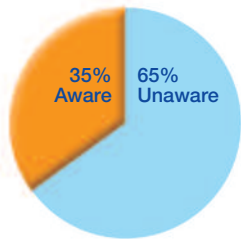




KNOW YOUR LIMITS

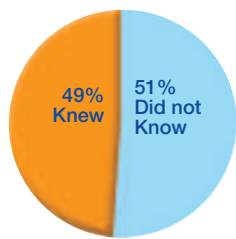
the FYI on CYA

Awareness of New Regulations



65% not aware of recommendations/regulations limiting CYA

Knowledge of CYA Stabilizer Levels



Half of survey respondents not aware of proper CYA levels at which to operate their pools

What is Cyanuric Acid?

Cyanuric Acid (CYA) is a weak acid that is used as a chlorine “stabilizer” for swimming pools. When exposed to the ultraviolet rays of the sun, free chlorine in the pool water will break down. Cyanuric Acid is intended to reduce this loss of chlorine.

Many pool owners and operators are unaware of new recommendations/regulations under consideration regarding cyanuric acid in controlling Cryptosporidium

TOO MUCH OF A GOOD THING

While helpful when used correctly, cyanuric acid (CYA) significantly increases the amount of time it takes for chlorine to kill harmful micro-organisms. As the level of CYA rises, the activity of free chlorine is slowed.

Beware of over stabilization: At levels above 50 ppm of CYA, the time it takes to kill germs in the water is much longer compared to swimming pool water that is free of CYA.

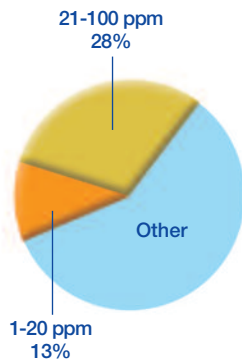
For example, hyperchlorination to treat Cryptosporidium (commonly known as Crypto) can take many times as long with CYA levels over 50 ppm versus no CYA. Laboratory studies have shown that as little as 50 ppm of CYA/stabilizer can increase the time needed to deactivate Cryptosporidium several fold—making it extremely difficult to achieve the required 99.9 percent inactivation level by hyperchlorination. (The protozoan parasite Cryptosporidium parvum can cause acute gastrointestinal illness that can be quite severe and in rare cases fatal.)

NEW RECOMMENDATIONS/REGULATIONS IN THE PIPELINE

Various regulatory bodies, health authorities and committees of experts are considering changes to codes and/or recommendations regarding the amount of CYA in recreational water. However, a recent survey* conducted by the Accu-Tab® System group from Axiall Corporation revealed that many recreational water facility operators were not aware of these changes. In fact, 65 percent of respondents were not aware that changes limiting levels of CYA to 50 ppm or less were under consideration and/or scheduled to be implemented in Florida, Wisconsin, Texas and other states.**

The survey also found that half of respondents did not know the level of CYA/stabilizer at which to operate their pools. With regulations pending or being proposed in various states, pool operators need to be proactive in educating themselves and their staffs about the proper limits of CYA to use in their facilities.

CYA Levels and Pool Shutdowns



28 percent of commercial pools with moderate to high stabilizer (21-100 ppm) have been shut down due to water quality issues since 2007. This contrasts with shutdowns of only 13 percent of pools having CYA levels maintained at 1-20 ppm.

ACTION STEPS

When dealing with CYA, pool owners and operators should consider the following action steps to prepare for upcoming recommendations/regulations and help keep facilities safe on an ongoing basis:

1. Check CYA on a regular basis—at least once a month.***
2. CYA should be used in outdoor swimming pools only. It should never be used in indoor swimming pools or spas.
3. Limit CYA in outdoor pools to 20 ppm.
4. Have a CYA test kit and educate staff on how to use and understand the readings. (Look for a high sensitivity test kit. Many kits do not measure below 30 ppm CYA.)
5. Never add more CYA before checking the current level. The best way to reduce CYA is to partially drain the pool and add fresh water.

OTHER RESOURCES:

- The CDC's (Centers for Disease Control and Prevention) Healthy Swimming web site www.cdc.gov/healthywater/swimming
- National Swimming Pool Foundation (NSPF) www.nspf.org
- The Association of Pool & Spa Professionals www.apsp.org
- Professional Pool Operators of America www.ppoa.org

ABOUT ACCU-TAB SYSTEM ADVISORIES

Accu-Tab System Advisories are a series of informational bulletins highlighting issues of critical importance to the recreational water industry. The information and corresponding action steps in these advisories are based on primary research garnered from a survey of qualified commercial pool owners and operators throughout the United States.

Part of Axiall's comprehensive Accu-Tab System Advisor Series, these Advisories are designed to help commercial pool owners and operators make informed decisions in operating their recreational water facilities more safely, effectively and efficiently. For more information about the Accu-Tab System, please visit www.accu-tab.com.



* Survey of >100 commercial swimming pool owners/operators conducted by Axiall Corporation, in 2009.

** Since the completion of this survey, Florida now recommends that commercial pools operate with no more than 40 mg/L (40 ppm) of CYA though the enforceable upper limit remains at 100 ppm.

*** Using stabilized (CYA-containing) chlorinating agents to satisfy high chlorine demand (10 ppm/day) can result in a CYA increase from 0 to 50 ppm in less than nine days, even when pool water is drained and replaced at a rate of 2 percent per week.

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