



# International Center for Technology Assessment

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## **GROUPS DEMAND EPA STOP SALE OF 200+ POTENTIALLY DANGEROUS NANO-SILVER PRODUCTS**

### ***Nanotech Watchdog Launches First-Ever Legal Challenge To EPA Over Unregulated Nanotech Pesticide Pollution***

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Washington, DC – The International Center for Technology Assessment (CTA) and a coalition of consumer, health, and environmental groups today filed a legal petition with the Environmental Protection Agency (EPA), demanding the agency use its pesticide regulation authority to stop the sale of numerous consumer products now using nano-sized versions of silver. The legal action is the first challenge to EPA's failure to regulate nanomaterials.

Increasingly manufacturers are infusing a large and diverse number of consumer products with nanoparticle silver ("nano-silver") for its enhanced "germ killing" abilities. Nano-silver is now the most common commercialized nanomaterial. CTA found over 260 nano-silver products currently on the market, ranging from household appliances and cleaners to clothing, cutlery, and children's toys to personal care products and coated electronics. Yet as CTA's legal petition addresses, the release of this unique substance may be highly destructive to natural environments and raises serious human health concerns.

"These nano-silver products now being illegally sold are pesticides," said George Kimbrell, CTA nanotech staff attorney. "Nano-silver is leeching into the environment, where it will have toxic effects on fish, other aquatic species and beneficial microorganisms. EPA must stop avoiding this problem and use its legal authority to fulfill its statutory duties."

Nanotechnology is a powerful new platform technology for taking apart and reconstructing nature at the atomic and molecular level. Just as the size and chemical characteristics of manufactured nanoparticles can give them unique properties, those same new properties--tiny size, vastly increased surface area to volume ratio, high reactivity--can also create unique and unpredictable human health and environmental risks.

While silver is known to be toxic to fish and aquatic organisms, recent scientific studies have shown that nano-silver is much more toxic and can cause damage in new ways. Exposures are occurring during use and disposal. A 2008 study showed that washing nano-silver socks releases substantial amounts of the nano-silver into the laundry discharge water, which will ultimately reach natural waterways and potentially poison fish and other aquatic organisms. Another 2008 study found that releases of nano-silver can destroy benign bacteria used in wastewater treatment.

The legal petition demands that the EPA regulate nano-silver as a unique pesticide that can cause new and serious impacts on the environment. The hundred-page petition calls on EPA to: regulate these nanotechnology products as new pesticides; require labeling of all products; assess health and safety data before permitting marketing; analyze the potential human health effects, particularly on children; and analyze the potential environmental impacts on ecosystems and endangered species.

“The law does not allow the agency to stand idle while a new legacy of toxic pollution emerges,” added Joseph Mendelson, CTA Legal Director. “In an era of toxic water bottles, now is the time for the EPA to prevent a serious new environmental issue from occurring.”

Many of the products in the petition’s appendix are meant for children (baby bottles, toys, stuffed animals, and clothing) or otherwise create high human exposures (cutlery, food containers, paints, bedding and personal care products) despite very little study of nano-silver’s potential human health impacts. Studies have questioned whether traditional assumptions about silver’s safety are sufficient in light of the unique properties of nano-scale materials.

Concerns over nano-silver were first raised by national wastewater utilities in early 2006. One then-new product, Samsung’s SilverCare™ Washer, releases silver ions into the waste stream with every load of laundry. In response, according to November 2006 media reports, EPA said that it would regulate nano-silver products as pesticides. However, one year later EPA published a guidance covering only the Samsung washer and allowing it to remain on the market.

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Joining the CTA petition are: the Center for Food Safety, Beyond Pesticides, Friends of the Earth, Greenpeace, ETC Group, Center for Environmental Health, Silicon Valley Toxics Coalition, Institute for Agriculture and Trade Policy, Clean Production Action, Food and Water Watch, the Loka Institute, the Center for Study of Responsive Law, and Consumers Union.

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CTA is a non-profit, non-partisan organization committed to providing the public with full assessments and analyses of technological impacts on society. CTA works towards adequate oversight of nanotechnology through its Nanotechnology Project, *NanoAction*.

For more, including the full petition, executive summary and product appendix, please see [www.icta.org](http://www.icta.org) and [www.nanoaction.org](http://www.nanoaction.org)