

TECHNICAL BULLETIN



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POOL STABILISER (CYANURIC ACID)

CAUTION
KEEP OUT OF REACH OF CHILDREN
READ SAFETY DIRECTIONS BEFORE OPENING OR USING
DO NOT SWALLOW

POOL STABILISER

Contains >995g/kg CYANURIC ACID
CAS No. 108-80-5; EC No. 203-618-0

POOL STABILISER IS USED IN THE MAINTENANCE OF RESIDUAL CHLORINE LEVELS IN BRIGHT SUNLIGHT AND WARM TEMPERATURES.

DIRECTIONS FOR USE:

- 1) Ensure pH level is in ideal range of 7.2 - 7.6.
- 2) Add stabiliser at the rate of 500 grams per 10,000 litres of pool water. Spread dosage evenly around the pool or put into panty hose and place in skimmer box to dissolve.

FIRST AID: For advice, contact a Poisons Information Centre (Phone Australia 131 126) or a doctor (at once).

SAFETY DIRECTIONS: Avoid contact with skin and eyes and avoid breathing dust. Store in cool dry place.

BATCH NO. ????????  CONTENTS ???? kg nett

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MATERIAL & FUNCTION

POOL STABILISER is also called Conditioner, **CYANURIC ACID**, **CYA**, **STABILISER**, Isocyanuric acid. It is necessary to prevent chlorine from dissipating from the pool in matter of minutes due to the effects of sunlight. Stabiliser in the water beyond the amounts of 50 ppm (parts per million) begin to "protect" the chlorine present in pool water too much which lessens chlorine's effectiveness and requires more chlorine to be added to do the same job as chlorine in water with less ppm of conditioner.

Chlorine in outdoor pools must be shielded from the degrading effects of the sun's ultraviolet (UV) rays. **CYANURIC ACID** is used in outdoor pools with the inorganic chlorines such as calcium hypochlorite, sodium hypochlorite, lithium hypochlorite and chlorine gas.

'Chlorine Lock,' a term given to a condition which may be produced from high **CYANURIC ACID** levels tying up free available chlorine. Generally, high **CYANURIC ACID** levels of 400 ppm or higher are associated with excessive Total Dissolved Solids (TDS) or combined chlorine or chloramines and not "Chlorine Lock.'

APPLICATION

It is recommended that the **CYANURIC ACID** level be 30-50 ppm with a maximum of 100 ppm and a lower limit of 10 ppm. The level of **CYANURIC ACID** is reduced by dilution due to filter backwashing, bather dragout or dumping. To meet health codes, pools above 100 ppm need to be drained of about 20% of volume, and fresh water added. 2.5 kg of **CYANURIC ACID** will offer a reading of 50 ppm in 50,000 litres of water. **CYANURIC ACID** has a pH of 4.0, and if added to a gas-chlorinated pool, the addition of 0.15 kg of soda ash per kg of **CYANURIC ACID** is recommended.

CYANURIC ACID is a white powder or granular product which is usually added to the pool water through the skimmer. Backwash the pool filter first, then remove the pump basket and restart the system on "filter" and add **CYANURIC ACID** slowly to the skimmer closest to the pump. Stabilizer dissolves very slowly so we add it to the skimmer to allow the product to reach the pool filter where it can dissolve slowly over time. Do not backwash the pool filter for a few days after adding stabilizer. It needs this time to dissolve. **CYANURIC ACID** has a low pH. Adjust the pH level of the pool water to 7.5 - 7.8 once the stabilizer has fully

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dissolved or after a couple of days.

If a pool is in regular use, it is probable that about 5%, - or even more, of the pool volume has to be replaced each week in order to maintain the CYANURIC ACID content at an acceptable level.

. If the **CYANURIC ACID** level is above 50 ppm, and below 100 ppm - it is usually sufficient, to drain off about half the pool volume, and refill with fresh water. If the level is over 100 ppm it is a good idea to completely drain and refill the pool. Check with your pool Builder first, that emptying the pool will not cause any complications.

Trichlor chlorine tablets also contain **CYANURIC ACID**, though nowhere near as much as in the Stabilized Chlorine granules. Even so, it is still a good idea to monitor the levels of **CYANURIC ACID** in the pool water.

Test kits

Testing for **CYANURIC ACID** is most commonly done with a turbidometric test, which uses a test reagent to precipitate the **CYANURIC ACID** and then uses the relative cloudiness (turbidity) of the reacted sample to gauge the **CYANURIC ACID** concentration.

A reagent called melamine is used. The melamine combines with the **CYANURIC ACID** in the water to form a fine, insoluble, white precipitate that causes the water to cloud in proportion to the amount of **CYANURIC ACID** in it. When the water clouds, it becomes more difficult to see an object in it.

Some **CYANURIC ACID** test kits contain a specially designed vial, which has a black dot painted in the bottom of it that is clearly visible when it is filled with water but becomes more difficult to see when the **CYANURIC ACID** has been precipitated. How much of the dot you can see is compared to a chart included in the **CYANURIC ACID** test kit to indicate the concentration in ppm.

Other kits use a plastic rod with an angled piece that lies on the bottom of the vial and has a black dot painted on it. After the **CYANURIC ACID** has been precipitated, you raise the rod

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until the dot becomes visible and then read the **CYANURIC ACID** concentration from a set of numbers scribed on the side of the rod. The number closest to the level of the water in the test vial indicates the concentration in ppm.

There also is an electronic test instrument (spectrophotometer) used to read the relative turbidity of the sample. The newest method of **CYANURIC ACID** testing employs a dip-and-read test strip that is simply dipped into the pool water and changes color in about 30 seconds to indicate the level in ppm.

CAUTION

Avoid contact with skin and eyes and avoid breathing dust. Do not store with food.

PACKAGING

1kg, 2 kg and 4 kg bottles

IMPORTANT NOTICE TO CUSTOMER

*Since the use of this product is beyond the control of either seller or manufacturer, their only obligation shall be to replace any quantity of product, which is proven defective. They cannot assume any risk or liability in excess of the purchase price of the product itself, which does not include labour or any consequential damages resulting from the use of this product. Determining the suitability of this product for any intended use shall be solely the responsibility of the user. **ALWAYS TEST FIRST.***