

S-ISCO®

(Surfactant-enhanced In Situ Chemical Oxidation)

DESCRIPTION

EthicalChem's patented S-ISCO technology is the combined delivery of surfactant and oxidant into the subsurface for soil and groundwater contaminant remediation. An EthicalChem proprietary surfactant blend desorbs and emulsifies the contaminants into the aqueous phase, significantly increasing contaminant surface area exposed to the oxidant. This process substantially enhances the availability of contaminants for oxidative destruction by a simultaneously injected oxidant.

FEATURES/BENEFITS

- Uses biodegradable, plant-based surfactants dosed from 0.5% to 2.0%
- In-place contaminant destruction through enhanced oxidant / contaminant contact
- Simultaneously injected oxidant destroys emulsified contamination within desired site boundaries
- Permanent solution which eliminates rebound
- Does not increase subsurface salinity
- Does not require addition of salt or other additives

APPLICATIONS

- Remediation of organic contaminants including heavy hydrocarbons and chlorinated solvent sites
- Implemented at over 70 sites
- Successfully implemented near sensitive receptors such as bodies of water

S-ISCO Field Results from a Petroleum LNAPL Site

Soil

- 99.33 % TPH (C6-C35) Reduction
- 99.96% BTEX Reduction

Groundwater

- LNAPL removed
- 99.93% TPH (C6-C36) Reduction
- 99.72 BTEX Reduction

