# SALIFERT PH GRADIENT CHART

7.4

7.7

8.0

8.3

**IDEAL RANGE** 

8.6

**INSTRUCTIONS:** 

- 1. Add with syringe 5ml of water in the test tube.
- 2. Add with the dropping bottle pH 4 drops and swirl gently for 10 seconds.
- 3. Put the open test tube on the white part of the color chart. It might be possible that the color is in between two different ones, then the pH value is as well in between the two corresponding values.

**DISCLAIMER** 

COLORS ARE COLOR MATCHED FROM THE ORIGINAL TEST CARDS, PLEASE CHECK THE COLOR AGAINST THE ACTUAL CARDS YOU HAVE BEFORE CONTINUNG TO BE SURE YOUR COMPUTER SCREEN IS SHOWING THE PROPER SHADE. I AM NOT RESPONSIBILE FOR ANY FALSE TESTS....

YOU HAVE BEEN WARNED.

HOLD TEST TUBE HERE

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# SALIFERT NH3/4 GRADIENT CHART

<0.25<sub>PPM</sub>

0.00 IS IDEAL

0.25PPM

0.50PPM

1.00<sub>PPM</sub>

1.50<sub>PPM</sub>

>2.00<sub>PPM</sub>

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### **INSTRUCTIONS:**

- 1. Add with 5ml syringe 1 ml of water in the test vial.
- 2. Add 6 drops of NH3-1 (watch out caustic!) and swirl gently for 5 seconds.
- 3. Add 6 drops of NH3-2 (watch out contains Mercury salts, wash hands after use, keep away from food, see additional warning under the heading WARNING). Swirl gently for 5 seconds and allow to stand for 5 minutes.
- 4. Hold the test vial and look through the side of the test vial.

### Warning!

KEEP OUT OF REACH OF CHILDREN. NH3-2 contains mercury salts. If ingested seek immediate medical advise. Keep away from food and feed. Wash hands after using the NH3-2 reagent. Remove any spilled NH3-2 immediately with a tissue and afterwards with water.

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# SALIFERT NO GRADIENT CHART

0.00PPM

0.00 IS IDEAL

**INSTRUCTIONS:** 

1. Add with the syringe 1ml of water in the test vial.

2. Add to 1 level spoon of the NO2 powder. Swirl the contents of the test tube gently for 20 seconds. Allow to stand for 3 minutes.

2. Place the open test vial against the color chart to compare the color of the solution.

0.10<sub>PPM</sub>

0.25<sub>PPM</sub>

0.50PPM

1.00<sub>PPM</sub>

2.00<sub>PPM</sub>

4.00<sub>PPM</sub>

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# SALIFERT NO GRADIENT CHART

ОРРМ

0.00 IS IDEAL

2<sub>PPM</sub>

5<sub>PPM</sub>

**10**<sub>PPM</sub>

**25**<sub>PPM</sub>

**50**PPM

**100**<sub>PPM</sub>

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HOLD TEST TUBE HERE

### **INSTRUCTIONS:**

- 1. Fill test vial with 1mL of water.
- 2. Add 1 level scoop of NO3-1 powder (compress this powder against the inner side of the powder container).
- 3. Add 1 level scoop of NO3-2 powder and swirl gently (do NOT shake) for 30 seconds. Let it stand for 3 minutes.
- 4. Compare to chart

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## SALIFERT CALCIUM TEST

### **INFORMATION:**

Calcium is a major constituent of coralline algae, the skeletal material of hard corals and the skeletal needles of soft/leather corals. In many cases too low a calcium concentration retards coral and coralline algae growth.

Calcium also fulfills many important biological functions.

In a healthy aquarium, the growth and multiplication of corals, calcareous algae and other organisms can result in calcium depletion. To maintain a stable environment it is important that the calcium content should not fluctuate by more than 15 mg/L from the optimum range of 420 - 450 mg/L so regular testing should be carried out.

This means that any calcium test used should have an accuracy of significantly less than 15mg/L otherwise it will be difficult to monitor such fluctuations.

The Salifert test kit measures in steps of 5 mg/L and has an accuracy of 10 mg/L.

The color change is precise, detecting small but significant fluctuations in the concentration of calcium.

The test is not affected by magnesium.

Sufficient for 50-100 tests

Can be used for marine water, freshwater and garden pond water

## Warning!

Ca-1 reagent contains sodium hydroxide and is strongly irritating to skin and eyes. In case of contact with skin wash with plenty of water. In case of contact with the eyes wash with plenty water and consult a physician immediately.

Not for consumption. Keep out of reach of children. If swallowed contact a physician immediately.

\*\*Variations of this product can be found in many online stores. The version we carry is of the highest quality. Although this item is eligible for price matching under our Low Price Guarantee, please be certain the product you want to price match is the same make and model.

### Warning!

Ca-2 reagent is irritating, contains < 2% NaOH. R36/38: Irritating to eyes and skin. S26: In case of contact with eyes, rinse immediately with pleny of water and seek medical advice. Not for consumption. Keep out of reach of children. If swallowed contact a physician immediately.

### **INSTRUCTIONS:**

- 1. Add with 5 ml syringe 3 ml of water in the test vial. For a low resolution and more tests per kit add 1.5 ml instead of 3 ml.
- Add 6 drops of Ca-1 to the water in the test vial. and swirl gently for 10 seconds.For low resolution 3 instead of 6 drops.
- 3. Add 1 spoon of Ca-2 (low resolution approx. 1/2 spoon) and swirl for 5 seconds.
- 4. Put the plastic tip firmly on the 1 ml syringe. And draw into the syringe the Ca-3 reagent (ensure that the end of the plastic tip is constantly submersed in the Ca-3 reagent) till the lower end of the black part of the pistion is exactly at the 1.00 ml mark. There will be air present just below the piston. This is the air which was present between the end of the plactic tip and the piston. This will not influence the test result.
- 5. Add dropwise with the 1 ml syringe the Ca-3 reagent to the water in the test tube. Swirl after each drop a second or Continue with this until color changes from pink-red to a clear blue color.
- 6. Hold the syringe with the tip facing upward and read the position of the , now the upper end, of the black part of the piston. The syringe has graduations of 0.01 ml. Read the Calcium value from the table or calculate as follows.

ppm Ca = (1 - reading in step 6) x 500

If you have chosen for the lower resolution multiply the calculated result by 2. Natural sea water contains 425 - 450 ppm calcium. Use salifert's Coral Calcium for good results

SALIFERT (CA) TEST CHART

ML	CA PPM
0	500
0.02	490
0.04	480
0.06	470
0.08	460
0.1	450
0.12	440
0.14	430
0.16	420
0.18	410
0.2	400
0.22	390
0.24	380
0.26	370
0.28	360
0.3	350
0.32	340
0.34	330
0.36	320
0.38	310
0.4	300
0.42	290
0.44	280
0.46	270
0.48	260
0.5	250
0.52	240
0.54	230
0.56	220
0.58	210
0.6	200
0.62	190
0.64	180
0.66	170
0.68	160
0.7	150
0.72	140
0.74	130
0.76	120
0.78	110
0.8	100
0.82	90
0.84	80
0.86	70
0.88	60
0.9	50
0.92	40
0.94	30
0.96	20
0.98	10

**IDEAL RANGE IN YELLOW** 

## SALIFERT MAGNESIUM TEST

### **INFORMATION:**

Magnesium is present in natural sea water in a fairly high concentration (1350 - 1500 mg/L) and is an essential element of chlorophyll which is necessary for photosynthesis. Without photosynthesis plants, algae and coral would not be able to survive.

Magnesium also helps to maintain the correct combination of calcium concentration and alkalinity as it slows down the formation of calcium carbonate which can absorb many important trace elements within the aquarium.

Maintaining a correct magnesium concentration is therefore very important and is indirectly responsible for fast coral and calcareous algae growth by making it possible to maintain correct calcium and alkalinity figures.

Magnesium is depleted by algae growth and also by the use of excessive kalkwasser or by going far beyond natural calcium, alkalinity and pH values.

The Salifert Magnesium Profi-Test is easy to use and accurate with measurements in steps of 30 mg/L.

Results are not affected by strontium and calcium interference.

Can be used for marine water only.

Calcium and strontium will not interfere when their total concentration is between 200 and 650 ppm. This is mostly the case.

Up to 50 tests.

### Warning!

Keep out of reach of children. Not for consumption.

### **INSTRUCTIONS:**

- 1. Add with 2 ml syringe 2 ml of water in the test vial.
- 2. Add 5 drops of Mg-1 and swirl gently for 30 seconds.
- Add 1 spoon of Mg-2 (inside spoon) to the test vial and swirl for 10 seconds.
- 4. Place the plastic tip firmly on the 1mL syringe and draw into this Mg-3 reagent until the lower end of the black syringe part is at the 1.00 mL mark. Ensure that during this that the plastic tip is submersed in the Mg-3 reagent to avoid that air bubbles are withdrawn instead of liquid. An air layer between the liquid and the piston is normal. This is air that was present between the end of the tip and the piston, and will not influence the result.
- 5. Start adding the Mg-3 reagent with the 1 mL syringe to the test vial until the color changes from gray to blue (whichever color is observed first) Do this drop wise and swirl after each drop for a second or 2.
- 6. Hold the syringe with the tip facing upward and read the position of the upper end of the black syringe part. The syringe has graduations of 0.01 ml. Read the Magnesium value from the table .

Natural sea water contains 1300-1500 ppm Magnesium.

### SALIFERT (MG) TEST CHART

ML	MG PPM
0	1500
0.02	1470
0.04	1440
0.06	1410
0.08	1380
0.1	1350
0.12	1320
0.14	1290
0.16	1260
0.18	1230
0.2	1200
0.22	1170
0.24	1140
0.26	1110
0.28	1080
0.3	1050
0.32	1020
0.34	990
0.36	960
0.38	930
0.4	900
0.42	870
0.44	840
0.46	810
0.48	780
0.5	750
0.52	720
0.54	690
0.56	660
0.58	630
0.6	600
0.62	570
0.64	540
0.66	510
0.68	480
0.7 0.72	450
	420 390
0.74	
0.76 0.78	360 330
0.78	330
0.82	270
0.84	240
0.86	210
0.88	180
0.9	150
0.92	120
0.94	90
0.96	60
0.98	30
5.50	

IDFAL RANGE IN YELLOW

## SALIFERT KH/ALKALINITY TEST

### INFORMATION:

Calcium is not the only substance needed to form the skeletal material of corals and allow calcareous algae to grow. Carbonate and bicarbonate are also needed and these two substances can have a major effect on stabilizing or buffering pH levels in the aquarium in the correct range of 8.1 to 8.4.

The total carbonate and bicarbonate concentration is also called alkalinity or carbonate hardness and for a stable system the alkalinity should not fluctuate by more than 5% from the optimum level of approx. 2.8 meg/L i.e. a maximum fluctuation of 0.14 meg/L.

The Salifert test is sensitive enough to detect small changes in levels of alkalinity, measuring in steps of 0.1 meq/L and demonstrating a very sharp color change. Sufficient for 100 to 200 tests.

The Salifert KH + pH buffer additive makes correction of the alkalinity or carbonate hardness simple and does not upset the pH of the system

Can be used for marine water, frewshwater and garden pond water

### Warning!

The KH/Alkalinity reageant contains a dye. Avoid spilling the dye on fabric and other materials since they may become stained. Keep out of reach of children. Not for consumption.v

\*\*Variations of this product can be found in many stores, make sure your original chart matches these values!

### **INSTRUCTIONS:**

- 1. Add with the 5 ml syringe 4 ml of water in the test vial. For a lower resolution and more tests per kit add 2 instead of 4 ml.
- 2. Shake the KH-Ind dropping bottle a few times and add 2 drops in the test vial (1 drop for the low resolution mode).
- 3. Put the plastic tip firmly on the 1 ml syringe. And draw into the syringe the KH reagent (ensure that the end of the plastic tip is constantly submersed in the KH reagent) till the lower end of the black part of the piston is exactly at the 1.00 ml mark. There will be some air present just below the piston. This is the air which was present between the end of the plastic tip and the piston. This will not influence the test result.
- 4. Add dropwise with the 1 ml syringe the KH reagent to the water in the test tube. Swirl after each drop a second or two. Continue with this until the color changes from blue/green to orange-red or pink color (whichever color is observed first).
- 5. Hold the syringe with the tip facing upward and read the position of the, now the upper end, of the black part of the piston. The syringe has graduations of 0.01 ml. Read the KH or alkalinity value from the table or calculate as follows.

KH in dKH =  $(1 - \text{reading in step 5}) \times 16$ 

Alk in meq/L = (1 - reading in step 5) x 5.71

If you have chosen for the lower resolution multiply the calculated result by  $2. \,$ 

Natural sea water has a KH of 8 dKH or alkalinity of 2.9 meq/L

KH and alkalinity are increased safely with Salifert'sKH + pH Buffer.

#### SALIFERT (KH) TEST CHART

	. ,	
ML	dKH	ALKALINITY
0	16	5.71
0.02	15.7	5.6
0.04	15.4	5.49
0.06	15	5.37
0.08	14.7	5.26
0.1	14.4	5.14
0.12	14.1	5.03
0.14	13.8	4.91
0.16	13.4	4.8
0.18	13.1	4.69
0.2	12.8	4.57
0.22	12.5	4.46
0.24	12.2	4.34
0.26	11.8	4.23
0.28	11.5	4.11
0.3	11.2	4
0.32	10.9	3.89
0.34	10.6	3.77
0.36	10.2	3.66
0.38	9.9	3.54
0.4	9.6	3.43
0.42	9.3	3.31
0.44	9	3.2
0.46	8.6	3.09
0.48	8.3	2.97
0.10	8	2.86
0.52	7.7	2.74
0.54	7.4	2.63
0.56	7	2.51
0.58	6.7	2.4
0.6	6.4	2.29
0.62	6.1	2.17
0.64	5.8	2.06
0.66	5.4	1.94
0.68	5.1	1.83
0.7	4.8	1.71
0.72	4.5	1.6
0.74	4.2	1.49
0.76	3.8	1.37
0.78	3.5	1.26
0.8	3.2	1.14
0.82	2.9	1.03
0.84	2.6	0.91
0.86	2.2	0.8
0.88	1.9	0.69
0.9	1.6	0.57
0.92	1.3	0.46
0.94	1.3	0.34
0.96	0.6	0.23
0.98	0.3	0.11
0.50	0.5	0.11

IDEAL RANGE IN YELLOW

# SALIFERT PO GRADIENT CHART

IDEAL RANGE

0.00PPM

0.03PPM

0.10<sub>PPM</sub>

0.25PPM

0.50PPM

1.00<sub>PPM</sub>

3.00<sub>PPM</sub>

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HOLD TEST Tube Here

### **INSTRUCTIONS:**

- 1. Add with the syringe 10ml of water in the test vial.
- 2. Add to this 4 drops of PO4-1 reagent and swirl the test vial gently for 10 seconds.
- 3. Add to this 1 level scoop of PO4-2 reagent and swirl the contents gently for 30 seconds.
- 4. Compare to the chart

### **DISCLAIMER**

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## 12 GRADIENT CHART ALIFEKI

0.03PPM

0.06<sub>PPM</sub>

 $> 0.10_{PPM}$ 

0.01<sub>PPM</sub>

0.03<sub>PPM</sub>

0.06<sub>PPM</sub>

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 $> 0.10_{PPM}$ 

IODATE

## **INSTRUCTIONS:**

Rinse test vial before use with a little aquarium water and add 2ml of water with the syringe.

#### IODATE:

- 1. Add 6 drops of I2-3 and swirl gently for 2-3 seconds after each drop (I-2-2 is omitted in this procedure).
- 2. After exactly 4 minutes after adding this reagent compare colors with the iodide part of the color chart. If the color turns blue, purple or black or a precipitate forms then the iodide concentration is far above 0.2 ppm.

### **IODIDE:**

- 1. Add 1 drop of I2-2 (I2-1 is omitted in this procedure) reagent and swirl gently for 10 seconds.
- 2. Add 6 drops of I2-3 and swirl gently for 10 seconds. Allow it to stand for 3 minutes.

Now look from the side od the test vial. If the color is dark yellow, green or blue or even has several blue colored particles in it then this suggests that the iodate concentration is far higher than 0.2ppm and a precipitate can form in the next step. This might result in the next step in an almost colorless solution with tiny blue particles.

The next step will allow the measurement if the iodate concentration is not far above 0.2ppm

3. Add 5 drops of I2-2 and swirl gently for 10 seconds. Now compare colors with the iodate part of the color chart.

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YOU HAVE BEEN WARNED.

**HOLD TEST TUBE HERE** 

# SALIFERT COPPER GRADIENT CHART

0.10PPM

0.00 IS IDEAL

### **VINSTRUCTIONS:**

- 1. Add 2ml of water in the test vial.
- 2. Add 5 drops of the Cu reagent and swirl gently for 5 seconds.
- 3. Allow it to stand for 10 minutes. Some copper medications might use strongly bound copper and would require a waiting time of 20 minutes. In case of doubt compare the value after 10 and 20 minutes of waiting. The highest value should be noted.
- 4. Check color against the color chart.

A blue tinge lighter than the 0.1ppm value corresponds to approximately 0.05ppm.

A color in between two color bars indicates a copper value in between those two values.

0.25<sub>PPM</sub>

0.50PPM

1.00<sub>PPM</sub>

>2.00<sub>PPM</sub>

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