Greenlist BULLETIN

TURI
TOXICS USE REDUCTION INSTITUTE
UMASS LOWELL

Toxics Use Reduction Institute | December 28, 2015

This is the bi-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 Subscribers,
I hope you enjoy our "**Best of Greenlist 2015**" issue. This set includes the top articles clicked through for the year, as well as some **Read More's** that include updates and more in depth information on the topics that were apparently of greatest interest to our readers.
Thank you for your continued readership and support.
Here's to a happy, healthy and safe New Year!
Mary

Scientific Discovery Reverses Gray Hair To Its Natural Color - Invented By The Warner Babcock Institute

Source: Warner Babcock Institute, April 3, 2015

The Nature of Hair, LLC (dba Hairprint) announce the commercial availability of Hairprint®, a revolutionary treatment for the reversal of gray hair. Hairprint restores gray hair to its natural color

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in 90 minutes by mirroring the natural process of hair pigmentation. This innovative treatment is the result of research by the Warner Babcock Institute for Green Chemistry LLC (WBI), inspired by principles of Green Chemistry and biomimicry, and is now available from Hairprint under exclusive license. ...

Using technology invented by Dr. John Warner and patented by WBI, Hairprint is the only product on the market with this revolutionary approach to gray hair. Rather than trying to dye gray hair, an invasive process involving a long list of chemicals, Dr. Warner took another approach and created a treatment that restores what is missing from gray hair: the natural pigment eumelanin. How does Hairprint restore hair color? Every strand of hair has a unique internal structure that determines the configuration of pigment in hair. This "hairprint" is as distinctive as a fingerprint. When Hairprint is applied, the natural pigment reintegrates into the cortex restoring original hair color.

Read more...

See a video of Dr. John Warner describing how the product functions on a molecular level.

Are dollar stores shortchanging us on toxic chemicals?

Source: GreenBiz.com, February 9, 2015
Authors: Jose Bravo and Frank Knapp Jr.

Sometimes it feels like there's a Target or Walmart around every corner -- and rightly so in many areas, because at last count nearly 6,000 of them were sprinkled across the U.S.

While that may seem like a sizable amount, consider this: There are roughly 24,000 dollar stores, and that's just counting the Big 3: Dollar Tree, Dollar General and Family Dollar.

With such a pervasive presence, it should come as no surprise that in many neighborhoods and communities, dollar stores are often literally the only store selling household goods, including food.

A new report about toxic chemicals found in dollar store products, published by environmental justice initiative the Campaign for Healthier Solutions, found that 81 percent of the products tested -- or 133 out of 164 products -- contained at least one hazardous chemical above levels of concern.

Read more...

See link to Campaign for Healthier Solutions report, "A Day Late and A Dollar Short: Discount Retailers Are Falling Behind on Safer Chemicals".

Also see from Safer Chemicals, Healthy Families, "Targeted Toxicity: Dollar Stores and Environmental Justice".

A New Documentary Probes the Vast Human Experiment of Unregulated Chemicals

Source: *Newsweek*, April 17, 2015
Author: Zoe Schlanger

The next time you buy a stick of deodorant or a bottle of dish soap, consider this: The Environmental Protection Agency (EPA) has tested and published data on only approximately 200 of the roughly 83,000 chemicals legally used to make products in the U.S., according to a California Senate review from 2010.

Meanwhile, food manufacturers can put thousands of additives into their products without approval from the Food and Drug Administration (FDA) because of a loophole in a decades-old food additive law, the Center for Public Integrity reported [this week].

Read more...

Commonly Used Chemicals Come Under New Scrutiny

Source: *The New York Times*, May 1, 2015
Authors: Eric Lipton and Rachel Abrams

A top federal health official and hundreds of environmental scientists on Friday voiced new health concerns about a common class of chemicals used in products as varied as pizza boxes and carpet treatments.

The concerted public campaign renews a years-old debate about a class of chemicals known as poly- and perfluoroalkyl substances, or PFASs. After studies showed that some PFASs lingered in people's bodies for years, and appeared to increase the risks of cancer and other health problems, the chemical manufacturer DuPont banned the use of one type of PFAS in its popular Teflon products, and other companies followed suit.

At issue now are replacement chemicals developed by those manufacturers and used in thousands of products, including electronics, footwear, sleeping bags, tents, protective gear for firefighters and even the foams used to extinguish fires.

The companies assert that the alternatives are safe and vehemently contest the scientists' contentions, pointing to extensive studies conducted in the last decade or so.

Read more...

See report from KEMI - Swedish Chemicals Agency, "Occurrence and use of highly fluorinated substances and alternatives".

Cotton, cashmere, chemicals ... what really goes into making our clothes?

Source: *Ensia*, June 9, 2015
Author: Elizabeth Grossman

The U.S. Federal Trade Commission has something to say about what you wear.

While not a fashion arbiter and unable to advise on attire for family gatherings, the FTC oversees what appears on the labels inside your clothes. As the federal agency responsible for enforcing the Textile Products Identification Act and related laws, it makes sure clothing is accurately labeled with its fabric content. But it turns out, apart from these laws (and a few -- including some state laws -- that restrict certain hazardous substances from being used in children's clothing), there is no overarching U.S. law that regulates or requires listing of materials outside of fabrics that go into producing our

clothing.

Why does this matter? Because manufacturers use hundreds of substances to produce clothing that don't show up on clothing labels. And many of these are hazardous to the environment and to human health.

Read more...

Also see from Washington State - Department of Ecology, "Chemicals of High Concern to Children in Children's Clothing, Footwear, and Accessories".

See information on Zero Discharge of Hazardous Chemicals commitment by major apparel and footwear brands and retailers.

A Hard Nut to Crack: Reducing Chemical Migration in Food-Contact Materials

Source: *Environmental Health Perspectives*, July 2015
Author: Nate Seltenrich

When we buy food, we're often buying packaging, too. From cherries to Cheez-It® crackers, modern foods are processed, transported, stored, and sold in specialized materials that account, on average, for half the cost of the item, according to Joseph Hotchkiss, a professor in Michigan State University's School of Packaging. Consumer-level food packaging serves a wide range of functions, such as providing product information, preventing spoilage, and protecting food during the journey from production to retail to pantry, fridge, or freezer. That's why food producers lavish so much time and money on it.

But what happens when these valuable and painstakingly engineered containers leach chemicals and other compounds into the food and drink they're designed to protect? Such contamination is nearly ubiquitous; it happens every day, everywhere packaged food is found, with all common types of packaging, including glass, metal, paper, and plastic.

Even as awareness of the issue grows, large-scale solutions that are scientifically and financially viable remain out of reach. The challenges in reaching them are many. Yet some of the world's leading health authorities and largest food producers are working toward fixes (and in cases already deploying them), despite the absence of scientific consensus or regulatory requirements around most food-packaging chemicals of concern.

Read more...

See link to the volume in Woodhead Publishing Series in *Food, Science, Technology and Nutrition*, "Chemical Migration and Food Contact Materials".

Most types of cancer not due to "bad luck" - IARC responds to scientific article claiming that environmental and lifestyle factors account for less than one third of cancers

Source: International Agency for Research on Cancer, January 13, 2015

The International Agency for Research on Cancer (IARC), the World Health Organization's specialized cancer agency, strongly disagrees with the conclusion of a scientific report on the causes of human cancer published in the journal *Science* on 2 January 2015 by Dr Cristian Tomasetti and Dr Bert Vogelstein.

The study, which has received widespread media coverage, compares the number of lifetime stem cell divisions across a wide range of tissues with lifetime cancer risk and suggests that random mutations (or "bad luck") are "the major contributors to cancer overall, often more important than either hereditary or external environmental factors." For many cancers, the authors argue for a greater focus on the early detection of the disease rather than on prevention of its occurrence. If misinterpreted, this position could have serious negative consequences from both cancer research and public health perspectives. IARC experts point to a serious contradiction with the extensive body of epidemiological evidence as well as a number of methodological limitations and biases in the analysis presented in the report.

Read more...

See recently published article in *Nature*, "Substantial contribution of extrinsic risk factors to cancer development".

How big chains from Walmart to Whole Foods are cleaning up chemicals

Source: GreenBiz.com, October 10, 2015
Author: Kenneth Geiser

This is an edited excerpt from the book *Chemicals without Harm: Policies for a Sustainable World*.

Every day thousands of people make decisions that affect the chemical market. Most decisions are about the costs, availability, and performance of products; few involve consideration of human health or the environment. If the consumer market offers an important opportunity for promoting safer chemical production and consumption systems, the amount of chemical information in the market must expand, and the number of products that take health and environment into account must increase. A chemical conversion strategy needs to address the chemical market.

A focus on commercial products provides important leverage in shifting to safer chemicals because products are so central to a consumer economy and so accessible to decision making by an informed public. Consumers, at the point of purchase, can select products with safer chemicals; retailers and institutional buyers, when negotiating supplier contracts, can specify products with safer chemicals; product manufacturers, when designing products, can specify safer chemical ingredients; and consumer advocacy campaigns, when targeting specific chemicals, can recommend products to buy or avoid.

Read more...

See article from Safer Chemicals, Healthy Families, "Target takes another significant step to address toxic chemicals".

Microbeads: The Very Tiny Troublemakers

Source: *The New York Times*, September 15, 2015
Author: Eleanor Randolph

The Great Lakes are being threatened by an invasion of tiny plastic orbs called microbeads, but lawmakers for one state that depends on this huge freshwater ecosystem have failed to do anything about it. That state is, of course, New York, where lawmakers this year sat on a good bill to ban these unnecessary bits of plastic.

That left local governments to try to do the state's job by banning these plastic irritants,

county by county.

The culprits are often found in toothpaste, acne scrubs and other drugstore items. After use, these colorful little balls roll down the drain and slip through the country's sewer systems by the millions. Then they land in the nation's waterways where they can pick up toxic pollutants like PCBs. Fish mistake them for food, and then we humans eat those fish, microbeads and all.

Some states have already banned the beads, and some companies are busily trying to eliminate them from their products. In recent years, researchers have become especially concerned about the increasing concentration of microbeads in the Great Lakes, especially Lake Erie and Lake Ontario. Illinois and Indiana have enacted bans, and Canada is moving to add microbeads to its list of toxic substances.

Read more...

See a short video from The Story of Stuff Project on Microbeads.

See December article from Cleveland.com, "U.S. Senate bill bans microbeads that accumulate in Lake Erie, threatening people, fish".

Neighbors Helped This Immigrant-Owned Dry Cleaner in Boston Go Nontoxic - and Stay in Business

Source: *Yes! Magazine*, December 19, 2014
Authors: Chuck Collins & Polly Hoppin

In 1996, Guatemalan immigrant Myra Vargas and her Venezuelan husband Ernesto bought J&P Cleaners, a neighborhood dry cleaner in Boston. But something always smelled funny.

"The chemicals we used -- we knew they were not healthy," Myra said. She stayed away from the shop when she was pregnant with her second child.

Like most conventional dry cleaners in the U.S., J&P used a chemical called perchloroethylene, known in the industry as "PERC." The U.S. Environmental Protection Agency has classified PERC as a "likely human carcinogen." Because it can be absorbed through the lungs and skin, it is primarily a threat to employees of dry cleaning businesses, who are subjected to it throughout the workday. But customers are also exposed when the chemicals seep out of clothing into the air in their homes.

California is phasing out the use of PERC in dry cleaning, requiring all businesses to discontinue its use by 2023. But regulations in most states, including Massachusetts, focus on limiting air emissions and promoting safer ways to dispose of chemicals, while continuing to allow the chemical's use.

Read more...

TURI's Note: See the list of garment cleaners in MA no longer using perc in their facilities.

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