Greenlist BULLETIN

TURI TOXICS USE REDUCTION INSTITUTE UMASS LOWELL

Toxics Use Reduction Institute August 3, 2018

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.

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Press Release: Landmark report provides little known details of plastics production

Source: Healthy Building Network, July 26, 2018
Author: James Vallette

The Healthy Building Network today released Phase 1 of a landmark report on chlorine based plastics that are widely used in common building and construction products such as pipes, roofing, flooring, adhesives, and many more. It is intended to inform the efforts of building product manufacturers to reduce pollution in their supply chains.

"Chlorine and Building Materials: A Global Inventory of Production Technologies, Markets, and Pollution. Phase 1: Africa, The Americas, and Europe" is the first of its kind plant-by-plant accounting of the production, use, and releases of chlorine and related pollution.

Read more...

See additional information on the Chlorine & Building Materials Project and access the full report.

Persistent pollutant broken down by sludge microbe

Source: *Chemical & Engineering News*, August 2, 2018
Author: Cici Zhang

From activated sludge collected at a local wastewater treatment plant, Mengyan Li and colleagues at New Jersey Institute of Technology have isolated a bacterium that degrades the pollutant 1,4-dioxane ... EPA considers dioxane a likely human carcinogen, and last August, the Environmental Working Group, an advocacy

organization, detected dangerous levels of the compound in the drinking water of 27 U.S. states.

Chemists use dioxane to stabilize industrial chlorinated solvents, and the manufacturing of certain surfactants generates dioxane as a by-product. As dioxane resists conventional water treatment methods and can cost billions of dollars nationally to remediate, researchers have been searching for biological methods to degrade this compound in contaminated subsurface water, which is a common drinking water source. ...

In the current study, Li's team found that the DD4 bacterium degraded dioxane and 1,1-DCE in both lab media and contaminated groundwater samples over time and continued to reduce their levels to low enough concentration ranges to satisfy the remediation goals set by several U.S. states. Various states including California and New Jersey have stringent cleanup standards, though currently, no federal-level regulation exists. When the researchers further examined the bacterium, they found that it harbors a gene that encodes an enzyme categorized as a soluble di-iron monooxygenase (SDIMO). Li suspects it could be involved in the first step of the pollutant oxidation process in DD4 (shown).

Read more...

See article on this research in *Environmental Science & Technology Letters*, "Synchronic Biotransformation of 1,4-Dioxane and 1,1-Dichloroethylene by a Gram-Negative Propanotroph *Azoarchus* sp. DD4".

Children's sunscreen contains hidden nanoparticle ingredients, new testing finds

Source: Friends of the Earth, August 1, 2018
Authors: Ian Illuminato and Patrick Davis

WASHINGTON, D.C. **--** Four major brands of children's sunscreen products sold across the U.S. contain engineered nanoparticles, according to laboratory results released today by Friends of the Earth U.S. Nanoparticles were found in Aveeno® Baby Natural Protection®, Banana Boat® Kids, Neutrogena® Pure and Free® Baby and Thinksport™ Kid's Safe sunscreen.

Titanium dioxide and zinc oxide nanoparticles are widely used in sunscreens due to their transparent appearance. The size and chemical characteristics of nanomaterials can potentially create unique and unpredictable human health and environmental risks.

Read more...

See their full report, "Nano-Particles In Baby Formula: Tiny new ingredients are a big concern".

Levi Strauss & Co. Takes Aim at Supply Chain Emissions

Source: *Environmental Leader,* August 3, 2018
Author: Alyssa Danigelis

Levi Strauss & Co. announced a new climate action strategy this week that sets targets for reducing carbon emissions across its owned-and-operated facilities and global supply chain by 2025. These aggressive goals have been approved by the Science Based Targets initiative.

At the top of the company's list is a 90% reduction in greenhouse gas emissions in all owned-and-operated facilities, which LS&Co. says will be achieved by investing in onsite renewable energy and energy efficiency upgrades.

In addition, LS&Co. is targeting a 40% reduction in GHG emissions in their supply chain. This will mainly be achieved by working with key suppliers to expand the International Finance Corporation's Partnership for Cleaner Textiles globally, according to LS&Co. The public-private partnership provides suppliers with technical expertise and access to low-cost financing to support sustainable energy and water investments.

Read more...

Breast Cancer on Cape Cod

Source: WGBH, August 2, 2018
Author: Mindy Todd

On The Point, we talk about breast cancer, its prevalence on the Cape, risk factors, and prevention. According to the National Cancer Institute, after skin cancer, breast cancer is the most commonly diagnosed cancer among American women. Approximately 1 in 8 American women will develop invasive breast cancer over the course of her lifetime.

A National Institutes of Health report notes that only 10 to 16 percent of women diagnosed with breast cancer have a first-degree relative with a history of the disease, leaving environmental factors and lifestyle choices as other potential causes of the disease.

Read more...

Update: The PFAS Contamination Crisis is Still Spreading

Source: Environmental Working Group, July 30, 2018
Author: Bill Walker

The known extent of contamination of American communities with toxic fluorinated compounds, known as PFAS chemicals, continues to grow at an alarming rate.

The latest update of an interactive map by EWG and the Social Science Environmental Health Research Institute at Northeastern University documents publicly known PFAS pollution from 172 sites in 40 states, including military bases, civilian airports, industrial plants and dumps, and fire training sites.

PFAS chemicals, used in a wide range of consumer products and industrial applications, have been linked to kidney and testicular cancer, liver and thyroid damage, and other serious health problems.

When the map was first published in June 2017, it showed 52 known PFAS contamination sites in 19 states. By April 2018, the list had grown to 94 sites in 22 states. A recently released Pentagon report added 78 military sites, including bases in 12 states where contamination was not publicly known before: Georgia, Idaho, Illinois, Indiana, Kansas, Louisiana, Maryland, Mississippi, Missouri, Oklahoma, Rhode Island, South Carolina, South Dakota, Tennessee, Texas, Wisconsin and Wyoming.

Read more...

See additional information from EWG regarding the Pentagon report, "Pentagon: Fluorinated Chemicals Taint Water at Scores of Bases, Neighboring Communities".

Greenlist Bulletin is compiled by:
Mary Butow
Research and Reference Specialist
Toxics Use Reduction Institute
University of Massachusetts Lowell

126 John Street, Suite 14, Second Floor
Lowell, MA 01852
978-934-4365
978-934-3050 (fax)
mary@turi.org