



July 14, 2023

Hazardous Waste and Toxics Reduction Program  
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*Submitted electronically*

Thank you for the opportunity to provide input on the proposed priority chemicals for Cycle 2 of the Safer Products for Washington Program, which is the strongest program in the nation to address harmful chemicals in products.

**The agency is breaking new ground with this program and is proposing to focus on seven chemicals and chemical classes. This is an excellent step forward, and we appreciate all the work that went into this important proposal.**

Ecology has clearly demonstrated that each of the proposed chemicals and chemical classes meet, as required, at least one of the criteria outlined in Chapter 70A.350.020 Revised Code of Washington:

1. The chemical or member of the chemical class is a chemical of high concern to children or a persistent, bioaccumulative and toxic chemical.
2. The chemical or members of the chemical class are regulated in consumer products sold in Washington or as a hazardous substance.
3. The chemical or members of the chemical class are a concern for sensitive populations and sensitive species.

Many of the proposed chemicals and chemical classes are used in or to manufacture plastics. Washington has taken a number of steps to reduce the environmental footprint of single-use plastics through bans on single-use plastic bags and restrictions on single-use service ware, among other efforts. Safer Products for Washington, as demonstrated by the Cycle 1 restriction of organohalogenated flame retardants in indoor electronic casings, is an excellent tool to reduce the environmental footprint of plastics in durable goods.

**We support the proposed priority chemicals and chemical classes.**

### **Lead and Lead Compounds**

Lead has long been known to be highly toxic, with high associated costs and disproportionate impacts on people of color.<sup>i</sup> The United Nations estimates that the global phase-out of lead in gasoline, completed in 2021, has saved \$2.45 trillion per year due to improved health and lower crime rates and prevented more than 1.2 million premature deaths.<sup>ii</sup> While lead has been restricted in some uses, it is shocking that

it is still allowed in so many more. Ecology's Lead Chemical Action Plan, published in 2009, clearly lays out opportunities to reduce the use of lead in products. Listing lead and lead compounds as a priority chemical class under Safer Products for Washington will make efficient use of Ecology's prior work and speed the implementation of the Lead CAP.

### **Cadmium and Cadmium Compounds**

Like lead, cadmium has long been known to be highly toxic, with some uses restricted. Like lead, the very surprising thing is that cadmium is still allowed in so many uses. Cadmium is often used as a substitute when lead is removed, for example, as a stabilizer in plastics. The European Union banned cadmium in all jewelry, not just children's as in Washington, and in all plastics in 2011.<sup>iii</sup> These restrictions show that products can be made without cadmium. Ecology can show leadership by examining opportunities to further reduce the use of this chemical class.

### **Brominated and Chlorinated Substances**

The class-based approach used in the Safer Products for Washington program is critical to preventing the use of regrettable substitutes. For example, when PBDE flame retardants were banned in Washington, scientists recorded levels of these chemicals decreasing in harbor seals, Pacific herring, and English sole.<sup>iv</sup> However, replacement flame retardants used since are also brominated and also persist and build up in wildlife and humans. While organohalogenated flame retardants were restricted in the casings of indoor electronics in Cycle 1, many unregulated uses of brominated and chlorinated substances remain. The most effective way to address these uses is by considering them within the larger context of their chemical class, preventing in-class substitutes and identifying safer alternatives.

### **BTEX**

BTEX as a group meets all three of the criteria for consideration as a priority chemical or chemical class. Because of their inherent toxicity, designation as both a chemical of high concern to children and a persistent, bioaccumulative and toxic chemical, and a chemical of concern to sensitive populations, we support the inclusion of these four chemicals as a priority group.

### **Formaldehyde and formaldehyde releasers**

The Toxic Free Cosmetics Act, signed into law in June, restricts formaldehyde and formaldehyde releasers in personal care products. As Ecology implements this law, including formaldehyde and formaldehyde releasers in Cycle 2 of Safer Products for Washington is a timely opportunity. Beyond identifying formaldehyde releasers, as required by the law, Ecology can use SPW resources to identify safer, feasible and available alternatives. Manufacturers will be working to reformulate their products to come into compliance with the new law. Information on better alternatives will be extremely important to help them avoid regrettable substitutes. At the same time, we encourage Ecology to take this chance to look at other products, such as wood building products, that may be important source of formaldehyde in the built environment.

In addition to the health impacts of formaldehyde and formaldehyde releasers listed in Ecology's report, formaldehyde and formaldehyde releasers used in hair straighteners and other hair products have been associated with uterine cancer.<sup>v</sup>

### **Cyclic volatile methylsiloxanes (cVMS)**

Given the health and environmental effects of cVMS, we are particularly concerned that they may be used as a regrettable substitute for PFAS, either intentionally or occurring as contaminants. In cosmetics, cVMS are intentionally added. Dow<sup>vi</sup> and 3M<sup>vii</sup> websites both feature silicone-based water repellents.

Siloxanes are also being actively explored as alternatives for PFAS in fire-fighting foam.<sup>viii,ix</sup> Additional research is needed on the use of siloxanes as a potential regrettable substitute, as well as safer alternatives.

## **6PPD**

It is clear that 6PPD must be urgently addressed given its devastating impacts on aquatic life, especially coho salmon. It is critical that Ecology devote the level of resources needed to generate information on safer, feasible, and available alternatives. This information is essential as manufacturers work to move away from 6PPD to ensure that they do not move to regrettable substitutes. Combining Ecology's existing work on alternatives to 6PPD with the Safer Products for Washington Program is an effective approach to use Ecology's resources to greatest efficiency.

One additional chemical group we believe should be included as a priority in Cycle 2 is antimony and antimony compounds. Antimony is used as a catalyst to produce polyester and is found in plastics used for disposable beverage bottles. Antimony trioxide, used as a component in flame retardant applications, is classified as a carcinogen in the state of California. It has also been listed as a possible human carcinogen by the International Agency for Research on Cancer. Under the Children's Safe Product Act, over the past two years, manufacturers reported the use of antimony in more than 1,200 children's products, including pacifiers, clothing, and dolls, and many other products. With its widespread use and potential for harm to health, antimony should be among the chemicals listed as a priority for Cycle 2.

The Safer Products for Washington Program is our best opportunity to prevent pollution at the source from the toxic chemicals in millions of products and their packaging that contaminate our homes, drinking water, communities, food, waterways, and wildlife. The proposed priority chemicals and chemical classes are well-chosen, grounded in both sound science and market realities. Cycle 2 has the potential to provide critically needed protections for Washington's residents, especially those most vulnerable, and its environment. We look forward to working with Ecology's staff as they move forward with its implementation. Please feel free to contact us with any questions regarding our comments.

Sincerely,

Cheri Peele  
Senior Project Manager  
Toxic-Free Future

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<sup>i</sup> White, Brandi M.; Bonilha, Heather Shaw; Ellis, Charles Jr., Racial/Ethnic Differences in Childhood Blood Lead Levels among Children < 72 Months of Age in the United States: A Systematic Review of the Literature. *Journal of Racial and Ethnic Health Disparities* 2016 3(1): 145 – 53.

<sup>ii</sup> United Nations Environment Program, Era of leaded petrol over, eliminating a major threat to human and planetary health. August 30, 2021, <https://www.unep.org/news-and-stories/press-release/era-leaded-petrol-over-eliminating-major-threat-human-and-planetary>, accessed July 11, 2023.

<sup>iii</sup> European Commission, Chemicals/REACH: EU to ban cadmium in jewelry, brazing sticks, and all plastics, May 20, 2011, [https://ec.europa.eu/commission/presscorner/detail/en/IP\\_11\\_620](https://ec.europa.eu/commission/presscorner/detail/en/IP_11_620), accessed July 11, 2023.

<sup>iv</sup> Uding, N., Toxic PBDE Flame Retardants Decreasing in Puget Sound After State Bans. Toxic-Free Future, 2016, <https://toxicfreefuture.org/blog/toxic-pbde-flame-retardants-decreasing-in-puget-sound-after-state-bans/>, accessed February 3, 2023.

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<sup>v</sup> Chang, Che-Jung; O'Brien, Katie M.; Keil, Alexander P.; Gaston, Symielle P.; Jackson, Chandra L.; Sandler, Dale P.; White, Alexandra A., Use of Hair Straighteners and Other Hair Products and Incident Uterine Cancer. Journal of the National Cancer Institute 2022 114 (12), 1636 – 1645.

<sup>vi</sup> Dow, Water Repellent Additives for Construction and Building Materials, <https://www.dow.com/en-us/market/mkt-building-construction/sub-build-construction-chem/app-build-constchem-water-repellency-protection.html>, accessed July 12, 2023.

<sup>vii</sup> 3M, Scotchguard™ Fabric Water Shield 4106-PF Safety Data Sheet, 2023, [https://multimedia.3m.com/mws/mediawebserver?mwsId=SSSSuUn\\_zu8l00xNx\\_SOxtvov70k17zHvu9lxtD7SSSSS\\_S--](https://multimedia.3m.com/mws/mediawebserver?mwsId=SSSSuUn_zu8l00xNx_SOxtvov70k17zHvu9lxtD7SSSSS_S--), accessed July 12, 2023.

<sup>viii</sup> Hetzer, Ralf Helmut; Kummerlen, Felix, Siloxane-Based AFFF: Testing of Experimental; Foam Concentrates, <https://www.nfpa.org/-/media/Files/News-and-Research/Resources/Research-Foundation/Symposia/2016-SUPDET/2016-Papers/SUPDET2016Hetzer.ashx?la=en>, accessed July 12, 2023.

<sup>ix</sup> Blunk et al., United States Patent Application Publication, Siloxane-Containing Fire Extinguishing Foam, Pub. No. US 2014/0306141 A1, Pub. Date Oct. 16, 2014, <https://patentimages.storage.googleapis.com/5e/0e/e8/74740866adc5d8/US20140306141A1.pdf>, accessed July 12, 2023.