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Tuesday, 15 April, 2003, 23:56 GMT 00:56 UK

Fears over antibacterial ingredient



Exposure to sunlight could turn triclosan, an ingredient of antibacterial soaps, into a polluting chemical, claims research.

And there are fears that normal sewage treatment procedures could convert triclosan into something even more toxic.

Antibacterial home cleaning products are becoming more popular, even though there is limited evidence that they are effective.

Triclosan is commonly the active ingredient in these.

Scientists already knew that under certain laboratory conditions, it could be converted into a mild dioxin.

Dioxins are a group of similar chemicals which have been linked with health problems by experts.

They do not degrade over time, and can accumulate in body tissues to cause a larger effect over time.

Researchers at the University of Minnesota found that when triclosan in water was exposed to sunlight, it was chemically converted into a dioxin.

This reaction produces only a very mildly toxic chemical - perhaps 150,000 times less toxic than the types of dioxin considered the most dangerous.

Bigger problem

However, the scientists believe that triclosan-tainted water treated with chlorine at water treatment plants could then be broken down into something far more potent.

Dr Kristopher McNeill, one of the researchers, said: "Repeated exposure to chlorine could chlorinate triclosan.

"After chlorinated triclosan is discharged, sunlight could convert it into more toxic dioxins.

"Such a process might be a source of highly toxic dioxin in the environment."

Ban attempt

His colleague, Dr William Arnold, said: "This study shows that the disappearance of a pollutant such as triclosan doesn't necessarily mean an environmental threat has been removed.

"It may just have converted into another threat.

"The fact that this conversion can happen in surface layers of rivers may not cause harm by itself, but it suggests that more serious reactions - leading to more toxic forms of dioxin - may also happen."

The researchers said that even low levels of high toxicity dioxin were a problem because of its tendency to accumulate through the food chain.

Clare Oxborrow, from Friends of the Earth, said that there had already been efforts to get triclosan banned.

She said: "We would have concerns about anything which accumulates in the body in the way this does.

"Early studies have also shown that it may have some 'endocrine disrupting' - gender bending - effects on animals."

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