# REEF ICP TEST

FAUNA MARIN ICP LAB

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|---|---|
| **Sample number:** | **441** |
| **Client name:** | **Wayne Rock** |
| Sample type: | Seawater |
| Volume aquarium in Liter: | 250 |
| Sample name: | Reefer |
| Sampling date: | 26.01.20 |
| Date of receipt: | 05.02.20 |
| E-Mail: | augustborn77@gmail.com |

Method: SRL specifically for seawater using ICP-OES (inductively coupled plasma with optical emission spectrometry).

Recommended values are optimized for coral reef aquariums.

Values in orange require action.

To resolve a deficiency, the quantity of Fauna Marin Elementals to be dosed is displayed adapted to your aquarium. A click on the product name takes you directly to the shop.

Further help can be found here:

Fauna Marin Forum

Reef 2 Reef

Fauna Marin Reefing Group on Facebook

## Major elements and halogens
**in mg/liter (1 mg = 0,001 g)**

**Recommended dosage Elementals**

| | | measured | reference range | | | in ml | spread over ... days | Product |
|---|---|---|---|---|---|---|---|---|
| Sodium | Na | **10287** | 9500 | - 10700 - | 11500 | | | |
| Sulphur | S | **876** | 850 | - 900 - | 950 | | | |
| Potassium | K | **500** | 380 | - 395 - | 420 | water change | | Elementals K |
| Boron | B | **5,57** | 3,8 | - 4,5 - | 5,5 | | | Elementals B |
| Magnesium | Mg | **1402** | 1200 | - 1350 - | 1450 | | | Elementals Mg |
| Calcium | Ca | **483** | 400 | - 425 - | 440 | water change | | |
| Strontium | Sr | **9,40** | 6,5 | - 8 - | 9 | | | Elementals Sr |
| Iodine (Total Iodine) | I | **0,044** | 0,055 | - 0,065 - | 0,08 | 5,3 | 1 | Elementals Trace I |
| Bromine | Br | **44,43** | 55 | - 67 - | 75 | 56 | 3 | Elementals Br |

## Macronutrients
**in mg/liter (1 mg = 0,001 g)**

| | | measured | reference range | | | | | |
|---|---|---|---|---|---|---|---|---|
| Phosphorus (ICP-OES) | P | **n.n.** | < 0,06 | | | | | |
| Total Phosphate (calculated) | $PO_4^{3-}$ tot. | **n.n.** | 0,02 | - | 0,10 | | | |
| Silicon (ICP-OES) | Si | **0,5** | 0,1 | - | 0,2 | | | |

## Physiologically relevant trace elements and color-relevant micronutrients
**in µg/liter (1 µg = 0,000001 g)**

**Recommended dosage Elementals**

| | | measured | reference range | | | in ml | spread over ... days | Product |
|---|---|---|---|---|---|---|---|---|
| Zinc | Zn | **1,03** | 3 | - | 8 | 1,1 | 2 | Elementals Trace Zn |
| Vanadium | V | **2,04** | 2 | - | 10 | | | Elementals Trace V |
| Copper | Cu | **n.n.** | 2 | - | 6 | | | |
| Nickel | Ni | **n.n.** | 3 | - | 6 | 2,8 | 2 | Elementals Trace Ni |
| Manganese | Mn | **n.n.** | 0,10 | - | 0,25 | 0,1 | 1 | Elementals Trace Mn |
| Molybdenum | Mo | **20,98** | 10 | - | 20 | | | Elementals Trace Mo |
| Iron | Fe | **n.n.** | 0,05 | - | 2,5 | 1 | 2 | Elementals Trace Fe |
| Chrome | Cr | **n.n.** | 0,05 | - | 2,3 | 6 | 3 | Elementals Trace Cr |
| Cobalt | Co | **n.n.** | 0,02 | - | 1,9 | 0,6 | 1 | Elementals Trace Co |

## Other trace elements und potentially harmful substances in µg/liter (1 µg = 0,000001 g)

**Recommended dosage Elementals**

| | | measured | reference range | | | in ml | spread over ... days | Product |
|---|---|---|---|---|---|---|---|---|
| Lithium | Li | **553** | 180 | - | 350 | | | Elementals Trace Li |
| Barium | Ba | **9** | 20 | - | 50 | 128 | 6 | Elementals Trace Ba |
| Aluminium | Al | **114** | 5 | - | 30 | | | |
| Antimony | Sb | **n.n.** | < 10 | | | | | |
| Tin | Sn | **n.n.** | < 10 | | | | | |
| Beryllium | Be | **n.n.** | 0,1 | - | 1,4 | | | |
| Selenium | Se | **n.n.** | 0,9 | - | 5,5 | | | |
| Silver | Ag | **n.n.** | < 10 | | | | | |
| Tungsten | W | **n.n.** | < 30 | | | | | |
| Lanthanum | La | **n.n.** | 2 | - | 10 | | | |
| Titanium | Ti | **n.n.** | 0,5 | - | 3,5 | | | |
| Scandium | Sc | **n.n.** | 0,1 | - | 1,0 | | | |
| Zirconium | Zr | **n.n.** | 1,0 | - | 2,2 | | | |
| Arsenic | As | **n.n.** | < 1 | | | | | |
| Cadmium | Cd | **n.n.** | < 1 | | | | | |
| Mercury | Hg | **n.n.** | < 1 | | | | | |

Measured values of type "> 24" indicate that the concentration is above the calibrated range and therefore cannot be definitely determined. In these cases the highest detectable value is indicated (e.g. 24 µg/l), the actual value may be higher. Abbreviations: n.g. (not measured), n.n. (not detectable).