

GLOBAL SENSORS NEW ITEM

"Quats" Test is Essential for Proper Sanitary Rinsing

There is a bit of mystery about quaternary ammonium solutions and what they do. The answer is, they kill microbes:

"Quaternary ammonium compounds are lethal to a wide variety of organisms except endospores, Non-enveloped viruses, and Pseudomonas" according to an authoritative source. In other words, almost every bug encountered in food services areas is killed with quats. That is why they are used widely in the food preparation industries.

The exception to this is that these solutions gradually lose their strength (due to food residue and detergent residue). They need to be tested and renewed periodically. You can't tell by looking, so you have to test the solution for strength using test strips.

Quats test kits come in three different ranges. Each of these ranges applies to very specific conditions. QT-10 is normal range [0 to 400 ppm]. QT-40 extends the range of the QT-10. QT-40 covers almost every situation and has more accuracy than the Wide Range "Quat Check 1000" test kit.

Global Sensors QT-10 Kit
\$30.00
Global Sensors QT-10 Refill
\$16.00
Global Sensors QT-40 Kit
\$33.00
Global Sensors QT-40 Refill
\$19.00
Global Sensors Quat Check 1000 Kit
\$33.00
Global Sensors Quat Check 1000 Refill
\$19.00

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Global Sensors Quaternary Ammonium Test

Read our special web information pages on quats. We explain how to use them, when to use them, and what type is best for your particular application. Go to www.global-sensors.com and check out our "about quats" link.



Low Range QT-10 Test Kit (Refill not shown)

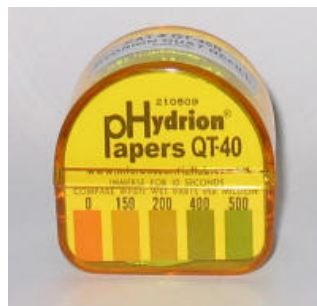
Each kit is supplied with 5 dispensers with tear-off serrated tabs. Product comprises a box with 5 15 foot rolls of QT-10 strip material, each in a dispenser. Color comparison chart is built into each dispenser.

Refill is a plastic box holding 5 rolls of 15' each.



Mid Range QT-40 Test Kit

Each kit is supplied with 5 dispensers with tear-off serrated tabs. Product comprises a box with 5 15 foot rolls of QT-40 strip material, each in a dispenser. Color comparison chart is built into each dispenser.



Refill for QT-40

Refill is a plastic box holding 5 rolls of 15' each. Mid range strips are used by many professionals in the food service industry as their "universal" test kit for quats. Wide range strips have less resolution since they cover twice the range of these strips. The highest resolution is provided by the QT-10 strips, but these often "miss" the 400-500 ppm range.



Wide Range Quat Check 1000 Kit

Each kit is supplied with 5 dispensers with tear-off serrated tabs. Product comprises a box with 5 15 foot rolls of 0-1000 ppm strip material, each in a dispenser. Color comparison chart is built into each dispenser



Quat Check 1000 Refill

Refill is a plastic box holding 5 rolls of 15' each. The wide range strips are a good place to start if you are not aware of the factors affecting a particular situation. Higher concentrations of quats are required for hard water and when the pH of the solution water is low. In these situations, the effective range is higher than 500 ppm, so you should use this 0-1000 ppm strip for effectiveness testing.

Sanitizing With Ammonium Solutions

The best way to use quaternary ammonium as a routine sanitizer is to really understand what is needed in terms of strength. This is why using our [AQA 150Z](#) quaternary ammonium test kit is the key to really doing it the right way.



"Quats" are active against a wide variety of microorganisms. Unlike bleach, "quats" are odorless and colorless. And, also unlike bleach, they are non-corrosive, so they will be safer to use over time with metal equipment and surfaces. Their antimicrobial action is varied and selective, but they are generally as effective as bleach/chlorine solutions.

The most common "quat" is benzalkonium chloride. It is commonly used in water dilution to create a highly effective sanitizing solution. The standard for "quat" mixing is 200 PPM. There are over 40 suppliers that provide "quat" sanitizing concentrates. Each one needs testing to be sure that appropriate concentration has been achieved.

Using the test kit is simple:

- Remove the foil covering the paper roll in the plastic roll holder
- Place the roll back in the dispenser so that you can tear off strips of the paper for testing
- Use the quat mixing guidelines below to mix your Concentrate solution
- TEST to make sure that the solution is strong enough to sanitize
- Make sure that your quat solution is at 200 PPM (or other appropriate concentration) using the color reference chart.
- If the solution is below 200, add more quat concentrate
- If the solution is obviously above 200, you must dilute down to 200

Why Use Test Strips?

The answer is simple: you don't always get "quat" solutions of the right strength, even if you follow mixing instructions. What causes this? Sometimes water used for "quat" preparation contains natural chemicals that work to weaken the solution and sometimes the "quat" concentrate itself has lost strength.

Health inspectors look for "quat" solutions to have at least 200PPM concentration of quaternary ammonium. Best practice requires 200PPM and not above (health inspectors cite too much "quat" concentration much more than not enough). Appropriate levels can only be confirmed by test strips.

If you have known hard water conditions, then it is necessary to increase the quats concentration for equal effectiveness. Over twice the concentration may be required. Contact your local health inspector for information that is related to the local water supply.

How to Mix and Use Quat Solutions

There are many different types of "quat" concentrates, so there are no general guidelines for mixing. Most commercial containers will describe in detail how to mix the compound to a certain concentration, but it is always best to **mix, then test**.

"Quats" must not be used directly with soaps or detergents. An intermediary hot rinse step is necessary if quats are used for immersion sanitation of utensils.

"Quats" can be sprayed or wiped directly on certain non-food-contact surfaces and then allowed to dry.

"Quats" at normal concentration is the only sanitizer proven effective as a "hand dip" for hand wash procedures.

A standard for time of exposure is 1 minute for most sanitizers, including "quats". A minimum exposure time standard would be 30 seconds. Generally, food touching surfaces should be post-rinsed, unless processing equipment is being treated (see chart below).

Here is a guideline for mixing and using "quat" solutions:

| Sanitizing Activity | Ratio | Should Test to <u>Minimum</u> PPM | If Low / If High |
|---|--|---|------------------|
| Pots, Pans, Dishes and Utensils | Mix according to manufacturer's instructions | 200 PPM | Test and adjust |
| Food Contact Surfaces | Mix according to manufacturer's instructions | 200 PPM | Test and adjust |
| Hand Dip | Mix according to manufacturer's instructions | 200 PPM | Test and adjust |
| Food Processing Equipment | Mix according to manufacturer's instructions | 200 - 400 PPM (or use higher concentrations to treat, then rinse, then final wipe or spray with lower concentration) | Test and adjust |
| Non Food Contact Surfaces (walls and floors) | Increase concentration | above 400 PPM | Test and adjust |
| Cleaning Tools, Boots | Increase concentration | 800 to 1000 PPM | Test and adjust |

