

On July 27, 2021, the Washington State Departments of Ecology and Health hosted a webinar to update stakeholders on our progress identifying safer alternatives that are feasible and available to replace phthalates in personal care and beauty products and PFAS in aftermarket stain- and water-resistance treatments.

Note: This document outlines the questions attendees asked during the webinar as well as the answers the Safer Products for WA team provided. Find the comments and input attendees shared during the webinar in the [July 27, 2021 webinar presentation](#),¹ including the [aftermarket treatments discussion](#)² and the [personal care and beauty products discussion](#).³ If you have questions, contact us at SaferProductsWA@ecy.wa.gov.

Aftermarket stain- and water-resistance treatments questions and answers

Q: Elephant in the room for alternatives. Safer and feasible are a good start. Do we have data addressing performance? You can't ignore that.

A: When we look for alternatives, the feasibility evaluation is where we evaluate the performance of the alternative. As we addressed in the introduction, we focus on identifying alternatives that are already used in the application of interest. We could also look at what others have identified as feasible alternatives to replace chemicals of concern. With this approach, how you determine performance will depend on the required function of the priority chemical. We focus performance on what is already being used for a similar application that doesn't have the chemical of concern—and therefore could be reasonably anticipated to replace the priority chemical, including in terms of performance.

Q: Are you performing analytical lab testing of Nikwax products for product ingredients? Or do you have the information on product ingredients?

A: We are working with Nikwax to get information on the product ingredients and we will be doing a chemical hazard assessment on those products in order to determine whether they meet our minimum criteria for safer.

¹ https://www.ezview.wa.gov/Portals/_1962/Documents/saferproducts/July_27_2021_Webinar_Presentation.pdf

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https://www.ezview.wa.gov/Portals/_1962/Documents/saferproducts/July_27_2021_Webinar_Presentation.pdf#page=51

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https://www.ezview.wa.gov/Portals/_1962/Documents/saferproducts/July_27_2021_Webinar_Presentation.pdf#page=106

Q: What about outdoor wood deck sealer or cement? Will we discuss that?

A: This is clarified in our [report on priority consumer products](#),⁴ but we focused on treatments for textile and leather products. That's why we've focused on treatments specifically for indoor and outdoor furnishings, carpets, and upholstery. Wood deck sealer or cement sealer are good products for us to consider in future cycles of our program. They are not in the scope of our current priority product category, but our program is implemented on a repeating cycle. We will identify priority chemicals and products in the next few years, and appreciate ideas early on so we can start doing research. We'll discuss the next round of priority chemicals with stakeholders starting in 2022 in order to identify them by 2024. It's possible that some priority chemicals from this first cycle, like PFAS, could be repeated in a future cycle if there are additional products we want to address.

Q: Approximately how many PFAS are being determined to not be "safer" on the basis of 15 specific PFAS being found to not be "safer"? Are there any plans to identify or provide further guidance on specific PFAS by CASRN that are not "safer," beyond the PFAS definition provided in the final report?

A: Our approach is to base our determination of whether the priority chemical class meets our minimum criteria for safer using the data rich chemicals within the class. That determination applies to the whole class. We looked for PFAS that meet our minimum criteria based on existing data, and we didn't find any. All the PFAS with data we identified did not meet our minimum criteria. Based on the guidance from the [National Academies of Science \(NAS\) report on organohalogen flame retardants](#)⁵ and the scenarios they proposed, and how we adapted those in our [working draft criteria for safer](#),⁶ we make the assumption that chemicals without data—things we don't know anything about—are not safer. We're trying to move away from assuming things without data are safe and to the model of thinking about needing data to know something is safer. In this scenario, we won't be providing a long list of PFAS chemicals, the PFAS are defined as a class in the law. We will be applying the hazard properties from the data rich chemicals in the class to the data poor chemicals in the class.

⁴ <https://apps.ecology.wa.gov/publications/summarypages/2004019.html>

⁵ <https://www.nap.edu/catalog/25412/a-class-approach-to-hazard-assessment-of-organohalogen-flame-retardants>

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https://www.ezview.wa.gov/Portals/_1962/Documents/saferproducts/SaferProductsWA_WorkingDraftCriteria_Safer.pdf

Q: I have a rain jacket for bicycling from REI. How do I find out if it's safe or not? If I found out it's not safe, should I stop wearing it?

A: One of the things we try to promote is product transparency. Even as a state agency, we have a hard time figuring out what's in consumer products. Under this law, we can require manufacturers to report priority chemicals in priority consumer products, so that's one way to increase transparency. We also suggest you ask the brand or manufacturer—push for transparency from a consumer perspective. Unfortunately, we can't identify for you what's in your raincoat, but the more people ask about what's in their products, the more transparency we'll have in the market. That's good for you as a consumer and for us, a state agency working to identify safer chemicals. The goal of this program is to reduce the cumulative exposure we all experience by interacting with consumer products every day. In a risk assessment, we look at limited exposure routes, sometimes from a consumer product and sometimes through a specific route like dust. We rarely look at the aggregate of all the chemicals we're exposed to from consumer products throughout our life—that's a hard question to answer. If we see hazardous chemicals in products, instead of trying to decide whether that particular use is "safe" or not, we try to look for opportunities to use safer chemicals. Is there a way to push the meter further toward safer? We're not doing risk assessments, and we have not evaluated the risk from any of the priority products that we've identified. So we cannot say that any of the products we're discussing are safe or unsafe. What we can say is that in some applications, we've found alternatives that are safer—that reduce hazard, that reduce the cumulative exposure we all experience, and that reduce the load of PFAS we're releasing into the environment. It's a different way of thinking about chemical decision-making.

Q: Can you go into more detail about how you're determining the "safer" characterization of these chemicals as a class—having to prove basically that these chemicals are safe when lacking any data versus hazardous when lacking any data?

A: Our [working draft criteria for safer](#)⁷ reviews this approach in detail. We welcome feedback from stakeholders on that approach, and the sooner the better. We have some authoritative sources we turn to for guidance on this. The NAS report on organohalogen flame retardants provides some scenarios for dealing with chemicals (in the introduction). They conducted a risk assessment—so they looked to combine chemicals based on specific mechanisms, which is different than our hazard-based approach under Safer Products for WA. We're looking for discordant data showing some chemicals are safer and some are not. The NAS report helps us determine how to approach the data poor chemicals. If the data rich chemicals in the class consistently do not meet our criteria for safer, then we apply that characterization to the whole class and assume that the data poor chemicals in the class are potentially hazardous. We have a method for identifying data rich chemicals within the class that are actually safer, but for PFAS we did not identify any. Our within-class criteria can help identify chemicals within the class that need to be considered separately. That ensures we don't prevent innovation driving development of safer alternatives.

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https://www.ezview.wa.gov/Portals/_1962/Documents/saferproducts/SaferProductsWA_WorkingDraftCriteria_Safer.pdf

Q: So the methodology for how you look at classes of chemicals was based on the NAS organohalogen report. Am I correct that the criteria was based on just that one group of chemicals? Or is this a methodology used to assess chemicals broadly?

A: It's based on the scenarios that are found in the introduction section of the NAS report on organohalogen flame retardants. It's not really their methodology, more of their philosophy, and we took that and adapted it for our applications. There are some modifications and that's described in our working draft criteria for safer, but we encourage you to reach out if anything is unclear and we're happy to clarify. The NAS report provides four useful scenarios for thinking about chemicals as a class. In some cases, there are all data poor chemicals, which is not relevant to Safer Products for WA. In other cases, you have all data rich chemicals that agree, and it's straightforward. In the case of PFAS, there is a mix of data rich and data poor chemicals—in which case the report recommends using the data rich chemicals and assuming the chemicals with no data are potentially hazardous. In other cases, there is discordant data within the class, which applies in the case of phthalates. We'll discuss how we address that this afternoon. Overall, we compare that philosophy in the report with the framework in our law to develop our own method.

Q: I think you identified the sulfonated anionic aqueous polymer as the protective ingredient in carpet cleaner and protectors. Did you also look at acrylic polymers? At quick glance, it looks like cleaners and protectants that contain these are on Safer Choice.

A: Both can be used. All the ingredients in a cleaner that is listed on Safer Choice—all of those polymers—have met the EPA functional class criteria for polymers, which meets our minimum criteria for safer. So yes, the acrylic polymers would meet that. The reason we listed the anionic polymers is because when we assessed those product formulations, the companies that were selling them were attributing the protective after-application function to the anionic (mostly sulfonated) polymers we mentioned. We know some do include acrylic polymers—and acrylic polymers are potential replacements for PFAS—but in this case, it was attributed to the sulfonated polymers. All the polymers listed, however, would meet our minimum criteria.

Q: What about carpet and upholstery cleaning services and handling their wastewater? If the material is treated, how should the wash water be characterized? I'm concerned for worker safety of those handling the treated materials and the exposure of children to the treatments: hands to mouth, concentrations, etc.

A: We're not sure how much of the PFAS is likely to come off from each individual cleaning. Most aftermarket treatment manufacturers recommend retreating after cleaning. That may just mean that the product works best on clean carpet, or it could mean cleaning removes some of the product. That's a helpful comment we can't answer in much detail, but we're continuing to develop outreach materials to address questions from the public. We will do some research in this area and see what information we can identify. The law we're implementing considers sensitive populations, and both workers and children are included. If we find that a potential restriction would reduce a significant source or use for sensitive populations, we can potentially restrict the chemical in the product. Thanks for sharing your concerns, it's why we're working to identify safer alternatives to reduce future use of PFAS in aftermarket treatments.

Q: Do you have a list of PFAS relevant to fragrance ingredients?

A: Assuming you are asking if we have a list of PFAS relevant to aftermarket treatments, most of the time the specific polymers are proprietary—so we don't have data on the specific polymers that are used. We have product testing data finding a number of PFAS in aftermarket treatments and that data can be found in our priority products report. There are articles with more detail about what PFAS have been identified for these treatments that we can provide if it's helpful, but again information about the specific chemical is often redacted.

Q: What was the reason for not assessing deck sealers and cement sealers? There are many aftermarket treatments that are used on materials other than textiles.

A: The reason we are not including those products is because in our priority products report, we identified aftermarket treatments specific to leather and textile products. We originally identified carpet treatments only, and following stakeholder feedback on that report, expanded to include treatments for other textile and leather products more broadly. But we did not expand the scope to things like deck sealants and products that are applied to other materials. That's mostly just a matter of scope, and prioritizing what we can accomplish in the first cycle of our program. There are a lot of products that contain PFAS. Fortunately, there are also more and more safer alternatives, so we have a lot of opportunities to address this chemical class. We prioritized textiles for the first cycle, but that doesn't mean we can't expand later in future cycles.

Q: When it comes to exterior textiles, there are a ton of products—things like awnings, the suite of products that are used in sporting arenas that are outdoor textiles, etc. I hope those are included.

A: Outdoor textile treatments include anything applied to textiles and leather products inside or outside. While we did not look specifically at awnings, the treatments, alternative processes, and cleaners we identified could be used on your outdoor cushions or your awnings, your umbrella, etc. We didn't find any specific products where alternatives for the outdoor textile treatments would not be feasible. The category is defined rather broadly—they just need to be applied to something textile or leather in their material. Suggestions for priority products are always welcome so we can begin assessing products for the next cycle of our program.

Q: Someone else mentioned wastewater, and you mentioned chemicals in dust in homes. When you vacuum, is there any recommended way to dispose of what's in the vacuum cleaner? Consumers are not aware that there are chemicals within that dust.

A: It's helpful for us, as we're putting together outreach and education materials, to hear what questions you have. In terms of reducing exposure inside your home, the recommendation is to:

- Vacuum and clean frequently.
- Use a vacuum with a HEPA filter to ensure it captures small dust particles.
- Wear gloves or a mask when emptying the vacuum.
- Thoroughly wash your hands after cleaning.
- Ventilate your area while you clean.
- Pay your children and pets the courtesy of cleaning while they're not in the room.

Personal care and beauty products questions and answers

Q: Will safer take a stance on high molecular weight versus low molecular weight phthalates plasticizers, or do you consider all orthophthalates as unacceptable? This may be a better question for the Aug. 17 meeting.

A: We are approaching phthalates as a class, which would include all orthophthalates—both high and low molecular weight phthalates. We looked for evidence that there was a difference in how likely low or high molecular weight phthalates were to meet our criteria for safer. We saw things like DIDP and DINP that are higher molecular weight and didn't meet our minimum criteria for safer. Then we saw things that were lower molecular weight like BBP and DBP that also didn't meet our minimum criteria for safer. This variability was the reason we decided the approach most supported by the data would be to look at the chemicals most often used in the product. DEP is the main phthalate used in fragrances, there is potential for DMP to be used, but we haven't actually found evidence of that in product testing data or in disclosed ingredients. Some websites suggest it could be used, and EPA's functional use prediction tool on their chemistry dashboard has a number of phthalates that are predicted to possibly be used in fragrances. We wanted to continue our class-based approach, and didn't see a toxicological reason to separate high and low molecular weight phthalates.

Q: There are parts of the world where water supplies are contaminated with phthalates, and botanical ingredients sourced from those regions may have trace levels of certain materials. Would trace levels like this potentially fall under scope of this restriction, or alternatively, would this be a complete prohibition or a concentration restriction?

A: This is helpful feedback to hear, because this is something we're trying to figure out. Our biggest task to date has been trying to identify safer alternatives and determine whether they meet the criteria in the law to propose a potential restriction. Evidence right now does support a potential restriction, and the details of that restriction are what we need stakeholder input about. Zero is an impractical target and not something we typically strive for. We look for other regulations with potential limits we can reference, or we could consider a restriction on intentional use. This is useful input as we consider potential regulations, and we encourage you to continue to share feedback.

Q: I would argue that a 5-year timeline is out of line with what is needed to implement regulations, because industry is well aware of the issues regarding phthalates—for nearly 20 years—in terms of personal care products. Plus, they are hearing this now, so I believe many have already been working to reformulate.

A: That's helpful feedback to hear. This likely hugely varies depending on the product category. Many manufacturers already made this switch and wouldn't be affected by a potential regulation. But the awareness also varies by product category, and there has been more movement in some products we're assessing versus others.

Q: Do less expensive products the poor would use contain more of the nasties because they are less expensive to formulate?

A: We don't always see a strong correlation between cost and higher use of chemicals of concern. It's hard for us to do much with cost because it changes based on how much you purchase, but we know in some cases, dipropylene glycol is actually less expensive than DEP. We don't expect cost to be the reason some manufacturers have not switched. There could be some cost burden to the switch itself, but we don't see a strong association in that way. We do know there are disproportionate uses based on the types of cosmetics they are in—black hair care products have more frequent detection of DEP. But it's hard to get a random sample of products in these studies.

Q: The composition of fragrances is business confidential information of the formulating companies and is a very specialized art. You will need to have confidential conversations with individual fragrance houses to get answers to most of the questions you asked today.

A: We recognize the challenge of gathering proprietary information. It's why we have a [confidential business information process](#),⁸ so we can ensure that proprietary information businesses provide is confidential, and only shared with the people who need to access it in order to complete the work. If you know any formulators who would be willing to share proprietary ingredients, we're always happy to have an individual conversation and keep the information confidential.

⁸ https://www.ezview.wa.gov/Portals/_1962/Documents/saferproducts/CBI_Process_SaferProductsWA.pdf