Fewer Toxins in Toyland

Contributed by Sarah (Steve) Mosko, Ph.D.
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[With commentary by Jan Lundberg]
This coming holiday season, parents shopping for children can rest a bit easier because of a recent California law restricting the use of toxic phthalate plasticizers in toys and childcare products made of plastic. Two additional classes of chemicals suspected of posing health risks to children, bisphenol A and
halogenated flame retardants, could be reigned in before long too, pending the fate of current state senate bills.

And, perhaps the best news of all is that California has enacted laws establishing a groundbreaking precautionary approach to the oversight of all chemicals that should soon make painstaking chemical-by-chemical regulation a thing of the past.

Phthalate Plasticizers

Articles made of polyvinyl chloride plastic require the addition of chemical “plasticizers” to make them soft and pliable. Effective January 2009 in California, the allowable level in children’s toys and childcare products of six phthalate plasticizers, the industry favorites for decades, has been strictly limited because of potentially harmful effects on the developing reproductive system.

Teethers, soft plastic books and rubber duckies are examples of the items affected. Virtually all Americans have measureable levels of phthalates in their bodies, and youngsters’ habit of exploring their environment orally is thought to be a major route of exposure. The law specifically prohibits substituting phthalate plasticizers with carcinogenic or endocrine disrupting substances.

Bisphenol A

The chemical bisphenol A (BPA) was first synthesized a century ago as an estrogen hormone mimic but employed instead to make polycarbonate plastics upon discovery that it could be polymerized into a shatter-proof material. It is widely used in plastic baby bottles and is also a key component of the resin that lines food cans and jar lids, including infant formula.

BPA is routinely found in human tissues, and children have the highest levels. The main route of exposure seems to be leaching from food or drink containers into the contents. Over 200 scientific studies connect BPA to a diversity of problems like early puberty, miscarriage, breast and prostate cancer, obesity, diabetes, heart disease and cardiac arrythmias.

Pending California legislation proposes a statewide ban, effective January 1, 2011, on the manufacture or sale of containers (bottles, cups, jars, cans) or foods and liquids with more than a trace of BPA (> 0.1 ppb) when the item is designed for children aged three years or less (SB 797, Pavley). This bill took on added importance when a state EPA panel decided on July 15, 2009 not to require warning labels on BPA-containing products under California’s Proposition 65 which applies to carcinogens and reproductive toxins.

Connecticut, Minnesota, Chicago, and Suffolk County, NY have recently passed legislation restricting BPA in children’s drinkware or foodware.

Flame Retardants

A new state bill is proposing to remove “an obsolete state regulation requiring juvenile bedding and mattress products to be treated with highly toxic flame retardants….” (SB 772, Leno).

California law requires that seating furniture and bedding materials meet strict flammability standards typically met by treatment with halogenated flame retardants, a family of chemicals linked to a host of health concerns including cancer, reproductive problems, birth defects, thyroid dysfunction and learning disabilities. In 2008, California banned two of the halogenated formulations, but others remain in widespread usage. Avenues of exposure in infants include direct skin or oral contact.

By specifically exempting strollers, infant carriers, bassinets and nursing pillows from the state flammability regulation, the proposed legislation aims to minimize infant and toddler exposure to flame retardants at a critical period in development. All exempted articles would carry a permanent label to that effect.

Green Chemistry Initiative

Governor Schwarzenegger signed two bills in 2008 crafted to completely revamp how California approaches protecting humans and the environment from hazardous chemicals.

Under previous law, California’s governmental agencies lacked the authority to ensure that chemicals used in consumer products are safe, even when science identifies risks to humans and wildlife. As a result, the California legislature has been forced to decide, on a chemical-by-chemical basis, if a marketed substance with a history of toxicity should be banned.

Under the new Green Chemistry initiative’s sweeping reforms, California’s Department of Toxic Substances Control (DTSC) is mandated to identify risky chemicals in consumer products and take regulatory actions aimed at manufacturers and distributors, including bans, restrictions and warning label requirements (AB 1879, Feuer). Whether consumers will have available any mechanisms to readily identify the chemical constituents of specific products, such as through obligatory product labels, remains unresolved but is an “aspiration” of the DTSC according to spokesperson Rick Bausch.

A companion law requires creation of a web-based Toxics Information Clearinghouse to enable consumers to track the safety of chemicals used in everyday products (SB 509, Simitian). Together, this duo lays the framework for the most comprehensive regulation of its kind in the nation, although to realize any benefits shoppers will have to wait until at least January 2011 when both programs are slated to take effect.

Related articles are at boogiegreen.com. This entry was posted on Thursday, August 13th, 2009 at 5:30 a.m. and is filed under California, health, plastics, politics, pollution, science, sustainable living, toxics. You can follow any responses to this entry through the boogiegreen RSS 2.0 feed. You can leave a response, or trackback from your own site.

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Comment by Jan Lundberg

I have had the pleasure of knowing Steve Mosko and her excellent work for several years, starting with our involvement with the Campaign Against the Plastic Plague under the auspices of Earth Resource Foundation. I just now discovered her website of general environmental reporting, boogiegreen.com. (All the articles have that same URL, but check them out.)

While it's still a new phenomenon for people to discover that plastics are a health and ecological disaster, most people have heard of the Pacific Ocean Garbage Patch discovered by Steve's friend and mine, Captain Charles Moore. So the painstakingly slow pace of legislative reform, and trying to consume more carefully, are not enough for our embattled planet. The system we know as U.S. Society, or Western Civilization, or corporate globalism -- any way you want to define the root problem -- must be replaced as soon as possible. When we don't take daily steps to leave it behind, to bring about local-based independent economies, we are simply witnessing more destruction of humanity and the planetary home to uncounted, threatened species. What should one do? Essential steps are to immediately go car-free (or start going in that direction) and boycott petroleum in all possible forms.

Further reading: Culture Change's
Plastics Plague section.

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