

TersOx™ Liquid



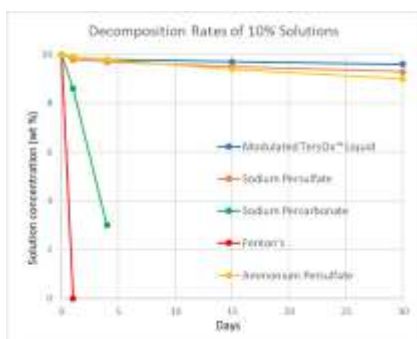
- 32 to 35% Hydrogen Peroxide Solution
- Primer for enhanced aerobic bioremediation
- Polishing step for surfactant enhanced aquifer remediation
- Exothermic controlled ISCO when blended with *TersOx™ Modulator*
- Effluent and wastewater treatment
- Degrades recalcitrant organics, decomposes to oxygen, disinfects

ISCO Reagent



One-part *TersOx™ Modulator* plus
 40 parts *TersOx™ Liquid*

Modulated *TersOx™ Liquid* Exothermic Controlled ISCO



Slower caloric release when
 compared to traditional ISCO
 reagents.

Oxygen Addition



Principle

TersOx™ Liquid has varied uses in the remediation industry. Uses include:

ISCO: Chemical oxidants can be used *in situ* to address contaminants in soils and aquifers. *TersOx™ Modulator* can be combined with *TersOx™ Liquid* to create a modified Fenton's reagent that steadily produces hydroxyl radicals that are very reactive toward organic compounds, with final breakdown products being carbon dioxide, water, and, in the case of chlorinated solvents, hydrochloric acid.

Aerobic Bioremediation: *TersOx™ Liquid* is often diluted and injected prior to biostimulation and bioaugmentation events to reduce natural oxidant demand and supply oxygen to stimulate aerobic biodegradation of organic contaminants. A common design is to add one gallon of *TersOx™ Liquid* for every 700 gallons of water and other compatible amendments and inject into the aquifer.

Additional uses include effluent and wastewater treatment and disposal, well development, pH adjustment, and disinfection.

Advantages

- High Quality Product
- Modified for Remediation purposes
- Oxidize difficult constituents such as:
 - ✓ 1,4-Dioxane, DCE, VC
 - ✓ PCBs, DDT, Aldrin
 - ✓ MTBE, Isopropyl benzene

Field Application Design

Various techniques in remediation use *TersOx™ Liquid*. Please contact your local Tersus Representative for project specific recommendations and applicability. The following examples are the most frequent uses:

Modulated *TersOx™ Liquid*: One-part *TersOx™ Modulator* is added to 40 parts *TersOx™ Liquid* to create an ISCO reagent, which is typically then diluted 320 parts water and injected into aquifers or mixed with contaminated soils. Total injected volume should reflect target radius of influence to allow instantly contact with contaminants *in situ*.



< 90°F ✓ **NOTE:** *TersOx™ Modulator* can only be added to *TersOx™ Liquid* if Temperature of the liquids are less than 90°F (< 32.2°C).

SEAR and *TersOx™ Liquid*: *TASK™* Surfactant solution injections are followed by a pore volume of *TersOx™ Liquid* (or *Modulated TersOx Liquid™*) to address dissolved constituents and residual surfactant in the treatment zone.

***TersOx™ Liquid* prior to Enhanced Bioremediation:** A slug of 0.5% *TersOx™ Liquid* is added to injection wells prior to dosing the aquifer with *TersOx™ Powder*, *TersOx™ Nutrients* and/or *TersOx™ Microbe*.

***TersOx™ Liquid* for Soil treatment:** The amendment removes contaminants via oxidation and composting with *TersOx™* line of products

Product Content

32 to 35% Hydrogen Peroxide

Product Characteristics

Appearance	Transparent liquid
Odor	None
Density	1.44 S.G. @ 26°C
pH	2 @ 21°C

Packaging Options

- 55-gallon poly drums

Storage and Handling

Keep in a well-ventilated area. Protect bulk storage area from sparks and flame. Keep packages tightly closed. Avoid breathing dust. Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling.



Incompatible materials: Acids, Bases, Metals, Heavy metal salts, Powdered metal salts, Reducing agents, Organic materials, Flammable materials.

Transport

Packing group II. UN 2014. Proper Shipping Name: Hydrogen Peroxide, Aqueous Solution with not less than 20% but not more than 60% hydrogen peroxide (stabilized as necessary). Title III Hazardous Classifications sections 302.

Safety

Avoid contact with skin, eyes and clothing. Wear impervious gloves. If necessary, refer to U.S. OSHA 29 CFR 1910.138, the European Standard DIN EN 374, the appropriate Standards of Canada or other relevant standards. Keep away from heat.



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