

Marine and Reef Test Kits

Presented by IMAS Members

Test Kits

- Alkalinity
- Ammonia
- Boron
- Calcium
- Chlorine
- CO₂
- Copper
- Iodine
- Iron
- Magnesium
- Nitrate
- Nitrite
- Organics
- Orp
- Oxygen
- pH
- Phosphate
- Salinity
- Specific Gravity
- Silicate
- Strontium
- Temperature

General Water Tests

- Salinity
 - Measured in ppt
 - Measured with Refractometer or Salinity meter
 - Low Range = 0
 - High Range = 100
 - Desirable = 35

General Water Tests

- Specific Gravity
 - Measured in Specific Gravity
 - Measured with Hydrometer
 - Low Range = 1
 - High Range = 1.040
 - Desirable = 1.025

Tests for Cycling the Tank

- Ammonia
 - Measured in ppm
 - Measured with Test kits / strips
 - Low Range = 0
 - High Range = 2
 - Desirable = 0 (Undetectable)

Tests for Cycling the Tank

- Nitrite
 - Measured in ppm
 - Measured with test kits / strips
 - Low Range = 0
 - High Range = 2
 - Desirable = 0 (Undetectable)

Tests for Cycling the Tank

- Nitrate
 - Measured in ppm
 - Measured with Test kit/strips
 - Low Range = 0
 - High Range = 100
 - Desirable = Less than 10 prefer undetectable

Tests for the Tank Chemistry

- Calcium
 - Measured in ppm
 - Measured with titration type test kit
 - Low Range = 0
 - High Range = 600
 - Desirable = Approx. 420

Tests for the Tank Chemistry

- Alkalinity
 - Measured in dKH and meq/l
 - Low Range = 0
 - High Range = 20 dKH / 5 meq/l
 - Desirable = 8 – 11 dKH / 2.8 – 3.9 meq/l

Tests for the Tank Chemistry

- pH
 - Measured in pH
 - Measured with Test kit / strip or pH meter and probe
 - Low Range = 0
 - High Range = 14
 - Desirable = Approx. 8.2
 - <http://www.reefcentral.com/forums/showthread.php?s=&threadid=502821>

Tests for the Tank Chemistry

- Carbon Dioxide (CO₂)

- Measured in

- Low Range = 0

- High Range = 50

- Desirable =

- <http://web.archive.org/web/20030504104128/http://www.animalnetwork.com/fish/library/articleview2.asp?Section=Aquarium+Frontiers+--+Biochemistry+of+Aquaria&RecordNo=2074>

Tests that cause Algae Issues

- Silicate
 - Measured in ppm
 - Measured with test kit
 - Low Range = 0
 - High Range = 30
 - Desirable = 0

Tests that cause Algae Issues

- Phosphate
 - Measured in ppm
 - Measured with test kit
 - Low Range = 0
 - High Range = 2
 - Desirable = 0

Tests for Trace Elements

- Boron
 - Measured in
 - Low Range = 0
 - High Range = 10
 - Desirable = 4.4 – 4.8

Tests for Trace Elements

- Iron (FE)
 - Measured in ppm
 - Low Range = 0
 - High Range = 2
 - Desirable =

Tests for Trace Elements

- Magnesium (Mg)
 - Measured in ppm
 - Measured with test kit
 - Low Range = 1000
 - High Range = 1700
 - Desirable = 1350 - 1500

Tests for Trace Elements

- Strontium (Sr⁺)
 - Measured in meq/l or ppm
 - Low Range = 0
 - High Range = 40
 - Desirable = 5 – 20 meq/l

Tests for Trace Elements

- Iodine
 - Measured in ppm
 - Low Range = .01
 - High Range = .15
 - Desirable = .06

Miscellaneous tests

- Oxygen
 - Measured in ppm
 - Low Range = 2
 - High Range = 14
 - Desirable = >6ppm

Miscellaneous tests

- Dissolved Organics
 - Measured in ???
 - Measured with test kit or TDS meter/probe
 - Low Range = 0
 - High Range = ???
 - Desirable = ???

Miscellaneous tests

- Oxygen Reduction Potential (ORP)
 - Measured in mV
 - Measured with ORP meter
 - Low Range = 0
 - High Range =
 - Desirable = 300 – 450
 - More info -
<http://www.reefkeeping.com/issues/2003-12/rhf/feature/>

Miscellaneous tests

- Temperature
 - Measured in degrees F
 - Measured with thermometer / probe
 - Low Range = 74
 - High Range = 85
 - Desirable = 78