



The Power of Bio-Safe by BioSecurity Technology™

Biosecurity Technology's monitoring system will assure the effective production of our Antimicrobial Solution for unprecedented effectiveness and consistency.

Oxidation Reduction Potential (ORP) is a measurement of sanitizer effectiveness in water. ORP is an electronic measurement— in millivolts (mV)— of the ability of a chemical substance to oxidize or reduce another chemical substance. An ORP sensor consists of an ORP electrode and a probe.

We use ORP because it is practical, accurate, and allows us to electronically monitor what is in our water. ORP is a real-time reading of the strength of the solution which results in the disinfection's performance. Most operators agree that disinfection is what really matters from a health perspective; amount of disinfection is not necessarily as important as its effectiveness. Ideally, we would have a minimal amount of disinfection that is super-efficient, to accomplish more with less.

We have not yet found data that suggests an ORP that is "too high", or where it starts losing effectiveness. What we do know is that ORP should be above 650mV; anything over 750 is good, and anything over 800 is excellent. Beyond that, the exact numbers are subject to operator opinions, but we can all agree that higher is better.

Advantages

The primary advantage of using ORP for water system monitoring is that it provides the operator with a rapid and single-value assessment of the disinfection potential of water in a postharvest system. The operator is able to assess the activity of the applied disinfectant rather than the applied dose.