

Advances in Activated Persulfate Oxidation for Remediation of Soil and Groundwater

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Over the past several years, activated persulfate oxidation has been demonstrated as an effective tool for the *in situ* and *ex situ* treatment of contaminated soils and groundwater. Persulfate is a strong oxidant, and upon activation to form the sulfate radical, is capable of destroying a wide range of contaminants of concern. These include chlorinated solvents (chlorinated ethenes, ethanes and methanes), BTEX, polyaromatic hydrocarbons, petroleum hydrocarbons, 1,4-dioxane, MTBE, pesticides, PFOS/PFOA and others. The past two years has shown a dramatic increase in the application of activated persulfate for *in situ* chemical oxidation, both in the United States and in Europe.

This presentation will discuss recent advances in the activation of persulfate to achieve aggressive destruction of recalcitrant compounds and in the field application of activated persulfate. Case studies demonstrating successful application of this technology on a variety of contaminants of concern will be discussed.