

# TersOx™ Granular

## Enhanced Aerobic Bioremediation



- White-to-yellow granular substance
- Releases 15% of its weight as oxygen
- Expected shelf life of 2 years
- Ideal for stimulating aerobic remediation in trenches, pits, and excavations

### Dust Minimizing Formulation for Excavations, Tank Pits and Trenches

Address Contaminants under an excavation by simply adding *TersOx™ Granular*



#### Slow Oxygen Release



*TersOx™ Granular* decomposes slowly in contact with atmospheric moisture or water, with the generation of oxygen.

### Principle

*TersOx™ Granular* is a specially formulated calcium peroxide that produces a controlled release of molecular oxygen. It is designed to assist with the aerobic bioremediation of hydrocarbons and other biodegradable contaminants in groundwater. *TersOx™ Granular* stimulates natural degradation of benzene, toluene, ethylbenzene, and xylenes (BTEX). This is not a chemical oxidation product. The high ratio of O<sub>2</sub> in *TersOx™ Granular* (>15% by weight) provides a long-term oxygen source for up to 12 months in ideal conditions. This sustained release of oxygen stimulates indigenous bacteria, accelerates bioactivity, and promotes increased contaminant removal.

### Advantages

- Controlled release of molecular oxygen to support aerobic microbial biodegradation
- Clean, low-cost, dust minimization application
- No water equipment necessary
- No operations after application

### Field Application Design

*TersOx™ Granular* is pelletized to avoid dust formation when dumping the product in the open, keeping operations clean and safe. *TersOx™ Granular* can be thus directly applied into open excavations, UST pits, and trenches. It is also commonly mixed into biopiles or with the aquifer's contaminated soils.

The required *TersOx™ Granular* mass is proportional to the target aquifer volume is intended to be addressed, ranging from 0.1 to 1.5 lbs. of *TersOx™ Granular* per cubic yard of saturated soils to treat. (This volume is at least the size of the bottom of the excavation footprint and typically 5 to 10 feet deep). Ratios as high as 15 lbs. of *TersOx™ Granular* per target cubic yard may be used when high safety factors are required, and difficult conditions are encountered.

*TersOx™ Granular* is typically added at the bottom of excavations that remove contaminated soils just above the groundwater table. Once in place, the added product will hydrolyze with the soil's humidity and dissolve oxygen into

groundwater, providing an electron acceptor to petroleum hydrocarbon-degrading bacteria. The excavation is backfilled with clean sand after a layer of *TersOx*<sup>™</sup> is poured or mixed into the bottom.

## Product Content

Chemical Name	CAS Number	Composition (% wt.)
Calcium Peroxide Ca(O <sub>2</sub> )	1305-79-9	60-75
Calcium Hydroxide Ca(OH) <sub>2</sub>	1305-62-0	25-40

## Product Characteristics

Parameter	Specification
Bulk Density	0.5-0.65 g/L
Solubility in water	Insoluble
Decomposition temperature	Self-accelerating decomposition with oxygen release starting from 275C
Appearance	White-yellow solid

## Packaging Options

- 25-kg bags

## Safety

*TersOx*<sup>™</sup> *Granular* is a mild oxidizer and as such should be handled with care while in the field. Field personnel should take precautions while applying pure *TersOx*<sup>™</sup>. We suggest that the operator work upwind of the product as well as use appropriate safety equipment (see SDS). These would include eye and respiratory protection, and gloves as deemed appropriate by exposure duration and field conditions. Personnel operating the field equipment utilized during the installation process should have appropriate training, supervision and experience.

## Label elements

Hazardous Products Regulations (WHMIS 2015)

Pictogram



Signal Word

- Danger



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