

ENCLOSURE

Question 1

I understand that EPA does not endorse water fluoridation. Has the agency taken any steps to have EPA removed from the list of endorsers of water fluoridation published by the American Dental Association? If you have, have they complied?

Response

EPA lacks the authority to require the addition of any material to drinking water for preventive health care purposes unrelated to contamination [SDWA Section 1412 (b)(1)]. For this reason, in 1997 when we became aware that we were listed on their web page, EPA requested that the American Dental Association remove EPA from the list of organizations endorsing the fluoridation program. A copy of the letter to the American Dental Association is enclosed. The American Dental Association worked with EPA to insure that the reference to EPA on their web page accurately reflects our position relative to fluoridation.

Question 2

What chronic toxicity test data are there on sodium fluorosilicate?
On hydrofluorosilicic acid?

Response

Sodium fluorosilicate and hydrofluorosilicic acid are two of the chemicals used in the fluoridation of water supplies. In 1998, the Office of Water (OW) at EPA initiated the development of a fact sheet to provide information on both of these chemicals for interested citizens. A draft of that fact sheet has been completed and is presently under review before being finalized. In collecting the data for the fact sheet, EPA was not able to identify chronic studies for these chemicals. However, data from Crosby (1969) [copy included] indicate that both chemicals dissociate almost completely at the concentrations added to potable water forming hydrogen or sodium ions, fluoride ions, silicon dioxide and water. Thus, the data from chronic studies of sodium fluoride carcinogenicity by the National Toxicology Program (NTP, 1990) and Proctor and Gamble (Mauer et al., 1990) are applicable to sodium fluorosilicate and hydrofluorosilicic acid.

EPA does not regulate drinking water treatment chemicals. When a member of the public contacts EPA regarding fluoridation chemicals, EPA refers that person to the agencies that certify drinking water treatment chemicals, NSF International and Underwriter's Laboratories, for additional information. A copy of the enclosed Regulatory Fact Sheet is sent to the citizen with our response. When the enclosed draft fluorosilicate fact sheet is finalized it will also be sent to those making inquiries.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

WASHINGTON, D. C. 20460

June 23, 1999

OFFICE OF
WATER

The Honorable Ken Calvert
Chairman
Subcommittee on Energy and The Environment
Committee on Science
House of Representatives
Washington, DC 20515-6310

Dear Mr. Chairman:

Thank you for your May 10, 1999, letter to Carol M. Browner, Administrator of the United States Environmental Protection Agency (EPA) regarding fluoride and fluoridation. Fluoride in drinking water is a subject about which EPA continues to receive a steady series of questions from a number of concerned stakeholders. We have responded to each of your questions in the enclosure to this letter.

Fluoride in drinking water is regulated by EPA under Section 1412 of the Safe Drinking Water Act (SDWA). On April 2, 1986, EPA set a revised MCL at 4 mg/L to protect against crippling, skeletal fluorosis, an adverse health effect. In August 1993, the National Research Council (NRC) completed a review of fluoride toxicity and exposure for EPA. The findings of the NRC were published as, "Health Effects of Ingested Fluoride", National Research Council, National Academy Press, Washington, D.C. 1993. The NRC concluded that the current 4 mg/L standard is "appropriate as an interim standard" to protect the public health. In addition, EPA set a nonenforceable Secondary Maximum Contaminant Level of 2 mg/L to protect against objectionable dental fluorosis (tooth discoloration).

The SDWA prohibits EPA from requiring the addition of any substance (including fluoride) to drinking water for preventative health care purposes unrelated to contamination [Section 1412 (b)(1)]. As a consequence, State or local authorities determine whether or not to fluoridate their water supply. Depending on local conditions, fluoridation in this country is practiced at a level of about 1 mg/L, which is well below the current 4 mg/L SDWA Federal standard.

The Centers for Disease Control (CDC) is the principal Federal agency involved in research on fluoridation in this country. Some of the questions you have asked pertain to fluoridation rather than the EPA MCL/MCLG. For more detailed answers to those questions you may wish to contact: