EWG's Guide to PBDEs

What are PBDEs?

Chemical fire retardants are common in consumer products, particularly in highly flammable synthetic materials. Some of the most common are brominated fire retardants (BFRs), including PBDEs.

Where are PBDEs found?

PBDEs are most likely to be found in polyurethane foam products manufactured before 2005 – like upholstered furniture, mattresses, and pillows – and electronics. Therefore you'll probably find them in dozens of products in your home and office, from the padding below your carpet, to your bed, couch, cell phone and television.

What problems are associated with PBDEs?

PBDEs are found in the bodies of nearly every American. Laboratory studies show that exposure to minute doses of PBDEs 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. In addition, they persist in the environment and therefore bioaccumulate in people.

HOW TO AVOID PBDEs

PBDE FREE!

IN ELECTRONICS:

The form of PBDEs known as Deca is banned in 3 states, but is still used in many electronic products.

- **Identify Deca-containing items around your house**, such as: TVs, cell phones, computers, fax machines, remote controls, video equipment, printers, photocopiers, toner cartridges, scanners, electronic components, automobile fabrics, kitchen appliances, fans, heaters or hair dryers, and water heaters.
- **Prevent young children from touching and especially mouthing** these fire-retardant items as much as possible (like your cell phone or remote) and wash their hands prior to eating.
- **Shop PBDE-free.** Many companies have committed to avoid using PBDEs – ask before you buy and choose PBDE-free products.

IN FOAM:

- **Inspect foam items.** Replace items with a ripped cover or foam that is misshapen and breaking down. If you can't replace these items, try to keep the covers intact. Beware of older items like car seats and mattress pads where the foam is not completely encased in a protective fabric.
- **Use a vacuum fitted with a HEPA filter.** These vacuums trap small particles more efficiently and will likely remove more contaminants and other allergens from your home. High-efficiency HEPA-filter air cleaners may also reduce particle-bound contaminants in your house.
- **Do not reupholster foam furniture yourself.** The reupholstering process increases exposure risk. Even those items without PBDEs might contain other, poorly studied fire retardants with potentially harmful effects.
- **Remove old carpet with care.** The padding may contain PBDEs. Keep your work area isolated from the rest of your home. Clean up with a HEPA-filter vacuum and mop to pick up as many of the small particles as possible.
- **When purchasing new products, ask the manufacturers what type of fire retardants they use.** PBDEs aren't used in new foam, but you'll also want to avoid products with brominated fire retardants, and opt for less flammable fabrics and materials, like leather, wool and cotton. Be aware that "natural" latex foam will also contain fire retardants.