

CON-SERV MFG – Understanding pH

pH

The relative acidic or basic level of a solution is measured by pH. The pH is a measure of hydrogen ion concentration in water, specifically the negative logarithm (log) of the hydrogen ion concentration. The measurement of pH lies on a scale of 0 to 14 (Figure 2), with a pH of 7.0 being neutral (i.e., neither acidic nor basic), and bearing equal numbers of hydroxyl (OH⁻) and hydrogen (H⁺) ions. A pH of less than 7.0 is acidic; a pH of more than 7.0 is basic.

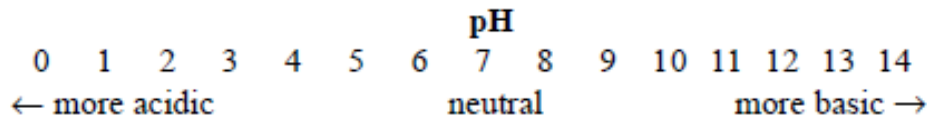


Figure 2 – pH Value

Since pH is expressed in log form, a pH of 6.0 is 10 times more acidic than a pH of 7.0, and a pH of 5.0 is 100 times more acidic than a pH of 7.0. The pH has an effect on many phases of water treatment such as coagulation, chlorination and water softening. It also affects the scaling-potential of water sources.

The pH level can be determined by various means such as color indicators, pH paper or pH meters. A pH meter is the most common and accurate means used to measure pH.