

Toxic Chemicals in Disposable Food Service Ware



RPN/CEH Webinar

October 17, 2017

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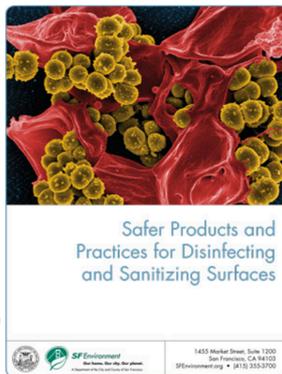
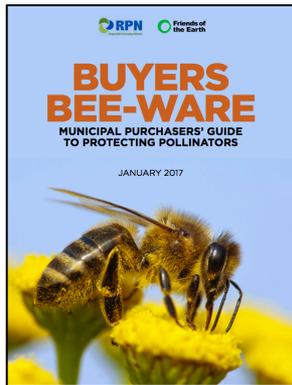
Center for Environmental Health (CEH)

A non-profit organization dedicated to protecting public health from exposures to toxic chemicals.

The Center for Environmental Health works with large purchasers to utilize their buying power to incentivize the production of environmentally preferable products

www.ceh.org

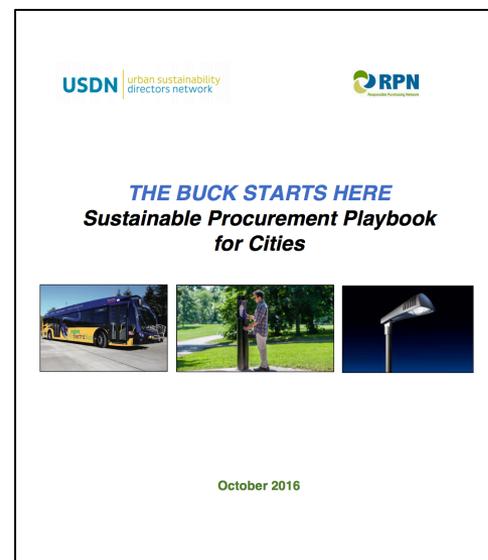
Responsible Purchasing Network



RPN is a nonprofit network that develops cutting-edge tools to help government agencies, public institutions, and businesses purchase sustainable products and services.

RPN Resources

- **>20 Responsible Purchasing Guides**
- **Webinars**
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- **Model specifications**
- **Technical assistance**
- **Sample purchasing policies**
- **Calculators and other tools**



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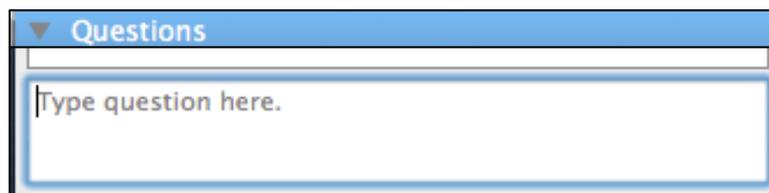
- Participants are muted. Communicate technical questions (about sound, etc.) through the **CHAT BOX** in your GoToWebinar application.



- This presentation will be recorded and posted on RPN's website.

Questions?

Submit questions for presenters at any time by typing them into the GoToWebinar **QUESTION BOX**.

A screenshot of a GoToWebinar question box. It features a blue header bar with the word "Questions" and a small downward-pointing triangle on the left. Below the header is a large white text input area with a thin blue border. Inside the input area, the text "Type question here." is displayed in a light gray font, with a vertical cursor line at the beginning.

We will compile and answer them...

- **After each presenter *and***
- **At the end of the webinar**

Presenters



Alicia Culver

Executive Director

Responsible Purchasing Network



Judy Levin

Pollution Prevention Director

Center for Environmental Health



Elizabeth Meer

Special Assistant for Pollution

Prevention and Green Procurement,
State of New York



Mark Strynar

Physical Scientist

US EPA National Exposure
Research Laboratory

RPN's Work on Safer Food Service Ware



BioSpecs Purchasing Specifications for Compostable Biobased Food Service Ware (Mandatory Criteria and Additional Desirable Criteria)¹

Green Purchasing Best Practices: Compostable Food Service Ware



Prepared for:

Washington State Department of Enterprise Services (DES)

Funded by:

National Association of State Procurement Officials (NASPO)

Research and Writing by:



Responsible Purchasing Network
November 2012



What is Food Service Ware?



- **Cups and lids (hot/cold)**
- **Plates and bowls**
- **Utensils, stirrers, straws**
- **Take-out containers**
- **Trays**
- **Paper wrappers**
- **Coffee “sleeves”**
- **Napkins**

Why Is Disposable Food Service Ware a Problem



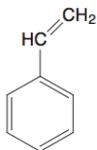
- **Generates significant waste**
 - Landfill and incinerator emissions
 - Climate impacts
 - Ocean pollution
- **Toxic chemical concerns**
 - Polystyrene
 - Fluorinated non-stick chemicals

Problems with Polystyrene

Styrene

CAS No. 100-42-5

Reasonably anticipated to be a human carcinogen
First listed in the *Twelfth Report on Carcinogens* (2011)



Carcinogenicity

Styrene is *reasonably anticipated to be a human carcinogen* based on limited evidence of carcinogenicity from studies in humans, sufficient evidence of carcinogenicity from studies in experimental animals, and supporting data on mechanisms of carcinogenesis.

- **Reasonably anticipated to be a human carcinogen (2011, National Toxicology Program)**
- **Difficult to recycle**
 - **Contaminated with food**
 - **Bulky**

200 Scientists Concerned About Fluorinated Non-Stick Chemicals

ON THIS PAGE

- ✓ The Madrid Statement
- ✓ Sign the Madrid Statement
- ✓ Authors and Signatories
- ✓ Resources
- ✓ In the Media



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<http://greensciencepolicy.org/madrid-statement/>

- ✓ Although some of the long-chain PFASs are being regulated or phased out, the most common replacements are short-chain PFASs with similar structures, or compounds with fluorinated segments joined by ether linkages.
- ✓ While some shorter-chain fluorinated alternatives seem to be less bioaccumulative, they are still as environmentally persistent as long-chain substances or have persistent degradation products. Thus, a switch to short-chain and other fluorinated alternatives may not reduce the amounts of PFASs in the environment. In addition, because some of the shorter-chain PFASs are less effective, larger quantities may be needed to provide the same performance.
- ✓ While many fluorinated alternatives are being marketed, little information is publicly available on their chemical structures, properties, uses, and toxicological profiles.
- ✓ Increasing use of fluorinated alternatives will lead to increasing levels of stable perfluorinated degradation products in the environment, and possibly also in biota and humans. This would increase the risks of adverse effects on human health and the environment.



**Department of
Environmental
Conservation**

Greening the Purchase of Food Service Containers and Packaging in New York State



Elizabeth Meer

Special Assistant for Pollution Prevention and Green Procurement

Commissioner's Designee to Co-Chair

the EO 4 Interagency Committee on Agency Sustainability and Green Procurement

October 17, 2017

New York State's Green Purchasing and Agency Sustainability Program

<https://www.ogs.ny.gov/greeny/Default.asp>



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BUILDING ADMINISTRATION REAL ESTATE DESIGN & CONSTRUCTION PROCUREMENT SUPPORT OPERATIONS

GreenNY State Purchasing and Operations

Governor Andrew Cuomo's vision of a vibrant economy built on innovation, social justice, and the protection of public health and the environment guides New York State's green purchasing and agency sustainability program.



Department of Environmental Conservation



Comprehensive and Holistic

73 Covered Agencies

Purchase \$8 B/Year

Many Sustainability Goals

- Waste reduction and reuse
- Recycling and composting
- Toxics use reduction
- Energy efficiency
- Renewable energy
- Fuel-efficient transportation
- Conservation of water and natural resources



Buy Green

52 Green Specifications covering 90+ products:

- Single use food containers
- Computers
- Cleaning products
- Pest management

Green products available on 20 contracts:

- Cleaning Products (all green contract with MA)
- Computers (all green aggregate buy)
- Paper (some contracts all green)
- Lamps (many green offerings)
- Floor coverings (many green offerings)



New York won SPLC's highest honor in 2017: Overall Sustainable Purchasing Program



OGS launched dedicated Green Procurement Team in 2017



Department of
Environmental
Conservation

Chemicals to Consider in Green Procurement

Policy Statement Adopted 2010

What chemicals do we know, or have reason to believe, are hazardous?

What products contain such chemicals?



Food Service Containers and Packaging

- Tested containers on contract and offered by preferred sources in summer 2016
- Responsible Purchasing Network and the Green Science Policy Institute
- High levels of fluorine indicated presence of PFCs in all molded food serviceware offerings



Concerns

- High profile contamination in Hoosick Falls, Petersburgh and Newburgh makes NY very sensitive to PFC contamination
- Existing specification required purchase of compostable food serviceware to maximum extent practicable



New Draft Specification for “Food Service Containers and Packaging”

- Amended existing spec to prohibit containers and packaging with intentionally added PFCs, broadly defined
- Expanded to encourage the use of reusable containers FIRST
- Established clear hierarchy of:
 - Reusable
 - Compostable without PFCs
 - Recyclable without polystyrene –
PET and polypropylene called out as recyclable
 - Recycled and sustainably harvested
- Tentatively Approved April, 2017. Formal comment period ended September. Anticipate finalization at next Interagency Committee meeting (no later than April 2018).



Why avoid polystyrene?

- Styrene is “reasonably anticipated to be a human carcinogen” (NTP)
- Slow to degrade, common in litter
- NYS DEC is not aware of any recycling facilities in New York State that recycle used polystyrene food service ware



Procurements

Food service products are offered through:

- The New York State Preferred Source Program for People who are Blind (a preferred source)
- The New York State Industries for the Disabled (a preferred source)
- OGS centralized contracts for
 - ❖ Food, Retail (Group 02450, Award 22688)
 - ❖ Food (Group 02450, Award 22794)

Disposable food service products may also be available through other OGS centralized contracts such as Industrial and Commercial Supplies (Group 39000, Award 22918) and Miscellaneous Office Supplies (Group 23000, Award 22790).



Outreach to Vendors

Letters were sent to preferred sources and contractors in June of 2017:

- Outlined the proposed changes to the specification
- Described the specification's goal of not offering products that contain PFCs or polystyrene on State contracts or through preferred sources
- Asked that products not in compliance with the specification be removed

Looking Ahead



- Finalize specification
- Work with preferred sources & contractors
- Identify alternatives: compostable with recycled content
- Partner with other jurisdictions
- Partner with manufacturers

Thank You

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- Special Assistant for Pollution Prevention and Green Procurement
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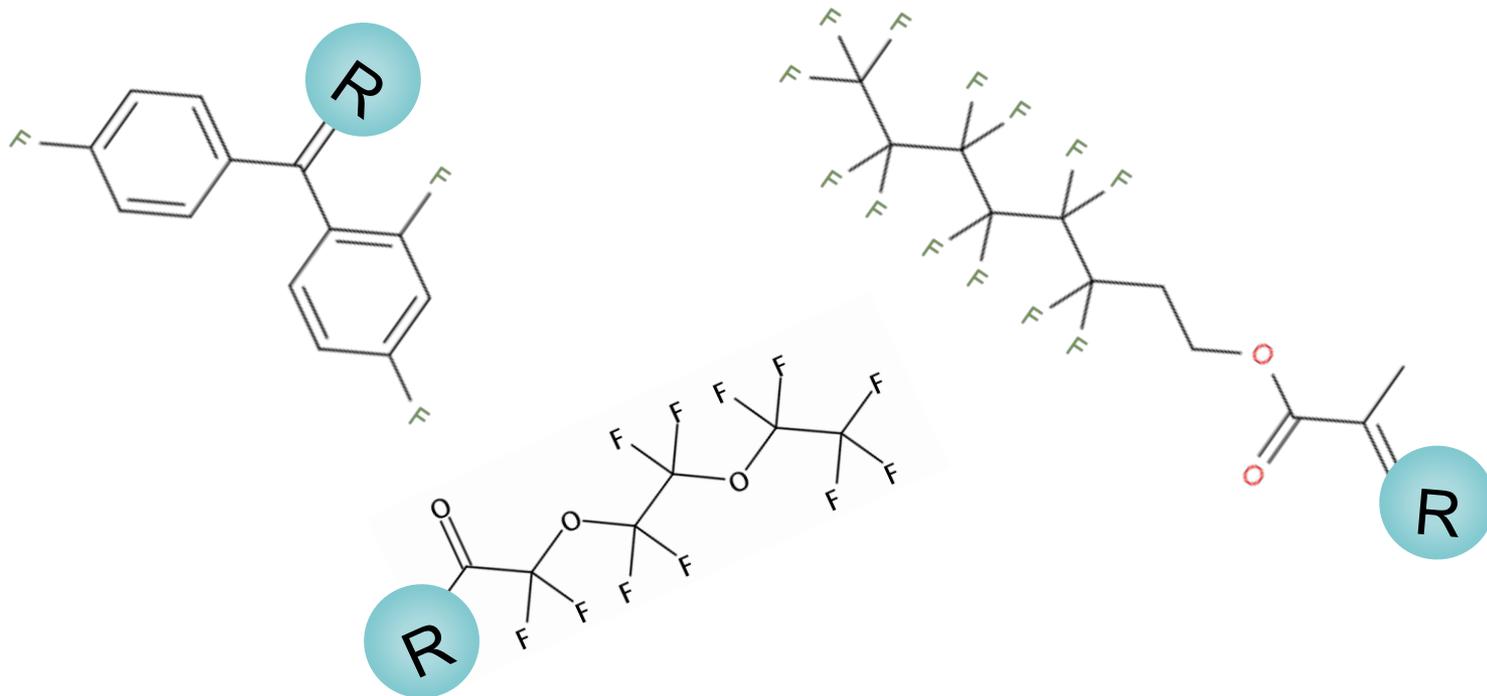
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Per and Polyfluorinated Compounds: Health and Environmental Impacts

Mark Strynar

*U.S. Environmental Protection Agency,
National Exposure Research Laboratory,
Research Triangle Park, NC*



**Toxic Chemicals in Disposable Food Service Ware:
Emerging Concerns and How Safer Alternatives Stack Up**

Webinar October 17, 2017

Presentation Outline

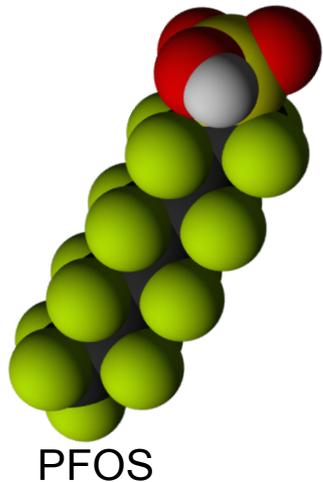
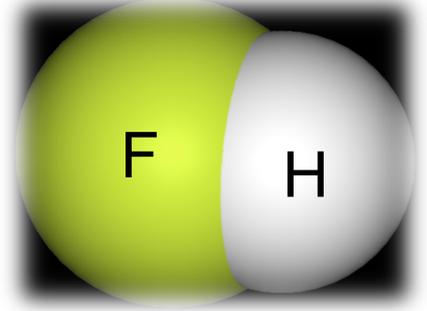
- Introduce per- and polyfluoroalkyl substances (PFAS)
 - what are they?
- Discuss chemical properties of PFAS
 - why are they useful? Where used?
- Review what is known about routes of human exposure
- Some recent findings
- Describe animal and human health effects of PFAS
- Long-term outlook regarding PFAS



**PFOA
FREE**

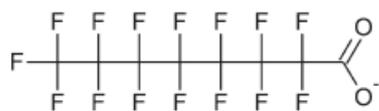
Per- and Polyfluoroalkyl Substances (PFAS)

- Synthetic analogs to long chain fatty acids – but fluorine is used in the place of hydrogen
- PFAS are entirely manmade – no natural sources and literally thousands of different formulations in use
- Many PFAS are extraordinarily persistent in the environment, cannot be broken down by natural systems

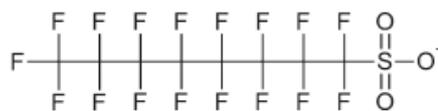


- PFAS are detected in all environmental media – air, water, soil, sludge
- Like other persistent organic pollutants, many PFAS bioaccumulate in animals at the top of the food chain – birds, fish, livestock, and humans
- Environmental persistence leads to global distribution via air and water movement – releases here can be significant for communities on the other side of the world

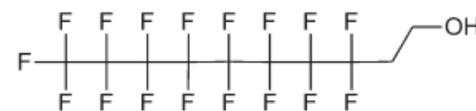
Some Per- and Polyfluoroalkyl Substances (PFAS)



Perfluorocarboxylic acids
(ex. PFOA)



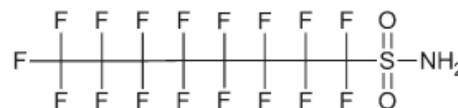
Perfluorosulfonic acids
(ex. PFOS)



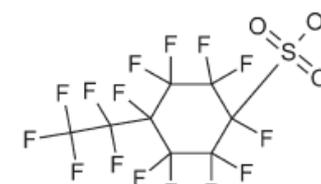
Fluorotelomer alcohol
(ex. 8:2 FTOH)



Perfluorophosphonic/phosphinic acids
(ex. If R=OH then PFOPA
If R=C8 perfluoroalkane then 8:8 PFPi)



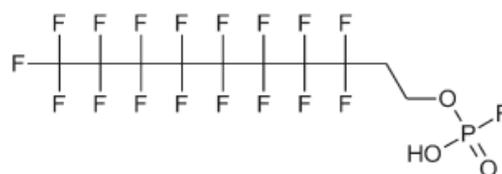
Perfluorosulfonamide
(ex. FOSA)



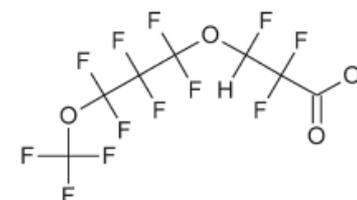
Perfluorinated cyclo sulfonates
(ex. PFECHS)



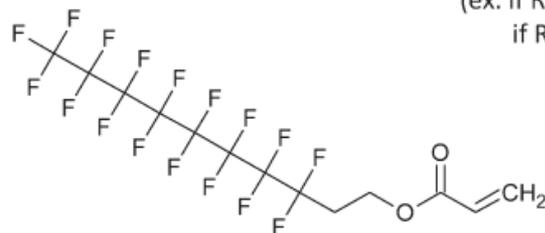
Perfluorosulfonamidoethanol
(ex. N-EtFOSE)



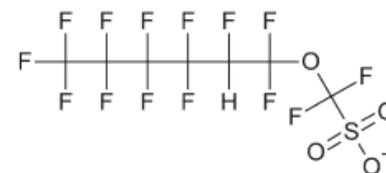
Fluorotelomer phosphate esters
(ex. if R= OH then 8:2 monoPAP
if R= 8:2 FTO ester then 8:2 diPAP)



Polyfluorinated ether carboxylates
(ex. 4,8-dioxa-3H-perfluorononanoate)



Polyfluorinated polymeric unit
(ex. 1H,1H,2H,2H-perfluorodecyl acrylate)

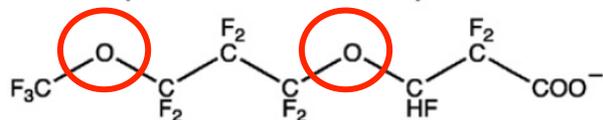


Polyfluorinated ether sulfonates
(ex. Perfluoro [hexyl ethyl ether sulfonate])

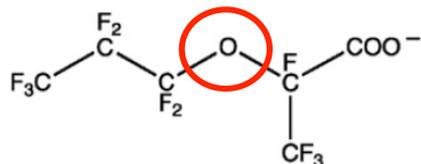
Figure 1. Generic structures for polyfluorinated compounds. The $n = 8$ linear carbon structures are shown for many of these examples, but $n = 4-14$ linear and/or branched carbon units are generally possible.

Fluoropolymer manufacture

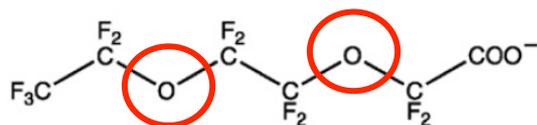
ADONA (CAS No. 958445-44-8)



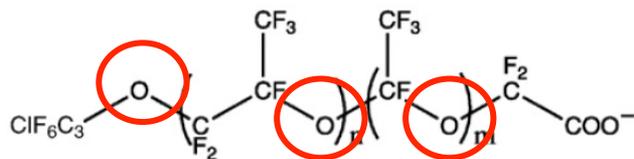
GenX (CAS No. 62037-80-3)



Asahi's product (CAS No. 908020-52-0)

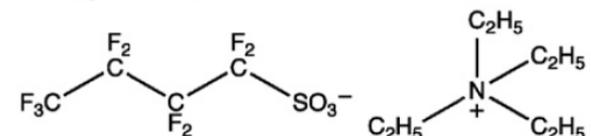


Solvay's product (CAS No. 329238-24-6)

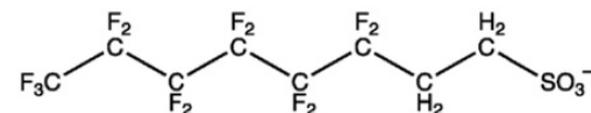


Metal plating

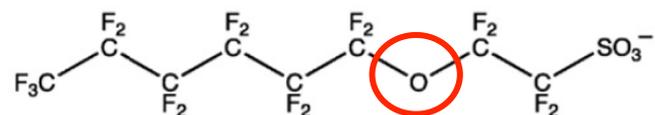
N(Et)₄-PFBS (CAS No. 25628-08-4)



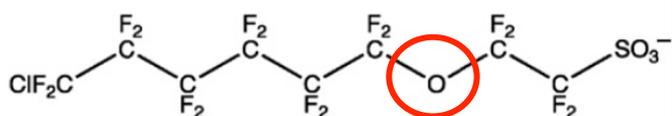
6:2 FTSA (CAS No. 27619-97-2)



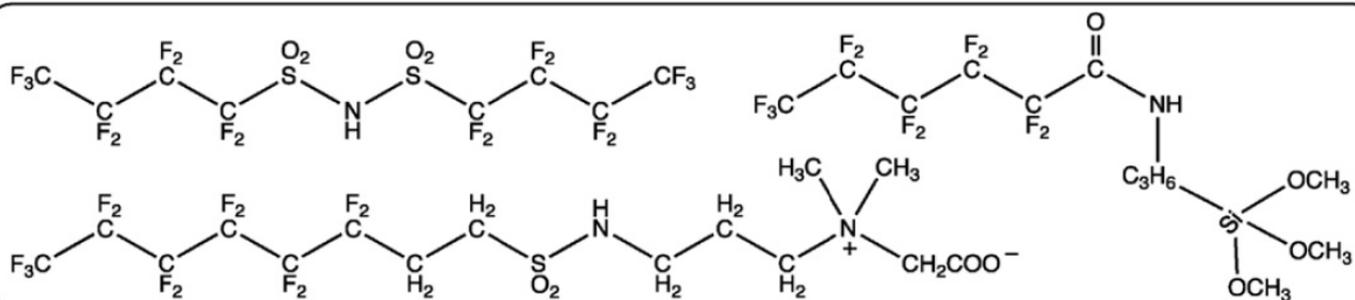
F-53 (CAS No. 754925-54-7)



F-53B (CAS No. 73606-19-6)



Fire fighting foams and miscellaneous



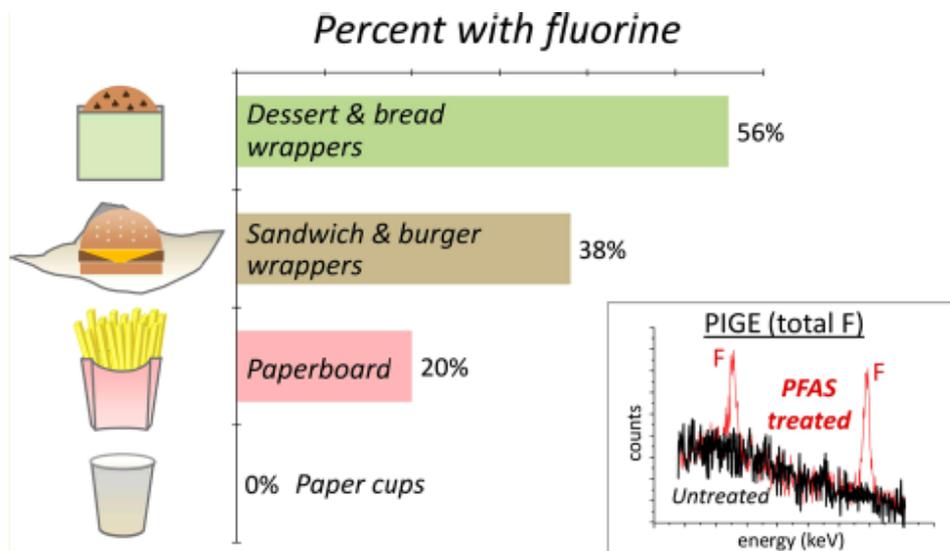


Sources of PFAS Exposure for Humans

- Best documented source is contaminated **drinking water** near industrial production facilities or waste disposal e.g., Cottage Grove, Minnesota; Parkersburg, West Virginia; Dalton, Georgia; Decatur, Alabama; Arnsberg, Germany; Osaka, Japan *Lindstrom et al. 2011, Environ. Sci. & Technol. (45) 8015 – 8021*
- **Food** is also implicated in many studies, especially **fish** from contaminated waters, items contaminated by **food packaging**, and breast milk *Fromme et al. 2009, Inter. J. Hyg. & Envr. Heath (212) 239-270; Mogensen et al. 2015, Environ. Sci. & Technol. (49) 10466 - 10473*
- **House dust** may also be an important route of exposure – especially for children who ingest relatively higher levels of dust via hand-to-mouth activity *Shoeib et al. 2011, Environ. Sci. & Technol. (45) 7999 - 8005*
- **Workplace exposures** significant for some sectors: manufacturing or services making or directly using PFAS, apparel sales, waste treatment *Nilsson et al. 2013 Environ. Sci.: Processes Impacts, 15, 814-822*

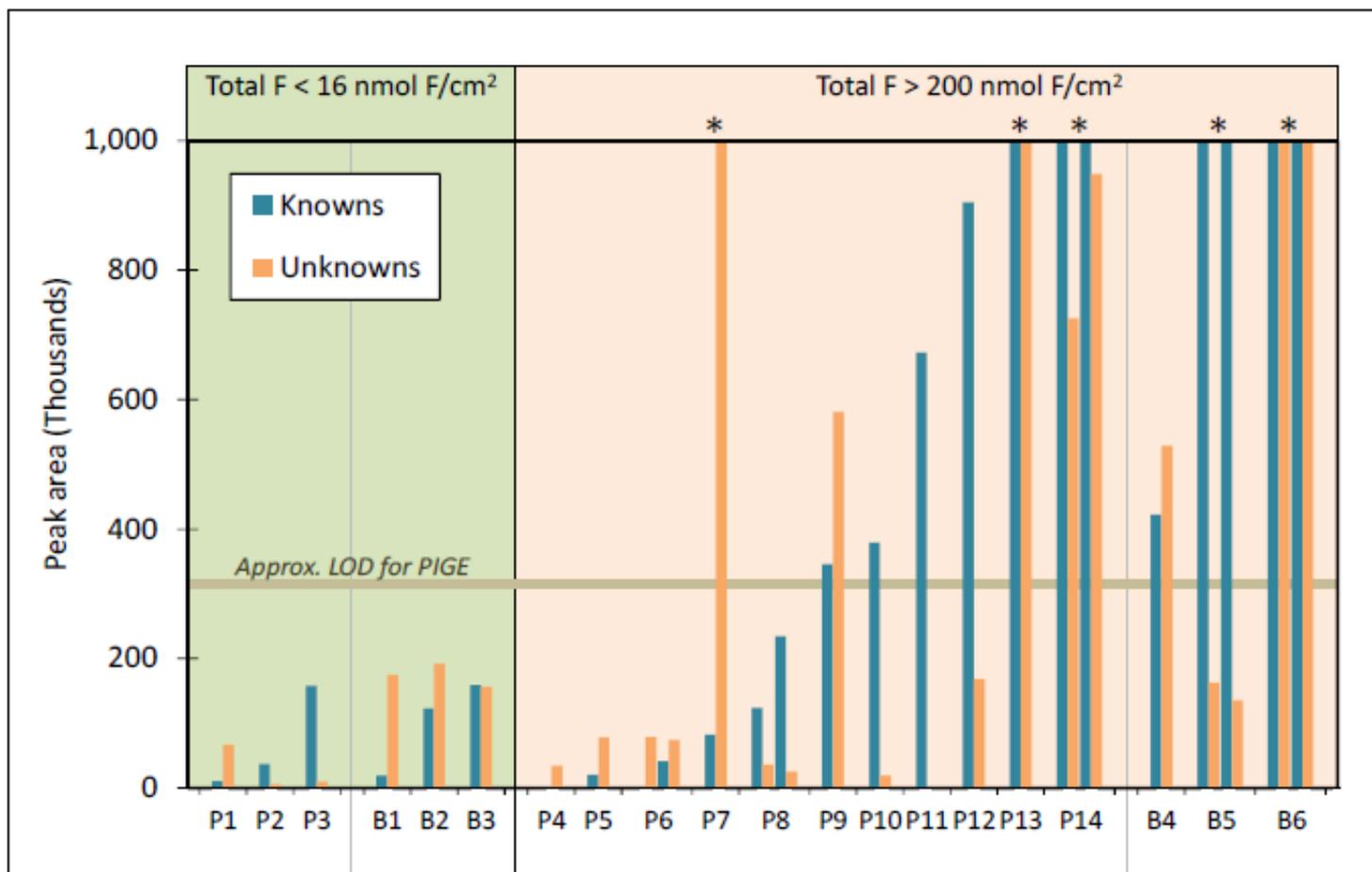
Fluorinated Compounds in U.S. Fast Food Packaging

Laurel A. Schaidler,^{*,†} Simona A. Balan,[‡] Arlene Blum,^{§,||} David Q. Andrews,[⊥] Mark J. Strynar,^{#,Ⓜ} Margaret E. Dickinson,[▽] David M. Lunderberg,[▽] Johnsie R. Lang,[○] and Graham F. Peaslee[Ⓐ]



Fluorinated Compounds in U.S. Fast Food Packaging

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Inventory of Effective Food Contact Substance (FCS) Notifications



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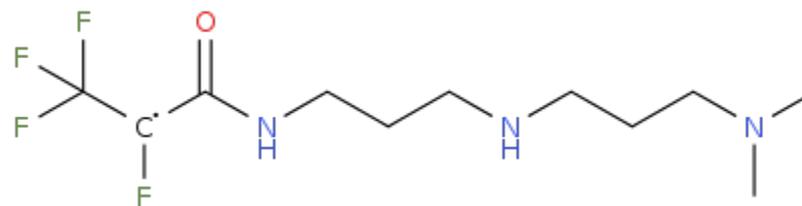
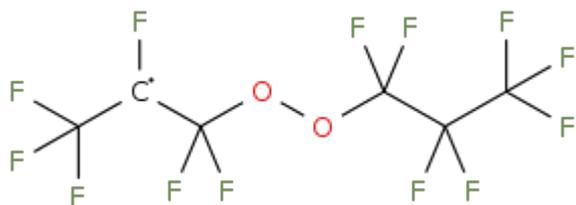
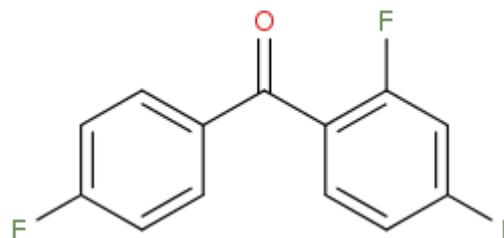
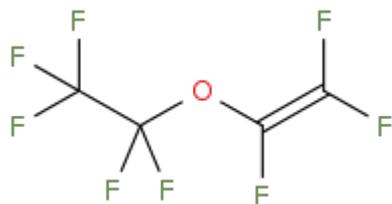
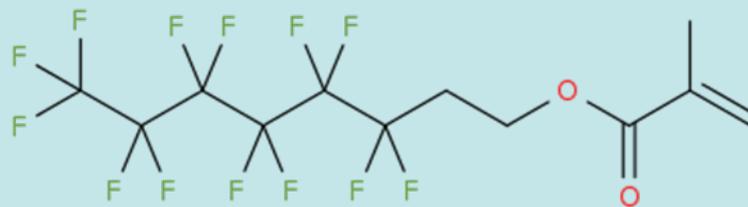
The database lists effective premarket notifications for food contact substances that have been demonstrated to be safe for their intended use. The list includes the food contact substance (FCS), the notifier, the manufacturer of the FCS, the intended use, the limitations on the conditions of use for the FCS and its specifications, the effective date, and its environmental decision. Under section 409(h)(2)(C) of the Federal Food, Drug, and Cosmetic Act (21 U.S.C. 348 (h)(2)(C)) a food contact substance notification (FCN) is only effective for the manufacturer or supplier identified in the notification. Persons who market a FCS based on an effective notification must be able to demonstrate that the notification is effective for their food contact substance. All persons who purchase a food contact substance manufactured or supplied by a manufacturer or supplier identified in an effective notification may rely on that notification to legally market or use the food contact substance for the use that is the subject of the notification, consistent with any limitations in that notification. Additional information about Food Contact Substances and the [Definitions of Food Types and Conditions of Use](#) are available on the [FCS Program page](#).

n=1,255

n= 66 include “fluoro” in name

“Fluoro” Substructures in Database

n=23 include



PFAS Health Effects Summary

- These chemicals not only persist in the environment, but also inside the body once ingested, particularly in humans. GenX data from Gannon et al., 2016

Serum half-life	PFBS (C4)	PFHxS (C6)	PFOS (C8)	PFBA (C4)	PFHxA (C6)	GenX	PFOA (C8)	PFNA (C9)
Mouse	5 hr	30 days	40 days	12 hr	2 hr	alpha 5.2hr beta 31hr	20 days	60 days
Humans	28 days	8.5 years	4-5 years	3 days	32 days	???	3-4 years	unknown

- Some of these chemicals are more potent than the others, but all of them have the similar effects (PPAR α activation)

	PFBA (C4)	PFPeA (C5)	PFHxA (C6)	PFHpA (C7)	PFOA (C8)	PFNA (C9)	PFDA (C10)
Mouse	1.0	1.1	1.3	4.6	8.5	10.2	2.6
Humans	1.0	1.4	1.6	5.0	6.5	6.8	--

- Laboratory results suggest that PFAS effects are additive

Profiles of PFAS Toxicity and Adverse Health Effects

- Liver and Metabolic toxicity
 - *Mouse*: enlarged and fatty liver, decreased **serum cholesterol**, triglycerides
 - *Humans*: increased **serum cholesterol**, uric acid
- Reproductive and Developmental Toxicity
 - *Mouse*: neonatal mortality, **low birth weight**, **growth deficits**, **developmental delays**
 - *Humans*: preeclampsia, **low birth weight and small size**, **delayed onset of puberty**
- Tumor Induction
 - *Mouse*: liver, pancreas and **testes**
 - *Humans*: kidney and **testes**
- Immunotoxicity
 - *Mouse*: atrophy of thymus and spleen, **suppressed immune responses**
 - *Humans*: **reduced immune responses to vaccines in children**
- Endocrine Disruption
 - *Mouse*: reduced serum thyroid hormones
 - *Humans*: slight elevation of serum thyroid hormones
- Neurotoxicity
 - *Mouse*: a few reports of neuronal deficits and behavioral abnormalities
 - *Humans*: some reports of learning disability

Newer PFAS: Summary of what is Known?



Most compounds have limited but growing toxicology testing for some PFAS (Gordon et al., (ADONA), Rae et al., (GenX), Dewitt et al., (GenX), Serex et al., 2014 (6:2 FTOH), Danish EPA 2015 (short-chain PFAS) **BUT** no information on others (Strynar et al., 2015, Newton et al., 2016, Schaider et al., 2017)

Toxicology found to be “more favorable” than longer chain PFAS (Dupont GenX brochure) but **NOT** non-toxic (Rae et al., 2015 (GenX); Gordon et al., (ADONA), Serex et al., 2014 (6:2 FTOH)

Shorter chain length PFAS are: almost completely absorbed orally (Chang et al., 2008 (PFBA), Olsen et al., 2009 (PFBS) and Gannon et al., 2011 (PFHxA) more rapidly eliminated in mammals (Gannon et al., 2016 (GenX) and poorly attenuated in Traditional drinking water systems (Sun et al., 2016)

Environmental bio-concentration of shorter chain length is of low concern (Hoke et al., (GenX), **BUT** has been shown to occur in fish species (Chu et al., 2016., (FBSA)

Terminal per- and polyfluorinated metabolites are recalcitrant (Danish EPA 2015 (short-chain PFAS), Wang et al., 2013 (PFPEs), ECHA 2015

Future Perspectives

- Demand for PFAS performance chemicals increasing with a shift in production of “legacy” materials to the developing world (India, Poland, China, Russia)
- New generation of “replacement” PFAS now being produced in the industrialized world, but their identity and health effects are relatively unknown.
- Environmental and health effects research on “replacement” PFAS now underway – preliminary results suggest they have similarity to legacy compounds
- New research on human exposure of PFAS and their adverse health effects, as well as their ecological impacts will support risk assessment and regulatory decisions
- Virtually every person has PFAS in their blood – biomonitoring studies will inform the trends of change in the future regarding new and legacy chemicals



Questions?

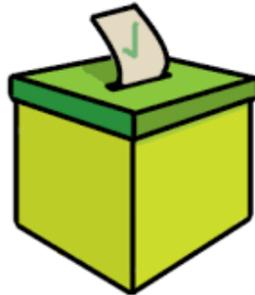
Email: Strynar.mark@epa.gov



Polling Question #1

How is most of the food service ware handled in your facilities?

VOTE NOW



How to Specify Safe and Sustainable Food Service Ware



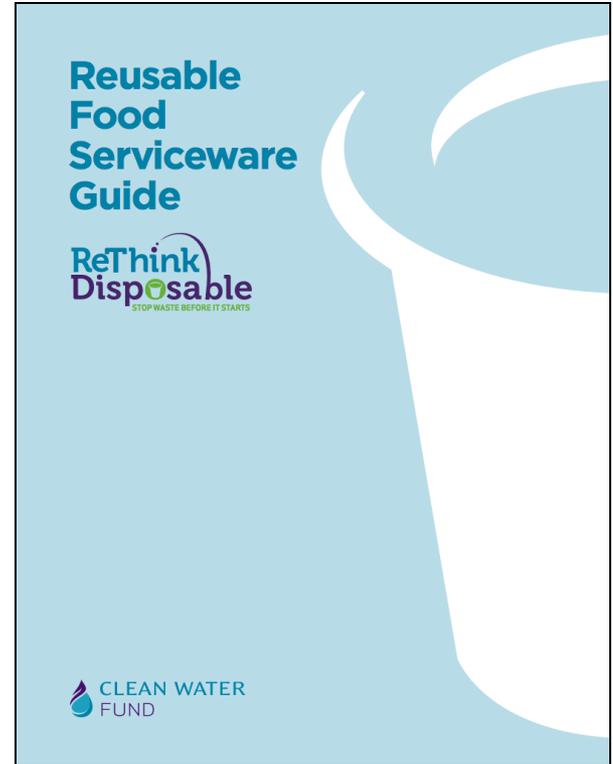
Alicia Culver, Executive Director
Responsible Purchasing Network

Attributes of Sustainable FSW

- **Reusable**
- **Compostable + No PFAS**
- **Recyclable**
- **Other Environmental Benefits**
 - Made with Recycled Content (plastic, paper, etc.)
 - Promote Sustainable Forestry (Forest Stewardship Council (FSC) certified)



Reusable Food Service Ware



Reusable





Commercially Compostable

- **Products certified by the Biodegradable Products Institute (BPI) that do not contain PFAS**

- Bioplastic (e.g., PLA)
- Paper coated with bioplastic



- **Products on Cedar Grove's *Approved Products List* that do not contain PFAS**

- Sheet paper without bioplastic
- Clay-coated paper
- Wooden cutlery and stir sticks



All MOLDED FIBER Products Tested Positive for High Levels of Fluorine

– Types of Materials

- Recycled paper
- Sugarcane/Bagasse
- Wheat straw

– Types of FSW Items

- Plates, Bowls and Clamshells
- Includes some products approved by BPI, Cedar Grove, Cradle to Cradle, Green Seal



Products that Did **NOT** Test Positive for High Levels of Fluorine

- Hot Cups + Lids
- Cold Cups + Lids
- Paper Soup Containers
- PLA Takeout Containers
- Cutlery
- Straws and Stirrers
- Napkins
- Coffee Sleeves



Safer Food Service Ware

Clear PLA Products

– Replacement for these types of products with PFAS

- Take-out Containers
- Portion Cups



– Benefits

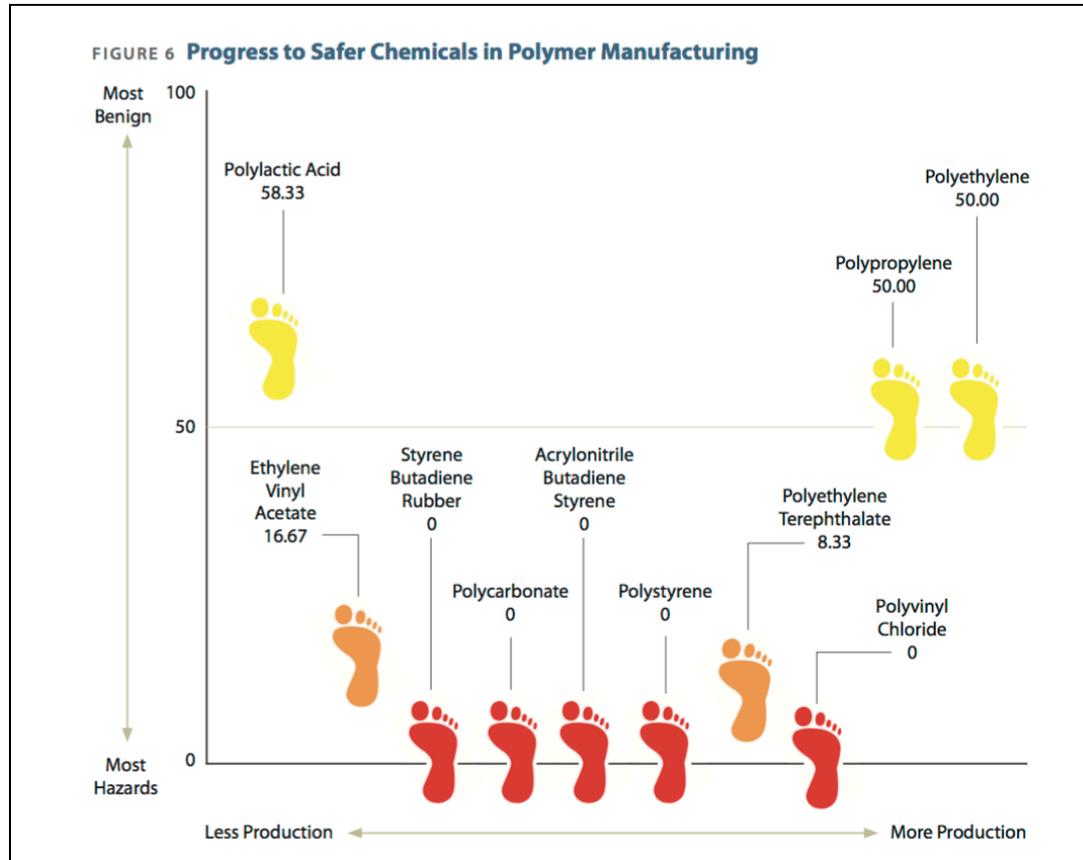
- Certified compostable (BPI)
- PLA is a low-chemical footprint plastic



– Drawbacks

- More expensive than molded fiber products
- For cold food only
- Confusing if facility also recycles clear PET containers

Chemical Footprint of Plastics



Source: **Clean Production Action**, *The Plastics Scorecard*

Safer Food Service Ware

PLA-Coated Paper Products

– Replacement for these types of products with PFAS

- Soup Bowls
- Take-out Containers



– Benefits

- Certified compostable (BPI)
- Some products contain recycled content
- Some products recyclable

– Drawbacks

- More expensive than molded fiber products
- Many organizations lack composting



Safer Food Service Ware

Clay-Coated Paper Products

– Replacement for these types of products with PFAS

- Plates
- Soup Bowls

– **Benefits**

- **Certified compostable (BPI) and Cedar Grove Approved**
- **Less expensive than PLA-coated paper**

– **Drawbacks**

- **More expensive than molded fiber products**



Safer Food Service Ware

Untreated or Waxed Paper Products

– Replacement for these types of products with PFAS

- Plates
- Portion Cups
- Food service bags and wraps



– Benefits

- Many products on Cedar Grove Approved List
- Some products are competitively priced

– Drawbacks

- May not perform well for all applications
- Some waxes are petroleum-based



Easily Recyclable

- **Recyclable in Most Communities**

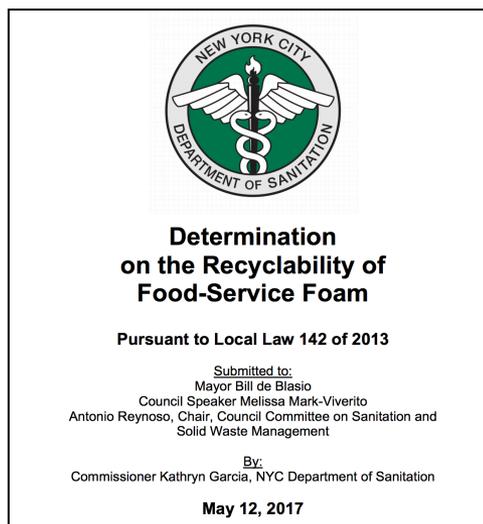
- #1 PET plastic (64.5% of communities accept)
- #5 Polypropylene (61.1% of communities accept)
- Paper coffee sleeves (most communities accept)



- **Not Recyclable in Most Communities**

- FSW too contaminated with food (most plates, bowls, takeout containers, napkins)
- Items too small to sort (straws, cutlery, portion cups,)
- Most paper products (non-recyclable liner, etc.)
- Polystyrene FSW

Polystyrene Food Service Ware is Very Difficult to Recycle



A. EXECUTIVE SUMMARY

As described herein and summarized below and pursuant to Local Law 142 of 2013, the New York City Department of Sanitation (“DSNY” or “the Department”) determines that Food-Service Foam or post-consumer Food-Service Foam **cannot be recycled** in a manner that is economically feasible or environmentally effective for New York City.

Safer Food Service Ware

Recyclable Plastic (PET/Polypropylene)

– Replacement for these types of products with HFCs

- Take-out Containers
- Portion Cups



– Benefits

- Polypropylene = chemical footprint
- Some products have recycled content

– Drawbacks

- More expensive than molded fiber products
- Some products don't work for hot applications
- May be "down-cycled" at end of life



Other Environmental Attributes

- **Recycled Content**

Total Recycled (TRC)/Post-Consumer Recycled Content (PCRC)

- Recycled PET Clear Cups (10-25% PCRC)
- Recycled Paper Cups (10-20% PCRC)
- Paper Coffee Sleeves (100% TR/60-100% PCRC)



- **Sustainably Sourced Paper/Wood – FSC certification**

- Paper cups, coffee sleeves, wooden stirrers, napkins

- **Chlorine-free Bleaching**

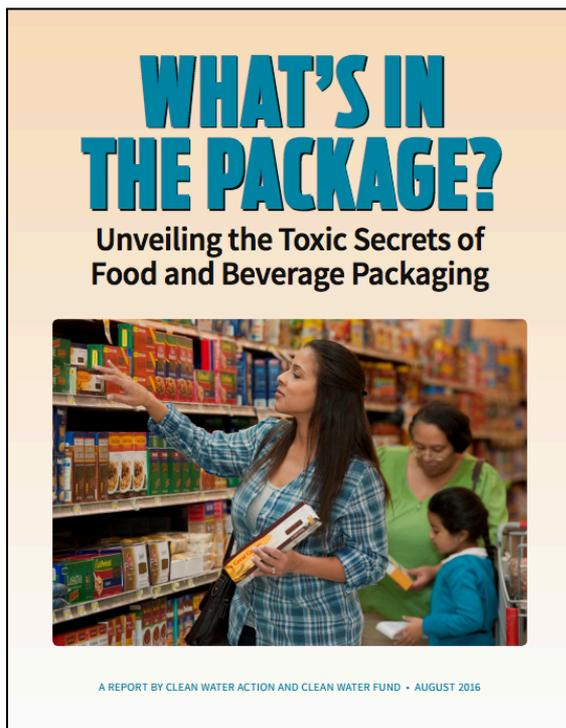
- Coffee sleeves, Paper Cups



- **Water-Based Inks/Glues**

- **Made with Renewable Energy (Green-e Certified)**

Additional Resources



09 FEB Highly Fluorinated Chemicals in Food Packaging Symposium

PERMALINK

This daylong, by-invitation-only workshop brought together diverse stakeholders to share information to move towards healthier food-service packaging with the reduced use of highly fluorinated chemicals.

When: February 9, 2017, 8:30AM – 5:00PM
Where: Berkeley, CA USA.

Click on presentation titles below to see PowerPoint slides

- 01 **Arlene Blum, PhD**
Visiting Scholar, Chemistry, UC Berkeley, Green Science Policy Institute
The "Six Classes" Approach: Highly Fluorinated Chemicals
- 02 **Mark Strynar, PhD**
Scientist, US Environmental Protection Agency
Per and Polyfluorinated Compounds: Health and Environmental Impacts
- 03 **Malene Teller-Blume**
Quality Manager and Social Compliance, Coop Denmark
PFASs: Policy, Purchasing, and Popcorn at Coop Denmark
- 04 **Jen Jackson, MA**
Toxics Reduction and Healthy Ecosystems Program Manager, SF Department of the Environment
Food Contact Paper in San Francisco
- 05 **Bill Orts, PhD**
Bioproducts Research Team Leader, USDA
Alternatives to Fluorinated Coatings and Surfactants
- 06 **Alicia Culver**
Executive Director, Responsible Purchasing Network
Safer Food Service Ware
- 07 **Sabrina Burkhardt, MSc**
Chemical Products Technical Director, Sustainable Fiber Technologies
Sustainable Packaging on the Rise

<http://greensciencepolicy.org/pfass-in-food-packaging-2017-agenda/>

Next Webinar on This Topic

November 16, 2017
11am Pacific/2pm EST



Questions/Contact Info

Alicia Culver

Executive Director

Responsible Purchasing Network

510-367-3676

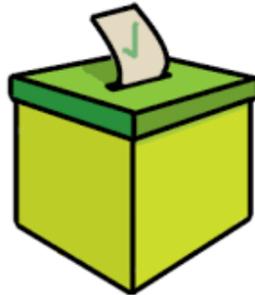
alicia@responsiblepurchasing.org



Polling Question #2

What is your biggest challenge in purchasing environmentally sustainable food service ware?

VOTE NOW





Purchasers Can Move the Market

YAHOO!



SF Environment



AUTODESK



Dignity Health

KAISER PERMANENTE

UNIVERSITY OF CALIFORNIA SANTA CRUZ



LinkedIn



MULTNOMAH COUNTY



PARTNERS



MASSACHUSETTS

STAPLES



HR

GCI GENERAL CONTRACTORS



TRILLIUM ASSET MANAGEMENT



HEALTHY BUILDING SCIENCE



new resource bank

PERKINS + WILL

Hackensack University Health Network



Kay Chesterfield

5

Things Purchasers/ Organizations Can Do

1. Participate in Product Testing
2. Letter to/Meeting with Suppliers
3. Use Model Specifications
4. Prefer Non-Fluorinated Products
5. Letter to Organizations Addressing Disposable Food Service Ware

Free Product Testing Available

- Organizations can have samples tested at NO cost
- Provides organizations with critical information for discussions with suppliers
- Contributes to the body of testing results that will yield list of preferred products
- To participate send email to judy@ceh.org or sue@ceh.org

Product Database

- Results of product testing will be publicly available and searchable
- Database will indicate which products are fluorinated or non-fluorinated
- Report with preferred alternatives end of 2017

Letter to Suppliers

- Incentive for manufacturers and distributors to investigate safer alternatives
- Sample language will be available
- Create a Race to the Top!



Use Model Specifications: NYS

Single Use Food Service Containers and Packaging

Covered Products:

Food service containers and packaging, including but not limited to plates, bowls, and hot and cold cups; sandwich or other types of food wrappers; food trays; and food take-out containers (including but not limited to containers with hinges, folding closures, or lids).

Goal:

The goal of this guidance document is to increase sustainable practices in the State of New York's food service operations by encouraging the purchase and use of reusable food service containers and establishing minimum specifications for single-use food service containers and packaging. The specifications establish a hierarchy of environmentally beneficial attributes as follows: reusable; compostable in a commercial or municipal facility; easily recyclable; and made with a minimum percentage of post-consumer recycled content, sustainably harvested content, or other environmental attributes. An additional goal is that covered products purchased by affected entities, offered by preferred sources, or on State contracts will not contain perfluorinated chemicals(PFCs) or polystyrene.

**[www.ogs.ny.gov/greenny/docs/2017/
SingleUseFoodContainerAmendments.pdf](http://www.ogs.ny.gov/greenny/docs/2017/SingleUseFoodContainerAmendments.pdf)**

Use Model Specifications: SF

<p>ADDENDUM 3, ATTACHMENT A</p> <p>CONTRACT PROPOSAL (Indefinite Quantity) Office of Contract Administration Purchasing Division City and County of San Francisco City Hall, Room 430 1 Dr. Carlton B. Goodlett Place San Francisco, CA 94102-4685</p> <p>Bids will be opened in: City Hall, Room 430, at 2 p.m., <u>October 6, 2017</u></p>		<p>SIGN AND RETURN THIS PAGE</p> <div style="border: 1px solid black; padding: 10px; text-align: center;"><p>88405 Disposable Food Containers, Utensils & Service Items</p></div>
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Below are the minimum requirements for products purchased under this contract:

- a. Compostable plastic products:
 - Must not contain additives that include hazardous chemicals, including but not limited to persistent, bioaccumulative, or toxic chemicals; carcinogens; mutagens; reproductive toxins.
 - Must not contain polyvinyl chloride (PVC), polystyrene (PS), acrylonitrile butadiene styrene (ABS), polycarbonate (PC), polyurethane (PU) or fluorinated chemicals.
 - Must be clearly labelled “Compostable” in a green color or within a green band in order to distinguish the product from conventional plastic. Cutlery must be embossed with the word “Compostable” on each piece.
 - If the compostable product has a shelf life, the expiration date needs to be clearly printed on the packaging or shipping box.

http://mission.sfgov.org/OCA_BID_ATTACHMENTS/FA50491.pdf

Specify Sustainable Products

- Purchase reusables, whenever possible
- Specify products that are certified compostable and do not contain fluorinated chemicals
- If composting facilities are not available, specify recyclables that are polypropylene or PET (not polystyrene)

Buyer Beware!

- “PFOS and PFOA Free” \neq free of all fluorinated treatments.
- Many companies mistakenly believe the new fluorinated alternatives are “safe” or “PFAS-free.”
- Claims of FDA or EPA Approval does not mean “safe”

Letter to Certification and Standards Organizations

- Let certification/standards organizations know that fluorinated products should not be certified as compostable or sustainable
- Model language/group sign-on letter will be available



Questions?

Judy Levin

Center for Environmental Health

Pollution Prevention Director

(510) 655-3900 ext. 316

judy@ceh.org

Questions?

