

Bottled Water Quality Investigation: 10 Major Brands, 38 Pollutants: Is FDA Able to Ensure Bottled Water Quality?

Under FDA's bottled water regulations, bottled water is not required to be any safer than tap water. In fact, the chemical pollution standards are identical, with the sole exception of lead, for which FDA limits are stricter than the EPA limits (FDA 2008b; FDA 2002). Moreover, the current microbiological standards are weaker for bottled water compared to tap water (FDA 2008c).

When it comes to bottled water, FDA largely takes a hands-off approach. As stated on the FDA

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website, "bottled water plants generally are assigned low priority for inspection" (FDA 2002). Moreover, firms that use a public water system for their bottled water production may rely on public water system testing results instead of conducting their own independent testing, while

other bottlers may reduce the frequency of their testing, as well as the number of chemical contaminants for which they test by obtaining a state-issued waiver (Title 21 CFR 129.35(a)(4)(i-ii)).

As a result of weak standards and insufficient oversight, bottled water can be contaminated with various chemical and bacterial pollutants. Unfairly, consumers are left in the dark about these quality problems, since, unlike the municipal water companies, bottled water companies are not required to make public their water testing results. And many drinking water contaminants are unregulated - any level is legal.

Current FDA regulation of microbiological contaminants in bottled water is particularly embarrassing; the standards do not even specify which microorganisms should be tested or what levels of source water contamination will make it unfit for bottling (Title 21 CFR 129.35(a)(3)(i)).

Finished bottled water products must be tested for total coliform; however, FDA allows up to 9.2 coliform

organisms in 100 ml of bottled water (21 CFR 165.110(b)(2)). Recently, FDA proposed a rule to make microbiological quality standards for bottled water sources as strict as the EPA standards for tap water (FDA 2008c). Although it would serve as a much needed step to protect public health, the new rule would not guarantee that bottled water is safer than tap water. Instead, the only enforcement mechanism would be a requirement that a bottled water drawn from contaminated sources or tainted with microbiological contaminants carry a label with a statement of substandard quality.

According to FDA: "A statement of substandard quality only prevents bottled water that exceeds an allowable level for a contaminant from being misbranded... it does not prevent the water from being adulterated" (FDA 2008c). Given the history of inappropriate labeling and lack of full disclosure by

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the bottled water industry, this rule does not seem sufficient to guarantee bottled water quality for consumers.

How can consumers know whether they are purchasing a reliable product or paying up a premium for over-priced tap water packaged in a questionable plastic bottle? Under Title 21 of the Code of Federal Regulations, bottlers are obligated to list on the label the type of bottled water and, for bottled water sourced from a public water system, the label must disclose that fact (21 CFR 165.110(a)(3)). However, this requirement can be circumvented by the bottlers. Simply by using water that has been "purified", "deionized" or "distilled", bottlers are free from legal obligation to disclose the tap water origin of their product (FDA 2008b). As a result, our health is left at risk - and manufacturers who wish to cut corners and neglect appropriate treatment of water before bottling can easily do so.

Voluntary industry standards claim to be more protective than the FDA regulations (Doss 2008; IBWA 2008b). However, precisely since these standards are voluntary, there is no monitoring or enforcement mechanism in place. As a result, many bottled waters tested by EWG contained levels of disinfection by-products more than twice higher than the industry self-proclaimed voluntary standard. Voluntary compliance or, more frequently, lack of such, cannot substitute for appropriate government regulations that will protect the health of people and the environment.

In summary, FDA needs to close the loophole that allows bottlers to avoid disclosing municipal sources of their waters. FDA also needs to set adequate, enforceable standards that will guarantee quality and safety of bottled water. Finally, in order to continue enjoying good, healthy, and tasty drinking water for years to come, we urgently need to invest into protection of ambient waters, the sources of our drinking water, and the infrastructure that delivers water to our homes. All Americans deserve to have access to good quality drinking water, with full disclosure of its sources, treatment, and potential presence of chemical contaminants. Otherwise, marketing the image of purity and not delivering on the promise leaves bottled water drinkers at risk.