

# Greenlist Bulletin

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

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## Flame Retardants In Furniture Foam Are Not Effective, CPSC And UL Officials Tell Senate Subcommittee

Source: [Chemical and Engineering News, July 23, 2012](#)  
Author: Cheryl Hogue

Foam-padded furniture containing flame retardants burns almost as fast as identical furniture without these chemicals, officials of the Consumer Product Safety Commission (CPSC) and Underwriters Laboratories (UL) told Congress last week.

Inez M. Tenenbaum, CPSC chair, and August W. Schaefer, UL senior vice president and public safety officer, based this conclusion on tests conducted independently by their organizations. They described results of the studies at a hearing on upholstered-furniture flammability and flame-retardant chemicals convened by the Senate Appropriations Subcommittee on Financial Services & General Government. Panel Chairman Richard J. Durbin (D-III.) called the hearing in response to a recent investigative series by the Chicago Tribune on flame retardants.

Citing a May CPSC report, Tenenbaum described results of the commission's open-flame ignition tests on upholstered chairs cushioned with polyurethane foam. The report concluded, "A relative difference was noticed in the foams, but the fire-retardant foams did not offer a practically significantly greater level of open-flame safety than did the untreated foams."

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## DNA damage in roofers due to PAH exposure - possible cancer link

Source: [University of Colorado Denver, July 26, 2012](#)

## Elevated PAH biomarkers after 6-hour shift

Roofers and road construction workers who use hot asphalt are exposed to high levels of

polycyclic aromatic hydrocarbons (PAHs). A University of Colorado Cancer Center study published this week in the *British Medical Journal Open* shows that roofers have higher PAH blood-levels after a shift than before and that these high levels of PAHs are linked with increased rates of DNA damage, and potentially with higher cancer risk.

"We've known for some time that roofers and road workers have higher cancer rates than the general population, but we also know roofers have a higher rates of smoking, alcohol use and higher UV exposure than the general population, and so it's been difficult to pinpoint the cause of higher cancer rates - is it due to higher PAHs or is it due to lifestyle and other risk factors?" says Berrin Serdar, MD, PhD, investigator at the CU Cancer Center and assistant professor in the Department of Environmental and Occupational Health at the Colorado School of Public Health.

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#### Additional information on chemical substances to be published

[Source: European Chemicals Agency, July 24, 2012](#)

Helsinki – Beginning in November, ECHA will make more information from registration dossiers available on its website. This will implement a decision taken by ECHA in 2011 and is in line with Article 119(2)d of REACH. With these new elements, information made available will include the name of the registrant, the registration number of the substance as well as other items normally contained in a Safety Data Sheet (SDS). Companies wishing to request confidentiality on these items need to update their dossiers and justify their requests for confidential treatment.

All registrants are encouraged to review their dossiers and to use the upgraded IUCLID 5.4 dissemination plug-in which will identify the data that will be published. The plug-in is available free of charge on the IUCLID website. Other sources of help are the Questions and Answers document on dissemination and confidentiality claims of Safety Data Sheet information in IUCLID 5.4 published in June and the updated Data Submission Manuals 15 (on dissemination) and 16 (on confidentiality claims) now available on the ECHA website.

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#### Safe Handling of Advanced Nanomaterials

[Source: National Institute for Occupational Safety and Health, July 27, 2012](#)

Authors: Vladimir Murashov, PhD; Paul Schulte, PhD; John Howard, MD

In the last five years, research and development activities in the field of nanotechnology have shifted to include advanced nanomaterials. The main feature of advanced nanomaterials that distinguishes them from simpler nanomaterials, such as carbon black and nanoscale TiO<sub>2</sub> used primarily as additives, is the ability of advanced nanomaterials to change or evolve properties during their use, as a result of intended and unintended reactions to the external environment. Examples of advanced nanomaterials include nanomaterials functionalized for specific applications, such as nanoscale gold used in cancer treatment therapies, quantum dots used in medical imaging of the body, and carbon nanotubes and graphene used in electronics. Depending on the type of nanomaterial and the conditions of exposure, such a change of properties may result in health risks to workers handling advanced nanomaterials if exposure is not adequately controlled.

Although scientists do not have all the information necessary for detailed risk assessment, several factors demonstrate the need to pursue the necessary research and, in the meantime, to take prudent steps to control exposures. The factors include characteristics of advanced nanomaterials that are similar to those of simpler nanomaterials, where we can apply the risk assessment and risk management principles that we applied to simpler nanomaterials. The factors also include the characteristics unique to advanced nanomaterials that present an additional level of concern.

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#### Toxic trade: why junk electronics should be big business

[Source: Ars Technica, July 17, 2012](#)

Author: James Holloway

The global manufacturing of electric and electronic devices requires a total of \$21 billion in gold and silver every year, yet less than 15 percent of these valuable metals are recovered from electronic waste, according to representatives at the UN-backed initiative, Solving the E-waste Problem (StEP).


At current rates of production, \$16 billion (or 320 tons) in gold and \$5 billion (7500 tons) in silver are put into media tablets, smartphones, computers, and other devices annually. With growth in demand for smartphones and media tablets showing little sign of diminishing in the next few years, the flow of gold and silver from deposit to waste facilities is only likely to accelerate. ...

Increasingly, e-waste is exported from developed to developing nations, particularly in Asia and Africa, where the cost of processing it is lower. But the efficiency of that processing is lower in those locations. StEP claims that, in developing nations, 50 percent of the gold in e-waste is lost due to "crude dismantling processes" and only 25 percent of the remainder is recoverable due to the rudimentary technology to hand. In contrast, 25 percent of gold is lost to electronics dismantling in developed nations, and modern facilities are able to recover 95 percent of the rest. ...

But there's also the human cost of e-waste management to consider. The crude recovery methods used at developing world recycling facilities expose unskilled workers, who are often children, to a host of toxic materials and contaminants also used in the manufacture of electronics.

The health and environmental hazards linked to crude e-waste recycling practices are well documented. For example, the widely-reported practice of burning cables and printed wiring boards to recover the metals they contain is known to release polychlorinated dibenzodioxins and furans (PCDDs and PCDFs) that can be toxic in even small doses. The combustion can also lead to the release of dust and fumes from the beryllium present. Inhalation can cause the incurable pulmonary disease berylliosis, the symptoms of which can in some cases begin to appear years after the last exposure.

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Greenlist Bulletin is compiled by:

Mary Butow  
TURA Program Research Assistant  
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](mailto:mary@turi.org)