

Water Chemistry Guidelines

The Balance

Parameter	Min.	Ideal	Max.	Pool Type
pH	7.2	7.4 - 7.6	7.8	All Types
Total Alkalinity (ppm)	60	80 - 100*	180	All Types
		100 - 120**		
Calcium Hardness (ppm)	150	200 - 400	1,000	Pools
	100	150 - 250	800	Spas
Total Dissolved Solids (ppm)	NA	NA	1,500 over start-up***	All Types
Cyanuric Acid (ppm)	0	30 - 50	100****	All Types
	0	0****	0****	Indoor Pool/Spa
Temperature	78° F	80.5° F	82° F	Competition Pools
	-	-	104° F	Spas
	-	Personal Preference	104° F	Other Pools

* For calcium hypochlorite, lithium hypochlorite, or sodium hypochlorite

** For sodium dichlor, trichlor, chlorine gas, BCDMH

*** Start-up includes the TDS contribution of salt found in chlorine generating systems

**** Currently proposed by the CDC's Model Aquatic Health Code

The Disinfectant

Parameter	Min.	Ideal	Max.	Pool Type
Free Chlorine (ppm)	1.0	2.0 - 4.0	5.0	Pools
	2.0	3.0 - 5.0	10.0	Spas
Total Bromine (ppm)	2.0	4.0 - 6.0	10.0	All Types

The Contaminants

Contaminant	Min.	Ideal	Max.	Pool Type
Combined Chlorine (ppm)	0	0	0.2	Pools
	0	0	0.5	Spas
Heavy Metals	None	None	None	All Types
Visible Algae	None	None	None	All Types
Bacteria	None	None	Local Code	All Types