Greenlist Bulletin

From the Toxics Use Reduction Institute at the University of Massachusetts Lowell

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In This Issue

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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 arewelcome to send a message to jan@turi.org if you would like more information on any of the articles listed here, or if this email is not displaying properly.

EPA proposes rule to require electronic reporting for chemical information

Source: USEPA, April 13, 2012

The U.S. Environmental Protection Agency (EPA) has announced a proposed rule to require electronic reporting for certain information submitted to the agency under the Toxic Substances Control Act (TSCA).The action is an important milestone in the agency's effort to increase transparency and public access to chemical information in order to help Americans protect their health and environment. Electronic reporting will increase the speed with which EPA can make information publicly available, increase accuracy, and provide the public with quick and easier access to chemical information.

Today's proposed rule would require electronic reporting rather than paper-based reporting for various TSCA actions including submission of information relating to chemical testing, health and safety studies, and other information. When final, EPA will only accept data, reports, and other information submitted through EPA's Central Data Exchange, a centralized portal that enables streamlined, electronic submission of data via the Internet. The agency will be soliciting comments on this proposed rule for 60 days.

Over the coming months, the agency will offer a number of opportunities for potential users to become familiar with the new requirements. These opportunities will include an initial webinar to introduce the web-based electronic reporting tool, follow-up webinars and testing of specific applications, and opportunities for submitters and others to provide feedback to the agency on their experiences using the tool before its release.

For more information on the proposed rule:http://www.epa.gov/oppt/chemtest/pubs/SIGNED_eTSCA_NPRM_FRdocument_2012-03-30.pdf

If the food's in plastic, what's in the food?

Source: The Washington Post, April 17, 2012
Author: Susan Freinkel

In a study published last year in the journal Environmental Health Perspectives, researchers put five San Francisco families on a three-day diet of food that hadn't been in contact with plastic. When they compared urine samples before and after the diet, the scientists were stunned to see what a difference a few days could make: The participants' levels of bisphenol A (BPA), which is used to harden polycarbonate plastic, plunged - by two-thirds, on average - while those of the phthalate DEHP, which imparts flexibility to plastics, dropped by more than half.

The findings seemed to confirm what many experts suspected: Plastic food packaging is a major source of these

potentially harmful chemicals, which most Americans harbor in their bodies. Other studies have shown phthalates (pronounced THAL-ates) passing into food from processing equipment and food-prep gloves, gaskets and seals on non-plastic containers, inks used on labels - which can permeate packaging - and even the plastic film used in agriculture.

The government has long known that tiny amounts of chemicals used to make plastics can sometimes migrate into food. The Food and Drug Administration regulates these migrants as "indirect food additives" and has approved more than 3,000 such chemicals for use in food-contact applications since 1958. It judges safety based on models that estimate how much of a given substance might end up on someone's dinner plate. If the concentration is low enough (and when these substances occur in food, it is almost always in trace amounts), further safety testing isn't required.

Meanwhile, however, scientists are beginning to piece together data about the ubiquity of chemicals in the food supply and the cumulative impact of chemicals at minute doses. What they're finding has some health advocates worried.

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Special panel links C8 to kidney, testicular cancer

Source: The Charleston Gazette, April 16, 2012
Author: Ken Ward Jr.

A team of experts revealed Monday that it has found a "probable link" between C8 and human cancers, rebuffing DuPont Co.'s longstanding contention that exposure to the chemical is harmless.

The three-person C8 Science Panel said it is "more probable than not" that exposure to C8 put residents of the Mid-Ohio Valley at a greater risk of kidney and testicular cancers.

Panel members made those conclusions in the second set of significant findings in their six-year study of the DuPont Co. chemical.

Previously, the panel said there was a "probable link" between C8 exposure and dangerous high blood pressure among pregnant women. Panel members have said they found no link between exposure and some other conditions, including birth defects and other negative pregnancy outcomes, adult-onset diabetes, and more than a dozen other types of cancers.

But under a legal settlement that created the Science Panel, any probable link connections mean DuPont Co. will have to fund up to $235 million in future medical tests for area residents, to help provide early detection of diseases linked to exposure to C8 from the company's nearby Washington Works plant.

"At least we know now," said Wood County resident Joe Kiger, one of the plaintiffs in the C8 suit. "Thank God we found out there was a problem. Maybe now we can do something about it."

Last week, lawyers for DuPont and the residents announced the formation of a separate, three-person panel of medical experts who will design the appropriate monitoring program, required as part of a landmark legal settlement.

C8 is another name for perfluorooctanoate acid, or PFOA. In West Virginia, DuPont has used C8 since the 1950s as a processing agent to make Teflon and other nonstick products, oil-resistant paper packaging and stain-resistant textiles.

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Green-glowing fish provides new insights into health impacts of pollution

Source: University of Exeter, April 18, 2012

Understanding the damage that pollution causes to both wildlife and human health is set to become much easier thanks to a new green-glowing zebrafish. Created by a team from the University of Exeter, the fish makes it easier than ever before to see where in the body environmental chemicals act and how they affect health.

The fluorescent fish has shown that oestrogenic chemicals, which are already linked to reproductive problems, impact on more parts of the body than previously thought.

Numerous studies have linked 'endocrine-disrupting' chemicals, used in a wide range of industrial products and contraceptive pharmaceuticals, to reproductive problems in wildlife and humans. Previous University of Exeter research identified the potential for a major group of 'these chemicals to cause male fish to change gender. Human exposure to these chemicals, which can alter hormone signalling in the body, has been associated with decreases in sperm count and other health problems, including breast and testicular cancer.

Scientists worldwide are now working to find better ways of screening and testing for these chemicals in the body, to target the health risks to humans and wildlife. This new development, led by Dr Tetsuhiro Kudoh and Professor Charles Tyler at the University of Exeter, gives the first comprehensive insight into the effects of these chemicals on the whole body. It shows that more organs and parts of the body react to environmental estrogens than previously thought.

The team created a new transgenic zebrafish, which when exposed to environmental oestrogens shows where these chemicals work in the body through the production of green fluorescent signals. The research team tested the fish's sensitivity to different chemicals known to affect oestrogen hormone signalling, including ethinyloestradiol, used in the contraceptive pill and hormone replacement therapy treatments, nonylphenol, used in paints and industrial detergents, and Bisphenol A, which is found in many plastics.

Eventually, they produced a fish that was sufficiently sensitive to the chemicals to give fluorescent green signals to show which parts of its body were responding. This was done by placing a genetic system into the fish that amplifies the response to oestrogens producing the fluorescent green signal.

In the laboratory, PhD student Okhyun Lee exposed the fish to chemicals at levels found in wastewaters that are discharged into our rivers. She was then able to observe the effects of the exposure on the fish, in real time, watching specific organs or areas of tissue glow green, in response to the chemicals.

The team identified responses in parts of the body already associated with these chemicals: for example, the liver and, in the case of Bisphenol A, the heart. They also witnessed responses in tissues that were not previously known to be targeted by these chemicals, including the skeletal muscle and eyes.

Corresponding author Professor Charles Tyler of the University of Exeter said: "This is a very exciting development in the international effort to understand the impact of oestrogenic chemicals on the environment and human health. This zebrafish gives us a more comprehensive view than ever before of the potential effects of these hormone-disrupting chemicals on the body.

"By being able to localise precisely where different environmental oestrogens act in the body, we will be able to more effectively target health effects analyses for these chemicals of concern. While it is still early days, we are confident that our zebrafish model can help us better understand the way the human body responds to these pollutants."

Former Bush EPA chief sounds alarm on chemical security

Source: The Center for Public Integrity, April 15, 2012
Author: Jim Morris

Wading into a decade-old controversy, former Environmental Protection Agency chief Christine Todd Whitman has urged current EPA administrator Lisa Jackson to close loopholes in a 2006 chemical security law "before a tragedy of historic proportions occurs."

Whitman, who led the EPA under George W. Bush, suggests the agency use its authority to seal gaps in Department of Homeland Security rules adopted in 2007, according to her April 3 letter to Jackson, obtained by the Center for Public Integrity.

Those rules are "extremely limited," Whitman wrote, barring DHS from requiring industry to take specific measures to prevent accidental or terrorism-related toxic releases. The rules, she wrote, exempt "thousands of chemical facilities, including all water treatment plants and hundreds of other potentially high-risk facilities, such as refineries located on navigable waters."

The EPA has the power to regulate chemical security under 1990 amendments to the Clean Air Act, Whitman noted, writing that that the act's "general duty" clause "obligates chemical facilities handling the most dangerous chemicals to prevent potentially catastrophic releases to surrounding communities.

"Facilities with the largest quantities ... should assess their operations to identify safer cost-effective processes that will reduce or eliminate hazards in the event of a terrorist attack or accident," Whitman wrote. "This has never been required and today hundreds of these facilities continue to put millions of Americans at risk."

According to DHS testimony this year, there are 4,458 high-risk facilities nationwide.

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Greenlist Bulletin is compiled by:

Jan Hutchins
Manager of the TURI Library
Toxics Use Reduction Institute
University of Massachusetts Lowell
600 Suffolk St., Wannalancit Mills
Lowell MA 01854
978-934-3390
978-934-3050 (fax)
jan@turi.org