

Avoiding Flame Retardants



Exposure to small doses of flame retardants at critical points in development can damage reproductive systems and cause deficits in motor skills, learning, memory and hearing, as well as changes in behavior.¹

FLAME RETARDANT CHEMICALS TO WATCH FOR:

- Polybrominated diphenyl ether (PBDE)
- Polychlorinated binphenyls (PCB)
- PentaBDE, OctaBDE and DecaBDE (brominated diphenyl ethers)
- Tris 2-chloroethyl phosphate (TCEP)

Sources:

¹ *Environmental Working Group - Reducing your exposure to PBDEs in your home*

² *Health Canada - PBDE Flame Retardants and Human Health*

Household items such as upholstery foam and furniture cushions, mattress pads, plastics, electronics, and children's toys often contain flame retardants. These chemical additives are persistent in the environment, accumulate in organisms and can disrupt hormones. Many flame retardants may also be carcinogens.

WHAT ARE THE CONCERNS?

The hormone (endocrine) system directs growth, reproduction and other body functions such as brain development, immune system function and weight regulation. Very low doses of hormone disruptors can mimic, block or alter hormone signals, changing the way our bodies work and potentially leading to numerous health problems.

Flame retardants can actually make a fire more dangerous once it starts. The fire retardants themselves produce more smoke, soot, carbon monoxide, dioxins and furans than upholstery foam alone. Studies show similar burn rates for both untreated and treated furniture. The fabric which covers the foam is untreated and acts like a constant source of flame.

WHO IS AT A RISK OF EXPOSURE?

Everyone is at risk. However, studies have found young children tend to have the highest levels of flame retardants in their blood as they increase their exposure by playing on carpets and furniture and are smaller. As flame retardants are added to products rather than chemically bound to them, these chemicals can be slowly and continuously released from the products during their manufacture, while in use, or after their disposal.²

While some flame retardants are being phased out of consumer products, many are still found in our homes.

There currently is no labeling policy in Canada regarding the use of flame retardants.

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WHY ARE FLAME RETARDANTS FOUND IN CONSUMER PRODUCTS?

In 1975 the state of California passed a law (TB117) which required that foam withstand a small flame for 12 seconds without igniting. Treating foam with flame retardants allowed manufacturers to sell their products in California. Although the standard applies only to one state, many manufacturers sell foam products that meet TB 117 standards throughout North America.



The main sources of exposure to chemical flame retardant are household dust, indoor air, and food (including human breast milk).



HOW TO REDUCE YOUR EXPOSURE TO FLAME RETARDANT CHEMICALS

- Replace furniture, cushions and pillows if the foam is old and breaking down or if the fabric is torn beyond repair. Do not reupholster your older foam furniture.
- Use a vacuum with a HEPA filter and/or use HEPA air filters in your home heating and cooling systems.
- Use a wet mop or damp cloth as often as possible to remove excess dust.
- Do not let babies and toddlers put electronic items like remotes or mobile phones in their mouths.
- Buy products made with natural fibers (like cotton and wool) that are naturally fire resistant and may contain fewer chemicals.
- Remove old carpet with care as the foam underlay or padding may contain PBDEs. Keep your work area isolated from the rest of your home.
- Not ALL products are labelled if they are treated with flame retardants; however those containing the TB117 flammability label have added flame retardants.

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