

TOXICS IN DURABLE PRODUCTS

Chemical Policy Forum
Heather Trim
September 11, 2025

Zero Waste Washington

Works to make *trash* obsolete

Three strategies:

- Help pass laws
- Conduct research
- Do pilot projects



Seven Focus Areas



PRODUCER RESPONSIBILITY



EXCESS PACKAGING



INNOVATION



REUSE/REPAIR



RECYCLING



PLASTIC POLLUTION

Overview

- Project Summary
- Product Search
- Product winnowing
- Next Steps



PROJECT SUMMARY

Project Summary

Goal: Address exposure to durable consumer products with toxic chemicals

How: Education, outreach, and messaging and swap-outs

Where: Central Puget Sound Region

Timeline: January 2024 - December 2027



Advisory Committee Members (To date)

Maythia Airhart, King County

Steve Brown, Kitsap Public Health

Owen Brummel, Ecology

Diana Ceballos, UW Dept of Envi &
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Katie Curtis, Snohomish County Health

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Myles Perkins, King County Haz Waste

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Hannah Vinyard, Kitsap County Public
Works Solid Waste Division

Research Phase

Researched chemicals and durable products that potentially expose consumers to these chemicals.



Work with Youth Interns to Develop and Test Effective Messaging



Collaborated with the Duwamish River Community Coalition to create an internship program



Work with Local Secondhand Businesses

Work with thrift shops, consignment shops, and secondhand shops to:

- Discontinue selling products with toxic chemicals
- Discuss future policies about accepting these products, or not



Pass-through Grant Program for Swap-Out Events and Activities

- Grants for local jurisdictions (up to \$50,000 each) in King, Pierce, Kitsap, Snohomish counties, including cities, for events and activities.
- Education and outreach to motivate and facilitate product swap-outs for their residents and businesses.
- Incentives for swapping such as cash or replacement products.

Pilot for Foam Replacement in Upholstered Furniture



Address replacement of furniture foam containing toxic chemicals like flame retardants.

RESEARCH

Product list

- Conducted literature reviews on PFAS, Phthalates, Lead, Flame Retardants and other chemicals.
- Researched durable products that potentially expose consumers to these chemicals.
- Compiled a list of potential priority products and non-compliant products



Prop. 65 Warning for California Residents



WARNING: This product may contain chemicals known to the State of California to cause cancer, birth defects, or other reproductive harm.

Research Phase



Phthalates

3500+



Lead

3000+



PFAs

400+



BPA

300+



Flame Retardants

250+

To consider

- Alternatives are available
- Practicality
- Ease for swap-out event and activities

Products list

- Lead in pots and pans
- Lead in pressure cookers
- PFAS in pots and pans
- PFAs in rice cookers
- PFAS in air fryers
- FR in black plastic kitchen utensils
- Phthalates in vinyl handbag/purses
- Phthalates in vinyl pouches and cases
- Phthalates in children's vinyl soft sided lunchboxes
- BPA in spandex athleticwear (shorts, bras, leotards, leggings, socks, etc.)
- Lead in brass housewares
- Lead in fishing gear (sinkers, anchors, weights)
- Lead in decorative ceramic items, especially mugs
- PFAS in grilling mats
- PFAS in umbrellas
- PFAS in shower liners
- PFAS in jackets (adult and kid)
- PFAS in hats and caps
- PFAS in pants
- Phthalates in vinyl air mattresses
- FR in black plastic toys
- PFAS in camping gear (tents, sleeping bags, etc)
- PFAs in baby gear (strollers, pads, etc)
- PFAS in Gloves

Lead in pots and pans

Pots and pans with lead



Source: Fellows K, et al. 2024



*Brands are not listed but products are mostly made of aluminum, brass and alloys

Pots and pans without lead: stainless steel and cast iron



Brand: Caraway



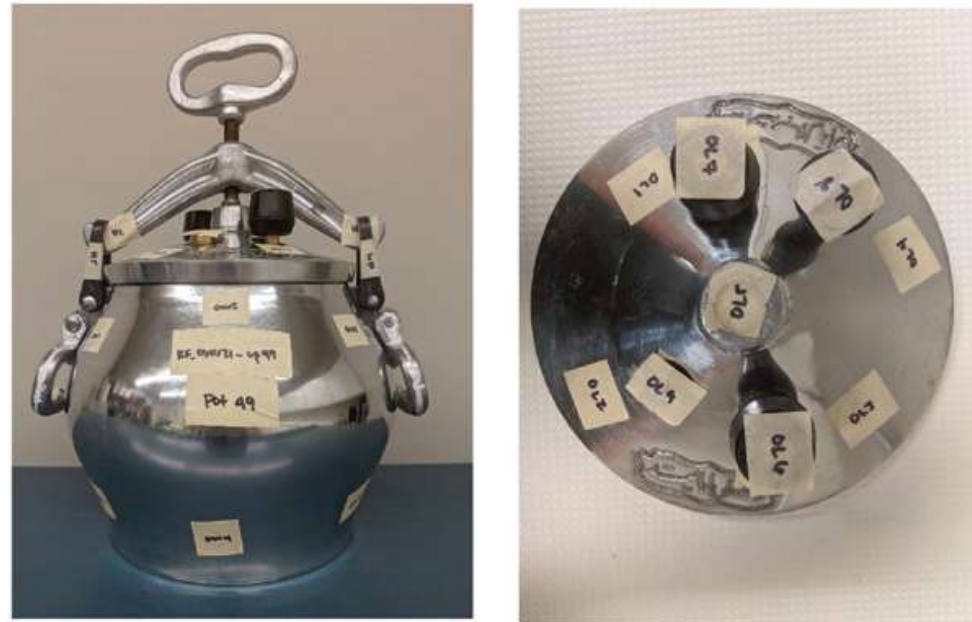
Brand: All Clad



Brand: Field Company

Lead in pressure cookers

Pressure cookers with lead



Source: Fellows K, et al. 2023



Brand: Farberware

Pressure cookers without lead: Stainless steel



Brand: InstaPot



Brand: Yedi



Brand: Breville

PFAs in non-stick rice cookers

Non-stick rice cookers with PFAS



Brand: Premium



Brand: Imusa

Non-stick rice cookers without PFAS



Brand: Starfrit



Brand: GreenPan

Flame Retardants in black plastic kitchen utensils

Black plastic utensils with flame retardants



Source: not included in research



Source: Toxic-free future, 2024

*Brands are not listed

Kitchen utensils without flame retardants: wood, silicon, stainless steel



Brand: GreenPan



Brand: viking



Brand: Caraway

Phthalates in children's PVC vinyl soft sided lunchboxes

Lunchboxes with vinyl



Brand: Picnic Time



Brand: Marvel



Brand: BrainyBees

Lunchboxes without vinyl



Brand: Crate and kids



Brand: Bentgo

Phthalates in vinyl air mattresses

Air mattresses with phthalates

Air mattresses without phthalates



Brand: Sable

Brand: Serenelife

Brand: Etekcity



Brand: Beyondhome

Lead in brass housewares



Brand: Sage Goddess



Brand: Purl



Brand: Novica



Brand: Dahlia Abstract



Brand: Serene Spaces



Brand: Trudon



Brand: Kassatex

Lead in fishing gear (sinkers, anchors, weights)

Fishing gear with Lead



Brand: Amysports

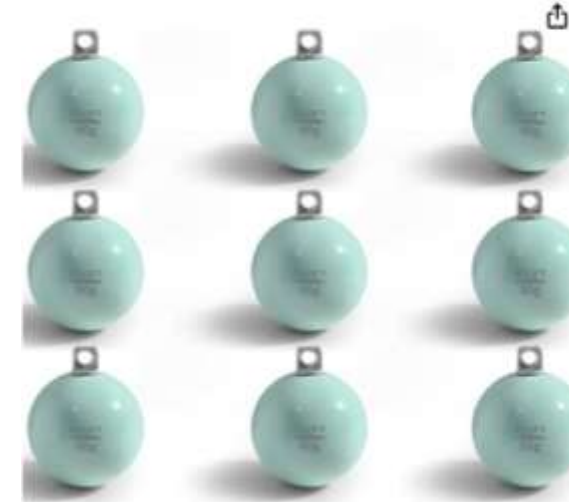


Brand: C+D



Brand: Alwonder

Fishing gear without Lead



Brand: ECOFT



Brand: Bass Pro Shops



Brand: Dr. Fish



Brand: Munn

PFAS in shower liners

Shower liners with PFAS



Brand: Sonoma Shower liners



Brand: Barossa shower curtain liners

Shower liners without PFAS



Brand: Zenna Home



Brand: Clean Healthy Living

BPA in spandex athleticwear

Athleticwear with BPA



Brand: Avia Women's Strappy sports bra



Brand: Adidas DailyRun 5Inch Tights



Brand: Amazon Essentials Women's High Rise Capri Active Sculpt Legging

Athleticwear without BPA



Brand: LL Bean, Adults' Cotton Ragg Sock



Brand: Racerback SPORTS, The Eczema Company



Brand: INNBLAC, 100% Cotton

Brand: all pro sock, Target Corporation

PFAS in jackets (adult and kid)

Jackets with PFAS



*Brand: Ozark trail
adult breathable
rain jacket*



*Brand: Mellco
waterproof
jackets*



*Brand: Jumping beans kid's
jacket*

Jackets without PFAS



Brand: Reima (all products PFAS free)



*Brand: Patagonia, Boulder
Fork Rain Jacket*



*Brand: Houdini, Moonwalk
Houdi*

PFAS in pants

Pants with PFAS



The Orvis Company, Inc., Costco Wholesale Corporation trek pants



Kenneth Cole Productions, Inc., T.J. Maxx of CA, LLC



IFG Corp., Wal-Mart Stores East, L.P. layer 8 pants



Brand: Houdini



Brand: Patagonia M's Twill Traveler 5-Pocket Pants



Brand: Prana

PFAs and flame retardants in baby gear (strollers, pads, etc.)

Baby gear with PFAS



*Crib mattress pad
(Kolcraft Enterprises, Inc.,
Target Corporation)*



*Company: Artsana USA, Inc.
(model: not specified)*

Baby gear without PFAS



Brand: Newton (GREENGUARD certified)



Brand: Bumbleride (PFAS-free disclosure)

Toxics in durable products Swap-out products

PFAs, phthalates in lunch boxes



Brand: Bentgo

PFAS in baby gear



Brand: Bumbleride
(PFAS-free)



Brand: Newton
(GREENGUARD certified)

Lead, PFAS in Cookware



Brand: All Clad



Brand: Caraway

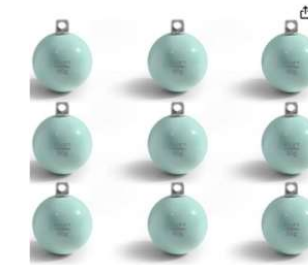


Brand: Starfrit



Brand: Breville

Lead in fishing gear
(sinkers, weights)



Brand: ECOFT



Brand: Bass
Pro Shops



Brand: Dr. Fish



Brand: Munn

Flame Retardants in black plastic utensils



Brand: Caraway



Brand: viking

Summer SWAP OUT EVENTS



June/July 2025



SUMMARY

- 4 events
Arabic, Somali and Afghan Communities
- 350+ participants
2000+ products distributed
- **Collected:**
pots, frying pans, plastic cutting boards, kitchen utensils, and other plastic items.



Testing method

- Cookware and other items such as soil and spices were screened for heavy metals such as lead and arsenic using a Niton XL5 Plus **XRF analyzer**

- A visual inspection of the cookware was done to evaluate **scratched or deteriorated non-stick surfaces**

- Most items didn't have any brand or identification shown.



Safer alternatives offered



Kitchen utensils

Wood, stainless steel

Colanders

Stainless steel

Safer alternatives offered



Cutting boards

Wood

Safer alternatives offered



Frying pans

*Stainless steel, cast iron,
carbon steel*

In-language materials were given to the attendees

Your non-stick frying pans might be releasing toxic chemicals into your food

قد تطلق مقالي القلي غير اللاصقة مواد كيميائية سامة في طعامك

Toxic coatings: Non-stick and grease/oil resistant coatings on pans, could expose your family to harmful chemicals known as per-fluoroalkyl substances (PFAs). These chemicals are released with heat, aging and washing.

Safer coatings: Ceramic coatings are safer for non-stick. Also, stainless steel, cast iron and carbon steel pans are non-stick and don't contain harmful coatings since only oil is necessary.

الطلاءات السامة: الطلاءات غير اللاصقة والمقاومة للشحوم/الزيوت على المقالي قد تعرض عائلتك لمواد كيميائية ضارة تُعرف باسم المواد المشبعة بالفلور المعروفة اختصاراً (PFAs) يتم إطلاق هذه المواد عند التسخين أو عند التقادم (مع مرور الوقت) أو أثناء الغسيل.

الطلاءات الآمنة: الطلاءات الخزفية (السيراميكية) أكثر أماناً للاستخدام غير اللاصق. كما أن المقالي المصنوعة من الفولاذ المقاوم للصدأ، والحديد الزهر، والفولاذ الكربوني تُعتبر غير لاصقة عند استخدام الزيت، ولا تحتوي على طلاءات ضارة..



Your cookware could be also contaminated with lead

قد تكون أواني الطهي الخاصة بك ملوثة أيضاً بالرصاص.



Toxic pans: Aluminum and brass pots and pans could expose your family to lead, a well-known carcinogen and neurotoxin. These pans, when heated, could leach lead into your food, contributing to irreversible health outcomes.

Safer pans: Cast iron, stainless steel and carbon steel pans are less likely to contain lead. Some brands use aluminum as an inner layer covered with stainless steel, this is also a safe option for you to choose.

المقالي السامة: قد تُعرض أواني الطهي المصنوعة من الألمنيوم أو النحاس الأصفر عائلتك للرصاص، وهو مادة معروفة بأنها مسببة للسرطان وسامة للجهاز العصبي. فعند تسخين هذه الأواني، قد يتسرب الرصاص إلى الطعام، مما يساهم في آثار صحية خطيرة غير قابلة للعلاج.

المقالي الآمنة: تعتبر أواني الطهي المصنوعة من الحديد الزهر، والفولاذ المقاوم للصدأ، والفولاذ الكربوني أقل احتمالاً في احتوائها على الرصاص. وتستخدم بعض العلامات التجارية الألمنيوم كطبقة داخلية مغطاة بالفولاذ المقاوم للصدأ، وهذه أيضاً خيار آمن يمكنك الاعتماد عليه.

Here are some safer PFAs-free and lead-free alternatives:

إليك بعض البدائل الآمنة الخالية من المواد المشبعة بالفلور PFAs وخالية من الرصاص:



Green Pan - Stainless steel

مقلاة كرين بان - الفولاذ المقاوم للصدأ



Lodge - Cast iron

لوج - الحديد الزهر



KITEXPERT - Titanium stainless steel

كيت إكسبرت - فولاذ مقاوم للصدأ مطلي بالتيتانيوم



Cooker King - Stainless steel

كوكر كينغ - الفولاذ المقاوم للصدأ



Cadivizzo - Stainless steel

كاديڤيزو - الفولاذ المقاوم للصدأ



Tramontina - Stainless steel

ترامونتينا - الفولاذ المقاوم للصدأ



OXO - Carbon steel

أوكسو - الفولاذ الكربوني

HOW TO TAKE CARE OF YOUR NON-STICK PANS:

كيفية العناية بمقاليك غير اللاصقة:

- Only use non-abrasive cleaners and sponges. Avoid scratching.
- استخدم فقط منظفات وإسفنجات غير كاشطة. تجنب الخدوش.
- Do not put pan in the dishwasher. Hand-washing is recommended.
- لا تضع المقلاة في غسالة الصحون. يُفضل غسلها يدوياً.
- Clean your cookware after each use, even if it doesn't look dirty.
- نظف أواني الطهي بعد كل استخدام، حتى وإن لم تكن تبدو متسخة.
- Pre-season when necessary, and don't overheat.
- قم بتبيل المقلاة مسبقاً عند الضرورة، ولا تفرط في التسخين.

Qalabka jikada ee caagga madow ayaa laga yaabaa inuu caafimaadkaaga waxyeelo

Black plastic kitchen utensils might be harming your health



Qalabka jikada caagga madow badanaa waxaa lagu sameyn karaa kiimikooyin waxyeelo leh. Marka la kariyo cuntada ama la adeegayo cunto kulul, agabkan madow ee caagaga ah wuxuu la kulmaa kulaylaka, tasoo keentay in kiimikooyin sun ah ay ku dhex galaan cuntadaada iyo cabitaankaaga.

Qalabka ammaan ah: qalabka jikada ee alwaaxda iyo birta aan rustka lahayn waxaa loo arkaa inay yihiin doorashooyin ammaan ah oo aad isticmaali kartid.

Black plastic kitchen utensils often can be made from recycled electronic waste and could contain harmful chemicals. When cooking or serving hot food, these black plastic utensils are exposed to heat, causing the leaching of toxic chemicals into your food and beverages.

Safer materials: Wood and stainless-steel kitchen utensils are considered safer options.

Halkaan waxaa ah baddel ammaan ah oo add tixgalin karto

Here are safer alternatives for you to consider:



Talooyin dhoobo ah oo loogu talagalay agabka alwaaxda D

WOOD CARE RECOMMENDATIONS:

- **Ha galin mashiinka.** Kaliya gacanta ku dhaq.
- Do not put in dishwasher. Hand wash only.
- **Ka fogaada in aad alwaaxda cunto karinta ku dhoobto biyo iyo saabuun.**
- Avoid soaking wooden utensils in water and harsh soaps.
- **Fadlan ha u kaydin alaabta cuntooyinka ilaa ay si buuxda u qalalaan.**
- Allow the utensils to dry completely before storing.
- **Si tartiib ah u xoq oo isticmaal saliid macdan ah marka alwaaxdu bilaabto inay dreento qallafsan.**
- Scrub gently and use mineral oil when the wood start to feel rough.

از تخته‌های پلاستیکی در آشپزخانه استفاده نکنید.

Avoid using PLASTIC cutting boards

استفاده از تخته‌های بُرش پلاستیکی می‌تواند شما و خانواده‌تان را در معرض نانو و میکروپلاستیک‌ها قرار دهد. این ذرات ریز با شستشو و کهنه شدن آزاد می‌شوند و هنگام بُریدن مواد غذایی باعث آلودگی مستقیم می‌شوند.

مواد ایمن‌تر: تخته‌های چوب بامبو، آفاقیا و سایر تخته‌های چوبی کمتر احتمال دارد میکروپلاستیک آزاد کنند.



The use of plastic cutting boards can expose you and your family to nano- and micro-plastics. These tiny particles are released with washing and aging, causing direct contamination when chopping food.

Safer materials: Bamboo, acacia and other wooden cutting boards are less likely to release microplastics.

جایگزین‌های ایمن: Here are safer alternatives:



دستورالعمل‌های مراقبت از تخته‌های چوبی آشپزخانه CARE INSTRUCTIONS:

- ✓ آن را در ماشین ظرفشویی قرار ندهید. فقط با دست بشویید!
- ✓ قبل از نگهداری، اجازه دهید تخته کاملاً به صورت عمودی خشک شود.
- ✓ از شستشوی تخته در آب زیاد و استفاده از صابون‌های قوی خودداری کنید.
- ✓ برای جلوگیری از شکستن و تاب برداشتن، تخته خود را مرتباً با روغن معدنی چرب کنید.
- ✓ برای پاک کردن عمقی و ضد عفونی کردن تخته، از آبلیمو و نمک استفاده کنید.

- Do not put it in the dishwasher. Hand-wash ONLY!
 - Let it dry completely upright before storing.
- Avoid soaking the board in water and using harsh soap.
 - Seasoning your board with mineral oil regularly.
- Rub lemon juice and salt into the board for a deep clean.

TRAMONTINA - Care instructions:

Tramontina-Tilmaamaha Daryeelka

- *Kaliya gacmo dhaqid!*
- *Isticmaalka xabagta aan xoqin ayaa lagu talinayaa.*
- *Waxaa ku haboon tahay foornada ilaa 500f(260c).*
- *Ka fogaansho shoog kulul: ha gelin digsi kulul biyaha qabow. U daayo inuu waboobo marka hore.*
- *Had iyo jeer kululee digsigaaga birta ah ka hor inta aadan ku darin saliid ama subag si aad uga hortagto in ay ku dhegto.*
- Hand-washing and using non-abrasive sponges is recommended.
- It's compatible with all cooktop: gas, electric, ceramic glass, and induction.
- It's oven-safe up to 500°F (260°C)
- Avoid Thermal Shock: Do not place a hot pan in cold water. Let it cool down first.
- Always preheat your stainless-steel pan before adding oil or butter to prevent sticking.

COOKER KING - Care instructions:

- Hand wash ONLY! Let it cool down before washing.
- Low to medium heat offers best cooking performance. Overheating can cause brown or blue stains.
- Oven safe up to 500°F (260°C)
- Avoid using harsh soaps and abrasive sponges. Prevent scratches from rough kitchen utensils.

دستورالعمل مراقبت از ظروف COOKER KING

ظرف را فقط با دست بشویید! قبل از شستشو بگذارید خنک شود.

حرارت کم تا متوسط بهترین عملکرد پخت را ارائه می‌دهد. حرارت بیش از حد می‌تواند باعث ایجاد لکه‌های قهوه‌ای یا آبی شود.

قابل استفاده در فر تا دمای 260 درجه سانتیگراد (500 فارنهایت)

از استفاده از مواد شوینده خشن و اسفنج‌های ساینده خودداری کنید. از ایجاد خراش بر روی ظروف آشپزخانه جلوگیری کنید.

LODGE – Care instructions:

- Hand wash ONLY!
- Your new cookware is seasoned and ready to use, but after each meal, simply hand wash your cookware, dry promptly, and apply a very thin layer of cooking oil to the entire surface, then wipe it to avoid residue
- You can use a small amount of mild soap. If needed, use a gentle scraper for stuck on food. For stubborn, stuck-on food, simmer a little water for 3-5 minutes, then use the scraper after the pan has cooled.

تعليمات العناية بأواني لودج LODGE

- اغسلها يدوياً فقط!
- أواني الطهي الجديدة لديك مُتَبَلّة وجاهزة للاستخدام، ولكن بعد كل وجبة، ببساطة اغسل الأواني يدوياً، وجففها فوراً، ثم ضع طبقة رقيقة جداً من زيت الطهي على السطح بالكامل، وامسحها لتجنب بقايا الزيت.
- يمكنك استخدام كمية قليلة من الصابون اللطيف عند الحاجة. إذا التصق الطعام، استخدم مكشطة لطيفة لإزالته.
- للأطعمة العالقة العنيدة، اغلي كمية قليلة من الماء في المقلاة لمدة 3-5 دقائق، ثم استخدم المكشطة بعد أن تبرد المقلاة.



Items tested



Items contaminated with lead



Lead concentrations: 13-1379ppm



Brands identified

Plastic
collected



NEXT STEPS



Thank You!

Heather Trim

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Zero Waste Washington

www.zerowastewashington.org