Focus on: Flame Retardants

Flame retardant chemicals can reach wildlife in Puget Sound

More information

Learn more about flame retardants and the actions Ecology is taking to address them on our flame retardants webpage.[1] If you're a business looking for guidance on finding safer alternatives to products containing flame retardants, reach out to us at SaferChems@ecy.wa.gov.

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ADA Accessibility

To request an ADA accommodation, contact Ecology by phone at 360-407-6700 or email at hwtrpubs@ecy.wa.gov, or visit ecology.wa.gov/accessibility. For Relay Service or TTY call 711 or 877-833-6341.

What are flame retardants?

Flame retardants are a group of chemicals used to prevent a fire from starting or growing.

What they are used in and why

Manufacturers use flame retardants in various consumer products as one way to meet flammability standards. Today, they are added to things like foam, car seats, electronics, tents, and more.

In the past, manufacturers added flame retardants to some consumer products more frequently than today, such as upholstered furniture. Changes in flammability standards altered the use of flame retardants, and for certain products, eliminated the need for them.

What they can cause

Exposure to some types of flame retardants can lead to negative health effects in people such as cancer, developmental and neurological issues, and reproductive impairment.

In wildlife, flame retardants can bioaccumulate at higher levels in the food chain—meaning species like orcas are more exposed. In addition to wildlife, flame retardants have been detected in household dust and indoor air, and in human blood, breastmilk, and fat.

What is Ecology doing about toxic flame retardants?

Ecology scientists test consumer products[2] to understand which products can expose people to flame retardants. Many of our programs and projects aim to reduce that exposure for people and prevent toxic flame retardants from reaching the environment in Washington state.

[1] https://ecology.wa.gov/PBDE
[2] https://ecology.wa.gov/Research-Data/Monitoring-assessment/Consumer-products-testing

Taking action in Washington

2020

Our Safer Products for WA program[3] lists recreational polyurethane foam and electronic enclosures as priority products with flame retardants.

2019

Washington adds flame retardants as a priority chemical class for consideration under our Safer Products for WA program.

2016

Washington amends the Children's Safe Products Act[4] to ban five flame retardants (TDCPP, TCEP, decabromodiphenyl ether, HBCD, additive TBBPA) in children's products and residential furniture, and to require reporting for other flame retardants.

2015

Our report to the Legislature[5] recommends actions to address exposure to toxic flame retardants in the state.

2008

Washington bans the sale of products containing PBDE.

2006

We publish our chemical action plan,[6] which assesses the impact of PBDEs in Washington.

Safer Products for WA

In the first cycle of our Safer Products for Washington program, we listed recreational polyurethane foam (like the foam pits and crash pads in gyms) and electric and electronic enclosures as priority products containing flame retardants. We are looking for safer alternatives to toxic flame retardants in these products that are feasible and available on the market.

Product Replacement Program

Our Product Replacement Program[7] is reaching out to recreational polyurethane foam users to inform them of the potential presence of flame retardants. We plan to help businesses find safer options.

Children's Safe Products Act (CSPA) reporting

Under the CSPA reporting rule, manufacturers must report to Ecology when their product contains certain Chemicals of High Concern to Children, some of which are flame retardants, and we publish these reports online.[8]

National Estuary Program (NEP) grant project

With NEP grant funding,[9] we're collaborating with local organizations to help educate communities about flame retardants and equip them with resources for reducing their exposure.

How to protect yourself from exposure to flame retardants

The good news? Research shows[10] that actions you can take at home can reduce your exposure to the flame retardants found in consumer products. Here are some ways to keep yourself, your children, your pets, and the environment safer:

- Frequently wash your hands with soap and water.
- Vacuum and dust your home frequently. Buy a vacuum with a HEPA filter to capture all the small stuff.
- Ventilate your home to increase airflow.
- Purchase products without flame retardants. You can ask your retailer what's in the products they sell or for more information.
    - For upholstered furniture, look for a TB 117-2013 label that says the product doesn't contain additive flame retardants.

Find more ways to protect yourself in our flame retardants infographic.[11]

[3] https://ecology.wa.gov/Safer-Products-WA
[4] https://ecology.wa.gov/CSPA
[5] https://apps.ecology.wa.gov/publications/SummaryPages/1404047.html
[6] https://apps.ecology.wa.gov/publications/summarypages/0507048.html
[7] https://ecology.wa.gov/ProductReplacement
[8] https://hpcds.theic2.org/Search
[9] https://pugetsoundestuary.wa.gov/wp-content/uploads/2021/01/2018-0470_InitialFactsheet.pdf
[10] https://www.nature.com/articles/s41370-018-0049-6
[11] https://apps.ecology.wa.gov/publications/SummaryPages/2104026.html