

Chlorine Test Strips

Health need

The World Health Organization estimates 1.8 million people, including nearly 4,000 children a day, die each year from preventable diarrheal diseases; many of these deaths are attributed to unsafe water. Various products exist today to treat and safely store water. Yet, according to international experts, less than 1 percent of the 1.1 billion people without access to improved water supplies are being reached with current efforts to promote household water treatment and storage (HWTS). Too few people have access to simple water treatment solutions that could save lives.

Technology solution

PATH and Cascade Designs, Inc. from Seattle, WA, partnered with the maker of rapid and accurate tests for various chemical solutions, Precision Laboratories from Arizona, to refine a simple test strip that enables accurate chlorine dosing of treated water.

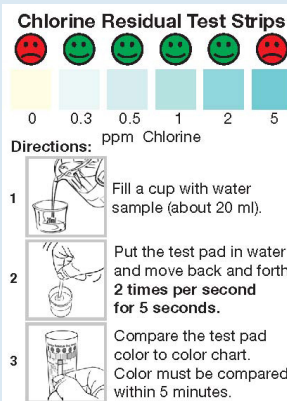
Accurate dosing of chlorine to treat water balances the need for residual safety with optimal taste and odor—even at various water temperatures and pH levels. With the presence of commonly found natural water contaminants, this test strip produces highly precise and accurate results. The chlorine test strip from Precision Laboratories allows PATH to address the market need for a low-cost, appropriate, and easy-to-use chlorine indicator to help others ensure that water is safer for those most in need.

PATH worked with Precision Laboratories to customize instructions on the label with three illustrated steps designed to convey accurate use of the product to illiterate and nonnative English speakers: (1) dip the strip in water, (2) move back and forth for five seconds, (3) read the result. The indicator pad color shows whether chlorine is below, within, or above the target range of 0.2 ppm to 2.0 ppm.

Current status and results

Precision Laboratories has guaranteed a five-year supply of the custom-labeled product, as well as preferential pricing for PATH and other organizations that manage implementation of chlorine-based interventions for treatment of drinking water in low-resource settings. Each bottle of 100 test strips costs just US\$3.50 or US\$0.035 per test. The test is accurate to 0.01 ppm with a residual chlorine detection range of 0 ppm to 5 ppm.

PATH helped design the Precision test strip to meet the needs of users in low-income settings. PATH is looking for additional opportunities for the test strips, as they could be useful for monitoring community-scale chlorine-based treatment or conducting field research of chlorine-based treatment interventions, whether at the community or household level. The test strip is available through Precision Laboratories.



A simple, easy-to-read test strip for testing for accurate levels of chlorine.

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Availability

For more information regarding the Precision test strip product, contact Precision Laboratories at preclab@aol.com.

For more information regarding this project, contact Jesse Schubert at ChlorineTest@path.org.

Donor support

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