Greenlist Bulletin

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

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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 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.

EPA Releases First Set of Draft Risk Assessments Under Existing Chemicals Work Plan Effort

Source: U.S. Environmental Protection Agency, January 4, 2013

WASHINGTON -- EPA today released for public comment draft risk assessments, for particular uses, on five chemicals found in common household products. The draft risk assessments were developed as part of the agency's Toxic Substances Control Act (TSCA) Work Plan, which identified common chemicals for review over the coming years to assess any impacts on people's health and the environment. Following public comment, the agency will seek an independent, scientific peer review of the assessments before beginning to finalize them in the fall of 2013.

"The draft risk assessments released today for public review and comment highlight the agency's ongoing commitment to ensure the safety of chemicals we encounter in our daily lives," said James J. Jones, acting assistant administrator of EPA's Office of Chemical Safety and Pollution Prevention. "The public and scientific peer review will ensure use of the best science to evaluate any impacts of these substances on people's health and the environment."

The five assessments address the following chemical uses: methylene chloride or dichloromethane (DCM) and n-methylpyrrolidone (NMP) in paint stripper products; trichloroethylene (TCE) as a degreaser and a spray-on protective coating; antimony trioxide (ATO) as a synergist in halogenated flame retardants; and 1,3,4,6,7,8-Hexahydro-4,6,6,7,8,8,-hexamethylcyclopenta-[γ]-2-benzopyran (HHCB) as a fragrance ingredient in commercial and consumer products. The draft assessments focus either on human health or ecological hazards for specific uses which are subject to regulation under TSCA. Three of the draft risk assessments-- DCM, NMP, and TCE-- indicate a potential concern for human health under specific exposure scenarios for particular uses. The preliminary

assessments for ATO and HHCB indicate a low concern for ecological health.

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New TRI Pollution Prevention (P2) Tool Available

Source: U.S. Environmental Protection Agency, January 2, 2013

Did you know that TRI [Toxics Release Inventory] collects information on the actions businesses have taken to prevent pollution and reduce the amount of toxic chemicals entering the environment? Now you can use TRI's new pollution prevention search tool to see which industrial facilities reported the largest reductions and what measures were most effective. To learn more about TRI's P2 information, visit the new TRI P2 webpage.

Access tool here.

Danger in air near metal recyclers

Source: *Houston Chronicle*, December 29, 2012
Author: Ingrid Lobet

The calls to the city of Houston's 311 help line came in the early morning and the middle of the night - complaints of red smoke, yellow smoke, explosions, fire, a child having trouble breathing. Reports like these--189 of them over the last five years--led Houston air authorities to discover a previously unrecognized and dangerous source of air pollution: metal recyclers and car crushers, according to interviews and documents obtained by the *Houston Chronicle*.

The smoke comes from cutting metal with torches and from fire when vehicle gas tanks aren't drained properly. Explosions can occur when propane tanks are fed into the maw of the crushers.

Descriptions of shattering noise, cracked walls and smoke were significant enough that the city had to "dedicate a good amount of effort responding to these complaints," said Arturo Blanco, chief of the city's Bureau of Pollution Control and Prevention.

Subsequent testing outside five Houston metal recycling operations found dangerous levels of hexavalent chromium. Chrome VI, as it's also called, is a high priority for air experts.

"People were complaining about smoke, and it turns out there were carcinogenic metals," said Loren Roan, an environmental statistician at Rice University. "And we found them only around these facilities, not in other areas we tested, not even in other industrial areas of the city."

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Groundbreaking air-cleaner saves polluting industrials

Source: University of Copenhagen, December 28, 2012

Industries across Europe are threatened as European Union emission rules for Volatile Organic Compounds are tightened. Now an aircleaning invention from the University of Copenhagen has proven its ability to remove these compounds. And in the process they have helped a business in the Danish city of Aarhus improve relations to angry neighbors. . . .

At the Department of Chemistry atmospheric chemist Matthew Johnson invented and patented the air cleaning method which is based on the natural ability of the Earth atmosphere to clean itself. In a process triggered by sunlight, polluting gasses rising into the sky start forming particles when they come across naturally occurring compounds such as ozone.

The newly formed particles are washed out of the atmosphere by rain. Once the rain hits the ground, the atmosphere is clean again. In other words the whole process is nature's own purifications works, explains Professor Johnson.

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Concern over pesticide use at schools rises

Source: *Portland Press Herald*, January 1, 2013
Author: North Cairn

Until she read a newspaper article about pesticide use on school grounds, Marla Zando of Scarborough was unaware that chemicals used on playgrounds or ballfields could hurt children.

"I really, really never had thought about it," she said. "And I sort of think of myself as being environmentally aware," but "wow, it was really eye-opening. I really was clueless, very, very clueless.

"Kids love to play in the dirt," said Zando, the mother of a 4-year-old son. "You don't know when (pesticides) are there; you can't see them. I find it very scary."

Zando began asking questions of physicians, members of the town council, even bird watchers--people she knew would be knowledgeable about the subject--to find out about synthetic pesticides and their potential health effects.

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Pesticides and Parkinson's: UCLA researchers uncover further proof of a link

Source: University of California, Los Angeles, January 3, 2013
Author: Mark Wheeler

For several years, neurologists at UCLA have been building a case that a link exists between pesticides and Parkinson's disease. To date, paraquat, maneb and ziram--common chemicals sprayed in California's Central Valley and elsewhere--have been tied to increases in the disease, not only among farmworkers but in individuals who simply lived or worked near fields and likely inhaled drifting particles.

Now, UCLA researchers have discovered a link between Parkinson's and another pesticide, benomyl, whose toxicological effects still linger some 10 years after the chemical was banned by the U.S. Environmental Protection Agency.

Even more significantly, the research suggests that the damaging series of events set in motion by benomyl may also occur in people with Parkinson's disease who were never exposed to the pesticide, according to Jeff Bronstein, senior author of the study and a professor of neurology at UCLA, and his colleagues.

Benomyl exposure, they say, starts a cascade of cellular events that may lead to Parkinson's. The pesticide prevents an enzyme called ALDH (aldehyde dehydrogenase) from keeping a lid on DOPAL, a toxin that naturally occurs in the brain. When left unchecked by ALDH, DOPAL accumulates, damages neurons and increases an individual's risk of developing Parkinson's.

Read more...

Read research published in the current online edition of *Proceedings of the National Academy of Sciences*: "Aldehyde dehydrogenase inhibition as a pathogenic mechanism in Parkinson disease."

Acids Handling: General guidelines on materials, storage, pumping and other concerns for the proper and safe handling of acids

Source: *Chemical Engineering*, October 2012
Authors: Alberto Baumeister, Sebastiano Giardinella, Mayhell Coronado

Inorganic acids play a major role in the chemical process industries (CPI). They are used as raw materials, catalysts or finishing and pH control agents in the manufacture of a wide range of chemical products, from fertilizers to detergents, and even foods. Given their widespread use, a major issue in the CPI is the proper and safe handling of the acids, the adequate materials selection for the pieces of equipment, piping and fittings used in the process, and the correct storage and even disposal of these materials....

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Environmental Bills Make Progress

Source: *Chemical & Engineering News*, December 24, 2012
Authors: Cheryl Hogue and Britt E. Erickson

In 2012, Congress passed bills on hazardous waste and pesticides. President Barack Obama signed both into law. The Senate also held hearings on reforming the 36-year-old Toxic Substances Control Act (TSCA) and on flame retardants.

One new law authorizes an electronic tracking system to replace multicopy paperwork that must accompany shipments of hazardous waste. The law calls on EPA to establish within three years a system to track hazardous electronic waste shipments. This move is expected to save generators--such as chemical companies and universities--and handlers of hazardous waste tens of millions of dollars each year.

On pesticides, Congress made it a priority this year to reauthorize the Pesticide Registration Improvement Act (PRIA). The law, which allows EPA to collect registration fees from pesticide manufacturers through 2017, cleared both the House of Representatives and Senate in mid-September, just two weeks before the previous PRIA bill was set to expire.

Read more...

Please send a message to mary@turi.org if you would like more information on any of these resources. Also, please tell us what topics you are particularly interested in monitoring, and who else should see Greenlist. An online search of the TURI Library catalog can be done at http://library.turi.org for greater topic coverage.

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