

Technical Response
to
Marin MWD Fluoridation Moratorium Initiative

The following is from a proposed Ballot initiative for the Marin Municipal Water District.
“AN INITIATIVE TO INSTITUTE A MORATORIUM ON ALL MARIN MUNICIPAL WATER DISTRICT WATER FLUORIDATION PENDING PROVISION OF INFORMATION ON FLUORIDATING CHEMICAL”

If approved by voters, this initiative would, to the extent not preempted by state law, impose a local water district moratorium on water fluoridation that would remain in place unless and until such time as each and every manufacturer of the fluoridating chemical supplied to the district for water fluoridation provides to district customers and consumers:

1. An accurate list of all contaminants and their amounts, accompanying each batch of fluoridating chemical supplied to the District;
2. A detailed toxicological report on the fluoridating chemical; and
3. A written statement verifying the fluoridating chemical's safety for ingestion, once introduced into the water supply, by all water consumers.

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This initiative attempts to establish an insurmountable threshold that is unrealistic and would treat fluoride differently than any other product added to drinking water.

Two standards set by NSF/ANSI and the USEPA have been established to protect the safety of drinking water. NSF International is an accredited, independent third-party certification body that tests and certifies products to verify they meet these public health and safety standards. Products that meet these standards bear the NSF mark.

The NSF Water Division certifies products that come into contact with drinking water, such as plumbing components, water treatment chemicals and drinking water filters, as well as pool and spa equipment. NSF led the development of American National Standards for all materials and products that treat or come in contact with drinking water to help protect public health and the environment and minimize adverse health effects. In 1990, the U.S. EPA replaced its own drinking water product advisory program with these NSF standards.

NSF/ANSI Standard 60 was developed to establish requirements for the control of potential adverse human health effects from products added directly to water during its treatment, storage and distribution. The standard requires a full formulation disclosure of each chemical ingredient in a product to allow for a toxicological evaluation. The standard requires testing of the treatment chemical products, typically by dosing these in water at ten times the maximum use level so that trace levels of contaminants can be detected. A further toxicological evaluation of test results is required to determine if the concentrations of any detected contaminants have the potential to cause adverse human health effects. For certification under NSF 60, the concentration of impurities must be at 10 percent or less of any applicable MCL, MAL, or other health standard. Inspections of production facilities are unannounced, conducted annually, and have demonstrably

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reduced the concentration of impurities in water treatment chemicals. Each MCL, MAL, or other health standard has toxicological data to support the quantitative determination, and that health standard is determined by some of the top public health practitioners in the United States, Canada, or wherever the health standard originates.

The standard sets criteria for the derivation of single product allowable concentrations (SPAC) of chemicals of interest. For contaminants regulated by the U.S. Environmental Protection Agency (EPA), the SPAC is set to a default level not to exceed 10 percent of the regulatory level in order to ensure that the consumer is adequately protected in the event that multiple sources of a contaminant exist in the water supply.

The NSF Fact Sheet on Fluoridation Products (February 15, 2013) provides the information used by CDC that describes the evidence and safeguards in place to protect the public from contaminants in fluoridating chemicals:

<http://www.cdc.gov/fluoridation/factsheets/engineering/wfadditives.htm>
[http://www.nsf.org/newsroom_pdf/NSF Fact Sheet on Fluoridation.pdf](http://www.nsf.org/newsroom_pdf/NSF_Fact_Sheet_on_Fluoridation.pdf)

Every batch of fluoridating chemical is not generally tested. Standard 60 provides greater protection than individual batch testing. Individual batch testing would require an assay of material content for those items identified in the list of substances tested, but it would not provide any indication of what other substances might be present but not tested, while Standard 60 provides a firm identification of what needs to be tested for product validations due to possible sources. What batch testing does not provide is validation of product integrity, and Standard 60 does provide validation of product integrity from production, to logistical delivery, to repackaging for customer delivery.

Another failing of batch testing is that it does not protect the consumer from unethical business distributors. They can falsify assays and there is no testing of falsified assays. Standard 60 does provide that protection by establishing the business practices and material handling validations, therefore, Standard 60 provides superior protection to the public.

The testing by NSF indicates levels of contaminants that are well below the threshold set by the EPA. (See below: NSF/ANSI Standard 60)

Detailed toxicological reports on fluoridation additives are not relevant, because the public does not consume the additive, only the fluoride ion produced by adding the additive to water.

http://www.cdc.gov/fluoridation/safety/health_effects.htm
[Water fluoridation and the environment: current perspective in the United States](#)

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Int J Occup Environ Health. 2004 Jul-Sep;10(3):343-50.

Fluoridated water is safe to drink if it meets regulatory requirements, which it does.

<http://www.cdc.gov/fluoridation/safety/index.htm>