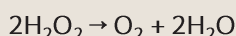
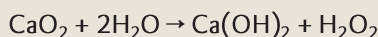


ENHANCED AEROBIC BIOREMEDIATION

PERMEOX® Ultra is a specially formulated grade of engineered calcium peroxide 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 calcium peroxide based products on the market. 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.

PERMEOX® Ultra is available in powdered and granular forms.



PERMEOX® Ultra Powder and Granular

CONTAMINANTS TREATED

The introduction of oxygen facilitates the biodegradation of aerobically biodegradable compounds. Commonly used to treat appropriate:

- Petroleum hydrocarbons, BTEX, PAHs, MTBE, DCE, Vinyl Chloride & other oxidizable compounds

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THE BENEFITS OF PERMEOX® ULTRA

- Available in powdered and granular forms:
 - PERMEOX® Ultra Powder allows for a workable solid-slurry for injections
 - PERMEOX® Ultra Granular reduces dust hazards and material handling issues in the field for soil mixing
- Contains ≥ 18% Active Oxygen (typical) for enhanced performance; higher than other grades of calcium peroxide
- PERMEOX® Ultra contains stabilizers intended to promote a more steady, slow-release profile compared to regular Calcium Peroxide
- Longest oxygen release profile of comparable products in the market
 - Releases oxygen for up to one year
 - The slow, extended release of oxygen allows for more efficient utilization
 - Sustains dissolved oxygen levels in groundwater of 5-10 mg/L
- Cost-effective form of treatment and/or polishing step
- Enhances microbial growth/bioremediation processes Effective at achieving compliance end points

APPLICATION METHODS

PERMEOX® Ultra can be applied using a variety of common methods including:

- Direct Push Technology (DPT) rods using PERMEOX® Ultra Powder in a solid-slurry.
- Broadcast in open pit/excavation post UST and/or soil excavation using PERMEOX® Ultra Granular.

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

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Soil & Groundwater Remediation

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