

ONE HUNDRED ELEVENTH CONGRESS
Congress of the United States
House of Representatives
COMMITTEE ON ENERGY AND COMMERCE
2125 RAYBURN HOUSE OFFICE BUILDING
WASHINGTON, DC 20515-6115

Majority (202) 225-2927
Minority (202) 225-3641

January 5, 2010

The Honorable Lisa Jackson
Administrator
United States Environmental Protection Agency
1200 Pennsylvania Avenue, NW
Washington, DC 20460

Dear Administrator Jackson:

I am writing to request information regarding EPA's plans to examine, and as appropriate, act upon, scientific findings that indicate that triclosan and triclocarban, two extensively used antimicrobial agents, are contaminants widely present in U.S. waterways and may act as endocrine disrupting compounds and contribute to antibiotic resistance. I also believe that there may be a strong basis for these compounds, and any other similar compounds, to be examined both for rapid inclusion in the Endocrine Disruptor Screening Program as well as for potential regulation under the Safe Drinking Water Act. I request that you consider taking both actions.

As you may know, triclosan was originally introduced in the healthcare setting as a surgical scrub, but over the last decade there has been a rapid increase in the use of both triclosan, and a related compound triclocarban, in a number of consumer products including soaps, handwashes, toothpaste, shave gels, kitchenware, clothes, and toys. Over 95% of the uses of these antimicrobial agents are in consumer products that are disposed of in residential drains.¹ This is of particular concern in today's health climate in which these "antibacterial" products are extensively used by healthy individuals as a safeguard against the H1N1 and seasonal flu viruses.²

¹ Reiss, R., N. Mackay, C. Habig, and J. Griffin. 2002, *An ecological risk assessment for triclosan in lotic systems following discharge from wastewater treatment plants in the United States*, Environmental Toxicology and Chemistry 21(11): 2483-2492.

² Beyond Pesticides *The Ubiquitous Triclosan*, Aviva Glaser(beyondpesticides.org) Vol. 24, No. 3, 2004 Examples of soaps containing triclosan are: Dial® Liquid Soap; Softsoap® Antibacterial Liquid Hand Soap, CVS Antibacterial Soap, Dawn® Complete Antibacterial Dish Liquid, Ajax® Antibacterial Dish Liquid; In June 2009, FDA warned against marketing fraudulent virus

Since wastewater treatment plants are not required to remove triclosan and triclocarban from the water and these compounds are highly stable for long periods of time, it is reasonably expected that people could be further exposed to these toxic compounds by drinking contaminated water. In fact, a 2006 study by the Johns Hopkins Bloomberg School of Public Health found that about 75 percent of triclosan makes it through water treatment methods, ending up in our surface water and in municipal sludge, which is regularly applied to U.S. crop fields as a fertilizer.³ Additionally, a U.S. Geological Survey (USGS) report found that between 1999 and 2000, triclosan was found in nearly 60% of U.S. streams.⁴ This means there is a potential risk of these chemicals accumulating in both our drinking water and our foods. This risk is demonstrated by a recent study by the Centers for Disease Control and Prevention (CDC), which found triclosan in the urine of 75% of Americans, including children.⁵

Studies have also indicated that triclosan is often contaminated with dioxins and can be directly converted into dioxins when exposed to ultraviolet light.⁶ Other studies have suggested that when triclosan interacts with chlorine during the water disinfection process it forms chloroform, a common drinking water contaminant, which has been linked to cancer in high doses.⁷

Moreover, there is strong scientific evidence to suggest that triclosan and triclocarban may act as endocrine disruptors causing adverse health effects on the endocrine system when exposure occurs over sustained periods of time.⁸ Studies of triclosan have shown that it

claims: <http://www.fda.gov/NewsEvents/Newsroom/PressAnnouncements/ucm166801.html>
(Jun 15, 2009)

³ Heidler J, Sapkota A, Halden RU, 2006. *Partitioning, Persistence, and Accumulation in Digested Sludge of the Topical Antiseptic Triclocarban during Wastewater Treatment*. Environmental Science and Technology, 40(11):3634-9.

⁴ Rolf U. Halden and Daniel H. Paull. 2005. *Co-Occurrence of Triclocarban and Triclosan in U.S. Water Resources*. Environmental Science and Technology, 39 (6):1420–1426.

⁵ Calafat AM, Ye X, Wong LY, Reidy JA, Needham LL. 2008. *Urinary concentrations of triclosan in the U.S. population: 2003-2004*. Environmental Health Perspectives, 116(3):303-7.

⁶ Menoutis, J. and A. I. Parisi. 2001. *Triclosan and its impurities*. Triclosan Review Series, Quantex Laboratories, Inc. <<http://www.quantexlabs.com/triclosan.htm>>

⁷ Rule KL, Ebbett VR, Vikesland PJ. 2005. *Formation of chloroform and chlorinated organics by free-chlorine-mediated oxidation of triclosan*, Environmental Science and Technology, 39(9):3176-85.

⁸ See, for example, Kumar V, Chakraborty A, Kural MR, Roy P. 2009. *Alteration of testicular steroidogenesis and histopathology of reproductive system in male rats treated with triclosan*. Reproductive Toxicology, 27(2):177-85 and Kevin M. Crofton, Katie B. Paul, Michael J.

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interferes with thyroid hormone, which is vital for proper development of the brain and nervous system in fetuses, infants, and children, and regulates energy balance in adults. Triclocarban has also been shown to interfere with thyroid hormone as well as estrogens and androgens, the hormones responsible for reproductive function and a number of other physiological processes. Finally, there is some scientific evidence that suggests use of triclosan and other antimicrobial agents may increase widespread antibiotic resistance, which raises further questions regarding the safety of these products.⁹

While FDA and EPA share authority to regulate the uses of these substances, both go fairly unregulated through the consumer marketplace, despite the significant questions regarding their safety. In order to better understand EPA's position and actions involving use of triclosan and triclocarban, I ask for your prompt response to the following questions.

1. What is EPA's status in reviewing the existing data on triclosan and triclocarban? Has the EPA made any decisions regarding the need for further assessment of these chemicals?
2. Will EPA alter its regulations under the Federal Insecticide, Fungicide, and Rodenticide Act for pesticides that contain triclosan or triclocarban in light of biomonitoring studies that reveal the presence of these chemicals in 75% of the U.S. population? If so, please describe your plans, and if not, why not?
3. Given the fact that triclosan has been detected in 60% of U.S. streams, has EPA determined the impact of triclosan on wildlife, such as fish and amphibian species? If so, please provide an explanation of your findings. If not, please explain why EPA has not taken action to determine triclosan's impact.
4. As you know, in 1996, Congress passed amendments to the Safe Drinking Water Act, which contained provisions calling for the screening and testing of chemicals and pesticides for possible endocrine disrupting effects. In response, the EPA established the Endocrine Disruptor Screening Program (EDSP), which is aimed at using validated methods for the screening and testing of chemicals to identify potential endocrine disruptors and determine safe exposure levels to these chemicals.

DeVito, Joan M. Hedge. 2007. *Short-term in vivo exposure to the water contaminant triclosan: Evidence for disruption of thyroxine*. Environmental Toxicology and Pharmacology, 24:194–197.

⁹ See for example: Aiello AE, Larson EL, Levy SB. 2007, *Consumer antibacterial soaps: effective or just risky?* Clinical Infectious Diseases, 45:S137–S147.

- a. Does the EPA have plans to evaluate triclosan, triclocarban and other potentially endocrine-disrupting substances that are used in soaps, detergents and other consumer products under EDSP? If so, please describe such plans in detail, and if not, why not, since these substances could clearly end up in the nation's drinking water?
 - b. Has the EPA reviewed the scientific evidence regarding the endocrine disrupting nature of triclosan and triclocarban? If yes, what has the EPA concluded? If not, why not?
5. Is EPA concerned that simultaneous exposure to these antimicrobial agents via different pathways such as drinking water, eating food and dermal exposure might magnify the potential for adverse effects? Why or why not?
6. Has the EPA itself monitored triclosan or triclocarban in public water systems?
 - a. If yes, please provide a copy of all data collected and EPA's interpretation of these findings.
 - b. If not, does the EPA plan on including these compounds on the Candidate Contaminant List (CCL) to monitor these compounds under the Safe Drinking Water Act? If so, when will these efforts be completed, and if not, why not?
 - c. Generally speaking could the potential for increasing widespread antibiotic resistance be a safety contribution that is assessed when determining if a chemical should be placed on the CCL?
7. Is the EPA aware of any studies that have investigated the potential for triclosan to leach from cutting boards, kitchen utensils, and toys when washed? If so, what was found?
8. In 2008, an EPA Re-registration eligibility decision (RED¹⁰) required label changes to reflect the environmental hazards posed by end-use products containing triclosan. This labeling requirement states:

"Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans, or other waters unless in accordance with the requirements of a National Pollutant Discharge Elimination System (NPDES) permit and the

¹⁰ Re-registrations are a complete review of the human health and environmental effects of pesticides performed in order to make decisions about these pesticides' future use, The 1988 amendments to the Federal Insecticide, Fungicide, and Rodenticide Act required these to be performed for all pesticides first registered before November 1, 1984

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permitting authorities are notified in writing prior to discharge. Do not discharge effluent containing this product to sewer systems without previously notifying the local sewage treatment plant authority. For guidance contact your State Water Board or Regional Office of the EPA."

Does EPA believe that all products that contain triclosan and have the potential to discharge into sewer systems such as antimicrobial soaps and handwashes should be labeled in this fashion? Please explain your response.

Thank you for your assistance and cooperation in this matter. I request that you provide a full and complete response within 15 working days or no later than January 26, 2010. Should you have any questions about this request, please have your staff contact Dr. Avenel Joseph or Dr. Michal Freedhoff of my staff at (202) 225-2836.

Sincerely,



Edward J. Markey
Chairman
Subcommittee on Energy and Environment

cc: The Honorable Henry A. Waxman
Chairman

The Honorable Joe Barton
Ranking Member

The Honorable Fred Upton
Ranking Member
Subcommittee on Energy and Environment