

This is the weekly bulletin of the TURI Library at the University of Massachusetts Lowell. Greenlist Bulletin provides previews of recent publications and websites relevant to reducing the use of toxic chemicals by industries, businesses, communities, individuals and government. You are welcome to send a message to mary@turi.org if you would like more information on any of the articles listed here, or if this email is not displaying properly.

Good News: Toxic flame retardants declining in NYC kids' blood

*Source: [Environmental Health News, April 4, 2018](#)
Author: Brian Bienkowski*

The levels of harmful flame retardants in children's blood are dropping every year, according to a new study of kids from New York City.

The flame retardants -- polybrominated diphenyl ethers (PBDEs) -- were used for decades in furniture, electronics and clothing in an effort to slow the spread of flames if they catch fire. The chemicals were voluntarily phased out starting in 2004 because they build up in the environment and people -- PBDEs are found in the air (in and outside our homes), some food, and in people all around the world.

People are mostly exposed by breathing in contaminated dust. The chemicals are linked to a host of health problems, including impaired brain development, altered thyroid hormones, lower IQs in exposed children and some birth defects.

The new study in NYC, which followed 334 mothers and their children from 1998 to 2013, is the first to show a decline in PBDEs in kids' blood and shows that, despite the chemicals' persistence, bans or phase-outs can reduce children's exposure.

"These findings reinforce the decision to phase-out PBDEs from consumer products," said co author Julie Herbstman, an associate professor and researcher at the Columbia University Mailman School of Public Health, in a statement.

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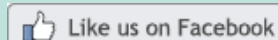
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TURI Spring 2018 Continuing Education Conference

**Wednesday, April 25, 2018
Marlborough, MA
Keynote Speaker: Laura Vandenberg**

Assistant Professor at UMass Amherst, Dr. Vandenberg is an expert in health effects and mechanisms of action for specific chemicals of concern.

Check out our [website for more information about the conference](#), including a session on **'3D Printing:**

The initial phase-out of PBDEs in 2004 was voluntary. Since then some states have banned PBDEs and the U.S. Environmental Protection Agency and chemical companies agreed to a phase-out of almost all PBDEs by 2014.

[Read more...](#)

Food allergy is linked to skin exposure and genetics

[Source: Northwestern University, April 6, 2018](#)

[Author: Marla Paul](#)

Infant and childhood food allergy, whose cause has long been a mystery, has now been linked to a mix of environmental and genetic factors that must coexist to trigger the allergy, reports a new Northwestern Medicine study.

The factors contributing to food allergy include the genetics that alter skin absorbency, use of infant cleansing wipes that leave soap on the skin, skin exposure to allergens in dust and skin exposure to food from those providing infant care. Food allergy is triggered when these factors occur together.

"This is a recipe for developing food allergy," said lead study author Joan Cook-Mills, a professor of allergy-immunology at Northwestern University Feinberg School of Medicine. "It's a major advance in our understanding of how food allergy starts early in life."

[Read more...](#)

See study in the *Journal of Allergy and Clinical Immunology*, "[Mechanism for initiation of food allergy: Dependence on skin barrier mutations and environmental allergen costimulation](#)".

RAC recommends an occupational exposure limit for benzene

[Source: European Chemicals Agency, March 21, 2018](#)

At its March meeting, the Committee for Risk Assessment (RAC) also recommended occupational exposure limits (OELs) for two other substances: nickel and its compounds and acrylonitrile. These opinions conclude the response to the European Commission, which for the first time asked RAC to assess the scientific basis for setting OELs. ...

Benzene is a genotoxic carcinogen, known to cause leukemia. RAC is of the opinion that a threshold based on the indirect (i.e. not directly DNA-damaging) genotoxic effects of benzene in workers can be used to derive a new occupational exposure limit. The proposed OEL of 0.05 parts per million will protect workers from leukemia as well as other adverse health effects. Exposure to benzene occurs in the petroleum and chemical industries and also as a result of gasoline engine emissions and combustion products.

RAC also proposed an OEL of 0.45 parts per million for acrylonitrile, a monomer used in many plastics. For nickel and its compounds, it proposed OELs of 0.005 mg/m³ for respirable dust and 0.03 mg/m³ for inhalable dust. The proposals are based on the latest scientific evidence and were subject to public consultation. In addition, industry and trade unions were able to attend the RAC plenary sessions and provide further comments on the Committee's draft opinions.

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Recycling end-of-life materials may be perpetuating toxic chemicals

[Source: HazMat Management, March 30, 2018](#)

A researcher from the Canadian Environmental Law Association and paralegal, Fe de Leon, recently co-published a paper with HEJSupport International Co-Director Olga Speranskaya to bring public attention to toxic chemicals that appear in new products made out of recycled materials. The authors of the paper argue that many countries have made investments into achieving progress towards a circular economy, but little or no attention is paid on toxic chemicals that appear in new products made out of recycled materials. The paper cites a growing body of evidence of how a circular economy fails to address concerns regarding toxic chemicals in products.

In the paper, the authors cite a 2017 study prepared by IPEN, an environmental activist organization that focuses on synthetic chemicals, which revealed elevated concentrations of globally targeted toxic flame retardants in plastic toys. The IPEN study claimed to have found elevated concentrations of toxic persistent organic pollutants (POPs) in samples of plastic toys purchased in different stores in Canada and other 25 countries globally. The study further stated that the levels of some chemicals were more than five times higher than recommended international limits. These chemicals include PBDEs (polybrominated diphenyl ethers) such as octabromodiphenyl ether (OctaBDE), decabromodiphenyl ether (DecaBDE); and SCCPs (short chain chlorinated paraffins). They are listed under the Stockholm Convention on Persistent Organic Pollutants and are internationally banned or restricted due to their hazardous characteristics. They all are persistent, highly toxic, travel long distances and build up in the food chain. However, their presence in new products, although they are banned or restricted, opens up the discussion of a problem regarding recycling as a key component of a circular economy.

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EPA is keeping the public in the dark on premanufacture notices for new chemicals under TSCA

[Source: Environmental Defense Fund, April 2, 2018](#)

[Author: Stephanie Schwarz and Richard Denison](#)

This is the third in a series of blog posts based on our frustrating, and frustrated, efforts to get information on premanufacture notifications (PMNs) for new chemicals under the Toxic Substances Control Act (TSCA). The saga began when we requested from the EPA Docket Center the public files on 69 new chemicals, most of which EPA had determined were "not likely to present an unreasonable risk" under the TSCA, as amended in 2016 by the Lautenberg Act. This series of posts analyzes and describes what we did, and did not, get from the Docket Center, to which EPA staff pointed us when we raised the fact that such files are not available on EPA's website or at www.regulations.gov, despite EPA regulations requiring they be.

TSCA and EPA's regulations contain a number of provisions that, if reliably implemented, would give the public better access to, or at least a better understanding of, the information EPA receives on new chemicals.

[Read more...](#)

[TURI's Note: See our web page on \[The Toxic Substances Control Act \\(TSCA\\)\]\(#\).](#)

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