Magnesium Profi Test

The magnesium test can be used for testing :

Marine water only.
Calcium and strontium will not interfere when their total concentration is between 300 and 500 ppm. This is mostly the case.

WARNING

Keep out of reach of children. Not for consumption.

INSTRUCTIONS

IMPORTANT: This is a new version and reagents from previous versions in which 3 ml sample had to be used can no longer be used with this new version!

1] Add with the 2 ml syringe 2 ml of water to the test vial.

2] Add 6 drops of Mg-1 and swirl gently for 30 seconds.

3] Add one spoon of Mg-2 powder (spoon inside) to the test vial and swirl for 10 seconds.

4] Place the plastic tip firmly on the 1 ml 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 Ensure that during this that the plastic tip is submersed in the Mg-3 reagent to avoid that air bubbles are withdrawn instead of liquid.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 which was present between the end of the tip and the piston, this 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 to gray or blue (whichever color is observed first).
Do this drop wise and swirl after each drop for a second or two.

6] Hold the syringe with the tip facing upward and read the position of the upper end of the black syringe part. Each division corresponds to 0.01 ml.
The magnesium concentration can be obtained from the table or by use of the following equation :

ppm Mg = (1 - reading step 6) x 1500

Natural sea water has a magnesium concentration of approx. 1300 - 1500 ppm. The concentration varies with salinity.

Too low magnesium concentration makes maintaining correct calcium and alkalinity concentration difficult. Magnesium concentration can be increased with Salifert's magnesium.

Magnesium Table

Reading in ml's (Step 6)	Magnesium concentration in ppm
0.00	1500
0.02	1470
0.04	1440
0.06	1410
0.08	1380
0.10	1350
0.12	1320
0.14	1290
0.16	1260
0.18	1230
0.20	1200
0.22	1170
0.24	1140
0.26	1110
0.28	1080
0.30	1050
0.32	1020
0.34	990
0.36	960
0.38	930
0.40	900
0.42	870
0.44	840
0.46	810
0.48	780
0.50	750
0.52	720
0.54	690
0.56	660
0.58	630
0.60	600
0.62	570
0.64	540
0.66	510
0.68	480
0.70	450
0.72	420
0.74	390
0.76	360
0.78	330
0.80	300
0.82	270
0.84	240
0.86	210
0.88	180
0.90	150
0.92	120
0.94	90
0.96	60
0.98	30