

Pool Water Chemistry Balancing Chart

Chemicals should be added to the pool only when there are no people swimming in it - ie: after the pool has closed.

Sodium BiCarbonate is used to raise the Total Alkalinity.

Calcium Chloride is used to raise the Calcium Hardness.

Sodium Thiosulphate is used to reduce Chlorine levels quickly in the event of an overdose.

Cyanuric Acid is used to stabilise the chlorine. (ie: prevents loss of chlorine due to UV light by acting as a “Sunscreen for chlorine”).

Poly-Aluminium Chloride (PAC) and **Aluminium Sulphate** are used to assist filtration (coagulant) and to remove suspended material from static water (flocculant).

Carbon Dioxide(CO2) is used to lower the pH.

The table listed below indicates how much of each chemical to add to each pool in order to maintain the above levels:

Volume of Pool (litres)	Sodium Bicarbonate	Calcium Chloride	Sodium Thiosulphate	Sodium Hypochlorite	Cyanuric Acid
	To Increase by 10 ppm (Kg)	To Increase by 10 ppm (Kg)	To Reduce by 1 ppm (Grams)	To Increase by 1 ppm (Litres)	To Increase by 10 ppm (Kg)
~100,000	2	1.1	100	1	.6
~200,000	4	2.2	200	2	1.2
~500,000	10	5.5	500	5	3
~1,000,000	20	11	1Kg	10	6

All of these levels should be raised/lowered over the relevant period of time (ie: daily or 4 hourly) and tested again before adding more chemical. This is to reduce chemical wastage and prevent accidental overdosing.

When adding chemicals please:

- ◇ Ensure you are wearing the correct Personal Protective Equipment (PPE) at all times. Do not compromise your safety.
- ◇ When dealing with chlorine - boots, gloves, jacket, pants & glasses are essential. Earmuffs are also available.
- ◇ If you are in any doubt about the dangers - **ask first, then wear the safety clothing!**
- ◇ Dilute chemicals first in a bucket (add chemicals to water, not water to chemicals)
- ◇ Ensure chemicals have dissolved properly before adding to pool
- ◇ Add to pool slowly, always ensuring maximum spread of chemical (ie: more at the deep end, less at the shallow and some all over).
- ◇ Avoid adding chemicals directly to the scum gutters – PAC is the exception.
- ◇ Add only 1 chemical at a time ie: do not mix chemicals in the bucket and then add to the pool!