

YUBA COUNTY ENVIRONMENTAL HEALTH DEPARTMENT

915 8th STREET, SUITE 123 • MARYSVILLE, CA 95901
(530) 749-5450 • FAX (530) 749-5454



FACT SHEET ON CYANURIC ACID

What is cyanuric acid? Cyanuric acid is a chlorine stabilizer for swimming pools. It is usually referred to as “stabilizer”. It should not be confused with muriatic acid which is often used to adjust the pH

Where does cyanuric acid come from? Two of the most common chlorine products used for disinfection are dichlor and trichlor. Dichlor and trichlor contain both chlorine and cyanuric acid so it is not necessary to add cyanuric acid to the pool water. Stabilizer is also sold at most pool supply stores. Cal-hypo and liquid chlorine do not contain stabilizer.

What does cyanuric acid do? Cyanuric acid combines with free chlorine in pool water, protecting it from the sun’s ultraviolet rays and reducing chlorine loss. Properly managed, cyanuric acid can reduce the amount of chlorine needed to maintain the minimum chlorine residual in an outdoor pool.

What is the downside to cyanuric acid? By forming temporary binding with the free chlorine, cyanuric acid will reduce the overall effectiveness of chlorine. As the level of cyanuric acid rises, free chlorine’s ability to act as a disinfectant is weakened. The amount of time it takes to kill bacteria lengthens as the concentration of cyanuric acid increases.

In the hot summers, the chlorine will be used up, however, cyanuric acid is never used up and accumulates in the pool water as a waste product. Once you have added it to the pool water, it will remain in the water.

How much is too much cyanuric acid? The California Health & Safety Code (CHSC) has set the maximum level at 100 ppm. Yuba County Environmental Health closes any public pool that shows levels above the maximum ppm. The pool remains closed until the concentration of cyanuric acid is within allowable levels.

At above 50 ppm of cyanuric acid, the time it takes to kill bacteria in the water is longer compared to swimming pool water without cyanuric acid. Also, as the level of cyanuric acid builds up, the chlorine will become increasingly less effective in keeping the water clean and problems such as increased cloudiness and exceeding combined chlorine limits can occur.

How do I test for cyanuric acid? The CHSC requires pool operators to test their cyanuric acid level at least once a month. A cyanuric acid test kit can be purchased from most pool supply companies. You may also take a sample of your pool water to a supply company for testing. You must keep a copy of the test results.

How do I reduce the level of cyanuric acid in my pool or spa? The best way to reduce the build-up of cyanuric acid is to partially drain the pool and add as much fresh water as possible. Some cyanuric acid will cling to the pool walls, plumbing and filtration system, so even after completely draining and refilling a pool, there will probably still be detectable levels of cyanuric acid in the water.

Should cyanuric acid be used in hot tubs or spas? At even moderate levels of cyanuric acid, it can take as much as a hundred times as long in a spa with cyanuric acid for the chlorine to kill *pseudomonas aeruginosa* (the bacteria that causes “hot tub itch”) as it does in a spa without cyanuric acid. For this reason, it is not recommended for use in hot tubs or spas.

Should I use cyanuric acid in my indoor pool? No. Cyanuric acid is intended to reduce the loss of free chlorine cause by the sun’s ultraviolet rays. Indoor pools are not exposed to direct sunlight and do not benefit from adding cyanuric acid or using products containing cyanuric acid.