

RemBind used to immobilise PFOS

Perfluorooctane Sulfonate (PFOS) and Perfluorooctanoic Acid (PFOA) are man-made chemicals that are extremely persistent in the environment. In 2009, Perfluorinated Alkylated Substances (PFAS) was listed as a chemical of concern by the Stockholm Convention on persistent organic pollutants.

These chemicals are common in Aqueous Film Forming Foams (AFFF) used for fire fighting and their manufacture has been restricted or banned in several countries.

Ziltek collected PFOS/PFOA containing soil and groundwater samples from a contaminated site in Australia for treatment feasibility trials.

Ziltek's immobilisation reagent RemBind was mixed at various ratios with the soil and water samples, and after 24 hours the treated samples were sent to an independent accredited laboratory for analysis.

Results show that RemBind reduced the leachability of the PFOS/PFOA compounds by up to >99% thus providing a cost-effective solution for the management of these contaminants.



Soil Treatment Results

| | PFOS* µg/L | PFOS % Reduction | PFOA* µg/L | PFOA % Reduction |
|--------------|---------------|---------------------|---------------|---------------------|
| Control | 62.5 | - | 2.7 | - |
| RemBind | 0.39 | 99% | 0.12 | 95% |
| RemBind Plus | <0.02 | >99% | <0.02 | >99% |

*Australian Standard Leaching Protocol

Water Treatment Results

| | PFOS µg/L | PFOS % Reduction | PFOA µg/L | PFOA % Reduction |
|---------|--------------|---------------------|--------------|---------------------|
| Control | 8,800 | - | 398 | - |
| RemBind | 74.4 | 99% | 28.8 | 93% |

Z082-03 06/14