

April 19, 2005

Professor says study not meant to alarm The Virginia Tech researcher said various Web sites garbled the potential health risk identified in his findings. By Jeff Sturgeon <<mailto:jeff.sturgeon@roanoke.com>> 981-3251 The

Roanoke Times

A Blacksburg researcher is at the center of a trans-Atlantic stink about a new but vague risk at the kitchen sink. Research by Virginia Tech's Peter Vikesland found that the chlorine in tap water and the antibacterial agent found in some hand and dish soaps and other products can react to create chloroform, a probable carcinogen.

He did not say or intend for anyone to conclude that the bacteria-busting chemical triclosan is patently unsafe and poses an immediate health concern, notwithstanding what's appeared in the British press.

In what Vikesland called an apparent overreaction to his recent research, British retailer Marks & Spencer took triclosan-enhanced toothpastes off the shelf, the London Evening Standard reported Friday.

"I think people are jumping to conclusions," Vikesland said Monday. "There isn't a huge need to worry at the present."

Vikesland, an environmental chemist, said he thinks a lone writer or writers picked up his research after it was published by a trade journal April 2, reacted with fear, and posted their take on the Web. As additional sites posted their versions, the facts became more garbled and the conclusions more dire, Vikesland said.

As Britons recoiled to such headlines as "Toothpaste Cancer Alert," Vikesland spoke to a live BBC radio program. Last time he checked, Web sites in France and China were carrying nonscientific versions of the story.

The official study, which appeared in the journal *Environmental and Science Technology*, disclosed the novel finding that triclosan in a dish soap and chlorine in household tap water reacted under experimental conditions designed to mimic washing dishes. The reaction produced chloroform, a chemical compound that's been used as a medical anesthetic and an industrial solvent. The Environmental Protection Agency calls chloroform a probable human carcinogen, which means it causes cancer in animals, Vikesland said.

While the research focused mainly on chemical reactions in water-treatment plants, the study warned that "the potential exists for substantial chloroform production to occur via daily household use of triclosan-containing products."

The issue of whether the chloroform could be inhaled or absorbed through the skin should be studied, according to the report, written by Vikesland and Virginia Tech graduate students Krista Rule and Virginia Ebbett.

However, the researchers aren't sure that the reaction happens every time because it depends on the amounts of chlorine and triclosan present, the acidity of the water and other factors.

Whether average people need to be concerned is "not fully established yet," said Vikesland, an assistant professor of civil and environmental engineering. Vikesland said he's not a user of products containing triclosan, but he does not discourage their use.

As to allusions to potential health effects in a Virginia Tech press release, Vikesland said that those issues require study by another branch of science and will no doubt happen.

"The wording, in retrospect, in the press release is a little bit strong," Vikesland said, and contributed to the overreaction.

The press release, dated Friday, said, "Being too clean can be hazardous to your health and environment." Ciba Specialty Chemical, which says on its Web site that it invented triclosan, calls the chemical safe and effective. Company officials could not be reached for comment Monday.

Two university scientists not involved in the study called the work important but not unduly alarming. Vikesland showed that "this common antibacterial compound triclosan can be converted into things we don't want," said Kristopher McNeill, an environmental chemist at the University of Minnesota.

David Nix, an associate professor of pharmacy and medicine at the University of Arizona in Tucson, said that the report raises topics for further study, such as how much chloroform actually gets into the body when a person uses a triclosan-based product. He said he sees few benefits to triclosan, because there's little that ordinary soap can't take care of.