TECHNOLOGY/MEDIA/TELECOMMUNICATION

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SMALL THINGS: BIG RISKS

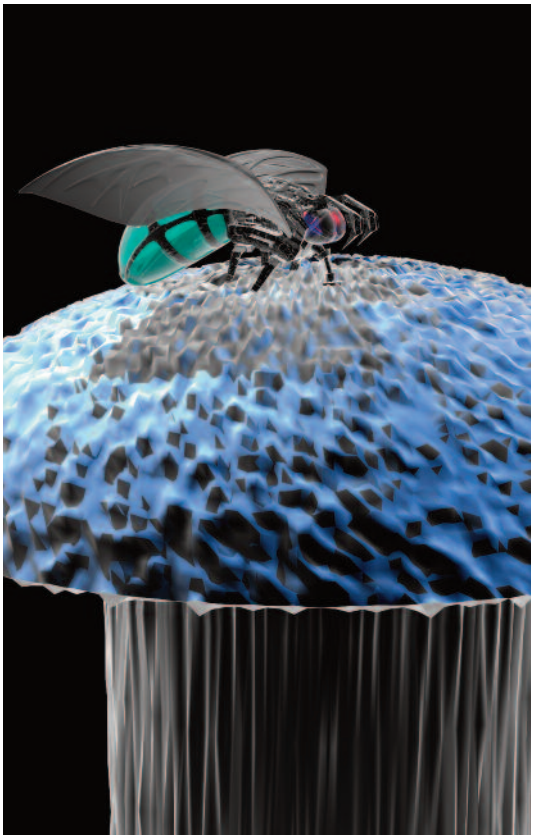
A few years ago, nanotechnology was the next big thing. Now it's expanding exponentially into products and systems in an ever-growing field of industries. Its possibilities seem endless, but, what about the risks?

WHAT IS NANOTECHNOLOGY?

Nanotechnology is defined as the design and implementation of devices and systems at the nanometer (one billionth of a meter) scale, intended to improve both product and system performance. To put it in perspective, viruses are examples of natural objects on the nano (nm) scale, as are red blood cells (7,000 nm in width), DNA molecules (2 nm) and silicon atoms (0.2 nm). According to Lux Research, global nanotechnology product revenue was $158 billion in 2004 and is expected to grow to $2.6 trillion by 2014, when 15% of all products will likely contain some form of nanotechnology. Today, nanoparticles are found in a wide variety of products – electronics, drugs, clothing, sports equipment, cosmetics, food and beverages – and the list is growing.

POTENTIAL NANO RISKS

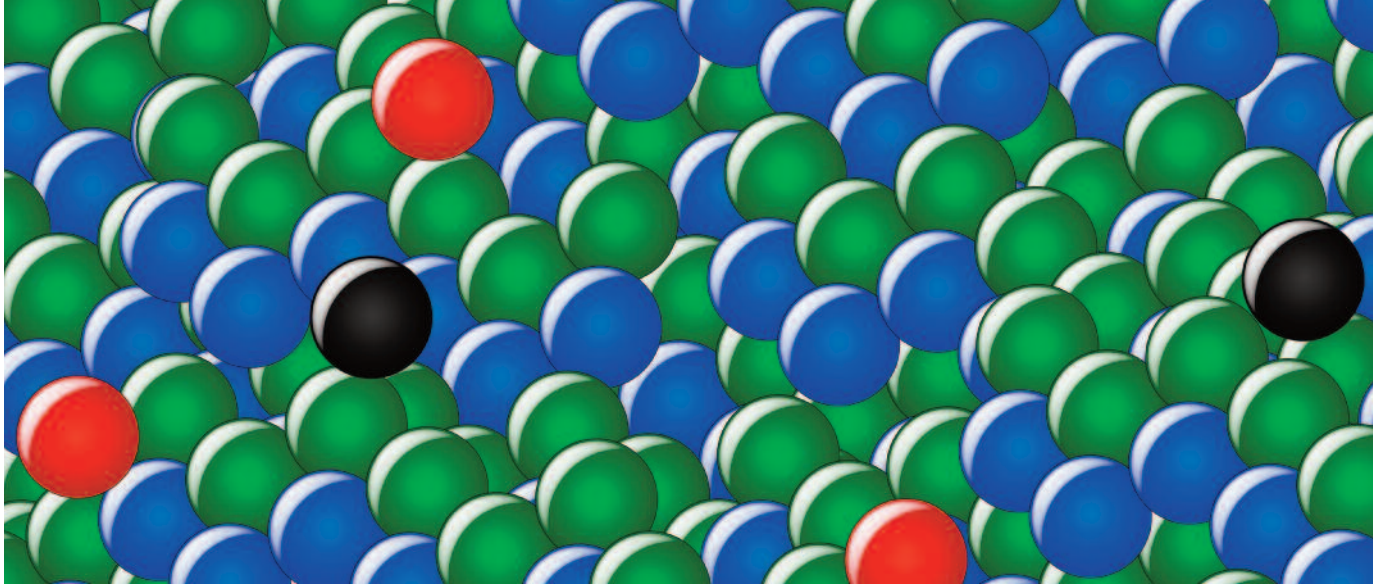
Nano risks are not nanorisks; in other words, the risks of nano-technology are not small. Consider this: nanoparticles can enter the body via inhalation, ingestion, absorption through the skin and direct injection. The buildup of nanoparticles in the body poses a potential hazard, not only to employees, but to third parties, such as suppliers, contractors and guests on the premises. Whether that potential is slight or significant (similar to asbestos or lead exposure) is yet to be determined. Exposure may extend beyond a company's premises to become an environmental risk. If absorbed, nanoparticles could travel up the food chain and result in contamination similar to that of DDT. The particles could be released into home environments through product breakdown or groundwater pollution. Potential claim scenarios surrounding these risks include product liability, environmental impairment, auto liability, workers' compensation and medical malpractice.



While the danger of exposure to nanparticles remains uncertain, the immediate risk for firms employing nanotechnology revolves around the issue of intellectual property. Some areas of nanotechnology are fraught with overlapping patents, increasing the potential for infringement problems.

HOW INSURERS WEIGH IN

In the absence of claim data, most insurers are taking a wait-and-see attitude while closely monitoring the nanotechnology industry. To date, only one company, Continental Western Insurance Company, has issued a nano-specific exclusion, stating it "would not be prudent for us to knowingly provide coverage for risks that are, as of yet, unknown and unquantifiable." However, the



exclusion was removed shortly after its initial posting in September 2008 and does not now appear on Continental's policies.

Chartis has taken a proactive approach to nano risks by developing an integrated policy for small firms in the nanotechnology space that may lack the risk management sophistication of their larger peers. Called LexNanoshield, the product includes General and Product Liability policies written on a claims-made basis, as well as Product Recall and Pollution coverage components. Chartis also offers the services of a specialized law firm to help navigate legal issues, along with consulting and technical assistance.

ACE USA is evaluating and underwriting nano risks on an individual basis. Chubb and Zurich are working with the nanotech community to more clearly define nanoparticle risks and assist with loss and expense controls.

WHAT IT ALL MEANS

As nanotechnology becomes more integrated into society, with everything from televisions to tennis balls containing nanoparticles, potential risks are being monitored and regulatory agencies worldwide are developing usage guidelines. In May 2010, the European Parliament implemented a new requirement that food produced through nanotechnology processes be risk-assessed prior to being authorized for consumption.

Companies with nano exposures should act now to mitigate the potential risk, evaluating it from both a micro and macro level. Exhaust and ventilation systems need to be assessed to ensure employee and visitor safety, with consideration given to creating "clean rooms" for handling nano materials. Waste removal procedures should be evaluated to minimize the release of nanoparticles into the environment. Get ahead of the curve, so when regulations are put in place – and they will be – your company will be prepared.

CONTACTS

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