Does your furniture contain harmful chemicals?

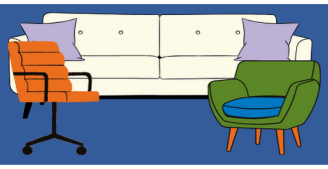
Your older couch may contain flame retardants!

Since the 1970s, chemical flame retardants have been added to many products, including furniture like couches and sofas, textiles like fabric and carpet, building materials, car seats, and electronics. Flame retardants can come out of these products and into dust, air, and our bodies. Some chemical flame retardants are known to affect human health.

Why are flame retardants a concern in California?

- Due to previous furniture flammability standards:
  - » Upholstered foam furniture made before 2014 is more likely to contain flame retardants including polybrominated diphenyl ethers (PBDEs) and organophosphate flame retardants (OPFRs).
  - » PBDE levels in Californians have been higher than the rest of the country.
- To address concerns about flame retardants, California improved flammability standards for upholstered furniture in 2013 (TB117-2013).
  - » Manufacturers can now meet requirements without using chemical flame retardants.

Furniture made with padding or cushions covered in fabric or leather



Examining exposures to flame retardants in furniture

- The Foam Replacement Environmental Exposure Study (FREES) looked at participants' flame retardant levels and the effect of replacing a piece of foam-containing furniture made before 2014.
- We measured participants' levels of PBDEs and OPFRs, which had been used in furniture.
  - » PBDEs were used until 2004, when companies voluntarily began phase-outs and replaced them with alternatives like OPFRs.
- FREES compared changes in PBDE and OPFR levels among participants who removed or replaced foam-containing furniture and a group that did not.

Key findings

Impact of furniture removal

- PBDE levels went down in all participants.
- PBDE levels decreased faster in those who replaced foam-containing furniture with furniture made without flame retardants.
- For OPFRs, replacing furniture did not significantly change levels. People could also be exposed to OPFRs that continue to be used in other products like vehicles and electronics.

Read the full article: Flame retardant biomarker changes with furniture replacement after flammability standard update

How could flame retardants affect health?

Exposures to chemical flame retardants may:

- Increase cancer risk
- Affect the body's natural hormones
- Affect reproductive development
- Decrease fertility
- Harm developing fetuses and infants and affect later learning and behavior

What can you do?

Take steps to reduce flame retardant exposures

- Replace the foam parts of furniture with foam that does not contain flame retardants, especially if the foam is exposed, torn, or crumbling
- When buying furniture, look at the label and consider buying furniture that do not contain flame retardants
- Wash hands often, especially before preparing or eating food
- Reduce dust in your home:
  - » Dust regularly using a damp cloth
  - » Clean floors regularly, using a wet mop or vacuum cleaner with a high efficiency particulate air (HEPA) filter

Check the label!

THIS ARTICLE MEETS THE FLAMMABILITY REQUIREMENTS OF CALIFORNIA BUREAU OF ELECTRONIC AND APPLIANCE REPAIR, HOME FUNISHINGS AND THERMAL INSULATION TECHNICAL BULLETIN 117-2013. CARE SHOULD BE EXERCISED NEAR OPEN FLAME OR WITH BURNING CIGARETTES.

The upholstery materials in this product:
___ contain added flame retardant chemicals
_X_ contain NO added flame retardant chemicals

The State of California has updated the flammability standard and determined that the fire safety requirements for this product can be met without adding flame retardant chemicals. The State has identified many flame retardant chemicals as being known to, or strongly suspected of, adversely impacting human health or development.

FREES study partners and other resources

Want to learn more?

- Biomonitoring California Foam Replacement Environmental Exposure Study (FREES) project webpage
- Companion dust study: Do flame retardant concentrations change in dust after older upholstered furniture is replaced?
- For more information about PBDEs and OPFRs, visit our PBDE and OPFR fact sheets (chlorinated phosphate flame retardants and triphenyl phosphate)

FREES partners

- Silent Spring Institute
- Green Science Policy Institute
- Environmental Working Group
- University of California, Davis
- Sequoia Foundation

BIOMONITORING CALIFORNIA
MEASURING CHEMICALS IN CALIFORNIANS