



KH

INSTRUCTIONS FOR USE

FAUNA MARIN
AQUAHOMETEST KH

Carbonate hardness / Alkalinity-Test | Saltwater aquaria





FAUNA MARIN AQUAHOMETEST KH



Contents of package:

- 10 ml / 0.34 fl.oz. of reagent A
- 50 ml / 1.69 fl.oz. of reagent B
- 1 glass cuvette 10 ml
- 1 dosing syringe 5 ml
- 1 dosing syringe 1 ml with dropper tip
- 1 instruction for use



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Quick start guide:

**KH | ALKALINITÄTS-TEST | MEERWASSERAQUARIEN | SALTWATER AQUARIUMS
KURZANLEITUNG | QUICK START GUIDE**

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Table: Schedule of water hardness

C _{KH} Verbrauch Reagenz B C _{KH} Consumption Reagent B C _{KH} Consommation Réactif B C _{KH} Consumo Reagente B C _{KH} Consumo Reactivo B C _{KH} Consumo Reagente B	0,1 ml	0,2 ml	0,3 ml	0,4 ml	0,5 ml	0,6 ml	0,7 ml	0,8 ml	0,9 ml	1,0 ml
°dKH German degree Degré allemande Grado tedesco Grado alemán Grau alemão	1	2	3	4	5	6	7	8	9	10
°Engl. Härte °English degree °Degré anglais °Grado inglese °Grado inglés °Grau inglés	1,25	2,5	3,75	5	6,25	7,5	8,75	10	11,25	12,5
°Französ. Härte °French degree °Degré français °Grado francese °Grado francés °Grado francês	1,78	3,56	5,34	7,12	8,90	10,68	12,46	14,24	16,02	17,80
mg/l (0,26 US gal.)/ppm CaCO ₃	17,85	35,70	53,55	71,40	89,25	107,10	124,95	142,80	160,65	178,50
mval/l (0,26 US gal.) CaCO ₃	0,357	0,713	1,070	1,427	1,783	2,140	2,496	2,853	3,210	3,566



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Precision for saltwater aquariums

Measurement range:
0,1 – 20 °dKH

About carbonate hardness / alkalinity:

The carbonate hardness (KH) or alkalinity* of a water sample characterises the buffering capacity, i.e. the ability to maintain the pH value of the water. It is primarily defined by the proportion of hydrogen carbonate ions in the water. As the pH value increases, other basic ions such as the hydroxide ions also contribute to the alkalinity.

The alkalinity should be tested in all aquariums regularly. If the alkalinity in the aquarium is too low, the pH value can sink (sudden drop in acidity) to a level which is life-threatening for many fish and invertebrates. In reef aquariums, an adequate alkalinity is essential for strong coral growth. On the other hand, an overly high alkalinity in saltwater tanks can lead to lime precipitates and also have a negative impact on coral growth.

*There are many terms in water chemistry to describe the buffering capacity with varying definitions. The term “carbonate hardness” is customary in reef- and fish-keeping; however, it is the alkalinity which is measured. In this test, both terms are used synonymously.



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The reading for alkalinity is usually given in degrees of German hardness ($^{\circ}$ dKH). You can find a table for converting this unit into other common units (such as the equivalence unit millival per litre (mval/l) or the volume of substance in mmol/l) on the second cover page.

**Natural seawater has an alkalinity of 6.5 $^{\circ}$ dKH.
The alkalinity in saltwater aquariums should range
from 6 to 9 $^{\circ}$ dKH.**

Ask your specialist retailer for the correct alkalinity for your tank.

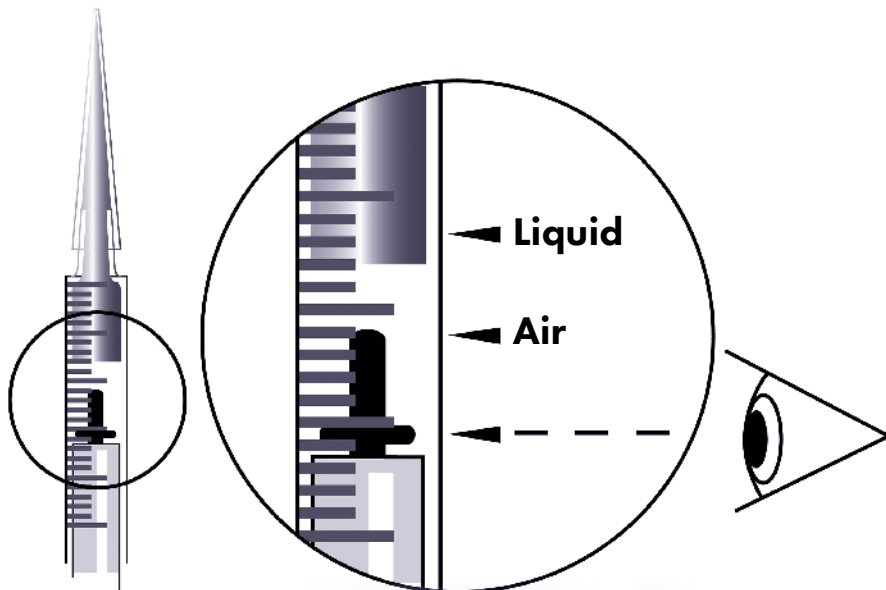


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Instructions for use:

Information:

Dip the syringe into the liquid before drawing up the syringe. Readings on dosing syringes are always taken at the plunger even if there is air between the plunger and the liquid (caused by the empty volume of the dropper tip, see illustration). The air bubble will not affect the test result.





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1. Shake the bottles before use!
2. Rinse out the glass cuvette with tap water and then several times with aquarium water.
3. Fill the glass cuvette with exactly **5 ml of aquarium water** using the dosing syringe.
4. Then add **3 drops of reagent A (indicator)** and swirl the cuvette carefully.
The water sample will turn **turquoise**.
5. Place the enclosed dropper tip on the small syringe and draw out **1 ml reagent B (titrator)**.
6. Now add **reagent B** from the syringe to the water sample drop by drop until the water changes colour from turquoise to dark-blue and violet and finally to a **clear pink** colour.

Swirl the cuvette after each new drop.

The measurement is complete when the sample has reached a **clear pink colour without any blue tinge**.



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7. The consumption of **reagent B** (difference of 1 ml) multiplied by **10** constitutes the alkalinity in °dKH.

Example:

If the lower side of the syringe plunger is at 0.28 ml following titration, then the consumption of reagent B is 0.72 ml (difference of 1 ml).

$$0.72 \times 10 = 7.2.$$

The alkalinity of the aquarium water is 7.2 °dKH.

It is possible to carry out the test with a 2.5 ml sample so that the test reagents last longer or for hard water over 10 °dKH.

If you choose to do this, follow the procedure described above and multiply the consumption of reagent B by **20** following titration.

8. Rinse out the glass cuvette, the syringe and the dropper tip thoroughly with tap water after the measurement process.



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How to correct low or high potassium levels:

To increase the alkalinity when levels are too low, we recommend using Fauna Marin **CARBONATE MIX** or Fauna Marin **ELEMENTALS KH**.





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Safety instructions:

Flammable liquid and vapour.

Keep away from heat / sparks / open flames / hot surfaces.

No smoking.

Keep out of reach of children.



WARNING



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TIP:

In order to protect the environment, the reagents for the KH /Alkalinity Test **AQUAHOMETEST** are also available in affordable refill packs!





FAUNA MARIN AQUAHOMETEST KH

Shelf life and storage:

6 months after opening.
Store in a cool, dark place.

Informationen and support:

For further information or individual advice please write to us directly in our support forum: <https://forum.faunamarin.de>

Further instructions, information about animals and our products can be found on our website www.faunamarin.de in the download center: www.faunamarin.de/support-downloads/

In our knowledge database you will find further information about the understanding of laboratory analyses: <https://www.faunamarin.de/wissensdatenbank/>

Good success!

FAUNA MARIN GmbH