

# Greenlist Bulletin

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

May 10, 2013

## In This Issue

Substitute for BPA in epoxy looks 'promising'

EHN Special Report: 'Chemicals of high concern' found in thousands of children's products

Concentrations and Potential Health Risks of Metals in Lip Products

EPA Has Increased Efforts to Assess and Control Chemicals but Could Strengthen Its Approach

When Flame Retardants Burn: Toxic Exposure and Health Risks to Firefighters

Poisonings at work: An interview with Dr. Karla Armenti


Chemistry Council Makes Safety Code Compliance Mandatory for Membership

[Join Our Mailing List!](#)

## Quick Links

[Greenlist Bulletin Archives](#)

[TURI Website](#)

 Like us on Facebook

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](mailto:mary@turi.org) if you would like more information on any of the articles listed here, or if this email is not displaying properly.



## Substitute for BPA in epoxy looks 'promising'

[Source: \*Plastics Today\*, April 30, 2013](#)

Researchers at the University of Massachusetts Lowell say they have identified and tested a potential chemical substitute for bisphenol A (BPA) in epoxy.

Use of epoxy in food contact applications, such as can linings, has been under pressure because of concerns about potential health effects of the BPA used to make it. With financial support from the Massachusetts Toxics Use Reduction Institute, the researchers studied a possible alternate—the bis(epoxide) of 2,2,4,4-tetramethyl-1,3-cyclobutanediol.

In a paper presented at ANTEC [the Annual Technical Conference for Plastics Engineers] this month, they said they chose that particular chemical because of "its successful use in Eastman's Tritan resin as a means of enhancing the properties of terephthalate (co)polyesters."

The presence of four methyl groups provides substantial rigidity to the monomer, "while the total absence of any phenolic compounds should substantially limit concerns over estrogenic potential."

[Read more...](#)

*TURI's Note:* Read TURI Technical Report No. 66, "[High Performance Bisphenol A \(BPA\)-free Epoxy Resins.](#)"

## EHN Special Report: 'Chemicals of high concern' found in thousands of children's products

[Source: \*Environmental Health News\*, May 6, 2013](#)

Author: Jane Kay

Cobalt in plastic building blocks and baby bibs. Ethylene glycol in dolls. Methyl ethyl ketone in clothing. Antimony in high chairs and booster seats. Parabens in baby wipes. D4 in baby creams.

An *Environmental Health News* analysis of thousands of reports from America's largest companies

shows that toys and other children's products contain low levels of dozens of industrial chemicals, including some unexpected ingredients that will surprise a public concerned about exposure.

[Read more...](#)

### Concentrations and Potential Health Risks of Metals in Lip Products

[Source: \*Environmental Health Perspectives\*, May 2, 2013](#)

Authors: Sa Liu, S. Katharine Hammond, Ann Rojas-Cheatham

Background: Metal content in lip products has been an issue of concern.

Objectives: We measured lead and eight other metals in a convenience sample of 32 lip products used by young Asian women in Oakland, California, USA, and assessed potential health risks related to estimated intakes of these metals. . . .

Conclusions: Cosmetics safety should be assessed not only by the presence of hazardous contents, but also by comparing estimated exposures with health based standards. In addition to lead, metals such as aluminum, cadmium, chromium and manganese require further investigation.

[Read more...](#)

Read a press release on the article from UC Berkeley [here](#).

### EPA Has Increased Efforts to Assess and Control Chemicals but Could Strengthen Its Approach

[Source: Government Accountability Office, March 22, 2013](#)

Since 2009, the Environmental Protection Agency (EPA) has made progress implementing its new approach to managing toxic chemicals under its existing Toxic Substances Control Act (TSCA) authority; particularly by increasing efforts to obtain chemical toxicity and exposure data and initiating chemical risk assessments -- which EPA uses, along with other information, to decide what regulatory or other actions, if any, are warranted. The results of EPA's data collection activities, in most cases, have yet to be realized, and it may take several years before EPA obtains much of the data it is seeking. Also, EPA has not pursued some opportunities to obtain chemical data that companies submit to foreign governments or to obtain data from chemical processors that prepare chemical substances after their manufacture for distribution in commerce -- some of which could help support the agency's risk assessment activities. Of the 83 chemicals EPA has prioritized for risk assessment, it initiated 7 assessments in 2012 and plans to start 18 additional assessments in 2013 and 2014. However, it may take several years to complete these initial risk assessments and, at the agency's current pace, over a decade to complete all 83, especially as EPA does not have the toxicity and exposure data needed for 58 of the 83 chemicals prioritized for risk assessment. In addition to its risk assessment activity, EPA has initiated other actions -- such as increasing review of certain new uses of chemicals -- that may discourage the use of these chemicals, but it is too early to tell whether these actions will reduce chemical risks.

[Read more...](#)

Access full report [here](#).

### When Flame Retardants Burn: Toxic Exposure and Health Risks to Firefighters

[Source: Marine Environmental Research Institute, 2013](#)

A groundbreaking new study published by environmental toxicologist Dr. Susan Shaw and co-authors provides new evidence that brominated flame retardants in burning household materials endangers the health of U.S. firefighters. It is the first study to measure brominated dioxins and furans in firefighters' blood and shows for the first time that exposure to these chemicals during fires may carry even higher risks for cancer and other health problems than already demonstrated.

Dr. Susan Shaw, the study's lead scientist, stated, "Our study provides clear evidence that firefighters are exposed to high levels of cancer-causing chemicals including brominated flame retardants and their combustion by-products -- dioxins and furans -- that are formed during fires by the burning of flame-retarded foam furniture, televisions, computers and building materials. Firefighters have much higher levels and different patterns of these chemicals in their blood than the general population. There is no doubt that firefighting is a dangerous occupation. What we have

shown here points to the possible link between firefighting and cancer."

[Read more...](#)

Read original article in *Chemosphere*, "[Persistent Organic Pollutants including Polychlorinated and Polybrominated Dibenzo-p-dioxins and Dibenzofurans in Firefighters from Northern California.](#)"

### Poisonings at work: An interview with Dr. Karla Armenti

[Source: Northern New England Poison Center, May 9, 2013](#)

For North American Occupational Safety and Health Week, [the Northern New England Poison Center] spoke with Dr. Karla Armenti, the principal investigator for the Occupational Health Surveillance Program within the New Hampshire Department of Health and Human Services. She has been analyzing poison center data to look for trends in workplace poisonings. . . .

[Question] The Northern New England Poison Center manages approximately 150 occupational poisonings a year in New Hampshire. You have been analyzing our data to better understand this issue. What are some interesting findings? How has this data been useful to your work?

Karla Armenti: "Yes, our New Hampshire poison center data are critical to our surveillance efforts. We recently completed a study looking at data from 2009 to 2011 and found that chemicals, household and industrial cleaning substances, fumes/gases/vapors, heavy metals, and hydrocarbons are among the top contributors to occupational exposures in New Hampshire. We also see that among all age groups, the number of cases was greater for males than for females and the most common age group for both genders was the 20s. The highest percent for exposure route was inhalation, with dermal and ocular exposures evenly distributed, while ingestion was the lowest."

[Read more...](#)

### Chemistry Council Makes Safety Code Compliance Mandatory for Membership

[Source: Bloomberg BNA, May 6, 2013](#)

Author: Pat Rizzuto

The American Chemistry Council will unveil May 6 a new Product Safety Code outlining best practices that member companies must follow to help ensure the safe development and use of chemicals.

ACC members will have to comply with the code and "adherence with those practices will be mandatory and regularly verified by independent auditors," according to ACC's announcement.

Under the Product Safety Code, each ACC member company will pledge to implement 11 practices to ensure the safety of the chemicals they make. These practices include undertaking toxicity and other studies of products, sharing information along the supply chain, and taking corrective measures – including terminating business relationships if necessary – should improper chemical use be discovered.

Giving the Environmental Protection Agency greater authority to obtain data to review and manage chemicals through an updated Toxic Substances Control Act still is needed, Debra Phillips, managing director of ACC's Responsible Care® program, told BNA May 3.

[Read more...](#)

Please send a message to [mary@turi.org](mailto: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.

Greenlist Bulletin is compiled by:

Mary Butow  
Research and Reference Specialist

Toxics Use Reduction Institute  
University of Massachusetts Lowell  
600 Suffolk St., Wannalancit Mills  
Lowell MA 01854  
978-934-4365  
978-934-3050 (fax)  
mary@turi.org

