Chemical & Engineering News
Serving the chemical, life sciences and laboratory worlds

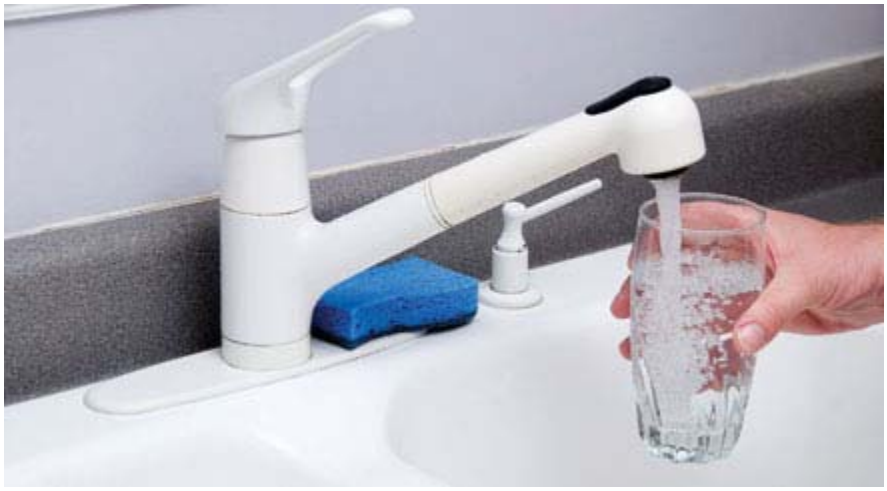
Latest News

January 10, 2011
DOI:10.1021/CEN010611145659

U.S. To Lower Fluoride In Drinking Water

Regulations: New data on health effects, sources of exposure prompt government action

Britt E. Erickson


Shutterstock
HHS and EPA are concerned about the level of fluoride in drinking water.

The federal government is revising its recommendations to water utilities on how much fluoride should be added to drinking water and is considering lowering the maximum allowable level because of concerns that children are being exposed to too much of the tooth-protecting chemical.

In a joint announcement on Jan. 7, the Department of Health & Human Services (HHS) and the Environmental Protection Agency reaffirmed their support for adding fluoride to drinking water to prevent dental cavities. But

they stressed that U.S. children are also getting fluoride from other sources, such as toothpastes, mouth rinses, and processed foods.

HHS proposed to change its recommended limit for fluoride to 0.7 mg/L, replacing the current recommended range of 0.7 to 1.2 mg/L, in its guidance for utilities that add fluoride to drinking water. At the same time, EPA announced that it will take a fresh look at the maximum allowable level, currently set at 4 mg/L, for fluoride that occurs naturally in drinking water.

The action comes in conjunction with the release of new scientific risk assessments performed by EPA. Those assessments examined the noncancer health effects of fluoride as well as sources of exposure.

"Today both HHS and EPA are making announcements on fluoride based on the most up to date scientific data," Peter Silva, assistant administrator of EPA's Office of Water, said in a statement. "EPA's new analysis will help us make sure that people benefit from tooth decay prevention while at the same time avoiding the unwanted health effects from too much fluoride."

Excessive fluoride intake is known to cause dental fluorosis, a condition that can lead to severe pitting and staining of teeth. Most cases of fluorosis in the U.S., however, are mild, involving barely visible white spots on tooth enamel, according to government officials.

EPA conducted the fluoride assessments in response to recommendations made in 2006 by the National Research Council (NRC). Now that EPA has information about health effects and exposure sources, "we'll be looking at analytical methods, treatment approaches, and occurrence across water systems to decide whether or not to revise the standard," Cynthia C. Dougherty, director of EPA's Office of Ground Water & Drinking Water, said during a briefing with stakeholders on Jan. 7. "As part of that we do a cost-benefit analysis as well," she added.

In making its decision to change the recommended limit, HHS considered EPA's new assessments, the 2006 NRC report, current levels of tooth decay and dental fluorosis, and water consumption patterns across the U.S. Because HHS saw no differences in consumption of water by children across all climate zones, it decided that a single limit would be more appropriate than a range, HHS officials said at the briefing.

The American Water Works Association, which represents water utilities, issued a statement commending HHS and EPA for their "extensive and ongoing scientific analysis of community water fluoridation." The group vowed to work with EPA as the agency reviews the fluoride drinking water standard, but it emphasized that a significantly lower maximum level would be expensive for some water systems that rely on groundwater that is naturally high in fluoride.

Chemical & Engineering News
ISSN 0009-2347

Advertisement