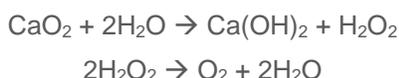




Engineered Calcium Peroxide to Enhance the Aerobic Bioremediation of Petroleum Hydrocarbons and Non-halogenated Organics

PermeOx[®] Ultra is a specially formulated grade of engineered calcium peroxide, available in powdered and granular form, providing extended oxygen release for enhanced aerobic bioremediation. Often, the limiting factor in aerobic bioremediation of petroleum contaminants is oxygen. PermeOx Ultra provides oxygen through a reaction of calcium peroxide and water:



Studies have shown that PermeOx Ultra releases more oxygen into the subsurface environment over extended periods as compared to other soil remediation products. These studies have demonstrated that PermeOx Ultra can continually release oxygen for over 350 days, thus providing a useful and cost-effective tool for enhancing the aerobic bioremediation of petroleum hydrocarbons and non-halogenated organics.



The benefits of PermeOx Ultra

- Available in powdered and granular form
 - PermeOx Ultra powder allows for a workable slurry for injections and does not set up
 - PermeOx Ultra Granular reduces dust hazards and material handling issues in the field
- Contains $\geq 18\%$ Active Oxygen for enhanced performance, which is higher than other grades of calcium peroxide
- Longest oxygen release profile of comparable products in the market
 - Releases oxygen for up to one year
 - Sustains dissolved oxygen levels in groundwater of 8-10 mg/L
- Cost-effective form of treatment and/or polishing step
 - Enhances microbial growth/bioremediation processes
 - Effective at achieving compliance end points
- No lock up or encapsulation of calcium peroxide surface resulting in release of available oxygen

Contaminants Treated

- Petroleum hydrocarbons
- Non-halogenated organics

Application Methods

- Direct injections in the plume (slurry)
- In a permeable reactive barrier (PRB)
- Broadcast in open pit / excavation post UST and soil removal

For more information and detailed case studies, please visit our website.

