Niagara Falls, New York, USA
Phone: (716) 402-7311
Toll Free: 1-877-746-4764
Email: info@indigoinstruments.com

Indigo 100ppm Hydrogen Peroxide Test Strip-Taylor Test Kit Calibration

This comparison of 2 different test methods was done to confirm that the Indigo 100ppm H_2O_2 test strips are accurate in the presence of dissolved magnesium sulfate (Epsom salts) & can be used for routine testing.

Materials

- Magnesium Sulfate USP
- 30% wt/wt ACS grade H_2O_2
- Taylor Test Kit K-1826, Lot C2063
- Bel Art Hydrometer tested against NIST standard NBS Circular 555
- Indigo 100ppm H_2O_2 Test Strips Batch #210129.

Methods

Magnesium sulfate salts were mixed with deionized water to prepare a solution with a specific gravity of 1.29 as confirmed with hydrometer. This solution was warmed to ~93F & maintained in a water bath.
A 400ppm H_2O_2 stock solution was prepared from the 30% ACS grade H_2O_2 using the salted water and confirmed by titration with the Taylor Test Kit. The 400ppm stock solution was then serially diluted to lots of 100, 50 & 10ppm for use with the test strips using the saltwater solution.

Results

The Taylor Test kit results matched those of the serially diluted H_2O_2 solutions of 100, 50 & 10ppm. These solutions were then tested using the Indigo 100ppm H_2O_2 test strips.
The readings were consistent with the Taylor Test kit results when the strips were allowed to develop for **10 seconds** as indicated by the instructions on the label.
Results were also consistent for specific gravities at 1.25 & 1.27 and temperatures of 86 & 90F.

Conclusion

Indigo 0-100ppm hydrogen peroxide test strips, SKU **33815-P100**, are accurate results across their entire range. When allowed to 10 seconds, the values indicated by the various pads on color chart closely match the values calculated with the Taylor Test Kit.

Indigo 0-100ppm hydrogen peroxide test strips, SKU **33815-P100**, have a guaranteed minimum shelf life of 3 years after day of manufacture. However, strips can last well over 5 years if the bottle is kept tightly stoppered. See our blog Test Strip Expiration Dates; Good Today, Dead Tomorrow?