

WATER BALANCE CALCULATION TABLES

pH increase / pH decrease

Soda Ash

Sodium Bisulphate

SIZE OF POOL	INCREMENTS OF THE Ph SCALE									
LITRES	0.3	0.6	0.9	1.2	1.5	1.8	2.1	2.4	2.7	3
500	5	10	15	20	25	30	35	40	45	50gm
1000	10	20	30	40	50	60	70	80	90	100gm
5000	50	100	150	200	250	300	350	400	450	500gm
6000	60	120	180	240	300	360	420	480	540	600gm
7000	70	140	210	280	350	420	490	560	630	700gm
8000	80	160	240	320	400	480	560	640	720	800gm
9000	90	180	270	360	450	540	630	720	810	900gm
10000	100	200	300	400	500	600	700	800	900	1000gm
12000	120	240	360	480	600	720	840	960	1080	1200gm
14000	140	280	420	560	700	840	980	1120	1260	1400gm
16000	160	320	480	640	800	960	1120	1280	1440	1600gm
18000	180	360	540	720	900	1080	1260	1440	1620	1800gm
20000	200	400	600	800	1000	1200	1400	1600	1800	2000gm
30000	300	600	900	1200	1500	1800	2100	2400	2700	3000gm
40000	400	800	1200	1600	2000	2400	2800	3200	3600	4000gm
50000	500	1000	1500	2000	2500	3000	3500	4000	4500	5000gm
60000	600	1200	1800	2400	3000	3600	4200	4800	5400	6000gm
70000	700	1400	2100	2800	3500	4200	4900	5600	6300	7000gm
80000	800	1600	2400	3200	4000	4800	5600	6400	7200	8000gm
90000	900	1800	2700	3600	4500	5400	6300	7200	8100	9000gm
100000	1000	2000	3000	4000	5000	6000	7000	8000	9000	10000gm

NB: 1000gm = 1Kg

Ideal pH for pool water is between 7.2 and 7.8.

Crystal Water pH decrease should be used only when pH exceeds 7.8 pH increase

should be used only when pH falls below 7.2

Example:

To rise pH level to 7.4

- 1 Determine size of pool in litres e.g. 10,000 litres
- 2 Test the water and determine existing level of pH e.g. 6.5
- 3 Subtract 6.5 from 7.7 i.e. 7.7 - 6.9 =
- 4 Using 1.2 column read down to 10,000 litres. Add 400gm of pH increases to your pool

Water Hardener

Calcium Chloride

SIZE OF POOL	PARTS PER MILLION (PPM)							
LITRES	25	50	75	100	125	150	175	200
500	18	35	53	70	88	105	123	140gm
1000	35	70	105	140	175	210	245	280gm
5000	175	350	525	700	875	1050	1225	1400gm
6000	210	420	630	840	1050	1260	1470	1680gm
7000	245	490	735	980	1225	1470	1715	1960gm
8000	280	560	840	1120	1400	1680	1960	2240gm
9000	315	630	945	1260	1575	1890	2205	2520gm
10000	350	700	1050	1400	1750	2100	2450	2800gm
12000	420	840	1260	1680	2100	2520	2940	3360gm
14000	490	980	1470	1960	2450	2940	3430	3920gm
16000	560	1120	1680	2240	2800	3360	3920	4480gm
18000	630	1260	1890	2520	3150	3780	4410	5040gm
20000	700	1400	2100	2800	3500	4200	4900	5600gm
30000	1050	2100	3150	4200	5250	6300	7350	8400gm
40000	1400	2800	4200	5600	7000	8400	9800	11200gm
50000	1750	3500	5250	7000	8750	10500	12250	14000gm
60000	2100	4200	6300	8400	10500	12600	14700	16800gm
70000	2450	4900	7350	9800	12250	14700	17150	19600gm
80000	2800	5600	8400	11200	14000	16800	19600	22400gm
90000	3150	6300	9450	12600	15750	18900	22050	25200gm
100000	3500	7000	10500	14000	17500	21000	24500	28000gm

NB: 1000gm = 1Kg

Ideal of water hardness is between 100 to 300 ppm

Example:

To raise the level of water hardness is 200ppm.

- 1 Determine size of pool in litres e.g. 10,000 litres
- 2 Test the water and determine existing level of water hardness (ppm) e.g. 50ppm
- 3 Subtract 50 ppm from 200 ppm i.e. 200-50=150ppm
- 4 Using 150 ppm column read down to 10,000 litres. Add 2,100 gm of water hardness to your pool

pH Buffer

Sodium Bicarbonate

SIZE OF POOL	PARTS PER MILLION (ppm)											
LITRES	10	20	30	40	50	60	70	80	90	100	150	200
500	9	17	26	34	43	51	60	68	77	85	128	170gm
1000	17	34	51	68	85	102	119	136	153	170	225	340gm
5000	85	170	255	340	425	510	595	680	765	850	1275	1700gm
6000	102	204	306	408	510	612	714	816	918	1020	1530	2040gm
7000	119	238	357	476	595	714	833	952	1071	1190	1785	2380gm
8000	136	272	408	544	680	816	952	1088	1224	1360	2040	2720gm
9000	153	306	459	612	765	918	1071	1224	1377	1530	2295	3080gm
10000	170	340	510	680	850	1020	1190	1360	1530	1700	2550	3400gm
12000	204	408	612	816	1020	1224	1428	1632	1836	2040	3080	4080gm
14000	238	476	714	952	1190	1428	1666	1904	2142	2380	3570	4780gm
16000	272	544	816	1088	1360	1632	1904	2176	2448	2720	4080	5440gm
18000	306	612	918	1224	1530	1836	2142	2448	2754	3060	4590	6120gm
20000	340	680	1020	1360	1700	2040	2380	2720	3060	3400	5100	6800gm
30000	510	1020	1530	2040	2550	3060	3570	4080	4590	5100	7650	10200gm
40000	680	1360	2040	2720	3400	4080	4760	5440	6120	6800	10200	13800gm
50000	850	1700	2550	3400	4250	5100	5950	6800	7650	8500	12750	17000gm
60000	1020	2040	3060	4080	5100	6120	7140	8160	9180	10200	15300	20400gm
70000	1190	2380	3570	4760	5950	7140	8330	9520	10710	11900	17850	23800gm
80000	1360	2720	4080	5440	6800	8160	9520	10880	12240	13600	20400	27200gm
90000	1530	3060	4590	6120	7650	9180	10710	12240	13770	15300	22950	30600gm
100000	1700	3400	5100	6800	8500	10200	11900	13600	15300	17000	25500	34000gm

NB: 1000gm = 1Kg

Ideal pH buffer levels vary for the Crystal Water sanitisers.

Example:

To raise pH buffer level to 90 ppm.

- 1 Determine size of pool in litres e.g. 10,000 litres.
- 2 Test the water and determine existing level of pH buffer e.g. 70 ppm
- 3 Subtract 70 ppm from 90 ppm i.e. $90 - 70 = 20$ ppm
- 4 Using 20 ppm column read down to 10,000 litres. Add 340gm of pH buffer to your pool.

Pool Sanitisers

Are used in sufficient quantities to infect and kill bacteria and control algae growth.

Space/Crystal Water Sanitisers include:

Pool Chlor Granules	(Calcium Hypochlorite 65%)
Pool Chlor Pills 20gm	(Calcium Hypochlorite 65%)
Slow Dissolving Trichlor Tablets	(Trichloroisocyanurate acid tabs 200gm)
Dichlor Granules	(Sodium Dichlorisocyanate 60%)
Liqua Chlor	(Sodium Hypochlorite 12.5%)
Bromine 20gm Tablets	(1-Bromo-3Chloro-5, 5-Dimethylhydantion)

Stabiliser (Chlor Save)

Prevents rapid dissipation of free chlorine from the pool water caused by sunlight. (Effectively screens sunlight to prevent chlorine loss and has no odour or taste at recommended levels.)

Shock Dosing (Super chlorination)

Refers to a specific very high dose of chlorine. It is given to enable oxidation (burning up) of high levels of organic matter including bacteria and algae.

Shock dosing refers to giving twice the daily dose.

It is recommended at regular intervals to "burn out" chloramines and algae

Not responsive to routine dosing.