Draft Identification of Priority Products
Report to the Legislature

Safer Products for Washington
Cycle 2 Implementation Phase 2

Hazardous Waste and Toxics Reduction

Washington State Department of Ecology

Olympia, Washington

November 2024 | Publication 24-04-049

DEPARTMENT OF ECOLOGY
State of Washington

Publication Information

This document is available on the Department of Ecology's website at:
https://apps.ecology.wa.gov/publications/summarypages/2404049.html

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Related information

- Safer Products for Washington Cycle 2 Implementation Phase 2: Technical Supporting Documentation for Priority Consumer Products[1]
- Safer Products for Washington Cycle 2 Implementation Phase 1: Report to the Legislature on Priority Chemicals[2]
- Safer Products for Washington Cycle 2 Implementation Phase 1: Technical Supporting Documentation for Priority Chemicals[3]
- Safer Products for Washington Cycle 1 Implementation Phase 2: Report to the Legislature on Priority Consumer Products[4]
- Safer Products for Washington Cycle 1.5 Implementation Phase 3: Regulatory Determinations Report to the Legislature[5]
- Safer Products for Washington Cycle 1.5 Implementation Phase 3: Technical Supporting Documentation for Regulatory Determinations[6]
- Safer Products for Washington Cycle 1 Implementation Phase 3: Final Report to the Legislature on Regulatory Determinations[7]
- Safer Products for Washington Cycle 1 Implementation Phase 4:
    - Chapter 173-337-WAC—Safer Products Restriction and Reporting[8]
    - Concise Explanatory Statement[9]

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[1] https://apps.ecology.wa.gov/publications/summarypages/2404050.html
[2] https://apps.ecology.wa.gov/publications/summarypages/2404025.html
[3] https://apps.ecology.wa.gov/publications/summarypages/2404026.html
[4] https://apps.ecology.wa.gov/publications/summarypages/2004019.html
[5] https://apps.ecology.wa.gov/publications/SummaryPages/2404023.html
[6] https://apps.ecology.wa.gov/publications/summarypages/2404024.html
[7] https://apps.ecology.wa.gov/publications/SummaryPages/2204018.html
[8] https://app.leg.wa.gov/wac/default.aspx?cite=173-337
[9] https://apps.ecology.wa.gov/publications/summarypages/2304033.html

Contact Information

Hazardous Waste and Toxics Reduction Program

PO Box 47600
Olympia, WA 98504-7600
Phone: 360-407-6700
Website: Washington Department of Ecology[10]

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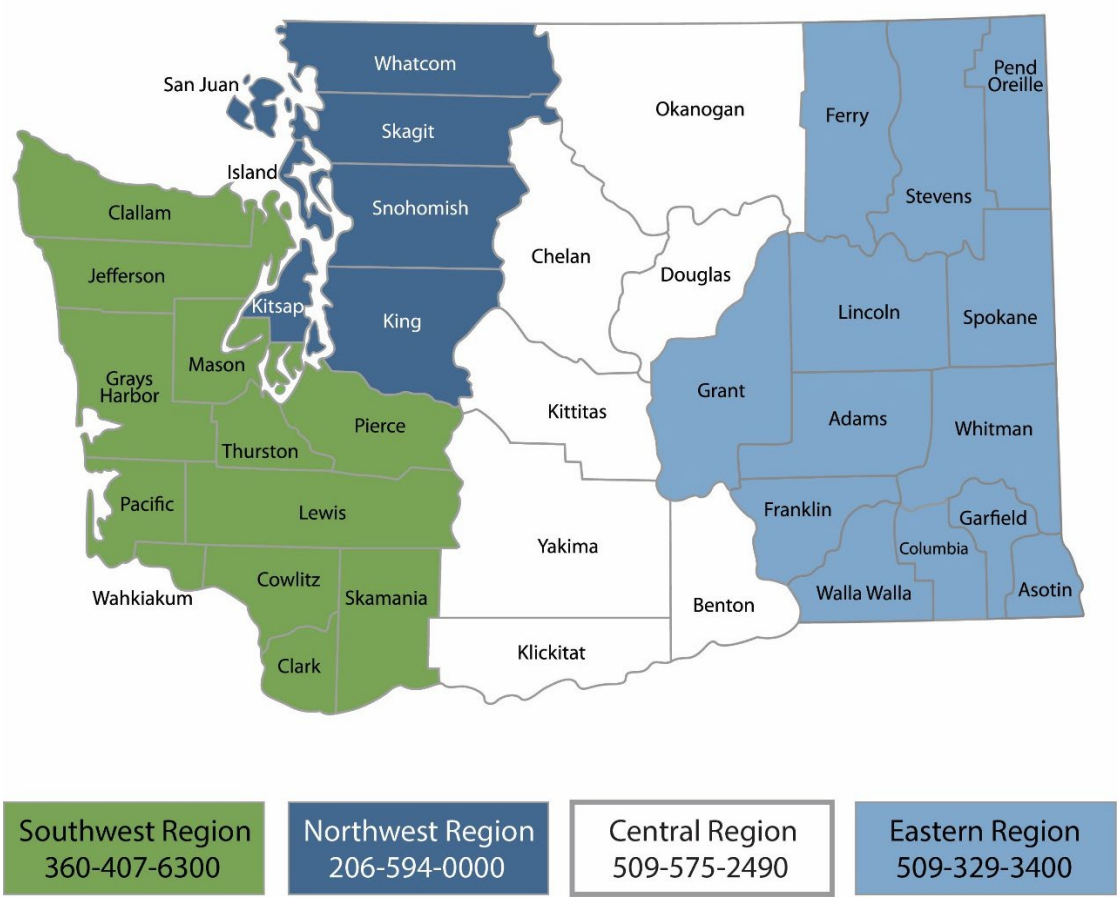

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Headquarters	Across Washington	PO Box 47600 Olympia, WA 98504	360-407-6000

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Executive Summary

Legislative directive

Chapter 70A.350 RCW[12] directs the Washington Department of Ecology, in consultation with the Department of Health, to implement a regulatory program to reduce toxic chemicals in consumer products. The implementation program is called Safer Products for Washington. Ecology, and in consultation with Health, is required by RCW 70A.350.030[13] to identify priority consumer products that are significant sources of uses of priority chemical classes:

> (1) Every five years, and consistent with the timeline established in RCW 70A.350.050[14] the department, in consultation with the department of health, shall identify priority consumer products that are a significant source of or use of priority chemicals. The department must submit a report to the appropriate committees of the legislature at the time that it identifies a priority consumer product.

This report fulfills this requirement for the second review cycle of Safer Products for Washington.

Identification of priority consumer products

This report identifies priority consumer products for the second review cycle of Safer Products for Washington.

To identify priority consumer products, we used a transparent approach that was grounded in science and public input. Our goals were to center our work around equitably reducing exposure to toxic chemicals and to demonstrate the priority chemicals selected meet the criteria in the law.

We evaluated potential priority products against the law's criteria by reviewing existing regulations, peer-reviewed science, government reports, and other scientific evidence. Based on this review, we identified the following new priority consumer products that are significant sources or uses of priority chemical classes, as required by RCW 70A.350.030:[13]

6PPD:

- Artificial turf

Benzene, ethyl benzene, toluene, and xylene substances (BTEX) substances:

- Nail products

[12] https://app.leg.wa.gov/rcw/default.aspx?cite=70A.350
[13] https://app.leg.wa.gov/rcw/default.aspx?cite=70A.350.030
[14] https://app.leg.wa.gov/rcw/default.aspx?cite=70A.350.050

Cadmium and cadmium compounds:

- Jewelry and accessories

Cyclic volatile methylsiloxanes (cVMS):

- Cosmetics

Formaldehyde releasers:

- Cleaning and household care products

Lead and lead compounds:

- Jewelry and accessories

Organobromine or organochlorine substances:

- Plastic packaging
- Toilet and bathroom deodorizers

Organohalogen flame retardants (OFRs):

- Insulation

Ortho-phthalates:

- Cleaning and household care products
- Sealants, caulks and adhesives

Per and polyfluoroalkyl substances (PFAS):

- Architectural Paints
- Artificial turf

For further information about these determinations, please see our separate publication Technical Supporting Documentation for Priority Chemicals: Safer Products for Washington Cycle 2 Implementation Phase 2 report.[15]

Some new priority products identified in this report have existing regulations in Washington. Table 1 lists existing regulations that may overlap with the new priority products identified in this report. For a full list of restrictions and reporting requirements for toxic chemicals in consumer products in Washington, please refer to Appendix B.

[15] https://apps.ecology.wa.gov/publications/summarypages/2404050.html

Table 1: Restrictions and reporting requirements for toxic chemicals in consumer products relevant to new priority products identified in this report.

RCW/WAC	Description	Chemical(s) in existing regulation	Products covered in existing regulation	Relevant new priority products identified in this report
RCW 70A.430	Children's Safe Products	Lead, cadmium, ortho-phthalates, specified flame retardants, and chemicals listed as high concern for children	Children's products, including jewelry and cosmetics	Jewelry and accessories, Cosmetics, nail products
RCW 70A.222	Toxics in packaging	Lead, cadmium, mercury, and hexavalent chromium	Packages and packaging components	Plastic packaging
RCW 70A.222	Toxics in packaging	PFAS	Plant fiber-based food packaging	Plastic packaging
RCW 70A.405	Flame retardants	Brominated flame retardants (PBDEs)	Noncomestible products	Insulation
RCW 70A.560	Toxics in cosmetics	Ortho-phthalates, PFAS, formaldehyde and formaldehyde releasers, methylene glycol, mercury, triclosan, m-phenylenediamine, o-phenylenediamine, and lead	Cosmetic and personal care products	Cosmetics, nail products
WAC 173-337	Safer Products for Washington	PFAS	Aftermarket stain-resistant and water-resistant treatments for application to textile and leather consumer products	Cleaning and household care products
WAC 173-337	Safer Products for Washington	Ortho-phthalates	Fragrances in beauty and personal care products	Cosmetics, nail products

RCW/WAC	Description	Chemical(s) in existing regulation	Products covered in existing regulation	Relevant new priority products identified in this report
WAC 173-337	Safer Products for Washington	Alkylphenol ethoxylates	Laundry detergent	Cleaning and household care products

We're continuing the work we started in 2022 on PFAS in firefighting personal protective equipment, cookware, hard surface sealers, and floor waxes and polishes. Other continuing work includes further review of PCBs in printing inks from the first review cycle and 6PPD in motor vehicle tires according to SB 5931 (2024) (Table 2).

Table 2: Work in progress that began under the previous review cycles of Safer Products for Washington or as directed by the Legislature.

Safer Products for Washington Review Cycle	Chemical(s) prioritized	Product(s) prioritized
Cycle 1	PCBs	Printing inks
Cycle 1.5	PFAS	Cookware and kitchen supplies, hard surface sealers, floor waxes and polishes, firefighting PPE
Cycle 2 (Added by SB 5931 [2024])	6PPD	Motor vehicle tires

Designation of Priority Products

In 2019, the Washington State Legislature directed the Washington Department of Ecology, in consultation with the Department of Health, to implement a regulatory program to reduce toxic chemicals in consumer products (Chapter 70A.350 RCW).[16] The implementation program for this statute is called Safer Products for Washington.

Safer Products for Washington is a four-phase process that repeats (cycles) every five years (Figure 1). The first review cycle took place from 2019–2022 and reviewed six priority chemical classes in 11 categories of priority consumer products.

Figure 1. The four phases of a Safer Products for Washington implementation cycle. See Appendix C for a plain text version of this figure.

In 2023, we completed the first Safer Products for Washington review cycle and began work on the second review cycle. In May 2024, we published Safer Products for Washington Cycle 2 Implementation Phase 1: Report to the Legislature on Priority Chemicals[17] which identified seven new priority chemical classes. The second review cycle will focus on these chemicals in addition to the priority chemical classes listed in RCW 70A.350.010(14) (Ecology, 2024a).[18] To

[16] https://app.leg.wa.gov/rcw/default.aspx?cite=70A.350
[17] https://apps.ecology.wa.gov/publications/summarypages/2404025.html
[18] https://app.leg.wa.gov/rcw/default.aspx?cite=70A.350.010

identify priority consumer products for review in the second phase of Safer Products for Washington, we narrowed our focus to products that are significant sources or uses of priority chemical classes. We considered the potential for products to expose people and sensitive species to the priority chemical classes.

We are implementing cycle 2 of Safer Products for Washington at the same time as other cycles. Two notable ongoing efforts are:

- Ongoing compliance support for the cycle 1 rules adopted on May 31, 2023 (Chapter 173-337 WAC).[19]
- The current rulemaking[20] for PFAS in products identified in our Per-and Polyfluoroalkyl Substances Chemical Action Plan.[21] The deadline to adopt rules is December 2025.

Statutory requirement

RCW 70A.350.030[22] requires us to identify priority consumer products after considering the following criteria:

- The estimated volume of the priority chemical in the consumer product and the estimated volume of the consumer product sold or present in the state.
- The potential for exposure to sensitive populations or sensitive species when the consumer product is used or disposed of.
- The potential for the priority chemical to be found in the outdoor environment when the consumer product is used or disposed of.
- Regulatory actions by other states or nations.
- The availability and feasibility of safer alternatives.
- Whether we have already identified the product in a chemical action plan completed under Chapter 70A.300 RCW.[23]

This report explains our process for fulfilling these requirements. It describes the volume and exposure potential of priority chemicals associated with each product, with a focus on sensitive species and populations.

[19] https://app.leg.wa.gov/wac/default.aspx?cite=173-337
[20] https://ecology.wa.gov/regulations-permits/laws-rules-rulemaking/rulemaking/wac-173-337-nov2023
[21] https://apps.ecology.wa.gov/publications/summarypages/2104048.html
[22] https://app.leg.wa.gov/rcw/default.aspx?cite=70A.350.030
[23] https://apps.leg.wa.gov/rcw/default.aspx?cite=70A.300

Overview of the prioritization process

Safer Products for Washington follows a hazard-based approach for reducing sources and uses of hazardous chemicals in consumer products. In our May 2024 report,[24] we identified priority chemicals and chemical classes found in consumer products that are hazardous to human health and the environment. Our current work focuses on identifying consumer products that are significant sources or uses of priority chemicals or chemical classes. This includes both the chemical classes we identified in our May 2024 report[25] and those listed in RCW 70A.350.010(14).[26]

Many consumer products contain these priority chemicals and chemical classes. To identify the products to work on in this second review cycle, we prioritized products where we saw potential opportunities to prevent the use of priority chemicals. To help guide this prioritization process, we developed a set of guiding principles for this work:

- We base decisions on science and public input.
- We communicate our approach and process to the public.
- We prioritize equitable reduction of exposure to toxic chemicals in people.
- We prioritize the protection of aquatic and terrestrial ecosystems in Washington.
- We must demonstrate that priority products meet the criteria in the law.

We leveraged our past and ongoing outreach efforts to better understand what products are important to the public and interested parties in Washington. This included using:

- Public survey responses from the survey conducted November 2021–January 2022.
- Public comment on previous draft reports.
- Public comment on the draft of the priority chemicals report, which we finalized and published in May 2024.

We researched these products using peer-reviewed literature, authoritative sources, databases, and other tools to understand the prevalence and use of priority chemicals in the products.

We used this research to inform our understanding of the potential for exposure to the priority chemicals from the product to people, including in sensitive populations. We considered how the products may contribute to the release of priority chemicals to the environment, the fate of those chemicals in the environment, and how this contributes to the potential for exposure in sensitive species.

[24] https://apps.ecology.wa.gov/publications/summarypages/2404025.html
[25] https://apps.ecology.wa.gov/publications/summarypages/2404025.html
[26] https://app.leg.wa.gov/rcw/default.aspx?cite=70A.350.010

We provided multiple opportunities for the public to participate. We released an additional public survey to help us learn more about what products people were concerned about and how they use and dispose of products.

- The survey ran between March 2024–April 2024 and was available in multiple languages.
- We received more than 150 responses to the survey statewide.
- In the survey results, we looked to see what other products participants wanted us to add to our continued research.
- We held a public webinar on July 11, 2024, to provide an overview of our process and invite the public and other interested parties to share their feedback and ideas.

These responses will inform future review cycles of Safer Products for Washington in addition to our current work on products.

We used feedback and our research on products to focus our continued prioritization work. As part of this effort, we referenced:

- Biomonitoring studies.
- Occupational exposure studies.
- Information on product use.

This helped us to identify populations that have the potential for disproportionate exposure to priority chemicals.

We referred to studies with information on the release of priority chemicals during the manufacture, use, and disposal of products to understand the potential for products to contribute to the presence of priority chemicals in the environment.

In addition, we considered how the presence of those chemicals in the environment contributes to the potential for exposure in people and sensitive species. This includes both the priority chemicals themselves as well as chemicals resulting from their degradation in the environment, when applicable.

We narrowed our list based on this research and focused on products where we saw opportunities to reduce disproportionate exposures in people and reduce contamination of aquatic and terrestrial ecosystems with priority chemicals. We gathered information on how the priority chemicals are used in the products and defined the scope of product categories with this in mind.

Finally, we evaluated the products concerning the requirements in the law. This included determining whether the products were significant sources or uses of the priority chemicals as required by RCW 70A.350.030(1)[27] and with consideration of the criteria listed in the statute

[27] https://app.leg.wa.gov/rcw/default.aspx?cite=70A.350.030

under RCW 70A.350.030(2)(a)–(g).[28] Additional details on this evaluation can be found in the technical report[29] that supports this report to the Legislature.

Priority product evaluation

For each of the priority products identified, we considered:

- The volume of priority chemicals found in the product.
- The volume of the product sold or present in Washington.
- The potential for exposure to sensitive populations.
- The potential for exposure to sensitive species.
- The potential for environmental releases.
- The availability and feasibility of safer alternatives.
- Existing regulations from other jurisdictions.

The Draft Technical Supporting Documentation for Priority Products: Safer Products for Washington Cycle 2 Implementation Phase 2 report[29] contains more information about each of the required considerations.

We based our review of priority products on:

- Product testing data
- Ingredient lists
- Patents
- Sales data
- Market research
- Exposure biomonitoring data
- Occupational exposure data
- Environmental monitoring data
- Product databases and tools
- Peer-reviewed literature

See Appendix A of this report and Appendix B of the technical supporting documentation[29] for a detailed citation lists.

Artificial Turf

Artificial and synthetic turf is generally intended to simulate the experience of playing, practicing, or competing on grass fields indoors or outdoors. It includes artificial grass, infill, and backing.

[28] https://app.leg.wa.gov/RCW/default.aspx?cite=70A.350.030
[29] https://apps.ecology.wa.gov/publications/summarypages/2404050.html

Artificial turf is a significant source and use of PFAS and 6PPD. We made this determination after considering the estimated volume of 6PPD and PFAS associated with artificial turf and the potential for exposure to sensitive populations and species.

- The manufacturing process for artificial grass blades uses PFAS (TURI, 2020).
- 6PPD is used as an anti-oxidant and anti-ozonant in tires that are recycled into crumb rubber for artificial turf fields.

People may be exposed to PFAS and 6PPD from artificial turf during product installation, use, maintenance, and disposal. Children may have higher exposure potential because they spend more time playing on artificial turf fields, are closer to the ground, and put their hands in their mouths more frequently than adults.

Over time, artificial turf degrades. Artificial turf components release PFAS and PFAS-containing microplastics into the environment (Kole et al., 2023; Lauria et al., 2022; Zuccaro et al., 2023).

- PFAS are persistent in the environment and some bioaccumulate in wildlife or travel in our waterways.
- Crumb rubber particles contain 6PPD and its highly toxic transformation product, 6PPD-quinone, can be released in runoff and reach sensitive species (Jiang et al., 2024; Kole et al., 2023).
- 6PPD and 6PPD-quinone in the environment can harm salmon and other aquatic species. Reducing releases of 6PPD and 6PPD-quinone to the environment is critical for preserving and restoring salmon populations in Washington State.

Artificial turf is an area of notable interest to the public and interested parties in Washington and may represent an opportunity to reduce exposure to 6PPD and PFAS and prevent their release into the environment.

Cleaning and Household Care Products

These are products categorized as cleaning and household care in the Chemicals and Products Database (CPDat) and the EPA ChemExpo tool (Isaacs et al., 2020; US EPA, n.d.).

Examples include:

- Air fresheners
- Bathroom cleaners
- Carpet, floor, and upholstery cleaners, deodorizers, and polishes
- Dishwasher and dish soaps and detergents
- Drain products
- Surface, glass, and heavy-duty cleaners
- Oven, washing machine, and dishwasher cleaners
- Wood and metal cleaners and polish
- Laundry and fabric treatments

We reached a preliminary conclusion that cleaning, and household care products are a significant source and use of two priority chemical classes: ortho-phthalates and formaldehyde and formaldehyde releasers. However, more information would strengthen our understanding of the uses and concentrations of these chemicals in cleaning and household care products.

Phthalate concentrations in most of these products appear to be less than 0.01%, but some products report much higher concentrations of up to 5%. Formaldehyde releasers appear to be generally used at less than 1% in formulations, but concentrations in products aren't routinely disclosed.

We want to better understand:

- The prevalence of cleaning and household care products that contain relatively higher concentrations of these chemical classes.
- The related potential for exposure in sensitive populations such as workers who use these products.

Ortho-phthalates are associated with hazards including endocrine disruption, and reproductive and developmental toxicity (Ecology, 2022). Cleaning and household care products have the potential to contaminate indoor air with ortho-phthalates during product use, especially when products are spread thinly on surfaces or used as sprays, mists, or aerosols. Notably, this includes air freshener products that disperse fragrances throughout indoor spaces.

We've received multiple requests from interested parties and the public to consider air fresheners and cleaning products that contain ortho-phthalates under Safer Products for Washington, including from members of our advisory committee while developing our Phthalates Action Plan (Ecology, 2023b).[30]

The hazards of formaldehyde are well-established and include carcinogenicity, adverse respiratory effects, and skin and respiratory sensitization (Ecology, 2024b). People can be exposed to formaldehyde when using cleaning and household care products, and this is of particular concern in workers who routinely use these products as part of their occupation.

Following the passage of the Toxic Free Cosmetic Act,[31] which authorizes Ecology to adopt restrictions on formaldehyde and formaldehyde releasers in cosmetics, we heard from interested parties that they were concerned about the use of these chemicals in cleaning and household care products as well.

[30] https://apps.ecology.wa.gov/publications/summarypages/2304067.html
[31] https://app.leg.wa.gov/rcw/default.aspx?cite=70A.560

Cosmetics

These are products intended to be rubbed, poured, sprinkled, or sprayed on, introduced into, or otherwise applied to the human body for cleansing, beautifying, promoting attractiveness, or altering the appearance as defined in RCW 70A.560.010(1)[32] and RCW 69.04.012.[33]

Cosmetics are a significant source and use of cVMS. They contribute to potential exposure in people, releases to the environment, and potential for exposure in sensitive species.

Cosmetics are a major contributor to the presence of cVMS in indoor and outdoor environments (ECHA, 2019; Fromme, 2019; S. Xu et al., 2019). Members of the cVMS chemical class have been associated with reproductive and developmental toxicity as well as endocrine disruption (Ecology, 2024b). Cosmetic products have the potential to expose sensitive populations such as people of childbearing age and children to cVMS from the use of products and to expose workers during the manufacture or occupational use of products.

cVMS released from cosmetics into the environment has the potential to expose aquatic and terrestrial organisms, including sensitive species. cVMS are human-made, high-production volume chemicals that aren't found in the natural environment (ECHA, 2019).

- Cosmetics disposed of in wastewater can contribute to cVMS released into the environment through volatilization into air and contamination of sediments (Ecology, 2024b).
- cVMS are persistent in the environment and there is evidence they bioaccumulate in some food chains.
- cVMS may act as chronic aquatic toxicants in some species. cVMS released from cosmetics have the potential for long-range transport in the environment (Ecology, 2024b).

Due to concerns around the persistence and bioaccumulation potential of cVMS, the European Chemicals Agency has recently restricted their use in products in the European Union, including in cosmetics (ECHA, 2024).

Insulation

These products include materials used in buildings to provide thermal insulation between indoor and outdoor spaces or between two indoor spaces.

Insulation is a significant source and use of organohalogen flame retardants (OFRs). People and wildlife can be exposed to these chemicals during the manufacture, installation, use, and disposal of insulation. Many of the OFRs used in insulation can be released during installation

[32] https://app.leg.wa.gov/rcw/default.aspx?cite=70A.560.010
[33] https://apps.leg.wa.gov/rcw/default.aspx?cite=69.04.012

and demolition and over time in buildings. OFRs and their degradation products may also be released during structure fires.

OFRs associated with insulation have been detected in house dust, which is an important exposure pathway for infants and young children; these are sensitive populations who spend more time on or near the floor, frequently touch their mouths, and ingest dust (Bi et al., 2018; Drage et al., 2020; Fromme et al., 2014; Stapleton et al., 2008, 2014; Young et al., 2021).

Some insulation materials, such as spray foam insulation, contain OFRs in formulations that can contaminate surrounding air when those materials are installed or spray-applied. This creates the potential for occupational exposure and highlights workers as a sensitive population to this product-chemical combination (Bello et al., 2018; Estill et al., 2019, 2020, 2024; Minet et al., 2021). Firefighters who enter burning buildings with insulation that contain OFRs have the potential for increased exposure to OFRs and their degradation products.

Inhaling OFRs in the air from insulation is a potentially important route of exposure as they're repeatedly reported as abundant in indoor air, dust, and personal air samples from building occupants (La Guardia & Hale, 2015; Schreder et al., 2016; F. Xu et al., 2016).

OFRs used in insulation have a track record of being problematic in the environment (US EPA, 2022b, 2022a). While the most problematic OFRs such as polybrominated diphenyl ethers (PBDEs) have been phased out, newer OFRs, including tris(2-chloroisopropyl) phosphate (TCPP), demonstrate exposure potential, environmental persistence, and toxicity that is concerning for sensitive species (Ecology, 2022).

OFRs used in insulation have been widely detected in waste associated with construction activities, in fish, and the environment (Alvarez et al., 2014; Counihan et al., 2014; Duan et al., 2016; Ecology, 2016, 2018, 2019).

Jewelry and accessories

These products are ornamental articles and accessories intended to be worn by a person.

Jewelry and accessories are a significant source and use of lead and cadmium. The monetary size of the jewelry industry in Washington, its market growth predictions, and the pervasive detection of lead and cadmium in these products suggest that a significant volume of jewelry that contains lead or cadmium is present in Washington (ECHA, 2023; Ecology, 2023a; Jurowski, 2023; US Census Bureau, 2017).

Jewelry and accessories can potentially expose people and wildlife to lead and cadmium. Lead and cadmium are toxic heavy metals with well-established hazards (Ecology, 2024b). Of particular concern is exposure to lead and cadmium in sensitive populations such as children, pregnant people, and workers.

Lead and cadmium are associated with human and environmental hazards that impact sensitive species and populations. Lead, in particular, can harm brain development and cause lifelong impacts in children. There is no known safe level of exposure to lead, particularly for children.

Workers, people of childbearing age and children can be exposed to lead and cadmium from jewelry and accessories during product manufacturing, use, and disposal (Ferrreira et al., 2019; Illinois Department of Public Health, 2021; Mishra et al., 2003; Patil et al., 2007; Salles et al., 2018, 2021). Exposure pathways include touching products before eating or putting hands in the mouth, accidental ingestion of products, or inhaling vapors during manufacturing.

Washington State already restricts the presence of lead and cadmium in children's products,[34] including in children's jewelry. However, there is still a concern for exposure resulting from use in other jewelry products and accessories.

Nail products

This category includes nail products broadly, examples include:

- Nail art products
- Nail coatings (solvent-based, ultraviolet-gel)
- Nail glues
- Nail hardeners
- Nail polish removers
- Nail polish thinners

Nail products are a significant source and use of benzene, toluene, ethylbenzene, and xylenes (BTEX) substances. Toluene and xylenes are the most common BTEX substances used as solvents in nail products and are reported to be used in products at concentrations ranging from 5 to 25% (DTSC, 2023). They are found as contaminants along with benzene and ethylbenzene in nail products.

Nail products with BTEX substances are available for purchase in Washington stores and online. In our accompanying technical report,[35] we estimated that approximately 2.3 million women in Washington used nail products in 2020 including an unknown number of children, men, and nonbinary people.

BTEX substances in nail products volatilize during product use and can be inhaled, exposing people to these chemicals. This is a particular concern for nail salon workers and their clients,

[34] https://app.leg.wa.gov/rcw/default.aspx?cite=70A.430
[35] https://apps.ecology.wa.gov/publications/summarypages/2404050.html

but home use of nail polish can lead to exposure (Alaves et al., 2013; Harrichandra et al., 2020; Quach et al., 2011; Zhong et al., 2019).

Sensitive populations, including children, people of childbearing age, pregnant people, and workers may be particularly vulnerable to BTEX from nail products due to higher exposures and increased sensitivity. Workers in the nail salon industry in the United States are mostly women of color who are of childbearing age. The majority are low-income workers, and many are non-native English speakers (Sharma et al., 2018).

Plastic packaging

These products include single and multi-component plastic packaging. Packaging includes packages and packaging components as defined in RCW 70A.222.010.[36]

Plastic packaging is a significant source and use of organochlorine substances. The focus of this category is the polymers used in packaging materials. Polyvinyl chloride (PVC) and polyvinylidene chloride (PVDC) are the main polymers made of organochlorine substances used in packaging and often comprise a large part of the packaging material. PVC and PVDC are organochlorine substances.

Plastic packaging materials have the potential to expose people to organochlorine substances. Akin to other plastics, plastic packaging polymers such as PVC and PVDC degrade to microplastics (defined as particles smaller than 5 mm in their longest dimension) which people, including sensitive populations, can inhale or ingest.

PVC microplastics are found in several types of human tissues, including in reproductive organs, and have been associated with adverse effects in human cells (ITRC, 2023a, 2023b). Microplastics can harm wildlife and contribute to adverse effects in organisms including invertebrates, fish, and mammals (Zolotova et al., 2022).

In addition, the manufacture of PVC uses vinyl chloride, a hazardous organochlorine substance, which may be detectable in packaging materials as a residual from manufacturing. Exposure to vinyl chloride can cause cancer in people; however, packaging isn't thought to be a major contributor to exposure in the general population (ATSDR, 2024).

Many manufacturers employ processes to minimize residual vinyl chloride in polymerized PVC products such as packaging (ATSDR, 2024). Vinyl chloride can be released into the environment during transport or the manufacture of PVC.

PVC and PVDC are a hindrance to the goal of a circular economy for packaging in Washington. The recycling rate for post-consumer PVC and PVDC in Washington is negligible because there

[36] https://app.leg.wa.gov/rcw/default.aspx?cite=70A.222

are no facilities that can recycle these materials at scale in the state (Eunomia, 2023). Most of the packaging made from these materials ends up in landfills, is incinerated or burned.

As these materials degrade in landfills, they generate microplastics which are persistent in the environment. Microplastics accumulate in landfill leachate and may harm people and ecosystems if released into the environment (Kabir et al., 2023).

Burning PVC and PVDC materials can form dioxins, another group of hazardous organochlorine substances (Baca et al., 2023). Dioxins are persistent organic pollutants that accumulate in animals and contaminate food.

Paints (architectural)

Architectural paints (hereby referred to as "paints") include architectural coatings intended to be applied to the interior and exterior surfaces of buildings. This category includes paints intended for both non-professional and professional uses. This category includes paints, primers, and clearcoats such as varnishes or lacquers.

Paints are a significant source and use of per- and polyfluoroalkyl substances (PFAS). We made this determination after considering the uses and concentrations of PFAS reported in paint, the anticipated market size for paint in Washington, and the potential for exposure to PFAS from paint in sensitive populations and sensitive species.

Manufacturers have reported PFAS use in architectural paint formulations (OECD, 2022). Product testing studies on paint have found that around half of paint products tested contain organic fluorine (an indicator of PFAS) or 6:2 fluorotelomer alcohols, which are volatile PFAS chemicals (Cahuas et al., 2022; Healthy Building Network, 2023).

People may be exposed to PFAS from paint when applying paint to surfaces, during drying of paint, and overtime as paint degrades (Cahuas et al., 2022). Workers may have higher exposures to PFAS from paint due to more frequent use and proximity to paints that may release volatile PFAS during application and drying. Children may have higher exposure potential through indoor dust because they spend more time on the floor and have a higher frequency of hand-to-mouth behaviors (Hauptman & Woolf, 2017).

Paint is a potential source of PFAS release to the environment. It can release volatile PFAS when drying which could contaminate outdoor air during application to structures. Paints that are washed into municipal wastewater or septic systems can introduce PFAS into the environment; this may occur due to the washing of paint brushes or clothing, or if the paint is improperly disposed of down the drain (Cahuas et al., 2022).

There is an ongoing need for affordable housing in Washington. The Department of Commerce estimates that more than 1.1 million new homes will be needed in the next 20 years (WA Department of Commerce, 2023). This will require a large volume of indoor and outdoor paint products applied to the surfaces of these structures. This is in addition to the volume of paint products required for the maintenance and renovation of existing structures. As such, working

to identify safer alternatives to the use of PFAS in paint may be an opportunity to reduce human exposure to PFAS and their release into the environment from this significant source and use.

Sealants, caulks and adhesives

These products include sealants, caulks, and adhesives used in architectural or home maintenance applications.

- Sealants are products used to seal or fill joints and seams between building materials, they are often intended to create a waterproof or weatherproof barrier.
- Caulks are a type of sealant often characterized as more rigid when dry.
- Adhesives are used to bond two building materials together.

Sealants, caulks and adhesives are a significant source and use of ortho-phthalates and contribute to the potential for exposure in people, including sensitive populations. These products may contribute to releases into the environment, and have the potential for exposure to sensitive species, from use outdoors, the disposal of the product, or materials to which the product has been applied.

The advisory committee members raised concerns about sealants, caulks, and adhesives and recommended them for consideration by Safer Products for Washington in our Phthalates Action Plan (Ecology, 2023b).[37]

Sealants, caulks, and adhesives use ortho-phthalates as plasticizers, and they can comprise a large percentage of these products by weight (CPID, n.d.). Sealants, caulks, and adhesives may emit ortho-phthalates during application or over time and contaminate indoor air and dust. Sensitive populations, such as children, can be exposed to ortho-phthalates through inhalation of indoor air or incidental ingestion of dust particles (Dodson et al., 2017; Mitro et al., 2016; Sears et al., 2020; Zhu et al., 2023).

Some residual or unused sealant, caulk, and adhesive product is anticipated to be either washed down the drain as a component of wastewater or disposed of in landfills. These products, when used in outdoor applications, may contribute to the release of ortho-phthalates into the environment. This creates the potential for exposure to ortho-phthalates in aquatic and terrestrial organisms from these products.

[37] https://apps.ecology.wa.gov/publications/summarypages/2304067.html

Toilet and bathroom deodorizers

The product includes toilet and bathroom deodorizer products sold as solids. Examples include:

- Toilet, garbage, and urinal deodorizer blocks
- Other continuous-action air fresheners intended for bathroom use

Toilet and bathroom deodorizer products are a significant use of organobromine or organochlorine substances. Toilet and bathroom deodorizers have the potential to expose people to 1,4-dichlorobenzene (1,4-DCB), an organochlorine substance, during product use. This includes inhalation exposure and dermal exposure through vapor emissions, mists, and dust (US EPA, 2020b).

1,4-DCB is found in surface waters, which is thought to be primarily the result of the long-term use of toilet deodorizer blocks made using this organochlorine substance (ATSDR, 2006). 1,4-DCB in these products is often washed down the drain into municipal wastewater. This can lead to potential exposure in aquatic and terrestrial organisms as demonstrated by detections of 1,4-DCB in aquatic environments and biota (ATSDR, 2006).

Bathroom deodorizer products account for a large proportion of 1,4-DCB released to indoor and outdoor air, with the potential to travel long distances and expose sensitive species (ATSDR, 2006).

Reducing disproportionate exposures

Reducing sources and uses of priority chemical classes has the potential to reduce disproportionate exposures and promote health equity. People aren't exposed equally to toxic chemicals. Exposures are related to where people live, where they work, what they eat and drink, and the kinds of consumer products they purchase and use.

People are exposed to and impacted by chemicals that accumulate in their bodies throughout their lives. Inadequate diets in low-income communities may increase the absorption of chemicals, such as lead and cadmium (ATSDR, 2023b, 2023a; French et al., 2019). Exposures to the priority chemical classes can disproportionately affect sensitive populations including people with occupational exposures, low-income communities, immigrant communities, and people of color.

In this report, we focus on priority consumer products that have the potential to disproportionately expose sensitive populations to priority chemicals. Examples described in the Technical Supporting Documentation for Priority Products: Safer Products for Washington Cycle 2 Implementation Phase 2 report[38] include:

[38] https://apps.ecology.wa.gov/publications/summarypages/2404050.html

- People working in the janitorial and cleaning sectors may be disproportionately exposed to formaldehyde, ortho-phthalates, and organochlorine or organobromine substances from cleaning products and toilet and bathroom deodorizers (Churchill et al., 2001; Harding-Smith et al., 2024; Hwang et al., 2024; Peckham & Stephan-Recaido, 2023; Temkin et al., 2023).
- Lead and cadmium can be contaminants in jewelry which can disproportionately expose children who mouth or accidentally swallow the jewelry (Boisclair et al., 2010; Kern et al., 2021; Weidenhamer & Clement, 2007). People who make jewelry, including do-it-yourself crafters, can inhale lead and cadmium when soldering (Illinois Department of Public Health, 2021).
- Applying nail products exposes nail salon workers to BTEX. Nail salon workers are more likely to be women of color who may be pregnant or of childbearing age (King County, 2015; Sharma et al., 2018). In addition, the number of nail salon appointments booked for children is on the rise (*Nails Magazine*, 2023).
- cVMS are used in cosmetic products marketed towards people of color, such as hair smoothing and hair straightening products (Helm et al., 2018). Women may have disproportionately higher exposures relative to men due to higher average use of cosmetic products (EWG, 2023; GROUPON Merchant, 2024; Guo et al., 2022). People often purchase and use the same cosmetic products repeatedly; this may also contribute to differences in exposure for some populations.
- There may be a disproportionate exposure to flame retardants, PFAS, and ortho-phthalates from building materials in construction, demolition, and building maintenance workers (Cahuas et al., 2022; Estill et al., 2019, 2020, 2024; Minet et al., 2021; US EPA, 2020a). The potential for exposure to priority chemicals and the degradation products from these materials is a concern for firefighters who enter burning structures. We're currently considering the specific building materials: insulation, architectural paints, sealants, caulks, and adhesives.
- Artificial turf can release PFAS and 6PPD from fibers, backing, and infill materials (Kole et al., 2023; Murphy & Warner, 2022; Zuccaro et al., 2023). Children and athletes who routinely practice and play on artificial turf fields may be disproportionately exposed to these chemicals.

Focusing on these priority products allows us to reduce exposures that are disproportionately high in sensitive populations.

Preventing environmental releases

Reducing priority chemicals in the priority products identified in this report can reduce environmental contamination. The cheapest and most effective way to reduce environmental contamination is to avoid it in the first place.

We considered the potential for environmental contamination in our Technical Supporting Documentation for Priority Products: Safer Products for Washington Cycle 2 Implementation Phase 2 report.[39] Some examples of our review include:

- Artificial turf fields are significant sources of PFAS and 6PPD to the environment. Often in use outdoors, these products have large quantities of microplastics containing PFAS that can be released into the environment (Kole et al., 2023; Zuccaro et al., 2023). Artificial turf fields that contain recycled tire infill can release 6PPD and its toxic transformation product, 6PPD-quinone (Jiang et al., 2024). These chemicals can reach and harm sensitive species, such as salmon.
- Plastic packaging can be comprised of polyvinyl chloride (PVC), which is an organochlorine substance. Single-use products like packaging can have outsized environmental impacts because they're only briefly used, don't readily degrade, and in most cases aren't recycled (Eunomia, 2023). If PVC packaging isn't properly disposed of it contributes to microplastics in the environment (Fernández-González et al., 2022; Kabir et al., 2023). When burning organochlorine substances such as PVC, they can produce dioxins as degradation products (Baca et al., 2023). Dioxins are another group of organochlorine substances that are persistent, bioaccumulative, and toxic.
- PFAS in architectural paints, particularly exterior paint, can be released into the air (Cahuas et al., 2022). Paints, especially those that are water-based, may contaminate wastewater when cleaning brushes or if residual paint is improperly disposed of down the drain or outdoors (Cahuas et al., 2022).
- Cosmetics are responsible for the majority of cVMS releases to the environment with respect to consumer products (ECHA, 2019). cVMS are persistent in sediments and bioaccumulate in some food webs with the potential to harm sensitive species such as benthic organisms that live near or in sediments (Ecology, 2024b).

Reducing sources and uses of priority chemicals is important because many of the priority chemical classes have members that are already national cleanup priorities. For example, common contaminants found at National Priorities List Superfund sites include lead, BTEX substances, and PFAS, among others.

[39] https://apps.ecology.wa.gov/publications/summarypages/2404050.html

The products identified in this report are significant sources or uses of these priority chemicals and could be opportunities to reduce the use of these chemicals and releases to the environment.

Additional technical information

We provide details for our process and decision-making in a separate document. Our Technical Supporting Documentation for Priority Products: Safer Products for Washington Cycle 2 Implementation Phase 2 report[40] provides an overview of each priority product, our detailed rationale for choosing the product, the volume estimations and potential exposures related to the product, and details on the scientific data, peer-reviewed studies, and other supporting documentation for our decisions. It includes an appendix of relevant existing regulations.

Existing priority products

During our second cycle, we plan to assess four priority products identified in previous cycles or by statute. We describe the products and our rationale for revisiting them below.

Cookware and kitchen supplies

We previously reviewed cookware and kitchen supplies in our Cycle 1.5 Regulatory Determination Report to the Legislature.[41] This product category includes:

- Bakeware
- Cooking pots
- Cooking utensils
- Frying pans
- Griddles
- Reuseable baking liners
- Rice cookers
- Waffle irons

Non-stick coatings for cookware contain PFAS. People can be exposed to PFAS when they cook or eat food that has been prepared with PFAS-containing cookware.

We recommended a reporting requirement in our Cycle 1.5 Regulatory Determinations Report to the Legislature.[41] We found that cookware and kitchen supplies are a significant source and use of PFAS, but we didn't evaluate safer, feasible, and available alternatives due to resource limitations. In cycle 2, we intend to continue to work on PFAS in cookware and could change our recommendation from a reporting requirement to a restriction if safer alternatives are feasible and available.

[40] https://apps.ecology.wa.gov/publications/summarypages/2404050.html
[41] https://apps.ecology.wa.gov/publications/SummaryPages/2404023.html

Firefighting PPE

We previously reviewed firefighting PPE in our Cycle 1.5 Regulatory Determinations Report to the Legislature.[42] "Firefighting personal protective equipment" (referred to as firefighting PPE) is defined in RCW 70A.400.005(4)37[43] as, "any clothing designed, intended, or marketed to be worn by firefighting personnel in the performance of their duties, designed with the intent for use in fire and rescue activities, including jackets, pants, shoes, gloves, helmets, and respiratory equipment."

PFAS can be added to firefighting PPE and components to meet specifications for protection against water, heat, oil, fuel, or pathogens. Firefighters can be exposed to PFAS by wearing and using firefighting PPE. This disproportionate exposure can lead to health impacts.

We didn't identify safer, feasible, and available alternatives in our Cycle 1.5 Regulatory Determinations report to the Legislature.[42] We recommended a reporting requirement. In cycle 2, we intend to continue to work on PFAS in firefighting PPE and could change the reporting requirement to a restriction if safer alternatives are feasible and available.

Hard surface sealers

We previously reviewed hard surface sealers in our Cycle 1.5 Regulatory Determinations Report to the Legislature.[42] This product category includes products used to seal hard porous surfaces such as:

- Concrete
- Stone
- Unglazed tile
- Wood

They're designed to protect a variety of surfaces from liquids and soils and can be used for indoor or outdoor applications.

People can be exposed to PFAS during the manufacture, use, and disposal of sealers with these chemicals. Certain occupations, such as construction workers, can have higher exposure to PFAS if they're frequently applying PFAS-containing sealers. PFAS from sealers can be released into the environment and expose sensitive species.

We didn't determine whether safer alternatives were feasible and available in our Cycle 1.5 Regulatory Determinations Report to the Legislature.[44] We recommended a reporting requirement. In cycle 2, we intend to continue to work on PFAS in hard surface sealers and

[42] https://apps.ecology.wa.gov/publications/SummaryPages/2404023.html
[43] https://app.leg.wa.gov/rcw/default.aspx?cite=70A.400
[44] https://apps.ecology.wa.gov/publications/SummaryPages/2404023.html

could change the reporting requirement to a restriction if safer alternatives are feasible and available.

Floor waxes and polishes

We previously reviewed floor waxes and polishes in our Cycle 1.5 Regulatory Determinations Report to the Legislature.[44] This product category includes formulated products designed to polish, protect, or enhance a floor's surface.

People can be exposed to PFAS during the manufacture, use, and disposal of floor waxes and polishes with these chemicals. Certain occupations can have particularly high exposure to PFAS from applying floor waxes and polishes.

We didn't identify safer, feasible, and available alternatives to PFAS in floor waxes and polishes in our Cycle 1.5 Regulatory Determinations Report to the Legislature.[43] We recommended a reporting requirement. In cycle 2, we intend to continue to work on PFAS in floor waxes and polishes and could change the reporting requirement to a restriction if safer alternatives are feasible and available.

Motor vehicle tires

During the 2024 legislative session, RCW 70A.350.110 [45] was amended to identify motor vehicle tires containing 6PPD as a priority product. We were directed by the Legislature to determine regulatory actions and adopt rules. We'll take those actions during Cycle 2.

Motor vehicle tires include new or replacement tires for a motorized vehicle intended for on-highway or off-highway use. 6PPD is added to motor vehicle tires as an antioxidant and antiozonant. As it oxidizes, it transforms to 6PPD-quinone, which is highly toxic to coho salmon and likely other aquatic species. Coho salmon mortality events have long been linked to roadway runoff, and now we know a culprit is 6PPD-quinone. Regulatory actions that reduce the use of 6PPD in tires will protect salmon and other wildlife as well as the people who rely on them for economic, nutritional, or cultural value.

Printing inks

We identified printing inks as a significant source of polychlorinated biphenyl (PCBs) in our 2020 Priority Consumer Products Report to the Legislature.[46]

PCBs are generated during the manufacturing process of chlorinated pigments. When chlorinated pigments are used in printing inks, printed materials become contaminated with PCBs. When recycling or disposing of these materials they can contaminate wastewater and may reach the environment.

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[45] https://app.leg.wa.gov/rcw/default.aspx?cite=70A.350.110
[46] https://apps.ecology.wa.gov/publications/summarypages/2004019.html

PCBs in Washington waterways impact sensitive species. In our 2022 Regulatory Determinations Report to the Legislature,[47] we found that lower concentrations of PCBs were feasible and available, but we believed the way we defined the category limited our ability to set a *different limit* than EPA and we declined to take regulatory action at that time. However, we don't believe we're pre-empted from *prohibitions* on the use of PCBs in products. [48]

Since our 2022 report, several factors have led us to reconsider PCBs in printing inks:

- During the 2023 legislative session RCW 70A.350.100[49] was amended to include a legislative finding that the "use of manufacturing processes resulting in products with PCB by-products isn't inadvertent, but intentional, and constitutes a use of the chemical within the product."

- Washington's current water quality standard for PCBs is 7 parts per quadrillion and EPA is proposing a limitation on discharges to the Spokane River at 1.3 ppq (US EPA, 2024).

- These water quality standard levels are extremely low compared to EPA's 25 ppm annual and 50 ppm maximum limits on PCBs in pigments used in inks. Based on the definition of PCBs by EPA, a dichlorinated PCB found in yellow pigments, PCB-11, is allowable at up to 250 ppm in pigments if it is the only PCB present.

- Wastewater treatment technology hasn't kept up with efforts to limit PCBs in the environment and therefore pollution prevention is necessary (Association of Washington Business et al., 2022).

In this review cycle, we will be researching whether chlorine-free pigments, which don't contain inadvertently generated PCBs, are feasible and available. During this process, we'll determine whether to propose a prohibition on the use of processes known to generate PCBs. For more information about our previous work on PCBs in printing inks, please consult:

[47] https://apps.ecology.wa.gov/publications/UIPages/SummaryPages/2204018.html

[48] The US Environmental Protection Agency's rule exempting inadvertently generated PCBs below specified concentrations from the Toxic Substances Control Act's (TSCA's) ban on PCBs was promulgated under 15 USC Sec. 2605. 15 USC Sec. 2617(d)(2)(B), preserves state preemption as it was in effect under the TSCA prior to the Frank R. Lautenberg Chemical Safety for the 21st Century Act with respect to rules promulgated by the Environmental Protection Agency under 15 USC Sec. 2605. Pre-Lautenberg Act TSCA Sec. 18(a)(1)(B) saved from preemption state requirements applicable to an article containing a chemical substance for which the EPA Administrator prescribed a rule under 15 USC Sec. 2605 if the State "prohibits the use of such substance or mixture in such State . . .."

[49] https://app.leg.wa.gov/rcw/default.aspx?cite=70A.350.100

- 2020 Priority Consumer Products Report to the Legislature: Safer Products for Washington Implementation Phase 2.[50]

- 2022 Regulatory Determinations Report to the Legislature: Safer Products for Washington Cycle 1 Implementation Phase 3.[51]

Summary and draft schedule

We plan to submit the final priority product report to the Legislature in June 2025. Any recommended regulatory actions will be issued for public comment in 2026 with final regulatory determinations due by June 2027. We intend to adopt regulatory actions in rule by June 2028.

[50] https://apps.ecology.wa.gov/publications/summarypages/2004019.html
[51] https://apps.ecology.wa.gov/publications/SummaryPages/2204018.html

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Appendix B. Washington's Toxics in Consumer Products Regulations

Table B-1: Restrictions and reporting requirements for toxic chemicals in consumer products.

RCW/WAC	Description	Chemical(s) addressed	Products covered
RCW 15.54.820	Waste-derived fertilizer[52]	Arsenic, cadmium, cobalt, mercury, molybdenum, nickel, lead, selenium, and zinc	Fertilizers made from waste products
RCW 70A.222	Toxics in packaging	Lead, cadmium, mercury, and hexavalent chromium	Packages and packaging components
RCW 70A.222	Toxics in packaging	PFAS	Plant fiber-based food packaging
RCW 70A.230	Mercury reduction	Mercury	Bulk mercury, fluorescent lamps, novelties, manometers, thermometers, thermostats, motor vehicle switches
RCW 70A.335	Bisphenol A	Bisphenol A	Food and beverage containers
RCW 70A.340	Brake friction material	Copper	Brake pads
RCW 70A.350	Safer Products for Washington	None directly	See WAC 173-337 for products and chemicals
RCW 70A.400	Firefighting agents	PFAS	Firefighting foam and personal protective equipment
RCW 70A.405	Flame retardants	Brominated flame retardants (PBDEs)	Noncomestible products
RCW 70A.430	Children's Safe Products restrictions	Lead, cadmium, ortho-phthalates, specified flame retardants, and chemicals listed as high concern for children	Children's products, including jewelry and cosmetics

[52] Primarily covers agricultural fertilizers, but also applies to consumer products such as compost available at retail stores.

RCW/WAC	Description	Chemical(s) addressed	Products covered
RCW 70A.435	Lead wheel weights	Lead	Wheel weights
RCW 70A.445	Antifouling paints	Copper, cybuterine	Boat paint
RCW 70A.560	Toxics in cosmetics	Ortho-phthalates, PFAS, formaldehyde and formaldehyde releasers, methylene glycol, mercury, triclosan, m-phenylenediamine, o-phenylenediamine, and lead	Cosmetic and personal care products
RCW 70A.565	Lead in cookware	Lead	Cookware and cookware components
WAC 173-334	Children's Safe Products Act reporting	As listed in WAC 173-334-130	Children's products
WAC 173-337	Safer Products for Washington	PFAS, ortho-phthalates, specified flame retardants, alkylphenol ethoxylates, bisphenols	Aftermarket stain-resistant and water-resistant treatments for application to textile and leather consumer products, carpets and rugs, leather and textile furniture and furnishings, fragrances in beauty and personal care products, vinyl flooring, electric and electronic products, recreational wall padding, polyurethane foam recreational products, laundry detergent, drink can linings, food can linings, and thermal paper
WAC 173-901	Better brakes	Asbestiform fibers, cadmium, chromium, lead, mercury, copper	Brake friction materials (e.g., pads and drums)

Appendix C. The Four Phases of a Safer Products for Washington Implementation Cycle

This is the text-only version of Figure 1: The four phases of a Safer Products for Washington implementation cycle.

The four phases of a Safer Products for Washington cycle are as follows:

Phase 1. Priority Chemical Classes

Select priority chemicals and chemical classes to focus on during the cycle.

Phase 2. Priority Consumer Products

Identify which consumer products contain these chemicals and can harm people and the environment. **We are here.**

Phase 3. Regulatory Actions

Determine whether we'll regulate when these chemicals are used. Will we require notice, restrict/prohibit, or take no action?

Phase 4. Rulemaking

Restrict the use of chemicals in products or require reporting to keep people and the environment safer.

Back to Phase 1.