

maytronics mineralSwim™

MINERAL SWIMMING POOLS

USER MANUAL

CONTENTS

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New Pool Start Up

Important note for any new pool start-up using a Mineral Swim system:

1. On the day of your new pool fill, Maytronics recommends adding Focus Aquashield 3 for protection. This ensures calcium from your new pool surface & metals from source water remains in solution and prevent staining.
2. Filter & Balance pool water (see POOL WATER PARAMETERS on page 4)
3. Add Minerals to the pool (3500-4500ppm)* (see DOSAGE INFORMATION page 6-7)

*Additional requirements for aggregate/rendered surfaces

(refer your surface supplier guide):

- Don't add Salt / Minerals within the first 4-6 weeks
- Brush walls daily for as long as residue continues to fall to the floor
- Continue to use a Calcium Scale Inhibitor i.e. Focus Aquashield 3

Existing Pool Conversion

Mineral Swim pools should be operated between 3500 - 4500 ppm as per your equipment supplier's recommendation.

Maintaining your Mineral Swim Pool

Mineral Swim is designed to be a simple and effective pool sanitation system, providing a reliable free chlorine supply to the pool. Mineral Swim is compatible with the Ozone Swim system.

Pool Water Parameter	Ideal Range
Free Chlorine	1 - 4 ppm with Ozone Swim 2 - 4 ppm without Ozone Swim
pH	7.2 - 7.6
Calcium Hardness	Refer to the manufacturer's recommendation for pool surface
Alkalinity	80 - 120 ppm
Cyanuric Acid	30 - 100 ppm
Copper	0 - 0.5 ppm
Iron	0 - 0.3 ppm
Phosphate	0 - 200 ppb
Minerals	3500 - 4500

HARDNESS CORRECTION

Total Hardness tests will detect the beneficial magnesium content of the Mineral Swim minerals. To correct the hardness test result, test for magnesium and subtract the magnesium result from the total hardness result. Remember to use the higher value (magnesium measured as calcium carbonate, CaCO_3) from the magnesium test.

$\text{CALCIUM HARDNESS} = \text{TOTAL HARDNESS} - \text{MAGNESIUM HARDNESS}$

INCREASING MINERAL SWIM LEVELS

To raise the mineral level of a Mineral Swim pool, add 15 kg per 10,000 litres to raise the mineral level by 1000 ppm.

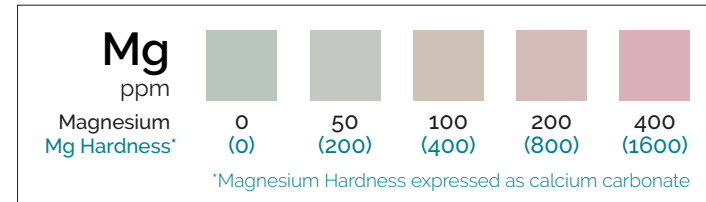
Testing Magnesium Hardness Levels

Using the Magnesium Test Strips

Magnesium test strips will help you monitor your magnesium mineral levels. We recommend the Insta-Test Magnesium test strips by LaMotte. Magnesium ions will increase over time as you add minerals. The test strip will help you check if magnesium levels are low and may need to be topped up to bring the water up to the 'comfort zone'. If the levels are high this is fine there is no need to do anything.

Instructions:

1. Take a cup-size sample of your Mineral Swim pool water from 15cm below the surface.
2. Immerse strip for 2 seconds.
3. Remove strip with pad face up.
SHAKE ONCE TO REMOVE EXCESS WATER
4. Wait 10 seconds and match the pad to the colour chart..



Check TDS at poolstore.

Visit your local Mineral Swim specialist pool shop and ask for a salinity test. Match up the salinity or TDS reading with your pool size by using the chart under DOSAGE INFORMATION. Add the prescribed bags of minerals to the Mineral Swim pool.

Dosage Information

Mineral Swim Dosage Chart (10kg Bags)

Pool TDS	Pool Volume					Pool Volume				
ppm	10,000	20,000	30,000	40,000	50,000	60,000	70,000	80,000	90,000	100,000
0	7	13	20	27	34	40	47	54	61	67
500	6	12	18	24	30	69	42	48	54	60
1000	5	10	16	21	26	31	37	42	47	52
1500	4	9	13	18	22	27	31	36	40	45
2000	4	7	11	15	19	22	26	30	34	37
2500	3	6	9	12	15	18	21	24	27	30
3000	2	4	7	9	11	13	16	18	20	22
3500	1	3	4	6	7	9	10	12	13	15
4000	1	1	2	3	4	4	5	6	7	7
4500	0	0	0	0	0	0	0	0	0	0

ORP Measuring

ORP (Oxidation Reduction Potential) packs are used to estimate chlorine levels. They **DO NOT** provide a direct correlation and should not be completely relied upon.

Important starting points about ORP probes:

1. ORP Probes are NOT free chlorine probes. They DO NOT directly test, measure and control based free chlorine.
2. ORP Readings are affected by many factors including but not limited to: pH, sunscreens (cyanuric acid), Hardness and other 'hardware' factors
3. BEFORE installing probes, you MUST balance pool water. TA 80-120 ppm, CH 180-250 ppm, pH 7.2-7.6.
4. BEFORE setting an ORP target, Chlorine should be present FCL 1-3ppm (i.e. DO NOT use the ORP setting to start up a chlorinator for chlorine generation)
5. Cyanuric Acid, (i.e. stabiliser or sunscreen) will suppress the ORP reading when the ORP Probe is connected. Daylight hours will show a reduced ORP, while night time will allow the Cyanuric Acid to detach from the chlorine molecule, which will increase the ORP reading. ORP readings should only be recognised while the pump is operating and during daylight hours (refer to your manufacturer's manual)
6. Mineral Swim DO NOT recommend the addition of stabiliser in a pool controlled with an e-Q chlorinator with chlorine probe fitted (refer to your manufacturer's manual)

If a pool falls out of balance;

- Check the supplier manual for equipment Fault Indication and Trouble Shooting checklist (i.e. cables, probes etc)
- Take Water Sample Test

IF no Free Chlorine Level (FCL),

1. Unplug the ORP probe
2. Shock pool (non-chlorine based oxidizer) to remove any organics
3. Run chlorinator on manual max output for 24/48hrs
4. Test FCL to get 1-3ppm
5. Either continue with manual chlorination on a setting to maintain 1-3ppm or
6. Revert to manufacture ORP start-up procedure (and be mindful of points 1-6 as above)

If you have any questions, please call Maytronics on 1300 693 657 or contact your local Mineral Swim dealer.

Mineral Swim FAQs

1) How much would it cost to convert/manage my existing pool over 12-months?

Approximately \$3,600.00 fully installed for an average-size pool and approximately \$400 per year in mineral costs, for an average pool in a temperate climate. This cost may be lower in a cool climate and higher in a tropical climate. For the purposes of providing an indicative costing, 45,000 litres is the volume of an average-sized pool in Australia.

People switching from chlorine pools require an ozone system with an integrated chlorinator, whereas people switching from salt pools require just an ozone unit. These two options vary slightly in cost also depending on pool size (bigger pools may require a more powerful ozone unit). Cost excludes any further savings that may be realised through reduced usage of electricity from running your chlorinator at a reduced level.

2) Can I use Mineral Swim Dead Sea minerals in my spa?

The heat in spas has no bearing on the Mineral Swim system and that the water clarity and health benefits are the same. We're currently testing Mineral Swim for use in spas with cartridge filters (normal high-flow filters commonly used with spas). This R&D is focusing on the effect of flocculants as they do their job and accumulate with other 'contaminants' (ie sand, dirt and hair). We have not uncovered any issues and testing continues.

3) What is a "flocculant" and why is it good for my swimming pool?

A flocculant attracts tiny particles in the water together, to form a bigger particle. This helps the filter to catch the combined particles and your pool robot (cleaner) to pick them up. Both magnesium and ozone in the mineral swim system act as a flocculant.

4) Why do I need minerals? Can't I just buy an Ozone Swim unit?

The Mineral Swim system is based on the combined benefits of Dead Sea minerals and ozone, which together delivered unparalleled water clarity and health benefits. However, the ozone system can be installed on its own. Please enquire with your nearest Mineral Swim Dealer.

5) Where is the Mineral Swim system made?

The technology for the ozone water purification is designed and built in Australia. The minerals are 100% natural Dead Sea minerals.

6) Why do I need an Ozone Swim water purification unit? Does this really make a difference?

The Dead Sea minerals in Mineral Swim have major health benefits for people suffering from conditions such as eczema and psoriasis. They also hydrate the skin and act as a muscle relaxant. The extra benefits brought by ozone water purification include exceptional water clarity and hygiene (augmenting the flocculating effect of magnesium chloride). Ozone has proven effective eliminating microbial contaminants such as bacteria, skin cells, viruses, urine, oils, chloramines and in sanitising cryptosporidium and giardia, organisms not neutralised by chlorine. In conjunction with an effective pool cleaner – like a Dolphin robot – that removes particles from the bottom of the pool, your pool water will have exceptional clarity.

7) Is it easy to convert my existing pool? How long does it take?

Whilst all pools depend on chlorine, either through dosing with chlorine or using salt (using a chlorinator to convert salt to chlorine), the advantage of salt pools is that they already use chlorinators. This is significant because the Ozone Swim unit attaches to your chlorinator. This is a relatively simple installation process that takes about 1 hour. If you have a chlorine pool, this may take a little longer as you will be installing the Mineral Swim system that includes a chlorinator.

8) What is a "fresh water" swimming pool?

There's not really any such thing as a fresh water back-yard pool, because all pools depend on chlorine or other sanitising agent present in the water to sanitise swimming pool water. Some systems claim to offer "fresh water" through lower salt or chlorine content, or the use of high-risk sanitising agents such as silver and copper (heavy metals) with questionable health implications; it's a case of buyer beware. Australian Standards recommend NOT TO USE these metal systems.

Mineral Swim FAQ (cont.)

9) Is chlorine bad for my swimming pool?

Chlorine in general is not bad for swimming pools, as it tends to be relatively diluted (not over-dosed). The by-product of chlorine is chloramines. Chloramines are the toxic chemical that cause red eyes and itchy skin. On occasion, they can also exacerbate people's allergies on-contact with the skin or when inhaled (whilst swimming).

A variety of standards in Australia all recommend a minimum amount of free chlorine is required in the swimming pool to maintain good quality water while ensuring nasty bacteria and viruses are eliminated.

It's how the by-product of chlorine (chloramine) is treated through the sanitation process, that is important. The advantage of Ozone Swim is that it eliminates or significantly reduces irritating chloramines and preserves a minimal amount of free chlorine to eliminate nasty pool water contaminants.

10) Does a pool with a strong chlorine smell mean there is loads of chlorine and its healthy to swim in?

The smell comes from chloramines which are the by-product of chlorine acting with some contaminants in your pool water (such as sweat, skin cells and urine). Chloramines are the toxic by-product of incorrect chlorine sanitation, they can irritate people with allergies, asthma and skin sensitivities such as eczema and psoriasis. Ozone water purification is effective because it specifically attacks and removes chloramines from your pool water.

11) How does Mineral Swim help me use less swimming pool chemicals?

There are a number of ways the Mineral Swim system helps reduce the need for chemicals. The first is by using 100% natural Dead Sea minerals in conjunction with ozone water purification. Together these dramatically reduce the load on your chlorinator. In some instances your chlorinator may only need to run at 20% production. Secondly, the flocculation effect will make your filter more effective.

12) How does Mineral Swim reduce the maintenance required to keep swimming pool water clear and sanitised?

The filter and the skimmer box work to keep the pool clear of large contaminants like leaves and debris. The flocculation effect of Mineral Swim system (minerals + ozone) helps remove small contaminants from the water, including nutrients that algae needs to grow. The chlorine and the ozone work together to neutralize micro-organisms. With a Mineral Swim system, the maintenance work a pool owner needs to do is minimised.

13) Why is Mineral Swim ideal for people who suffer from allergies, asthma or eczema?

The 100% natural Dead Sea minerals in Mineral Swim are soothing and hydrating for the skin and can provide relief from a variety of skin conditions including eczema and psoriasis. The magnesium can also act as a muscle relaxant. The same minerals are used in AHAVA skin care products. The minerals are converted to chlorine by a chlorinator, but a Mineral Swim system will use much less chlorine because it also uses an ozone water purification system that is more powerful than chlorine and removes a range of other pathogens and contaminants. The Mineral Swim system is also optimised to ensure your reliance on other chemicals and acids is also minimised.

14) What is "ozone" and how does it work in my swimming pool?

Ozone is a strong natural sanitizing agent, that can neutralise dangerous micro-organisms and viruses like cryptosporidium. The ozone works together with chlorine to keep your pool water safe by generally reducing problems like algae growth. Your Ozone Swim system converts oxygen from the air to ozone.

15) What is the benefit of combining Ozone Swim with Mineral Swim Minerals?

Together the ozone and minerals provide the safest, clearest and healthiest swimming water available. The minerals soothe and hydrate your skin, relax your muscles and flocculate the water, whilst the ozone provides one of the most effective sanitising agents in nature.

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