



Pool Water Treatment Guide



Welcome

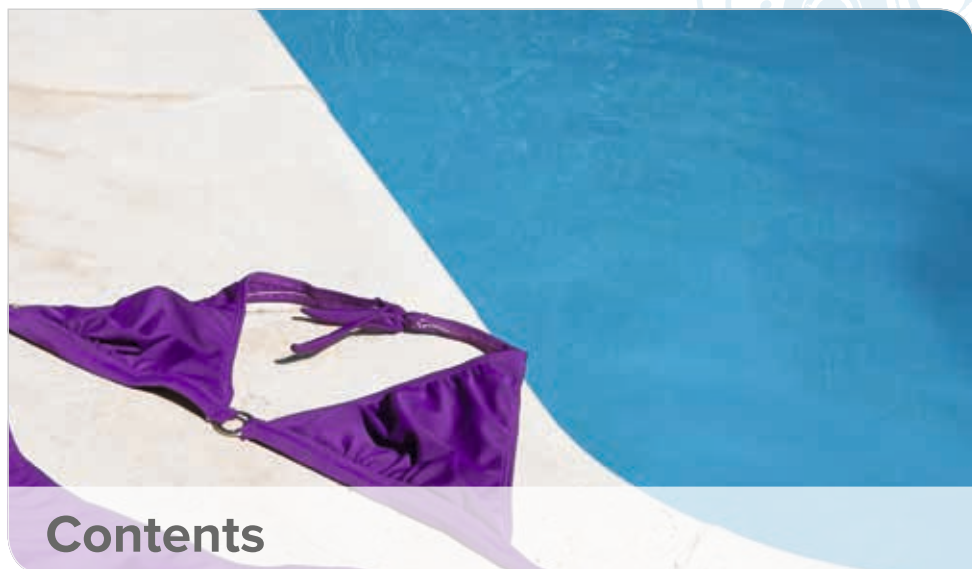
The water treatment aspect of maintaining your swimming pool may at first glance seem complicated and time consuming, but in reality is straightforward and need only take a few minutes each week. The secret to keeping your pool water healthy, clean, comfortable and inviting is to undertake a little maintenance on a regular basis.

This guide is written to inform you about pool maintenance and in particular, water treatment using chlorine or bromine based sanitisers (disinfectants), and explains the importance of establishing and maintaining the correct chemical levels. There is also a brief introduction to the role of filtration in keeping your pool water clear, bright and attractive.

At the back of the guide there is a section on pool and chemical safety; please read this thoroughly before you begin using or treating your pool, and always read and follow the instructions that are printed on the chemical containers before application.

Thank you for choosing Swimmer for your pool water treatment products.





Contents

Understanding Your Pool	03
• How to calculate your pool volume	03
• Useful Conversions	04
Circulation and Filtration	05
• Cartridge Filters	06
• Sand Filters	07
Testing	08
• Insta-Test Strips	09
• Pooltesters	09
Balancing	10
• pH	11
• Total Dissolved Solids (T.D.S.)	11
• Swimmer pH Increaser & Swimmer pH Reducer	12
• Total Alkalinity	13
• Swimmer Calcium Hardness Increaser	14
• Swimmer Stain and Scale Inhibitor	15
• Swimmer Chlorine Stabiliser Granules	16

Sanitising	17
• Chlorine	17
• Bromine	18
• Swimmer Chlorine Sanitiser Selection	19
• Swimmer Stabilised Chlorine Granules	20
• Swimmer Multifunctional Stabilised Chlorine Granules	21
• Swimmer Small Chlorine Tablets	21
• Swimmer 200g Chlorine Tablets	22
• Swimmer Multifunctional 200g Chlorine Tablets	22
• Swimmer Multifunctional Floating Chlorine Dispenser	23
• Swimmer Bromine Tablets	24
• Swimmer Chlorine Reducer	25
Oxidising	26
• Chlorine dDemand	27
• Regular Oxidation (shock dosing)	27
• Swimmer 10/11% Sodium Hypochlorite	28
• Swimmer Pool Refresh	28
• Swimmer Calcium Hypochlorite Granules Shock	29
• Swimmer Rapid Shock Granules	29
Algae Prevention	30
• Recovering an algae infested pool	31
• Swimmer Copper Free Summertime Algicide	32
• Swimmer Algicide	32
• Swimmer Algae Destroyer	33
• Swimmer Wintertime Algicide	33
• Swimmer Copper Free Wintertime Algicide	34
Speciality Treatments	35
• Cleaning	35
• Swimmer Tidemark Cleaner	36
• Swimmer Waterline Cleaning Paste	36
• Swimmer Filter Cleaner	37
• Essentials Spa Filter Cleaner Powder	37
• Essentials Spa Instant Filter Cleaner	38
• Clarifying	38
• Swimmer Floc Tablets	39
• Swimmer Floc Granules	39
• Swimmer Liquid Clarifier	40
• Swimmer Above Ground Pool Starter Pack	41
Maintenance Summary	42
Safety	43
• General Pool Safety	43
• General Chemical Safety	43
Preparing for the Winter	44



Understanding Your Pool

How to calculate your pool volume

Rectangular Pool

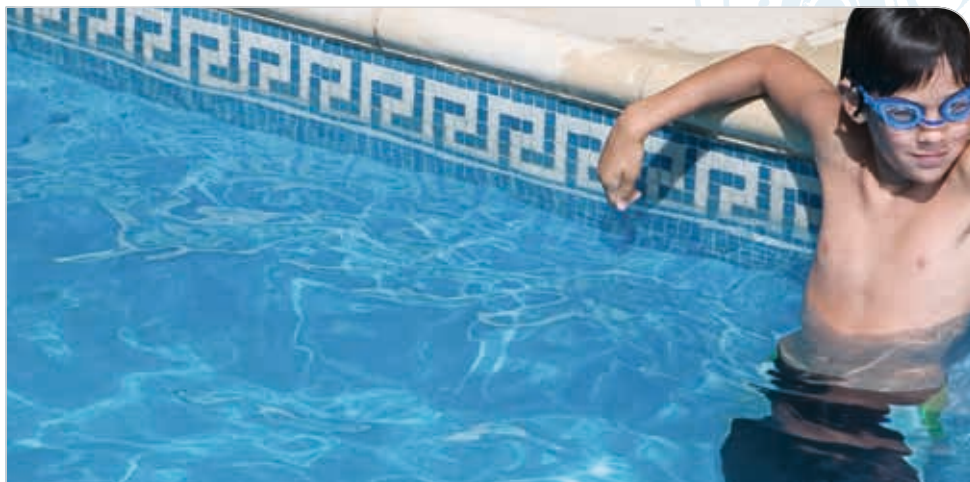
- Cubic metres (m^3):
length in metres x width in metres x average water depth in metres
(Example: $9.0m \times 4.5m \times 1.5m = 60.75m^3$)
- Gallons:
length in feet x width in feet x average water depth in feet x 6.25
(Example: $30' \times 15' \times 5' \times 6.25 = 14,063 \text{ gallons}$)

Round Pool

- Cubic metres (m^3):
diameter in metres x diameter in metres x average water depth in metres x 0.8
(Example: $4.5m \times 4.5m \times 1.0m \times 0.8 = 16.2m^3$)
- Gallons:
diameter in feet x diameter in feet x average water depth in feet x 4.9
(Example: $15' \times 15' \times 3'6" \times 4.9 = 3,859 \text{ gallons}$)

Useful conversions

- Pints into Litres: multiply by 0.568
- Feet into Metres: multiply by 0.30480
- Litres into Pints: multiply by 1.761
- Metres into Feet: multiply by 3.2808
- Gallons into Litres: multiply by 4.546
- Square Feet into Square Metres: multiply by 0.0929
- Litres into Gallons: multiply by 0.22
- Square Metres into Square Feet: multiply by 10.764
- Cubic Metres of Water into Gallons: multiply by 220
- Ounces into Grammes: multiply by 28.3495
- Horse Power into Watts: multiply by 746
- Grammes into Ounces: multiply by 0.03527
- Watts into Horse Power: multiply by 0.00134
- Pounds into Kilogrammes: multiply by 0.45359
- Kilowatts into BTU: multiply by 3412
- Kilogrammes into Pounds: multiply by 2.20462
- BTU into Kilowatts: multiply by 0.000293



Circulation and Filtration

Assuming that your pool is now full of water and you are ready to begin preparing it for use, the first thing to consider is the circulation system. When your pump is running it draws water from the pool via the suction fittings such as the main drain(s) and skimmer(s), and pushes it through your filter, heater and chemical feeder before it is returned to the pool via the inlets.

As water flows through the filter, particles that are suspended in it are captured and retained within the filter media - this removal of particles is essential and is how your water clarity is achieved and maintained.

As the water is only filtered when it is being circulated, we would recommend that you run the pump for a minimum of eight hours per day, and for best results 24 hours a day during the swimming season.

Generally there are three types of filter used for swimming pools - cartridge, sand and diatomaceous earth (D.E.), although D.E. is not commonly used these days. Cartridge filters are normally found, although not exclusively, on smaller above ground pools while in-ground sand filters are the norm.

Cartridge Filters



Inside the cartridge filter you will find a cartridge element that the pool water flows through.

As the water passes through the element the particles and debris are removed and collected within the folds of the cartridge. As the collected matter builds up the water flow through the element diminishes.

To clean the element switch the pump off, remove the element from its housing, hose thoroughly with a garden hose, don't use a pressure washer as it will cause damage to the element, then soak overnight in a solution of Swimmer Filter Cleaner.

After soaking, flush with clean water and if possible allow the element to dry before returning it to service.

Sand Filters



The advantage of sand filters is that you don't have to remove and clean cartridge elements, making it easier and less time consuming to maintain your filtration system. In place of the cartridge element, the filter tank contains specially graded silica sand and as the water flows through it particles are trapped and retained, thus creating clear water. As more and more particles are retained, so the flow of water through the filter slows down and the pressure within the tank increases. You will notice this on the pressure gauge, which is usually on the multiport selector valve or the top of the filter tank. To remove the particles trapped in the sand you need to backwash the filter, typically we would suggest that you backwash the filter weekly or more frequently if the pressure gauge indicates a need to.

When you backwash a sand filter the flow of water through the filter is reversed, (rather than the pool water entering the top of the filter and percolating down through the filter sand before going back to the pool), the water comes into the filter through the bottom and rises up through the sand, dislodging debris on the top. The backwash water along with the debris goes to waste and not back into the pool.

Before backwashing the filter, make sure there is sufficient water in the pool – the level should be at least halfway up the skimmer opening. Turn off the pump. If there is a valve on your waste line make sure this is open, turn the multiport selector valve to the backwash position and turn the pump back on. On the multiport selector valve there will probably be a sight glass, you will see that initially the water in the sight glass is dirty and/or cloudy, once the water in the sight glass is clear, (about 2 – 3 minutes), you can stop the backwash by turning off the pump.

After the backwash, turn the multiport selector valve to rinse and turn the pump on again, wait until the water in the sight glass is clear again, (20 – 30 seconds normally), turn the pump off. If you opened a valve on the waste line you should now close it. Turn the multiport selector valve back to the filtration position and turn the pump back on, the backwash procedure is now complete. Although backwashing the filter removes debris caught in the filter sand, it doesn't actually clean the sand, so to maintain the filters efficiency the sand should be chemically cleaned annually using Swimmer Filter Cleaner and replaced every 3 – 5 years.



Testing

Regularly testing your pool water is essential, as without testing you will have no idea what the chlorine or bromine, pH, total alkalinity and calcium hardness levels are. There are broadly four types of test kit used for testing pool water; test strips, pooltesters, comparator test kits and electronic photometric test kits.

For the testing of domestic swimming pools it is usually test strips or pooltesters that are used. Regardless of the testing method you choose, it is important that you test your pool water ideally every day during the swimming season but, twice a week is the minimum.

Insta-Test Strips



There is a choice of two different Insta-Test strips:

- Insta-Test 3 that enable you to test free chlorine or bromine, pH and total alkalinity.
- Insta-Test 5 that enable you to test free chlorine or bromine, total chlorine, pH, total alkalinity and calcium hardness.

Although not as accurate as using a test kit, test strips are very quick and easy to use and take the 'chore' out of testing your pool water.

Simply take a test strip from the pot, dip it into your pool water, swirl it around a few times, hold level (being careful not to shake off the excess water), wait for the prescribed length of time and then compare the colour of the pads with the colours printed on the test strip pot.

Pooltesters



Pooltesters are test kits that use reagent tablets to determine the chlorine, bromine or pH levels.

Take the pooltester to the pool side and turn it upside down, lower it into the pool to about an elbows depth and then turn it the correct way up so that it fills up with pool water.

Once full of water, put the kit on a level surface and add a Phenol Red tablet to test the pH level and a DPD No. 1 tablet to check the free chlorine level.

For more comprehensive water testing, including total dissolved solids, cyanuric acid (stabiliser) and metals, take a water sample to your Swimmer supplier every 4 to 6 weeks and they will be pleased to assist you.



Balancing

Establishing and maintaining the correct water balance is important for a number of reasons:

- Chemical efficiency.
- Bather comfort.
- Protection of pool and plantroom equipment.
- Water quality and appearance.

Some people believe that keeping the right pH is all that is needed to achieve the correct water balance; this isn't the case and although pH is important there are other factors that also need to be considered.

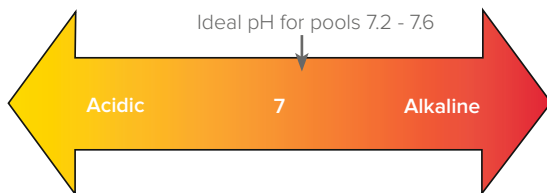
In the list below we have illustrated the main properties that make up water balance and the ideal levels that should be maintained.

Ideal pool water levels

- | | |
|---------------------------|----------------------|
| • Calcium Hardness: | 200 – 275 mg/L |
| • Total Alkalinity: | 80 – 150 mg/L |
| • pH: | 7.2 – 7.6 |
| • Total Dissolved Solids: | Less than 1,500 mg/L |

pH

pH is a measure of how acidic or how alkaline (not to be confused with total alkalinity) the water is.



As you can see from the above diagram the pH scale is 0 to 14, with 0 being very acidic and 14 very alkaline. pH 7 is neutral and for pools the pH should be maintained between 7.2 and 7.6, this being slightly alkaline protects the pool and plantroom equipment from aggressive, corrosive water and is comfortable for bathers.

Problems associated with incorrect pH levels

pH below 7.2:

- Corrosive water.
- Etching of surfaces.
- Staining.
- Skin and eye irritation.
- Damage to plantroom equipment.

pH above 7.6:

- Scale formation.
- Filter calcification.
- Cloudy water.
- Drying to skin.
- Reduced effectiveness of chlorine.

Total Dissolved Solids (T.D.S.)

T.D.S. is, as the name suggests, the sum of everything that is dissolved in the water including minerals, chemicals and debris. The maximum recommended T.D.S. level is 1,500mg/L, when the level rises above this it is time to do some dilution, by removing some of the old pool water and adding some fresh.

High T.D.S. levels lead to:

- Corrosion.
- Poor chemical efficiency.
- Increased chemical consumption.
- Dull looking water.
- Salty tasting water.

Regular backwashing of the filter as mentioned on page 07 will mean that your pool will need topping up with fresh water fairly often; this will help keep the T.D.S. level under control and reduce the need to drain down and refill.

Swimmer pH Increaser & Swimmer pH Reducer



If the pH of your pool water is either low or high it should be corrected using Swimmer pH Increaser or Swimmer pH Reducer.

The tables below will help you calculate the dose rate to suit your pool.

Swimmer pH Increaser dosing rates:

Pool volume			Dose rate to increase pH	
4.55m ³	4,545L	1,000gal	50g	Re-check pH after 24 hours and repeat dose if required
11.36m ³	11,364L	2,500gal	125g	
22.73m ³	22,727L	5,000gal	250g	
45.45m ³	45,455L	10,000gal	500g	

Swimmer pH Reducer dosing rates:

Pool volume			Dose rate to lower pH	
4.55m ³	4,545L	1,000gal	50g	Re-check pH after 24 hours and repeat dose if required
11.36m ³	11,364L	2,500gal	125g	
22.73m ³	22,727L	5,000gal	250g	
45.45m ³	45,455L	10,000gal	500g	

Total Alkalinity



Total alkalinity is a measurement of the water's ability to resist pH change. If the total alkalinity is low, then the pH can fluctuate making it difficult to control and maintain at the ideal level. If the total alkalinity is high, then the pH can be difficult to change and will keep rising. A high total alkalinity can also lead to the formation of a bicarbonate scale on pool surfaces, within pipework and in plantroom equipment.

If the total alkalinity of your pool water is below 80 mg/L it should be raised using Swimmer Alkalinity Increaser, the table below indicates the dosage quantities required. If the total alkalinity of your pool water is above 150 mg/L then Swimmer pH Reducer can be used to lower it.

When applying Swimmer pH Reducer to lower total alkalinity levels the product should be pre-dissolved and then 'slug' dosed into one area at the deep end of the pool. The dose rates are indicated in the tables below. It is recommended that the total reduction required is split into three applications over a three day period; check both the total alkalinity and pH levels in between applications.

Swimmer Alkalinity Increaser dosing rates:

Pool volume			Increase level by 10 mg/L	Increase level by 25 mg/L	Increase level by 50 mg/L
4.55m ³	4,545L	1,000gal	81g	203g	405g
11.36m ³	11,364L	2,500gal	203g	508g	1.01g
22.73m ³	22,727L	5,000gal	405g	1.01g	2.02g
45.45m ³	45,455L	10,000gal	810g	2.02g	4.05g

Swimmer pH Reducer dosing rates (for total alkalinity reduction):

Pool volume			Reduce level by 10 mg/L	Reduce level by 25 mg/L	Reduce level by 50 mg/L
4.55m ³	4,545L	1,000gal	108g	270g	540g
11.36m ³	11,364L	2,500gal	270g	675g	1.35g
22.73m ³	22,727L	5,000gal	540g	1.35g	2.70g
45.45m ³	45,455L	10,000gal	1.08g	2.70g	5.40g

Swimmer Calcium Hardness Increaser



Calcium hardness (or total hardness) is the measure of how hard or soft the water is. The level will vary depending on where your water supply comes from, for example, in some parts of Scotland the water is very soft and in parts of Kent the water can be very hard. The hardness depends upon the amount of mineral salts (mainly calcium) that are dissolved in the water; the more salts there are the harder the water is.

Problems associated with incorrect Calcium Hardness levels

Low calcium hardness (less than 200mg/L):

- Corrosive water.
- Etching of surfaces.
- Staining.
- Skin and eye irritation.
- Foam.

High calcium hardness (more than 275mg/L):

- Scale formation.
- Filter calcification.
- Cloudy water.
- Skin and eye irritation.
- Reduced sanitiser effectiveness.

If the calcium hardness of your pool water is less than 200mg/L then it should be raised using Swimmer Calcium Hardness Increaser, details of dose rates can be found in the table below.

Swimmer Calcium Hardness Increaser dosing rates:

Pool volume			Increase level by 10 mg/L	Increase level by 25 mg/L	Increase level by 50 mg/L
4.55m ³	4,545L	1,000gal	68g	170g	340g
11.36m ³	11,364L	2,500gal	170g	425g	850g
22.73m ³	22,727L	5,000gal	340g	850g	1.70kg
45.45m ³	45,455L	10,000gal	680g	1.70kg	3.40kg

Swimmer Stain and Scale Inhibitor



If the calcium hardness of your pool water is greater than 275 mg/L then Swimmer Stain and Scale Inhibitor should be used to help prevent scale deposits within the filter, heater, pipework and on pool surfaces.

Swimmer Stain and Scale Inhibitor dosing rates:

Pool volume			Initial dose rates	Monthly dose rates
4.55m ³	4,545L	1,000 gal	100ml	50ml
11.36m ³	11,364L	2,500 gal	250ml	125ml
22.73m ³	22,727L	5,000 gal	500ml	250ml
45.45m ³	45,455L	10,000 gal	1.00 L	500ml

Swimmer Chlorine Stabiliser Granules



Although stabilising chlorine loss to sunlight isn't one of the properties that make up water balance, we feel this is the best place to talk about it because while you are getting your pool water balanced and ready for use, now is a good time to add chlorine stabiliser if it is required. One of the major reasons for chlorine loss from swimming pools is that it is drawn out of the pool by the UV rays of the sun.

Adding chlorine stabiliser to an outdoor pool at the start of the swimming season will substantially reduce the amount of chlorine lost to sunlight, saving you money and making it easier to maintain the correct chlorine levels.

Many of the chlorine donors used to treat the pool water already contain stabiliser, we would therefore recommend that you get the level tested by your Swimmer supplier before adding any more.

The ideal chlorine stabiliser level is 60 mg/L, if the level in your pool is less than this, use Swimmer Chlorine Stabiliser Granules to increase it. If the chlorine stabiliser level is greater than 200 mg/L it is time to drain some of the existing pool water out of the pool and top it up with fresh water to lower the level. As with T.D.S. levels, frequent top-ups with fresh water due to regular backwashing will help to keep the chlorine stabiliser level from rising too high. Remember that water balance can change with dilution by rainwater, the introduction of fresh water to top the pool up, the chemicals used to oxidise and sanitise and by the bathers using the pool - so keep checking and adjusting the levels throughout the swimming season.

Swimmer Chlorine Stabiliser Granules dosing rates:

Pool volume			Increase level by 10 mg/L	Increase level by 25 mg/L	Increase level by 60 mg/L
4.55m ³	4,545L	1,000gal	45g	113g	271g
11.36m ³	11,364L	2,500gal	113g	283g	678g
22.73m ³	22,727L	5,000gal	225g	563g	1.36kg
45.45m ³	45,455L	10,000gal	450g	1.12kg	2.71kg



Sanitising

The reason that sanitisers are used in pools is to ensure that the water is kept healthy by preventing and killing bacteria. This is achieved by continuously and consistently maintaining a level of sanitiser (disinfectant) in the water with either chlorine or bromine.

Chlorine

Chlorine is the most commonly used chemical to achieve satisfactory bacteriological and chemical purity in swimming pools. It must be present in the 'free' form to kill bacteria and oxidise organic matter derived from bathers. Provided the water is balanced (see pages 10 - 16), chlorine levels of between 1.5mg/L to 3.0mg/L are sufficient to maintain healthy, clean water.

A well managed chlorine treated pool will have no odour and levels of chloramines (combined chlorine) of less than 0.5mg/L.

Combined chlorine is created as a result of a reaction between free chlorine and organic matter, and is a mixture of monochloramine, dichloramine and nitrogen trichloride. The latter is mostly produced when the water is not being treated adequately and gives rise to the 'chlorine' odour.

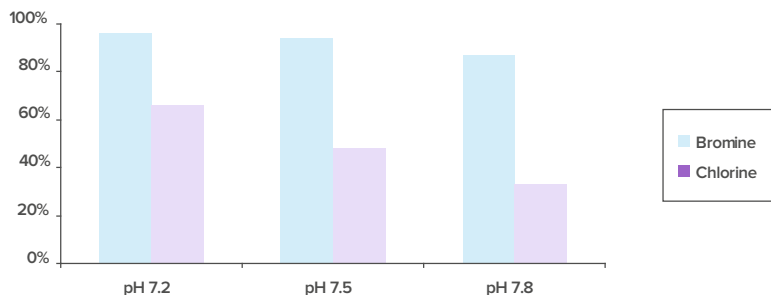
Swimmer makes it easy for you to maintain your sanitiser level by giving you an extensive choice of products to suit your pool situation, preferred dosing method and budget.

Bromine

Bromine is similar to chlorine in its effectiveness as a sanitiser but there are some important differences:

- Pools sanitised with bromine do not require the addition of chlorine stabiliser, as bromine is not lost to sunlight in the way chlorine is.
- Bromine should be dosed into the pool via a chemical feeder (brominator), which is usually installed in the plantroom after the filter and heater.
- Bromine, like chlorine, combines with organic compounds to form bromamines, but unlike chloramines, bromamines cause little or no eye, skin and nasal irritation. Also there is not the pungent smell sometimes associated with certain types of chloramines.
- As it takes 2.2mg/L of bromine to equal 1mg/L free chlorine, bromine levels need to be kept between 3.0mg/L to 5mg/L.
- Bromine retains better levels of efficiency over a wider pH band than chlorine, see the chart below.

Effects of pH level on sanitiser efficiency:



Swimmer Chlorine Sanitiser Selection



Swimmer Stabilised Chlorine Granules

- Dosing method: Hand dosed
- Approximate dose frequency*: 1 or 2 days
- pH: 6.0 – 7.0
- Stabilised: Yes

Swimmer Multifunctional Stabilised Chlorine Granules

- Dosing method: Hand dosed
- Approximate dose frequency*: 1 or 2 days
- pH: 6.0 – 7.0
- Stabilised: Yes
- Clarifiers: Yes
- Oxidisers: Yes

Swimmer Small Chlorine Tablets

- Dosing method: Skimmer
- Approximate dose frequency*: 2 – 3 days
- pH: 2.5 – 3.5
- Stabilised: Yes

Swimmer 200g Chlorine Tablets

- Dosing method: Skimmer
- Approximate dose frequency*: 3 – 4 days
- pH: 2.5 – 3.5
- Stabilised: Yes

Swimmer Multifunctional 200g Chlorine Tablets

- Dosing method: Skimmer
- Approximate dose frequency*: 3 – 4 days
- pH: 3.5 – 4.5
- Stabilised: Yes
- Clarifiers: Yes
- Algicides: Yes

Swimmer Multifunctional Floating Chlorine Dispenser

- Dosing method: -
- Approximate dose frequency*: 10 – 14 days
- pH: 3.5 – 4.5
- Stabilised: Yes
- Clarifiers: Yes

* Based on skimmer application for chlorine tablets.

Swimmer Stabilised Chlorine Granules



A traditional, granular chlorine donor that is still popular with many pool owners that prefer dose rate flexibility.

These granules are rapid dissolving making pre-dissolving and application easy. The granules have a pH value of about 6.0 - 7.0, which is fairly close to the ideal pool water pH level and so will have little effect on the pH level of your pool water.

Another feature of Swimmer Stabilised Chlorine Granules is that they contain Cyanuric acid (chlorine stabiliser), this can be beneficial for outdoor pools as it reduces the amount of chlorine lost to sunlight - making it easier for you to maintain the correct chlorine level in your pool.

Swimmer Stabilised Chlorine Granules dosing rates:

Pool volume			Increase level by 1mg/L	Increase level by 2mg/L	Increase level by 3mg/L
4.55m ³	4,545L	1,000gal	8g	16g	25g
11.36m ³	11,364L	2,500gal	21g	42g	62g
22.73m ³	22,727L	5,000gal	41g	82g	124g
45.45m ³	45,455L	10,000gal	83g	166g	248g

Swimmer Multifunctional Stabilised Chlorine Granules



A new and improved version of the one opposite; these granules still offer the dose rate flexibility, fairly neutral pH value and chlorine stabilisation, but also now include clarifiers and extra oxidisers to help improve water quality and clarity.

Swimmer Multifunctional Stabilised Chlorine Granules dosing rates:

Pool volume			Increase level by 1mg/L	Increase level by 2mg/L	Increase level by 3 mg/L
4.55m ³	4,545L	1,000gal	10g	20g	30g
11.36m ³	11,364L	2,500gal	25g	49g	74g
22.73m ³	22,727L	5,000gal	49g	99g	148g
45.45m ³	45,455L	10,000gal	99g	197g	296g

Swimmer Small Chlorine Tablets



Swimmer Small Chlorine Tablets offer a convenient way of maintaining chlorine levels in pool water.

They should be dosed via a chemical feeder (trichlorinator), floating dispenser or skimmer.

As the tablets are small it is easy to vary the number of tablets to maintain the free chlorine level of 1.5mg/L to 3.0mg/L.

They have a high level of available chlorine and contain chlorine stabiliser.

Swimmer 200g Chlorine Tablets



An easier way of maintaining chlorine levels in your pool water; Swimmer 200g Chlorine Tablets are placed in the skimmer, floating dispenser or chlorine feeder (trichlorinator).

When dosed via the skimmer the tablet(s) will dissolve slowly over a 3 to 4 day period, the rate at which they dissolve will vary depending upon water flow and temperature.

They have a high level of available chlorine and contain chlorine stabiliser.

Swimmer Multifunctional 200g Chlorine Tablets



A new and improved version of the previous one; these tablets still offer an easier way of maintaining chlorine levels and are applied via the skimmer, floating dispenser or chlorine feeder (trichlorinator).

They have a higher pH value than traditional chlorine tablets, which reduces the amount of pH regulation you need to do.

As well as being stabilised to reduce chlorine loss to sunlight, they also contain clarifier and algicides to help improve clarity and reduce the risk of algae formation.

Swimmer Multifunctional Floating Chlorine Dispenser



The Swimmer Multifunctional Floating Chlorine Dispenser is pre-filled with multifunctional chlorine tablets, which will dissolve slowly over a 10 to 14 day period, making this product ideal to use whilst you are away on holiday and during the winter when the pool is not in use. The tablets within the feeder have a high level of available chlorine, contain chlorine stabiliser and clarifier.

All the Swimmer Chlorine Tablets and the Swimmer Multifunctional Floating Chlorine Dispenser are designed to maintain chlorine levels, so before they are used you must satisfy any chlorine demand (see page 27), and establish a chlorine level of between 1.5mg/L – 3.0mg/L.

Always read and follow the instructions that are printed on the product label.

Swimmer Bromine Tablets



Swimmer Bromine Tablets should be dosed via a chemical feeder (brominator), which is easy and inexpensive to install retrospectively to an existing pool.

When set up correctly your brominator will dispense the correct amount of bromine into the pool to maintain the ideal level between 3.0mg/L to 5.0mg/L, and all you need to do is top up the brominator with new tablets as and when required.

This makes maintaining the sanitiser level in your pool very straightforward.

Swimmer Chlorine Reducer



If the chlorine level increases above a level of 10 mg/L then bathers should be discouraged from using the pool.

Swimmer Chlorine Reducer can be used to lower chlorine, and bromine, levels so pool use can be resumed.

Unless you can accurately measure the chlorine or bromine level and are sure of the amount of water in the pool, we strongly recommend that you half the dose rate indicated in the table below for the initial dose.

Once applied, leave for 24 hours then re-test the sanitiser level and add more if required.

Swimmer Chlorine Reducer dosing rates:

Pool volume			Reduce level by 1mg/L	Reduce level by 3mg/L	Reduce level by 5mg/L
4.55m ³	4,545L	1,000gal	23g	68g	113g
11.36m ³	11,364L	2,500gal	57g	170g	282g
22.73m ³	22,727L	5,000gal	113g	340g	565g
45.45m ³	45,455L	10,000gal	227g	681g	1,13kg



Oxidising

Bathers, young children and rain all introduce waste products into your pool water. As these waste compounds build up they become a source of food for bacteria and algae, encouraging their growth and making your pool water unhealthy and cloudy.

Organic wastes will react with chlorine creating chloramines (combined chlorine) that have an unpleasant pungent odour and are irritating to eyes and nose. Oxidising or shock dosing destroys chloramines and organic wastes, helping to keep your pool comfortable for bathers.

Chlorine Demand

Chlorine demand is at the route of many pool water problems and could be described as the amount of chlorine necessary to destroy bacteria, algae and other organic wastes. The only way to overcome chlorine demand is to keep shocking the pool until its 'hunger' for chlorine is satisfied; this can take a few days depending on what the level of demand is. Shock dose the pool using sufficient Swimmer Calcium Hypochlorite Granules Shock, Swimmer Rapid Shock Granules or Swimmer 10/11% Sodium Hypochlorite to increase the chlorine level by 10 mg/L.

After 24 hours check the chlorine level using your test kit. If the chlorine level is 5 mg/L or lower then it is likely that the chlorine demand has not yet been satisfied, so repeat the shock dose. Keep repeating this process until after 24 hours the chlorine remains above 5 mg/L. Then, wait for another 24 hours and check the chlorine level again. If it is still around the 5 mg/L level then you have probably satisfied the waters 'hunger' for chlorine and satisfied the demand.

Useful tip: As soon as possible after a thunderstorm shock dose your pool with a 5 mg/L dose of Swimmer Calcium Hypochlorite Granules Shock, Swimmer Rapid Shock Granules or Swimmer 10/11% Sodium Hypochlorite.

The reason for this is that lightning creates nitrogen in the atmosphere and the rain washes this nitrogen into your pool. Nitrogen is plant food and algae thrive on it, so pool water can quickly turn green after a thunderstorm. A shock dose of chlorine can help prevent this.

Regular Oxidation (shock dosing)

Regularly oxidising pool water, (ideally weekly) will pay dividends in the prevention of pool water problems.

Bather wastes such as perspiration, urine and cosmetics can build up in pool water providing nutrients for bacteria and algae; a weekly oxidising treatment or shock dose will destroy these wastes and help maintain comfortable bathing conditions.

As with satisfying chlorine demand the ideal products for regular oxidation are Swimmer Pool Refresh, Swimmer Calcium Hypochlorite Granules Shock, Swimmer Rapid Shock Granules or Swimmer 10/11% Sodium Hypochlorite.

Once a week add a 5 mg/L dose, (see dose rate tables for quantities), of any of these products, and leave your pool cover off for an hour after application.

Swimmer 10/11% Sodium Hypochlorite



A shock treatment in liquid form making for easy application as no pre-dissolving is necessary.

As the name suggests, the available chlorine level is 10/11% w/w concentration at time of packing.

Swimmer 10/11% Sodium Hypochlorite dosing rates:

Pool volume			Increase level by 1mg/L	Increase level by 5mg/L	Increase level by 10mg/L
4.55m ³	4,545L	1,000gal	40ml	200ml	400ml
11.36m ³	11,364L	2,500gal	100ml	500ml	1L
22.73m ³	22,727L	5,000gal	200ml	1L	2L
45.45m ³	45,455L	10,000gal	400ml	2L	4L

Swimmer Pool Refresh



The ultimate product for regular oxidation, Swimmer Pool Refresh is a blended product that not only destroys bather wastes but also clarifies the water.

Supplied in pre-measured 350g sachets, Swimmer Pool Refresh is the easiest oxidiser to apply as you simply cut the corner of the sachet with scissors and broadcast the contents over the water surface, with no pre-dissolving required.

Once applied, the water looks great and is comfortable for bathers. One 350g sachet treats pools up to 10,000 gallons (45.45m³).

Swimmer Calcium Hypochlorite Granules Shock



A traditional shock treatment product, these calcium hypochlorite granules have an available chlorine level of approximately 65% w/w concentration making them a good chlorine donor for pool water problem solving.

Swimmer Calcium Hypochlorite Granules Shock dosing rates:

Pool volume			Increase level by 1mg/L	Increase level by 5mg/L	Increase level by 10mg/L
4.55m ³	4,545L	1,000gal	7g	35g	70g
11.36m ³	11,364L	2,500gal	18g	88g	175g
22.73m ³	22,727L	5,000gal	35g	175g	350g
45.45m ³	45,455L	10,000gal	70g	350g	700g

Swimmer Rapid Shock Granules



A new generation calcium hypochlorite granule; Swimmer Rapid Shock Granules are quicker to dissolve making application easier and have a higher level of available chlorine, meaning less product can be used.

Swimmer Rapid Shock Granules dosing rates:

Pool volume			Increase level by 1mg/L	Increase level by 5mg/L	Increase level by 10mg/L
4.55m ³	4,545L	1,000gal	7g	32g	65g
11.36m ³	11,364L	2,500gal	17g	81g	163g
22.73m ³	22,727L	5,000gal	33g	163g	325g
45.45m ³	45,455L	10,000gal	67g	325g	650g



Algae Prevention

Algae are microscopic plant life that in the right conditions, multiply rapidly usually turning pool water green and opaque. Because algae are so small they do not become visible to the human eye until there are millions of them, so the early stages of an algae attack can easily go undetected and therefore untreated. Recovering an algae infested pool can be time consuming and expensive, which is why algae prevention is always preferable to having to cure a problem.

The secret to keeping your pool algae free is to maintain the correct water balance, oxidise regularly to destroy sources of algae food and organic wastes, apply algicide to support the sanitiser (chlorine or bromine), continuously keep a consistent level sanitiser in the water and test regularly to ensure that the correct levels are being maintained.

Swimmer Algicides have been specially formulated to support your efforts of keeping algae out of the pool. There is a choice of longlife and regularly dosed algicides. In our opinion the use of both is the most effective way to prevent algae growth.

Recovering an algae infested pool

If you are unfortunate enough to suffer from an algae attack then this recovery routine should help:

- Check the pH; it is not unusual for algae infested pools to have a high pH level - if this is the case lower the pH as chlorine does not work effectively at high pH levels (see chart on page 11).
- Top the pool up with water to the top of the skimmer mouth opening with fresh water.
- Vacuum pool floor with the multiport valve in the waste position. This may be difficult as you might not be able to see the vacuum head, but try and do it systematically remembering to keep an eye on the water level, as by vacuuming to waste the water level in the pool is going to drop – so you will need to work quite quickly.
- After vacuuming put the multiport valve in the usual filtration position and keep the pump running 24 hours per day until the pool has cleared.
- Check the sanitiser level. If it is zero it is quite likely that the water will have a chlorine demand which may take a few days to satisfy (see Chlorine Demand on page 27). It is unlikely that you will get rid of the algae infestation until the chlorine demand is satisfied, so a few treatments of Swimmer Calcium Hypochlorite Granules Shock, Swimmer Rapid Shock Granules or 10/11% Swimmer Sodium Hypochlorite may be required.
- Apply Swimmer Algae Destroyer as indicated on the product label. This will support the sanitiser and act as another algae killing product to help speed up the pool recovery time.
- Thoroughly brush the pool floor and walls, again this might be difficult as you may not be able to see the end of the brush, but it is important to disturb the algae and get it into suspension rather than sat on the floor or clinging to the walls.
- Apply one of the Swimmer clarifiers to assist the filter in the removal of small particles (see pages 39 - 40).

Swimmer Copper Free Summertime Algicide



A longlife copper free algicide that is widely compatible with many sanitisers including chlorine, bromine and active oxygen formulated to prevent algae growth during the summer swimming season.

One dose will help prevent algae growth for up to three months.

Swimmer Copper Free Summertime Algicide dosing rates:

Pool volume			Dose rate
4.55m ³	4,545L	1,000gal	160ml
11.36m ³	11,364L	2,500gal	420ml
22.73m ³	22,727L	5,000gal	840ml
45.45m ³	45,455L	10,000gal	1.60L

Swimmer Algicide



Dosed into the pool weekly, this non-copper based algicide will prevent a broad spectrum of algae inhabiting your pool.

Swimmer Algicide dosing rates:

Pool volume			Initial algae prevention	Weekly algae prevention
4.55m ³	4,545L	1,000gal	50ml	25ml
11.36m ³	11,364L	2,500gal	125ml	63ml
22.73m ³	22,727L	5,000gal	250ml	125ml
45.45m ³	45,455L	10,000gal	500ml	250ml

Swimmer Algae Destroyer



A dual use algicide that can be used to both prevent and cure algae problems.

Its concentrated formula means that a little goes a long way, making it economical to use.

Swimmer Algae Destroyer dosing rates:

Pool volume			Initial dose rate for algae prevention	Weekly dose rate for algae prevention	Algae destruction dose rate
4.55m ³	4,545L	1,000gal	33ml	8ml	66ml
11.36m ³	11,364L	2,500gal	83ml	20ml	165ml
22.73m ³	22,727L	5,000gal	165ml	40ml	330ml
45.45m ³	45,455L	10,000gal	330ml	80ml	660ml

Swimmer Wintertime Algicide



A longlife copper based algicide formulated to prevent algae growth during the late autumn, winter and early spring in outdoor swimming pools.

One dose will help prevent algae growth for up to six months.

Swimmer Wintertime Algicide dosing rates:

Pool volume			Dose rate
4.55m ³	4,545L	1,000gal	400ml
11.36m ³	11,364L	2,500gal	1L
22.73m ³	22,727L	5,000gal	2L
45.45m ³	45,455L	10,000gal	4L

Swimmer Copper Free Wintertime Algicide



A longlife copper free based algicide that is widely compatible with many sanitisers including chlorine, bromine and active oxygen, formulated to prevent algae growth during the late autumn, winter and early spring in outdoor swimming pools.

One dose will help prevent algae growth for up to six months.

Swimmer Copper Free Wintertime Algicide also contains sequestrants to minimise the likelihood of stains and scale deposits during the closed season.

Swimmer Copper Free Wintertime dosing rates:

Pool volume			Dose rate
4.55m ³	4,545L	1,000gal	300ml
11.36m ³	11,364L	2,500gal	0.8L
22.73m ³	22,727L	5,000gal	1.7L
45.45m ³	45,455L	10,000gal	3.3L



Speciality Treatments

In addition to the water treatments that have already been covered, there are a few other tasks that periodically need doing and these fall broadly under two headings; Cleaning and Clarifying.

Cleaning

Floating debris such as suntan lotion, cosmetics, blades of grass and insects will collect on the pool walls providing a source of food for bacteria and algae.

A weekly clean around the waterline using Swimmer Tidemark Cleaner will easily remove unsightly 'tidemarks'. The regular chemical cleaning of filter media will keep it working effectively and help promote sparkling pool water.

Swimmer Tidemark Cleaner



Specially formulated for use in swimming pools this cleaner is easy to apply using a brush, sponge or cloth.

Before applying Swimmer Tidemark Cleaner ensure the area to be cleaned is wet then dispense a little on to the brush, sponge or cloth and gently apply it to the waterline level for a couple of minutes and then rinse area with plenty of water.

Rubber gloves must be worn when using this product.

Swimmer Waterline Cleaning Paste



A powerful cleaner that effectively removes waterline deposits.

Use sparingly as a little goes a long way.

Swimmer Filter Cleaner



Filter media should be chemically cleaned regularly (see Circulation and Filtration on pages 05 - 07).

Swimmer Filter Cleaner has been designed to remove the greases and oils that impair the filters efficiency in the removal of particles from pool water. This product can be used to clean filter cartridges and silica sand.

For application details please see product label.

Essentials Spa Filter Cleaner Powder



Filter media (usually a cartridge element) should be chemically cleaned regularly.

Essentials Spa Filter Cleaner Powder has been designed to remove the grease and oils.

This convenient 500g tub is the ideal product to clean filter cartridges.

Measure 100g of Essentials Spa Filter Cleaner Powder into a clean plastic bucket containing clean water and stir well. Hose the cartridge to remove any loose debris, and then soak it in the cleaning solution for at least 8 hours.

After soaking the cartridge rinse it thoroughly with fresh water and if possible allow it to dry before returning it to the spa.

Essentials Spa Instant Filter Cleaner



Use Essentials Spa Instant Filter Cleaner as part of a regular cleaning routine for your hot tub filter cartridges.

Essentials Spa Instant Filter Cleaner will rapidly remove grease and oil from the filter cartridges so should be used on a fortnightly basis or more frequently if your hot tub sees heavy use.

Remove filter(s) from filter compartment and hose down with fresh water to remove loose matter. Thoroughly spray filter(s) with Essentials Spa Instant Filter Cleaner taking care to penetrate the veins with product.

Leave the filter(s) to stand for 15 minutes then hose down thoroughly with fresh water.

Always wear protective gloves and eye protection when applying this product.

The regular chemical cleaning of filter media will keep the filtration system working efficiently and help to promote sparkling water.

Clarifying

Pool water can become cloudy for a number of reasons:

- Incorrect water balance.
- Poor or insufficient filtration.
- The start or end of an algae infestation.
- A build-up of bather wastes.

Within the Swimmer range there is a selection of clarifiers that will quickly restore water sparkle, but before using them you should ensure that:

- The water is correctly balanced - see Balancing section.
- The filtration is running for a minimum of 8 hours per day (24 hours for best results) and that the filter does not require backwashing or chemically cleaning - see Circulation and Filtration section.
- The sanitiser level is being maintained within the ideal range - see Sanitising section.

Once you are satisfied that the above conditions have been met, then the Swimmer clarifiers can help speed up the clarifying process.

Swimmer Floc Tablets



These easy to use tablets are dosed via the skimmer but should only be used in pools with sand filtration systems.

When added to the skimmer they dissolve fairly rapidly and move into the filter where they put a layer of coagulant on top of the sand. This layer of coagulant traps small particles, stopping them from passing through the filter and back into the pool.

This action of removing small particles helps create truly sparkling water.

The coagulant is removed when the filter is backwashed, so for continued small particle entrapment repeat dose after backwashing.

Swimmer Floc Granules



Swimmer Floc Granules sink unwanted debris to the pool floor creating clear sparkling water.

Once the particles have settled on the pool floor they should be vacuumed to waste.

This product should only be used in pools with sand filtration.

Swimmer Floc Granules dosing rates:

Pool volume			Dose rate
4.55m ³	4,545L	1,000gal	100g
11.36m ³	11,364L	2,500gal	250g
22.73m ³	22,727L	5,000gal	500g
45.45m ³	45,455L	10,000gal	1.00kg

Swimmer Liquid Clarifier



A clarifier in liquid form that can be used with all types of filtration systems, cartridge, sand and diatomaceous earth.

Swimmer Liquid Clarifier is added directly to the pool with the filtration system running. Once in the pool it collects small particles and sticks them together making larger particles that are much easier for the filter to remove.

Regular small doses of this product are all that are required to keep pool water looking crystal clear.

Swimmer Liquid Clarifier dosing rates:

Pool volume			Initial dose rate	Weekly dose rate	Hazy dose rate	Cloudy dose rate
4.55m ³	4,545L	1,000gal	50ml	25ml	50ml	75ml
11.36m ³	11,364L	2,500gal	125ml	63ml	125ml	188ml
22.73m ³	22,727L	5,000gal	250ml	125ml	250ml	375ml
45.45m ³	45,455L	10,000gal	500ml	250ml	500ml	750ml

Swimmer Above Ground Pool Starter Pack



If you have installed an above ground pool, treating the water is crucial to maintaining clear, clean and healthy water.

The Swimmer Above Ground Pool Starter Pack has the essential chemicals to help you treat your pool - disinfecting, controlling pH and preventing algae.

The Swimmer Above Ground Pool Starter Pack contains the following:

- Stabilised Chlorine Granules - 500g
- Algicide - 500g
- pH Reducer - 750g
- pH Increaser - 500g
- Insta-Test pool test strips
- Swimmer above ground pool guide.



Maintenance Summary

Daily

- Run filtration system - minimum 8 hours per day (24 hours for best results).
- Test sanitiser and pH level.

Weekly

- Backwash filter.
- Empty skimmer basket.
- Empty pump basket.
- Vacuum pool.
- Brush pool walls.
- Skim leaves from water surface.
- Oxidise.
- Add algicide.
- Clean waterline.

As Needed

- Backwash filter.
- Empty skimmer basket.
- Empty pump basket.
- Vacuum pool.
- Brush pool walls.
- Skim leaves from water surface.
- Dose sanitiser.
- Top up chemical feeder.
- Dose pH adjusters.



Safety

General Pool Safety

- Never leave children or non-swimmers unattended in the pool.
- Never use the pool during a thunderstorm.
- Never use inappropriate electrical equipment in the pool or close to the pools edge.
- Never allow diving in shallow water.
- Stop people from running near the pools edge.
- Don't allow horseplay in or around the pool.
- Never allow glass objects in the pool or around the pool area.
- Always remove pool covers completely before getting into the pool.

General Chemical Safety

- Always read the instruction label on chemical products.
- Always adhere to the instructions printed on the product label.
- Always handle chemicals in a well ventilated area, preferably outdoors.
- Always keep chemicals out of the reach of children.
- Always wash hands after handling chemicals.
- Always store chemicals in a cool, dry place.
- Always put the lids back on chemical containers.
- When pre-dissolving products always use a clean container.
- Never use chemicals that don't have an instruction label.
- Never mix chemicals.
- Never dose chemicals when there are bathers in the pool.



Preparing for the Winter

At the end of the outdoor swimming season there are a few things that you need to do to prepare the pool for the winter, to ensure that the pool and pool equipment are protected from damage and that the water stays in reasonable condition.

If you are not confident in winterising the pool yourself, then we would recommend that you talk to your Swimmer supplier, who in most cases will be pleased to do it for you.

If you are confident that you can winterise the pool yourself then below is a brief outline of some of the things that need to be done:

- Remove the solar cover, clean it, pack it up carefully and store it away somewhere that mice can't get at it.
- Check the pH level and raise it to 7.6 – 7.8. This is slightly higher than the normal range and allows for dilution by rainwater (rainwater tends to be acidic) during the closed season.
- Lower the water level in the pool so it is approximately 150mm - 200mm below the skimmer mouth opening in the pool.
- Add a 10mg/L shock dose using Swimmer Calcium Hypochlorite Granules Shock, Swimmer Rapid Shock Granules or Swimmer 10/11% Sodium Hypochlorite.
- Add Swimmer Wintertime Algicide or Swimmer Copper Free Wintertime at the required dose rate (see tables on pages 33 - 34).
- Add a Swimmer Multifunctional Floating Dispenser to the pool; this will keep adding a small amount of chlorine to the pool for about six weeks when used in cold water conditions.
- Keep the filtration system running after you have added the above products to ensure they are distributed. To do this you will need to close the valve for the skimmer(s) in the plantroom and just draw water via the main drain, otherwise you will suck air into the circulation system.
- Put bungs into the water outlets at the bottom of the skimmer(s) to stop rainwater going down the pipe.
- In the plantroom, open the valve for the skimmer(s) and run the pump for a few seconds only, this will clear the skimmer pipelines of water.
- Turn the filtration system off.
- Drain down the pump, filter and heater as per the manufacturers instructions.
- Disconnect the pipework from the pump; if the plantroom is likely to freeze or get damp during the winter it is good practice to remove the pump to a warm, dry place.
- Float some items in the pool, old chemical containers are ideal for this but weight them first with some small stones so that they are partially submerged under the water. Doing this will take the pressure off the sides of the pool should ice form on the waters surface.
- Put an old, weighted chemical container in the skimmer(s), this will help relieve the pressure off the skimmer sides - because although the skimmer is empty at the time of winterising it will fill with rainwater over time.
- Fit your winter debris cover to keep leaves and other debris out of the pool during the closed period.
- Every 4 - 6 weeks add a 5mg/L dose of Swimmer Calcium Hypochlorite Granules Shock, Swimmer Rapid Shock Granules or Swimmer 10/11% Sodium Hypochlorite. Brush the pool to help distribute the product as best you can, and add a new Swimmer Multifunctional Floating Dispenser to the pool.

