

## **Test Strips**

It takes more than soap and water to keep a food business clean and safe. It also takes chemicals and care. There are two steps in having a clean and sanitary kitchen. The first step is to clean all surfaces with warm, soapy water, then rinse the surfaces with warm water to remove soap residue and remaining dirt. The second step is to use a <u>sanitizer or disinfectant</u> to destroy any microorganisms that might remain on a cleaned surface. The two most common sanitizers used are chlorine (bleach) or quaternary ammonia compounds (quat). Krowne Metal distributes (2) types of test strips for checking chemical sanitizing solutions.

**Chlorine Test Strips** (for bleach based products) – Are used to confirm if bleach-based sanitizers are at the appropriate concentration for use in sanitizing food processing equipment. The strip should be dipped into a solution (a dilution of bleach for immediate use), and then compared to the color chart included with the product. You should be able to determine, in seconds, whether or not your bleach cleaning solution is at the strength recommended for safe food handling. The color indicated will either tell you, for example, that the solution is "strong enough to kill bacteria" at 200 ppm, or alternatively, the solution is "close to inactive" at 10ppm. Do not dip the test strip directly into a bleach container. Please consult your local health department to ensure you are meeting the appropriate standard.



## Instructions for making a bleach sanitizer solution:

- 1. In a bucket, mix 1 teaspoon of bleach in 1 gallon of water.
- 2. Using chlorine test strips, dip the test strip in the solution to measure the concentration of bleach sanitizer.
- 3. Be sure the level is the appropriate ppm as per your local health department.
- 4. Bleach should be used with warm water for best results.



**QAC Test Strips** (for quaternary ammonia compounds) – Are used to confirm if QAC (quaternary ammonium chloride) sanitizers are at the appropriate concentration for use in sanitizing food processing equipment. The test strips should be placed in the test solution until saturated, then after 60-90 seconds, compared to the color cart on the label for reading. QAC concentration that is too low may not thoroughly sanitize surfaces or equipment. Using a concentration that is higher than recommended for food contact items without a formal rinse may leave a toxic residue on these surfaces. Please consult your local health department to ensure you are meeting the appropriate standard.

## Instructions for making a QUAT sanitizer solution:

- 1. In a bucket, mix solution according to the directions on the label.
- 2. Using quat test strips, dip the test strip in the solution to measure the concentration of the quat sanitizer.
- 3. Be sure the level is the appropriate ppm as per your local health department.

*Krowne is also a distributor of pH test strips. The strips are great for testing medium strength acids, such as acetic acid (vinegar), salsa, and sushi rice.* 

**pH Test Strips** – a narrow-range strip testing in increments of .5pH steps. These test strips are easy to use. Dip a strip into the solution to be tested for a couple of seconds, remove and shake excess liquid. Compare against the included color chart immediately. Do not allow the strip to dry before reading. Please consult your local health department to ensure you are meeting the appropriate standard.

pH test strips are primarily used for testing and recording the acid level in sushi rice. Special care needs to be taken in preparation of the rice used with sushi to prevent potential bacterial growth while assuring the rice can still be formed into balls and rolls. Proper acidification of cooked rice with vinegar recipes helps preserve the rice for temporary handling at temperatures above 41°F, but the acid level, measured by pH, should be carefully monitored for each batch.



## Measuring pH in Sushi Rice:

Measure the acidity (pH) of your Sushi Rice within 30 minutes of acidification (mixing the cooked rice and vinegar solution)

- 1. Make a rice slurry by gathering a <sup>1</sup>/<sub>4</sub> cup sample of the cooked, acidified rice taken from various locations in the batch and add <sup>3</sup>/<sub>4</sub> cup of distilled water in a clear plastic or metal blend cup.
- 2. Blend the slurry (mixture) for approximately 20 seconds to create a thorough mix.
- 3. Remove one strip of 3060 pH test paper and hold between index finger and thumb.
- 4. Dip the test strip into the liquid portion of the slurry for 1-2 seconds.
- 5. Shake off excess liquid and match color of pad to color chart provided with test strips.
- 6. Sushi Rice with an initial pH greater than 4.6 should be re-acidified with more vinegar solution and rechecked to assure a targeted pH of 4.1
- 7. Record the pH measurements in a pH log.