

CHEMICAL KEY

Inside Bay Area

Polybrominated diphenyl ethers (PBDEs)

Hormone disrupter, carcinogen, developmental inhibitor, toxin

One of several families of flame retardants added to foam cushions, mattresses, textiles, plastic appliances such as TVs. Closely related to PCBs. California, Maine and Europe have enacted bans on some. U.S. population has highest PBDE blood levels in world. Developmental neurotoxin and thyroid disrupter in lab animals. No human health data available.

Perfluorooctane sulfonate (PFOS) and perfluorooctanoic acid (PFOA)

Suspected carcinogen

The secret behind Teflon, Gore-Tex and Scotchgard. Used to make auto engines efficient, cell phones small and your jacket windproof. Found everywhere _ one study of blood from 599 children found PFOS in every child. Readily absorbed, long-living compound with an estimated half life in humans of eight years (PFOS). EPA considers PFOA a suspected carcinogen. Manufacturers, based on worker exposure studies, see no health effects at current levels.

Polychlorinated biphenyls (PCBs)

Toxin, hormone disrupter, developmental inhibitor

Banned since 1979, but still present in virtually every household dust sample ever tested. Stable, long-lasting chemical used to insulate electrical transformers. Potent neurotoxin.

Phthalates (dibutyl phthalate and the like)

Developmental inhibitor, hormone disrupter

Family of additives that makes plastic soft and flexible. Ubiquitous in the modern world: found in fragrances, cosmetics, lotions, personal care products, carpet backings, wallpaper, adhesives and insect repellents. Readily absorbed through the skin, inhaled, ingested, even directly administered via PVC medical devices. In the body phthalates break down quickly and are excreted in urine. Very limited human health studies.

Lead, mercury, cadmium and other metals

Toxin, developmental inhibitor

Some naturally occurring metals are particularly toxic to kids. Lead levels have dropped fourfold since lead-based paint and gasoline were banned in the 1970s. Still, scientists see no safe levels in our bodies. Mercury, a potent neurotoxin, concentrates easily in the food

chain, particularly fish; one in 12 American women of childbearing age have mercury levels above the U.S. government's health threshold.

Solvents

Toxin, carcinogen

Easily absorbed, easily evaporated, solvents don't stick around long. But they're not harmless. Hexane, a common brake cleaner, is a nerve agent. Benzene, in gasoline and tobacco smoke, is a suspected carcinogen.

Pesticides

Toxin

Powerful organochlorine pesticides like DDT have been banned in the United States since the 1970s, but they still show up in household dust. Studies find higher pesticide blood levels in children eating non-organic food and in households where insecticides are used.

Bisphenol-A

Hormone disrupter

Major component of the fastest-growing plastics market. Used in resins coating the interior of food cans. Common in household dust. Animal experiments show estrogenic effects at exposures near human levels. Effect on humans unstudied.