

## Using Conductivity to Monitor ReducX

Enviro Tech's ReducX peracetic acid product contains octanoic acid making feasible for the concentration to be monitored via conductivity. While source water differs from place to place, and thus absolute conductivity values differ, Enviro Tech Chemical Services, Inc. has performed a test to measure the conductivity of diluted ReducX samples in reverse osmosis (RO) water using a simple conductivity probe to determine whether conductivity is linearly related to concentration.

In this study, four dilutions of ReducX (equivalent to 1, 2, 3, and 4 oz/gal) in RO water and measured the conductivity of each dilution using a HANNA Instruments mS/cm conductivity probe. The resulting correlation between concentration and conductivity can be seen in Figure 1.

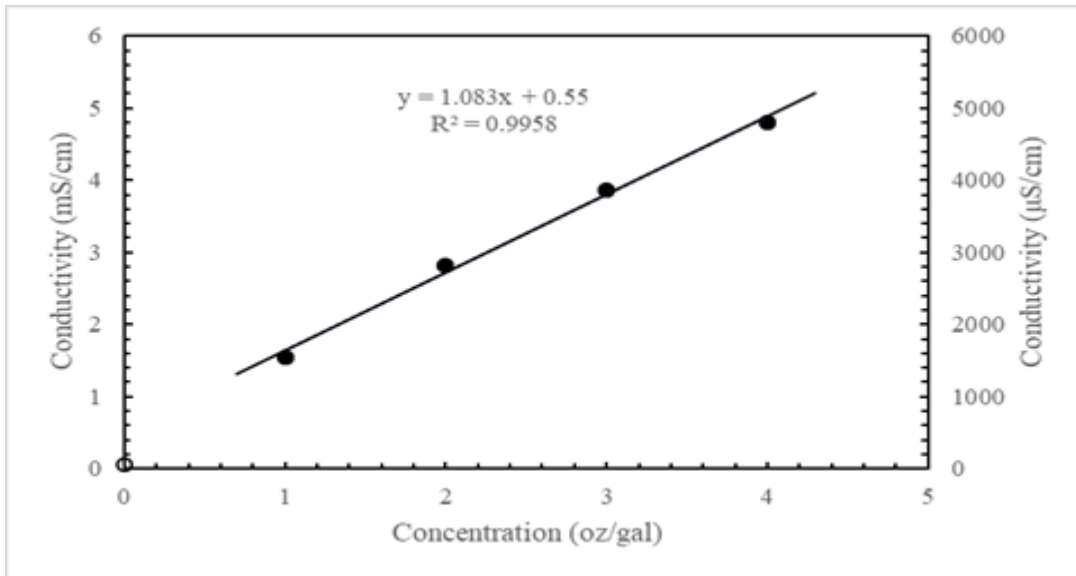


Figure 1. Concentration vs Conductivity of ReducX samples in water. Pure RO water conductivity can be seen as the empty circle at x=0.

As seen above, the data appears to have a strong linear trend. The sensitivity of the conductivity to concentration was determined to be 1.083 mS/cm per dosage (oz/gal).

While the conductivity appears to be linearly correlated to concentration, it should be stressed that these conductivity values are not absolute. Impurities, source water, and hardness of water are subject to change and constitute a significant percentage of an overall conductivity reading. While conductivity proved to be a viable option for ReducX quantification, the ReducX specific test kit should be employed to verify product concentration.