

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.

Dear Greenlist Subscriber,

You may have already noticed that we have returned to a shorter **weekly Greenlist Bulletin** publication in order to bring you the most relevant information in a timely manner. We hope this helps you in your daily efforts to reduce and avoid the use of toxic chemicals.

We are currently planning on publishing an end of the year **Subscriber's Solutions** issue of *Greenlist Bulletin*. As such, we are putting out a call for solutions to you, our thoughtful and innovative subscribers! Please send along any great solutions-related (e.g. safer alternatives, resource conservation) studies/articles/reports that you find to mary@turi.org for consideration to include in this special issue.

Finally, we'd like to wish you a happy Pollution Prevention (P2) Week, and encourage you to visit the [US EPA Pollution Prevention Week site](#) for additional information and P2 case studies.

Best,
Mary

Federal panel votes to warn public about flame retardants in baby products, furniture

[Source: Chicago Tribune, September 20, 2017](#)

Author: Michael Hawthorne

In This Issue

Federal panel votes to warn public about flame retardants in baby products, furniture

Dermal Uptake of Benzophenone-3 from Clothing

Three Mass. Firms Awarded EPA Research Grants to Develop Environmental Technologies by Small Businesses

EC Environment DG Publishes Report on Assessing the Environmental Safety of Manufactured Nanomaterials

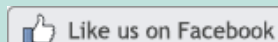
Valspar: How we engaged stakeholders to solve the BPA dilemma

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[TURI Website](#)

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Upcoming Events

MA Chemical Safety & Climate Change Preparedness Training - Devens, MA

September 28, 2017

9:00am-12:30pm

For the first time a federal agency is moving to outlaw an entire class of toxic flame retardants, a policy change intended to protect Americans from chemicals linked to cancer, neurological deficits, hormone disruption and other health problems.

The Consumer Product Safety Commission voted Wednesday to immediately warn the public about the dangers of chemicals known as organohalogens in baby and toddler products, mattresses, upholstered furniture and electronics enclosures. The commission also set in motion what promises to be a contentious debate about new regulations prohibiting manufacturers from adding any halogenated flame retardants to products covered by the ban.

[Read more...](#)

See oral presentations ([Panels 1-4](#)) and ([Panels 5&6](#)) at the CPSC meeting regarding the Organohalogen Flame Retardants Petition.

See from Safer Chemicals, Healthy Families, "[CPSC votes to protect consumers from toxic flame retardants](#)".

Also see new report from Clean Production Action, "[TV Reality: Toxic Flame Retardants in TVs](#)".

Through a grant from the US Environmental Protection Agency (EPA), The Massachusetts Office of Technical Assistance (OTA) and seven Regional Planning Agencies (RPAs) are conducting workshops designed to build awareness and educate Local and Regional Emergency Planning Committees (LEPCs and REPCs), first responders, businesses and community stakeholders about toxic chemicals in their communities. This effort will build sustainable and replicable models for incorporating toxics use reduction into emergency preparedness and climate change resiliency planning. Learn more about the upcoming September 28th event and how to register [here](#).

Dermal Uptake of Benzophenone-3 from Clothing

Source: *Environmental Science & Technology*, August 31, 2017

Authors: Glenn C. Morrison, Gabriel Bekö, Charles J. Weschler, Tobias Schripp, Tunga Salthammer, Jonathan Hill, Anna-Maria Andersson, Jørn Toftum, Geo Clausen, and Hanne Frederiksen

Benzophenone-3 (also known as BP-3 or oxybenzone) is added to sunscreens, plastics, and some coatings to filter UV radiation. The suspected endocrine disruptor BP-3 has been detected in the air and settled dust of homes and is expected to redistribute from its original sources to other indoor compartments, including clothing. Given its physical and chemical properties, we hypothesized that dermal uptake from clothing could contribute to the body burden of this compound. First, cotton shirts were exposed to air at an elevated concentration of BP-3 for 32 days; the final air concentration was $4.4 \mu\text{g}/\text{m}^3$. Next, three participants wore the exposed shirts for 3 h. After 3 h of exposure, participants wore their usual clothing during the collection of urine samples for the next 48 h. Urine was analyzed for BP-3, a metabolite (BP-1), and six other UV filters. The rate of urinary excretion of the sum of BP-1 and BP-3 increased for all participants during and following the 3 h of exposure. The summed mass of BP-1 and BP-3 excreted during the first 24 h attributable to wearing exposed t-shirts were 12, 9.9, and 82 μg for participants 1, 2, and 3, respectively. Analysis of these results, coupled with predictions of steady-state models, suggest that dermal uptake of BP-3 from clothing could meaningfully contribute to overall body burden.

[Read more...](#)

Three Mass. Firms Awarded EPA Research Grants to Develop Environmental Technologies by Small Businesses

[Source: U.S. Environmental Protection Agency, September 19, 2017](#)

BOSTON -- Three small businesses in Massachusetts are among 15 firms nationwide selected by the U.S. Environmental Protection Agency to share \$1.6 million in funding that is helping to develop technologies that provide sustainable solutions for environmental issues.

The Mass. firms -- **Giner Inc. of Newton, Vuronyx Technologies of Woburn, and Reactive Innovations, LLC of Westford**, are receiving Phase I contracts from EPA's Small Business Innovation Research (SBIR) program, which awards contracts annually through a two-phase competition. Companies compete for a Phase I award of \$100,000 by submitting research that addresses key environmental issues. After receiving a Phase I award, companies are eligible to compete for a Phase II award of \$300,000 to further develop and commercialize the technology. ...

Giner, Inc., of Newton, Mass., is working to develop an inexpensive chemical sensor for indoor air quality applications. Under this project, Giner, Inc. proposes to design and develop small, hand-held and inexpensive electrochemical microsensors for the accurate, sensitive and rapid detection of chemicals in residential buildings. A proposed hand-held device could also employ integrated control of ventilation and HVAC systems to address one of the leading causes of energy waste stemming from the constant and sometimes unnecessary need to replace indoor air with outside air to provide clean air to the building inhabitants.

[Read more...](#)

Also from the US EPA, "[EPA awards \\$23 million to California to manage and reduce hazardous waste](#)".

EC Environment DG Publishes Report on Assessing the Environmental Safety of Manufactured Nanomaterials

[Source: Bergeson & Campbell PC, September 7, 2017](#)

Authors: Lynn L. Bergeson and Carla N. Hutton

The European Commission (EC) Environment Directorate General (DG) published an August 2017 report entitled *Assessing the environmental safety of manufactured nanomaterials*. ... The report's aim is "to present the most promising strategies and most significant challenges of nanomaterial characterisation, exposure, fate and behaviour, ecotoxicological hazard and risk assessment." It includes examples and case studies of both the scientific developments and the knowledge gaps.

[Read more...](#)

See the EC Environment DG report, "[Assessing the environmental safety of manufactured nanomaterials](#)".

TURI's Note: Please see our recently published [Nanomaterials Fact Sheet](#).

Valspar: How we engaged stakeholders to solve the BPA dilemma

[Source: GreenBiz.com, September 8, 2017](#)

Authors: Teresa McGrath & Bob Israel

Bisphenol A (BPA)-based epoxy coatings are the most commonly used protective lining for metal food and beverage packaging. ...

BPA has been the subject of intense scrutiny with respect to its hormonal, estrogenic impacts, including reproductive and developmental effects. Unfortunately, common alternatives such as Bisphenol S and Bisphenol F also have been reported to show some of these effects.

When formulating a food or beverage can coating, non-epoxy-based alternatives would seem to be a logical approach. Acrylic, vinyl, oleo, polyethylene solutions were considered, but none have the versatility to meet the diverse and critical performance demands of a can manufacturing plant that cranks out 6 million cans per day. ...

Using an approach much like the pharmaceutical industry uses to find new drug molecules, Valspar developed a BPA-free solution with a basic building-block molecule that is not estrogenic, does not induce genetic damage (genotoxicity), meets all food safety requirements, has excellent performance and will not migrate into food.

[Read more...](#)

Also see from [GreenBiz.com](#) their series of articles on "[The Right Chemistry](#)".

*Greenlist Bulletin is compiled by:
Mary Butow
Research and Reference Specialist
Toxics Use Reduction Institute
University of Massachusetts Lowell
600 Suffolk Street, Wannalancit Mills Suite 501
Lowell, MA 01854-2866
978-934-4365
978-934-3050 (fax)
mary@turi.org*