

# Greenlist Bulletin

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

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**Chemical widely used in antibacterial hand soaps may impair muscle function**

[Source: University of California at Davis, August 13, 2012](#)

Triclosan, an antibacterial chemical widely used in hand soaps and other personal-care products, hinders muscle contractions at a cellular level, slows swimming in fish and reduces muscular strength in mice, according to researchers at the University of California, Davis, and the University of Colorado. The findings appear online in the Proceedings of the National Academy of Sciences of the United States of America.

"Triclosan is found in virtually everyone's home and is pervasive in the environment," said Isaac Pessah, professor and chair of the Department of Molecular Biosciences in the UC Davis School of Veterinary Medicine and principal investigator of the study. "These findings provide strong evidence that the chemical is of concern to both human and environmental health."

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**EU amps up e-waste collection rules for companies, consumers**

[Source: GreenBiz.com, August 15, 2012](#)

Author: James Murray

Stringent new EU e-waste rules officially came into effect yesterday, paving the way for a fundamental overhaul of how technology companies, retailers, recycling firms, and consumers handle waste electronic equipment and devices.

The updating of the Waste Electrical and Electronic Equipment (WEEE) directive, which first came into effect in 2003, will impose a series of ambitious new e-waste recovery and recycling targets on the IT and electronics industry while also introducing stringent new penalties for companies and member states who fail to comply with the rules.

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## Butter flavoring in microwave popcorn, thought safe for food industry workers, is respiratory hazard

[Source: Elsevier Health Sciences, August 13, 2012](#)

*New findings reported in the American Journal of Pathology*

Philadelphia, PA, August 13, 2012 - The ingredient 2,3-pentanedione (PD), used to impart the flavor and aroma of butter in microwave popcorn, is a respiratory hazard that can also alter gene expression in the brain of rats. Manufacturers started using PD when another butter flavoring, diacetyl, was found to cause bronchiolitis obliterans, a life-threatening and nonreversible lung disease in workers who inhaled the substance. New research on PD with implications for "popcorn workers' lung" is published in the *American Journal of Pathology* and indicates that acute PD exposure has respiratory toxicity which is comparable to diacetyl in laboratory animals.

"Our study demonstrates that PD, like diacetyl, damages airway epithelium in laboratory studies. This finding is important because the damage is believed to be the underlying cause of bronchiolitis obliterans," says lead investigator Ann F. Hubbs, DVM, PhD, DACVP, Health Effects Laboratory Division of the National Institute for Occupational Safety and Health, Centers for Disease Control and Prevention, Morgantown, WV. "Our study also supports established recommendations that flavorings should be substituted only when there is evidence that the substitute is less toxic than the agent it replaces."

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## BPA link to narrowing of the arteries

[Source: Peninsula College of Medicine & Dentistry, August 15, 2012](#)

### **Background**

Bisphenol A is widely used in food and drinks packaging. There is evidence of associations between raised urinary bisphenol A (uBPA) and increased incidence of reported cardiovascular diagnoses.

### **Methodology/Principal Findings**

To estimate associations between BPA exposure and angiographically graded coronary atherosclerosis, 591 patients participating in The Metabonomics and Genomics in Coronary Artery Disease (MaGiCAD) study in Cambridgeshire UK, comparing urinary BPA (uBPA) with grades of severity of coronary artery disease (CAD) on angiography. Linear models were adjusted for BMI, occupational social class and diabetes status. Severe (one to three vessel) CAD was present in 385 patients, 86 had intermediate disease (n = 86) and 120 had normal coronary arteries. The (unadjusted) median uBPA concentration was 1.28 ng/mL with normal coronary arteries, and 1.53 ng/mL with severe CAD. Compared to those with normal coronary arteries, uBPA concentration was significantly higher in those with severe CAD (OR per uBPA SD = 5.96 ng/ml OR = 1.43, CI 1.03 to 1.98, p = 0.033), and near significant for intermediate disease (OR = 1.69, CI 0.98 to 2.94, p = 0.061). There was no significant uBPA difference between patients with severe CAD (needing surgery) and the remaining groups combined.

### **Conclusions/Significance**

BPA exposure was higher in those with severe coronary artery stenoses compared to those with no vessel disease. Larger studies are needed to estimate true dose response relationships. The mechanisms underlying the association remain to be established.

Read article [here](#).

## Researchers Find Material for Cleaner-Running Diesel Vehicles

[Source: The University of Texas at Dallas, August 16, 2012](#)

*Discovery May Yield Cheaper, More Efficient Alternative to Platinum in Automotive Engines*

Engineers at a company co-founded by a University of Texas at Dallas professor have identified a material that can reduce the pollution produced by vehicles that run on diesel fuel.

The material, from a family of minerals called oxides, could replace platinum, a rare and expensive metal that is currently used in diesel engines to try to control the amount of pollution released into the air.

In a study published in the August 17 issue of *Science*, researchers found that when a manmade version of the oxide mullite replaces platinum, pollution is up to 45 percent lower than with platinum catalysts.

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