

Rule of Thumb - Egg washing solution for Sanitouch egg washing machines

Reminders

Your Sanitouch is unusual in the world of egg sanitisation, one of the reasons is that it does not recycle water at all, for any reason. This means it needs less chlorine or sanitising solution. It also means you are not pumping dirty water all over your eggs whilst 'cleaning' them, It does not spray huge amounts of water onto your eggs (essentially soaking them), it uses brushes to remove blemishes and sanitise. Essentially this is a continuous rinse and sanitise system.

If you have 'black' eggs then they shouldn't be 'washed' but discarded.

The seller of egg washing liquids or powders doesn't know about the levels of free chlorine already in your water. So a 'rule of thumb' is appropriate.

Test your solution and water often, make a big sign that says what to do and tells any inspectors or visitors that this is what you do....and do it.

Eggeptional Egg wash powder

50 parts per million (ppm) free chlorine for a Sanitouch is good, in the wash solution, a little more is OK but certainly do not overdo it. 50 ppm is a lower measure of HIGH free chlorine test strips.

10 litres of water with 50 grams of Eggeptional, would normally equate to 50ppm of free chlorine in the mixed solution, but again test and check. The manufacturer does not know the makeup of the water you are using, so a rule here is difficult as elements within the water you use can react to create different levels of free chlorine, as can the water temperature.

For example (for 10 Litres) $10L * 0.0025 = 0.0025 \text{ kg}$ or **25 grams** of egg wash powder

And for another example $20L * 0.0025 = 0.05 \text{ kg}$ or **50 grams** of egg wash powder

Both examples are for 50ppm.

Another way to look at this is

100grams per 10 litre to get 200ppm

50 grams per 10 litre to get 100ppm

25 grams per 10 litre to get 50ppm

Eggceptional Q Egg wash liquid

Specifically developed by Bellsouth for discarded wash solution egg washers, and particularly for the Sanitouch egg washing system. Eggceptional Q is a Quat' based dual active washing liquid. Eggceptional Q also contains Ethanol which adds to the anti-bacterial qualities. Both the Quat' and Ethanol serve as water dispersants which act to shed the eggs of water. Quat'. There are Alkali salts added as well, however on advice from a number of food security experts we suggest measuring active Quat' level as opposed to alkalinity levels. Quat' compounds are more persistent in their action than chlorine but less corrosive. Being a liquid mixing is also easier.

Be aware that you should not throw Quat' based waste wash solution anywhere where you need bacteria, i.e. do not throw it into a bacteria based sewerage system.

50-100 parts per million (ppm) active Quat' for a Sanitouch is fine in the wash solution, a little more is OK. Eggceptional Q also contains Ethanol which adds to the anti-bacterial qualities, you need Quat' tape to measure Quat' levels.

Use as per Eggceptional instead of milligrams the measurement is millilitres. But measure active Quat' with Quat tape.

Now please read on for the Sanitouch machine specifically.

Method for Sanitouch machine.

Get some buckets, or tubs that hold a known amount of liquid. A known amount of water is needed for the egg wash concentrate, and final egg wash solution going onto the eggs.

Use a large drum or bucket under your machine, empty.

Use a smaller, 10-20 litre bucket for your egg wash solution (stock tank) fill this with your water, to the brim.

Put a larger bucket under the machine and make sure waste water goes into it.

Run your machine with water and stock tank (filled with water) for half an hour. Turn off let water drain and settle.

How much water is in your waste water container? Measure it.

How much water was used from your stock tank, measure it. The simple way is to refill to the brim using a measuring beaker of some type, the amount used to refill equals the amount used.

OK perhaps you found you used 28 litres in half an hour total water.

This is 56 litres for an hour

Your need $56 \times 0.0025 = 140$ grams of Eggceptional.

Now you have measured how much water you used from the stock.

Let's say 6 litres

This is 12 litres in one hour.

Mix 130 grams of Eggceptional to **12 litres** water in stock tank for one hour of operation.

Mix very well.

Run washer with your egg wash concentrate and water, test outgoing water with 'free chlorine' test strips, check for 50ppm, and adjust chemical solution as required

Adjustments, 2 Methods.

1. The chemical pump can be sped up or slowed to change how much egg wash concentrate is mixed with your incoming water. So this means keep egg wash solution as it is and adjust the pump until satisfied.
2. Leave the pump alone and adjust your solution until satisfied adding or taking away water to the solution. We kind of like this idea because when the ratios are all sorted out, it is very unlikely to need changing. You are dealing with a known quantity in your stock tank a known amount of Eggceptional to mix into that tank.

Once adjusted don't touch things much, checking is ok but fiddling with the mix and chemical mix rate is not wise.

Notes:

Regularly test the levels of your outgoing (mixed) solution, just to double check all is well.

Measuring chlorine levels can be difficult we have found that measuring in cold water gets more readable and consistent results. So to check that all is well with the chemical mix attach cold water to the hot water inlet and check that way..... Careful, you must replace the hot water as you should wash your eggs in hot water.

It is best to mix a new egg wash concentrate every day, as chlorine will degrade, when exposed to the environment. By making a fresh batch when needed, you are being surer of washing or sanitising. If you don't want the hassle of making multiple solutions in a day, then make the concentrate stronger and mix less of it with your incoming water.