



## Bottled Water's Path to Market

**B**ottled water is comprehensively regulated as a packaged food product. Stringent federal, state and industry requirements are instrumental in maintaining bottled water's consistent safety, quality and good taste. The industry's commitment to excellence plays an equally important role in helping to ensure consumer satisfaction. This article illustrates the many processes bottled water products undergo, from the source to the consumer. It also describes the federal, state and industry regulations for safety and quality that bottled water companies must follow. Bottlers may use all or a combination of the steps in the "Path to Market" to help ensure the safety and quality control of their products.

### Regulations and Standards

Bottled water must adhere to federal and state regulations and standards. At the federal level, bottled water is regulated as a packaged food product, governed by the U.S. Food and Drug Administration (FDA) under the Federal Food, Drug, and Cosmetic Act, and several sections of Title 21 of the Code of Federal Regulations. These comprehensive regulations and standards include: standards of identity (bottled water types); standards of quality; general food Good Manufacturing Practices (GMPs); additional bottled water-specific GMPs; the Nutrition Labeling Education Act (NLEA) and various FDA labeling requirements; and FDA food misbranding and adulteration provisions. By law, FDA standards for bottled water must be as stringent as the U.S. Environmental Protection Agency's (EPA's) standards for public water systems.

State governments generally employ one of two, or a combination of the following two approaches, in their regula-

tion of bottled water:

**Federal/FDA Model.** Bottled water is treated solely as a food product and subject to FDA's extensive food safety and labeling requirements. The vast majority of states follow this model. Many of these states have enacted legislation and adopted regulations identical to the federal standards.

**Environmental Model.** Bottled water is sometimes regulated by a particular state's environmental protection or natural resources agency, comparable to that of the EPA, and is thus subject to state regulations similar to the Safe Drinking Water Act. Very few states regulate bottled water under the environmental model.

At the industry level, additional measures are in place to help ensure the safety and quality of bottled water, from the source, all the way to the finished product. Bottler members of IBWA must adhere to the IBWA Model Code. One important measure required by the Model Code is the annual, unannounced facility inspection. These inspections are conducted by an independent third-party organization and assess compliance with all applicable federal and state regulations and industry requirements. The IBWA Model Code is more stringent in several cases than both federal and state regulations and has been adopted by more than a dozen states as their standard for bottle water regulation.

IBWA members are also required to employ a HACCP (Hazard Analysis Critical Control Point) approach to quality assurance. This practice scrutinizes every step of the production process—from source to finished product—that are critically important to the safety of the product and puts in place systems to help ensure that all safety

and quality control processes are functioning effectively. Identification of risk and severity of health effects and control measures for specific biological, chemical and physical agents are included. Widely used in the food and pharmaceutical industries, the FDA considers HACCP a comprehensive method for assuring product safety.

Bottled water imported into the United States must adhere to FDA standards and applicable state regulations. IBWA international members are also bound by IBWA Model Code provisions, including an annual, unannounced third-party plant inspection and HACCP plan requirements. IBWA is a participating member of the International Council of Bottled Water Associations, a global organization formed to share information and resources among the world's bottled water trade groups. On a global level, the Codex Alimentarius Commission, the food standards body of the World Health Organization (WHO), also establishes bottled water standards. Codex sets parameters that help nations develop and implement safety and quality standards for domestic and international trade. IBWA holds a designation as a Non-Governmental Organization to the Codex Commission and shares bottled water expertise with this crucial international body.

### Testing Fundamentals

To help ensure bottled water safety and quality, FDA, the states and IBWA require all bottlers to follow source protection, finished product testing and monitoring requirements throughout the entire process. The water is routinely monitored and tested for organic substances such as pesticides and herbicides; volatile organic compounds; inorganic substances such as lead, copper, zinc and chloride;

minerals; microbiologicals; radiologicals; and other physical properties.

### Path To Market

Bottled water companies use one of two water sources: ground water sources or public water sources. The water for most bottled water comes from approved, protected and monitored springs or artesian wells originating from within the earth. These ground-water sources are inspected, tested and certified to be of sanitary quality and free from surface water influence.

Bottled water may also originate from treated municipal supplies. Bottled water companies utilizing public water supplies most often use pretreatment and purification processing methods to further enhance the quality of the water. Both spring sources and public waters may use all or a combination of the following processing steps: ultraviolet (UV) light, filtration, reverse osmosis and ozonation. Minerals are found naturally in water, but the processing of bottled water may result in the removal of minerals. Therefore, in some instances, mineral injection is used to restore certain minerals to the purified water.

FDA's bottled water GMPs mandate that bottled water be placed in sanitary, safety-sealed containers under sanitary conditions. Materials utilized for the container, cap and seal must be approved by FDA for food contact. Reusable container washing, rinsing and sanitizing are carefully evaluated to comply with federal, state and industry requirements. Open bottles in the plant are protected from airborne contamination throughout the production process. Bottles, whether single-serve or multi-serve size, are required to be filled and capped in a fully enclosed, positively pressurized room with an air handling system filtering the air.

Coding is used on bottles to provide a record of production dates and lot numbers. This assists bottlers, distributors and retailers in product tracking and inventory control.

Bottled water products must adhere to a wide range of FDA labeling standards, including Standards of Identity, which establish uniform terms to define bottled water types, as well as applicable labeling standards under the Nutrition Labeling Education Act (NLEA). A bottled water product bearing a particular statement of identity must meet the appropriate FDA standards. Bottled water definitions include: drinking water, artesian water, groundwater, distilled water, deionized water, mineral water, purified water, sparkling bottled water, spring water, sterile water and well water.

Consumers are well protected by the current system that subjects bottled water to stringent FDA, state and industry requirements. These standards help ensure that adulterated or mislabeled products do not reach the consumer. Moreover, if consumers have questions about their bottled water, they can contact the manufacturer, packer or distributor to obtain additional product information. This information is required by law to be included on the label. In addition, most bottlers also provide a telephone number on the label. IBWA members are required under the Model Code to include a telephone number on the label of their proprietary brands.

In sum, all of these processes within the Path to Market ensure bottled water's consistent safety, quality, good taste and convenience. IBWA and the bottled water industry take seriously our commitment to make the best possible product. We will continue to work very hard to maintain consumer confidence in bottled water. **WQP**

#### About the Author

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## IBWA

The bottled water "Path to Market," developed by the International Bottled Water Association (IBWA), illustrates the many processes involved in producing bottled water from the source to the consumer. The Path to Market demonstrates not only the manufacturing procedures, but also the multi-level practices and regulations that help ensure bottled water safety and quality. IBWA's Path to Market informs users about how the U.S. Food and Drug Administration (FDA) regulates bottled water as a packaged food product, through stringent standards for safety, quality, production, labeling and identity. In addition, it describes how state governmental agencies regulate bottled water and how IBWA members adhere to additional standards through the IBWA Model Code. For more information, visit IBWA at [www.bottledwater.org](http://www.bottledwater.org).

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