of plastic food packaging for total fluorine.

3. Conduct verification testing

Commission your own testing of the food-contact materials described in priorities A and B listed under “Establish a strong policy” above. It’s important for retailers to conduct their own testing of private-label materials and materials for food served in-store or packaged in-store that suppliers have already tested to validate those findings.

4. Review total fluorine test results and evaluate the source of the fluorine

For food-contact materials containing fluorine above the detection limit, engage suppliers to evaluate whether the fluorine is present because of (a) intentional treatment with PFAS to impart grease or water resistance, (b) intentional use of PFAS for

another purpose, or (c) contamination with PFAS due to contaminated feedstock or manufacturing processes.

- 100 ppm has been established by compostability certifiers such as the [Biodegradable Products Institute \(BPI\)](#) and the [Compost Manufacturing Alliance \(CMA\)](#) as a screening limit for total fluorine in compostable food service ware. **However, it is possible that PFAS below 100 ppm may still be the result of intentional use.** Any detection of fluorine merits further investigation to determine the source.
- To assist with determining the source of the fluorine, we recommend requiring suppliers to report a list of the materials and additives (including their chemical ingredients, if added as a mixture) used in food-contact materials provided to the retailer, as well as the chemical names of the additives, solutions, surfactants, and other process chemicals used during manufacturing. Even if the final product is not intended to contain PFAS, chemicals used in manufacturing can in some cases impart PFAS to the final product.

5. Require safe substitution

If PFAS are found to be present, require suppliers to remove it and replace it with a safer alternative or redesign the material to eliminate the PFAS.

- The ideal substitute is a safer reusable material. These can be used for on-site dining or as part of a reusable takeout container program for regular customers taking food to go, but that may not be feasible in all circumstances.

- We recommend that retailers require suppliers to conduct chemical hazard assessments on potential alternative products and encourage the use of a tool such as [GreenScreen for Safer Chemicals®](#) to choose the safest food-contact materials. As noted above, PFAS chemicals are not the only chemicals of concern in food packaging and food-contact materials.

6. Include requirements in contracts

Incorporate the requirements described above – for attestation, testing, phase-out, and safe substitution – into specifications and contracts for food-contact materials with suppliers.

7. Maintain transparency

Publicly report on an annual basis on both progress and challenges in completely phasing PFAS out of food-contact materials. In addition, disclose the substitutes being used, both the material and additives, to maintain transparency and reassure consumers that the alternatives in use are safer.



The national Mind the Store campaign challenges big retailers to eliminate toxic chemicals and replace them with safer alternatives.

MindTheStore.org