



582 Metal Pipe Contamination Sciencefaircenter.com Study Kit

Each water sample is tested for this Set of parameters:
pH, Copper, Zinc+2 and Iron+2
(4 tests per Set)

Log onto
www.sciencefaircenter.com/documentation.tpl
for additional information on this study kit.

Find more water information at www.sciencefairwater.com (a web work in progress).

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pH Scales



110 pH Testing of Water

Colorimetric test strips. (1 test per strip)

This pH test is very versatile in that it can be used for Drinking Water testing, food processing, environmental applications or in any other water matrix.

pH is short for “Power of Hydrogen”. The balance of positively charged and negatively charged hydrogen ions in drinking water determines pH.

Water that has a low pH is acidic or aggressive and can corrode plumbing resulting in metal ions being present in drinking water and damages fixtures and pipes.

Water that has a high pH is basic and will leave scale in pipes and fixtures.

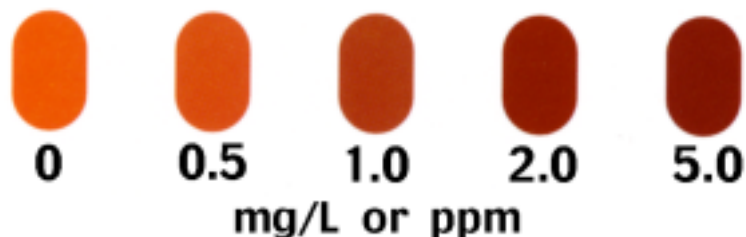
This test features two test pads both measuring at the same range using different color indicators. This makes color matching easier on the Color Comparator Chart than with other colorimetric tests.

The test reports water pH at the following levels:
2.0, 3.0, 4.0, 5.0, 6.0, 6.5, 7.0, 7.5, 8.0, 8.5, 9.0, 9.5, 10, 11, and 12
Results are obtained from this test in 1 minute.

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Copper



#165 Copper +1 and +2 in Water

Colorimetric test strips. (1 test per strip)

Copper in drinking water is primarily from its use in plumbing materials. These Copper test strips are suitable for testing drinking water and other water based samples for soluble copper ion. The EPA Primary Drinking Water Standard for Copper is 1 mg/L or 1 ppm.

This test strip features a patented design for accuracy and lack of interferences. Use a water sample of at least 60 ml or 2 oz.

The Color Comparator Chart for this test reports concentrations of Copper (Cu+1 Cu+2) at the following levels:
0, 0.5, 1.0, 2.0, 5.0 mg/L or ppm.

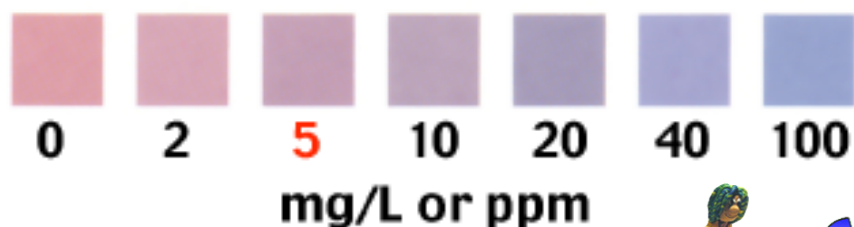
Results are obtained from this test in about 3 minutes.



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Zinc



170 Zinc in Water

Colorimetric test strips. (1 test per strip)

Testing for Zinc levels in tap water is quick, accurate and safe with these semiquantitative test strips. Each test strip result indicates the presence of Zinc in water.

The color chart for this test allows you to read Zinc in milligram/L or ppm.
Note: Interferences may occur with $\text{Cu}^{+2} > 0.1 \text{ mg/L}$;
 $\text{Mn}^{+2} > 5 \text{ mg/L}$; and $\text{Fe}^{+2} > 10 \text{ mg/L}$

Most interferences from other metals can be over come by adjusting the pH between 4.0 to 5.5.

The Color Comparator Chart for this test reports mixed Zinc levels in water at:

0, 2, 5, 10, 20, 40, 100 milligrams/L or ppm.

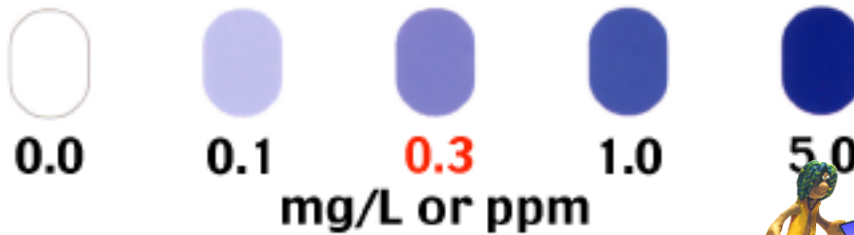
(Note: concentration units are milligrams per Liter or parts per million).

Results are obtained from this test in 2 1/2 minutes.

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Iron (Fe⁺²)



#155 Iron (Fe⁺²) in Water

Colorimetric test strips. (1 test per strip)

Testing for Iron in tap water is very common and is very quick. Each test strip result indicates the presence of Iron in the ferrous (Fe⁺²) state in water.

The color chart for this test allows you to read Iron⁺² in milligram/L or ppm.

The presence of Iron in water contributes to the reddish brown stains on porcelain and plumbing fixtures. It can also add a metallic taste and odor to drinking water.

The Color Comparator Chart for this test reports mixed Iron (Fe⁺²) levels in water at:

0.0, 0.1, 0.3, 1.0, 5.0 milligrams/L or ppm.

(Note: concentration units are milligrams per Liter or parts per million). Best results are obtained when water is room temperature.

Results are obtained from this test in 2 1/2 minutes.

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