

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.

Concentrations and Migratabilities of Hazardous Elements in Second-Hand Children's Plastic Toys

Source: [Environmental Science & Technology](#), January 29, 2018

Author: Andrew Turner

About 200 second-hand plastic toys sourced in the UK have been analyzed by X-ray fluorescence spectrometry for hazardous elements (As, Ba, Cd, Cr, Hg, Pb, Sb, Se) and Br as a proxy for brominated flame retardants. Each element was detected in >20 toys or components thereof with the exception of As, Hg, and Se, with the frequent occurrence of Br, Cd, and Pb and at maximum concentrations of about 16,000, 20,000, and 5,000 $\mu\text{g g}^{-1}$, respectively, of greatest concern from a potential exposure perspective. Migration was evaluated on components of 26 toys under simulated stomach conditions (0.07 M HCl) with subsequent analysis by inductively coupled plasma spectrometry. In eight cases, Cd or Pb exceeded their migration limits as stipulated by the current EU Toy Safety Directive (17 and 23 $\mu\text{g g}^{-1}$, respectively), with Cd released from yellow and red Lego bricks exceeding its limit by 1 order of magnitude. Two further cases were potentially noncompliant based on migratable Cr, with one item also containing >250 $\mu\text{g g}^{-1}$ migratable Br. While there is no retroactive regulation on second-hand toys, consumers should be aware that old, mouthable, plastic items may present a source of hazardous element exposure to infants.

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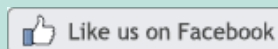
Hunting with lead ammunition is not sustainable: European perspectives

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TURI's Note: See our Library Guide on [Toxic Chemicals in Children's Products](#).

Your building might be making you sick. Joe Allen can help.

Source: [The Harvard Gazette, February 14, 2018](#)

Author: Colleen Walsh

On his first day as an assistant professor of exposure-assessment sciences at the Harvard Chan School, in 2014, Joe Allen was immediately put on the spot. ...

As the head of the Healthy Buildings program at the Harvard T. H. Chan School of Public Health, Allen is working to transform design and construction of indoor spaces by revealing how ventilation, temperature, lighting, and noise affect health. His team drove a key part of that research forward in 2015 with a series of papers that proved what countless office workers long suspected: Indoor air quality influences job performance. The CogFX studies, conducted in collaboration with Syracuse University and SUNY Upstate Medical University, and supported by a gift to Harvard from United Technologies, showed a direct link between cognitive function and indoor environment.

[Read more...](#)

See from *Paint & Coatings Industry*, "[Improving Indoor Air Quality Using a Smart Additive](#)".

See information on designing for health from [Building Green](#).

TECHNOLOGY ASSESSMENT: Chemical Innovation - Technologies to Make Processes and Products More Sustainable

Source: [U.S. Government Accountability Office, March 12, 2018](#)

Can the chemistry behind medicines, personal care products, and other everyday items be improved? We examined "sustainable chemistry."

Stakeholders generally didn't agree on how to define or assess sustainable chemistry. However, they cited several common themes, such as using fewer non-renewable resources and considering all stages of a product's life cycle when evaluating environmental impact.

We looked at more sustainable alternatives in 3 categories of chemistry technologies, such as renewable, less toxic solvents; catalysts from abundant metals such as iron; and processing methods that use energy and materials more efficiently.

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See full report [here](#).

Restaurant Industry Faces Challenges with Plant-Based Packaging Shift

Source: [Environmental Leader, March 14, 2018](#)

Author: Alyssa Danigelis

In order to help hit the zero-waste goal for the Super Bowl in Minneapolis this year, the

NFL along with partners Aramark, PepsiCo, US Bank Stadium, and the Minnesota Sports Facilities Authority turned to compostables.

The stadium's food and beverage service provider Aramark said that they had made more than 70 different products such as cups, trays, straws, and utensils compostable. In a first for the big game, attendees could purchase pre-packed peanuts in compostable bags. More than 91% of the trash generated during the big game was successfully recovered, and 29% got composted. ...

"One of the biggest challenges restaurants face in this area is the lack of a robust composting and recycling infrastructure nationwide for packaging," an association spokesperson says.

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Hunting with lead ammunition is not sustainable: European perspectives

[Source: Royal Swedish Academy of Sciences, March 12, 2018](#)

[Authors: Niels Kanstrup, John Swift, David A. Stroud, Melissa Lewis](#)

Much evidence demonstrates the adverse effects of lead ammunition on wildlife, their habitats and human health, and confirms that the use of such ammunition has no place within sustainable hunting. We identify the provisions that define sustainable hunting according to European law and international treaties, together with their guidance documents. We accept the substantial evidence for lead's actual and potential effects on wildlife, habitats and health as persuasive and assess how these effects relate to stated provisions for sustainability and hunting. We evaluate how continued use of lead ammunition negatively affects international efforts to halt loss of biodiversity, sustain wildlife populations and conserve their habitats. We highlight the indiscriminate and avoidable health and welfare impacts for large numbers of exposed wild animals as ethically unsustainable. In societal terms, continued use of lead ammunition undermines public perceptions of hunting. Given the existence of acceptable, non-toxic alternatives for lead ammunition, we conclude that hunting with lead ammunition cannot be justified under established principles of public/international policy and is not sustainable. Changing from lead ammunition to non-toxic alternatives will bring significant nature conservation and human health gains, and from the hunter's perspective will enhance societal acceptance of hunting. Change will create opportunities for improved constructive dialogue between hunting stakeholders and others engaged with enhancing biodiversity and nature conservation objectives.

[Read more...](#)

TURI's Note: See our web page on [Lead in Fishing](#).

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