



# A GUIDE FOR BRANDS

PFAS-FREE COATINGS FOR PAPER, PAPERBOARD & MOLDED FIBER FOOD SERVICE WARE & PACKAGING



## SUPPLIER ALTERNATIVES

This fact sheet is intended to provide guidance to manufacturers of fiber-based food service ware products. Institutional purchasers and consumers are demanding food service ware and other food contact packaging that does not contain chemicals that belong to a class of substances called “PFAS”. Brands are responding by finding suppliers who are offering PFAS-free alternatives. This fact sheet identifies suppliers who are currently offering PFAS-free coatings or materials. It also provides guidance to brands for various methods they can use to verify and/or certify that their products are free of PFAS.

Chemicals known as per- and polyfluoroalkyl substances (“PFAS”) constitute a class of almost 5,000 fluorinated chemicals that are used in the manufacturing of disposable food packaging and food service ware to impart moisture, oil, and grease resistance. PFAS are also added to fabrics, carpets, furniture, clothing, and firefighting foams for their non-stick, lubricating, waterproof, stain resistant, and oil and grease resistant properties. There has been growing public concern about the use of these chemicals due to their pervasive use in industry as well as the fact that they persist in the environment, and our bodies, for a very long time (which is why they are often referred to as “forever chemicals”).

The most studied chemicals in the class, PFOA and PFOS, have been associated with cancer, developmental toxicity, immunotoxicity, and other health effects. The vast majority of other PFAS have little to no data demonstrating their safety and available studies indicate similar health concerns. Upon disposal, PFAS can contaminate drinking water, compost, and agricultural crops. For more information about the human health and environmental hazards of PFAS, see the [Cancer-Free Economy Network’s PFAS Hazards Fact Sheet](#).



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In response to growing public concern, institutions, government agencies, and NGOs have been testing fiber-based food service ware and food contact packaging to identify which brands are using PFAS in their products. Product manufacturers should consult the [Center for Environmental Health \(CEH\)](#) website to review its report and accompanying list of products that have been reported to contain PFAS or have been labeled as PFAS-free. Often brands are not aware that their products contain these chemicals.



## SUPPLIERS OFFERING PFAS-FREE OPTIONS

Leading suppliers are responding to market demand and offering their customers PFAS-free options. Products currently available include surface coatings used for paper and paperboard, additives for molded fiber, and non-chemical solutions for paper substrates used to wrap food and baked goods. Following is a list of suppliers who are actively marketing alternatives (please note that this is not a comprehensive list of alternatives as suppliers may offer alternative products directly to their customers as opposed to advertising them online). See Supplier Alternatives chart below.



## PFAS-FREE = SAFER?

The absence of PFAS does not necessarily guarantee that chemicals used to replace PFAS are safer. With the exception of paper substrates that are engineered to mechanically repel water, oil and grease, there is very little public information about the chemistries being used to replace PFAS. There are, however, options for brands to independently verify that substitute chemicals are not also chemicals of concern and regrettable substitutions.



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## THIRD-PARTY CERTIFICATIONS

There are certification labels that include requirements for safer chemicals. These can be a convenient way for manufacturers to differentiate their products to the marketplace. Examples include the [Biodegradable Products Institute \(BPI\)](#) label for products and packaging, which limits total fluorine content to 100 parts per million (ppm). There is also a certification program from the [Cradle to Cradle Products Innovation Institute](#). This certification covers finished products, as well as gives the option to certify suppliers' products using the Material Health Gold level certification. This Gold level certificate indicates that PFAS content are limited to less than 100ppm. [Clean Production Action \(CPA\)](#) will be including food service ware and coatings in its [GreenScreen Certified™](#) program in 2020. Brands may also choose to share test results from independent testing laboratories with their customers, demonstrating their products are PFAS-free. For more information, see [CFE Network fact sheet](#) for test methods used with food contact applications.

## THIRD-PARTY TOXICOLOGY SERVICES

Another option is for brands to hire an independent toxicologist or toxicology firm to conduct hazard assessments for all intentionally added chemicals and known contaminants in their products and to provide customers with a summary of results, verifying the absence of PFAS as well as other substances of high concern.

Finally, ask your suppliers what PFAS-free products they manufacture as they may have options available that they are not actively marketing. Brands must demand products that are safe for their customers, and the planet, if they expect suppliers to help them meet the growing need.

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THIS FACT SHEET IDENTIFIES  
suppliers who are currently offering PFAS-free coatings or materials.

MATERIAL CATEGORY	SUPPLIER	SOLUTION	APPLICATIONS	EXPLICITLY STATE PFAS FREE?	ADDITIONAL INFO
AQUEOUS COATING	<a href="#">Cork Industries</a>	CORKOTE™	Paper and paperboard, paper plate and dinnerware, ovenable coatings	Yes	State products are PFAS free.
VARIOUS COATING TECHNIQUES	<a href="#">Archroma</a>	Cartasea®	Designed to impart an anti-slip, moisture vapor barrier, along with high water-, oil- and grease-resistant properties, depending on the product selected. They not only provide fluorine-free and FDA-approved protection against water and vapor, but also prevent the penetration of oils, fats, and solvents.	Yes	State products are fluorine-free.
AQUEOUS DISPERSION	<a href="#">CHT Group</a>	CHT-COAT	A specialist for innovative chemicals, they offer optimum solutions for fluorine-free, recyclable coatings with an extreme resistance to grease, water vapour, and mineral oils.	Yes	State products are fluorine-free.
AQUEOUS COATING	<a href="#">Aqua Based Technologies</a>	Aqualene®	Paper packaging applications including dry food, dairy, bakery, powder, meat, ice cream, and frozen food.	Yes	Email from company stating water-based coatings contain no fluorocarbons or VOCs.
AQUEOUS COATING	<a href="#">Cattie Adhesives</a>	Product numbers: 8244D, 8740, 8741, 8751, 8754	100% water-based with no VOCs and can be formulated to be FDA Compliant for direct and indirect food contact.  Their barrier coatings for paper and corrugated board packaging applications can be formulated to be low, medium or high viscosity for a variety of porous and non-porous substrates including UV, clay coated and sbs papers, boards, films, foils, woods, plastics, corrugated material, coated board and vinyl.	No	State formulations are "100% water-based."
BIO-POLYMER	<a href="#">Mantrose-Haeuser Co., Inc.</a>	VerdeCoat™	Suitable for direct food contact, offers excellent barrier properties for various types of molded fiber and paper food packaging, and is BPI Certified for compostable.	Yes	Information from 2016 states that product is a "PFAS alternative."
UNCOATED GREASE RESISTANT PAPER	<a href="#">Two Rivers Paper Company</a>	Arcadia® ORG	Acadia® OGR is a grease-resistant paper used in many coatings and flexible packaging applications such as fast food sandwich wraps, liners, deli wraps, and other types of retail food packaging. This specialty packaging paper is available in three levels of oil resistance and grease resistance, and in wet strength up to 8%.	No	States that there are fluorochemical-free options (PFOA-Free).

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POLYMER COATING	<a href="#">Bercen</a>	EcoARMOUR	Food packaging.	Yes	States EcoARMOUR is a polymer coating free from fluorochemicals.
BIO WAX COATING	<a href="#">Clondakin Group</a>	Ecowax®	Coating from vegetable sources such as maize, rapeseed, and other high oil content plants.	No	States coating is a vegetable-based wax but does not state PFAS-free.
PROPRIETARY TREATMENT	<a href="#">WestRock</a>	Enshield®	Best used with: food service takeout packaging, bakery, and frozen foods.	No	States no fluorocarbons.
ACRYLIC LATEX COATING	<a href="#">Cascade Sonoco</a>	FlexSHIELD™	Folded containers made from board with a FlexSHIELD coating are ideal for a wide range of applications: food service trays and takeout, bakery products or any non-food product where leakage of the contents could stain, damage, taint or otherwise affect goods stored in proximity to the container.	No	Per the Take Out Toxics: PFAS Chemicals in Food Packaging information, Cascades Sonoco is now manufacturing and applying a flourine-free coating, but previously there was a flourine-containing ingredient used in the coating.
PROPRIETARY COATING	<a href="#">Ahlstrom-Munksjö</a>	Grease Gard® FluoroFree®	Grease Gard FluoroFree® delivers outstanding grease resistance exceptional for food wraps, clamshells, microwave popcorn bags, and quick service restaurant bags without the use of fluorochemicals.	Yes	Greaseproof technology with no PFAS, fluorochemicals, providing the highest level of grease-resistance.
BIO-BASED WAX	<a href="#">Paramelt</a>	Paraflex Nowax®	Confectionery (twist/fold/wrap/seal); cheese retail PoS* wrap; meat PoS wrap; fast food PoS wrap; bread bags; bread seal wrap; fruit and vegetable boxes; frozen fish boxes; waxed paper, and waxed (corrugated) paperboard, e.g., boxes.	No	Vegetable-based wax but no definitive mention of PFAS-free.
BIOPLASTIC COATING	<a href="#">Delfort</a>	thinbarrier OGR eco	Papers used for direct wrapping or packing of grease containing food products such as hamburgers, wraps, french fries, soup cubes, and many more, require added barriers to keep oil and grease from seeping through the packaging.	Yes	Independently reported to be fluorchemical-free.
BIO WAX COATING	<a href="#">Solenis</a>	TopScreen™ ED/Ultra	TopScreen ED/Ultra bio-wax coatings are ideal for fast food wraps, bread bags, meat, and cheese wraps, and corrugated board for fruit, vegetables, and frozen fish.	No	Water-based polymer emulsions or solid biowaxes.



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PROPRIETARY COATING	<a href="#">Cortec Corporation</a>	VpCI™ EcoShield Line	Food, beverage, and pharmaceutical.	<b>No</b>	A water-based barrier coating that is recyclable and 100% repulpable, effectively eliminating the need to use traditional wax and polyethylene papers.
PLANT DERIVATIVE	<a href="#">HS Manufacturing Group</a>	PROTEAN™ Grease Barrier	PROTEAN™ is ideal for multiple applications that require paper-based packaging to have very high oil and grease resistance. Current applications include: bags, butcher wrap, food containers, french fry containers, pizza boxes, sandwich and deli wraps, tray liners, wax line containers, and wrappers.	<b>Yes</b>	Company claims fluorochemical-free.
UPCYCLED FOOD-GRADE PET	<a href="#">Jain Chem. Ltd.</a>	Ulterion® OGR	Ulterion® sustainable OGR coatings provide excellent protection for french fry cartons, burger clamshells, sandwich wraps, donut and bakery boxes, pizza liners, baking sheets, butcher paper, pet food packaging, and similar end-uses.	<b>Yes</b>	All of Ulterion®'s OGR coatings are fluoro-, chromium- and silicone-free.
PLANT BASED	<a href="#">BillerudKorsnäs</a>	ConFlex Repel Pure	ConFlex Repel Pure is a perfect match to yellow fat applications that need grease-proof barriers, like butter, and is also suitable for fast-food products, ice cream cones, and confectionary packaging.	<b>No</b>	ConFlex Repel Pure is recyclable, comes from a renewable source, and is also biodegradable thanks to the plant-based grease-repellent barrier.
PLANT BASED	<a href="#">BillerudKorsnäs</a>	Basix Repel Pure	Basix Repel Pure is an optimal choice if you are looking for a grease-proof or grease-resistant bag paper.	<b>No</b>	A plant-based barrier on a primary fibre paper makes Basix Repel Pure a 100% natural grease-repellent paper for bags.

## CFE GUIDING STAR

*Within our generation, we will lift the burden of cancers and other diseases by driving a dramatic & equitable transition from toxic substances in our lives, communities, and economy to safe and healthy alternatives for all.*

FOR MORE INFORMATION VISIT: [www.CancerFreeEconomy.org](http://www.CancerFreeEconomy.org)

CONTACT US: [CancerFreeEconomy@gmail.com](mailto:CancerFreeEconomy@gmail.com)