

REAGENTS

3% Hydrogen Peroxide adjusted to pH 5.5 to 6.0

SO₂ Indicator (Methyl Red + Methylene Blue in 50% Ethanol)

0.01N NaOH

25% Phosphoric Acid CAUTION: CORROSIVE

PROCEDURE

Fill flask #2 (on the right) with 10ml 3% Hydrogen peroxide.

Add 3 drops of the indicator. (Should turn gray-green in color).

*May need to adjust acidity of Hydrogen Peroxide with dilute NaOH or HCL.

If too purple - use dilute NaOH

If too green - use dilute HCL

Pipet 20mls of sample into flask #1 (on the left).

Pipet 10mls 25% Phosphoric acid into flask with sample.

Insert bubbler/stopper into flask.

Connect flask to aquarium pump and aspirate for 10 minutes at a flow rate ca.

1000ml/min. Turn. Blow out any drops left into impinger by using safety bulb on bubbler tube.

Titrate Hydrogen peroxide solution with 0.01N NaOH to a gray-green color, ending with the same color you started with.

CALCULATIONS

Free SO₂ (ppm) = N NaOH x mls NaOH x 1600

example: If N of NaOH is 0.01, then: Free SO₂ (ppm) = mls NaOH x 16

Link to SO₂ vs PH table

<http://www.vinquiry.com/pdf/DISTRIBUTIONOFFREESO2.pdf>

