Enriched emulsified vegetable oil used to stimulate anaerobic bioremediation of chlorinated solvents and other recalcitrant chemicals in contaminated groundwater

Product Advantages

- Vitamin B12 and micronutrients
- Slow and fast release substrates
- Engineered for effective transport
- Third party validated
- Food-grade and USDA certified
- 74% fermentable carbon
- Regulatory acceptance

EOS Remediation
Experience you can rely on, Products you can trust™
EOSPRO is a nutrient-enriched, DoD-validated, emulsified vegetable oil (EVO). EOSPRO is engineered to quickly stimulate microbial activity while providing long-term nourishment to enhance anaerobic bioremediation of chlorinated solvents, nitrates, perchlorate, energetics, acid mine drainage, and other recalcitrant chemicals in contaminated groundwater. EOSPRO can also be used to reduce redox sensitive metals and radionuclides. The negative surface charges on the droplets combined with small droplet size promote effective transport in the subsurface.

EOSPRO benefits include:
- Vitamin B-12 and micro-nutrients
- Rapidly-biodegradable substrates to “jump start” bacterial growth
- Slow release biodegradable substrates to promote long-term biological activity
- Engineered for effective transport in the subsurface
  - Small oil droplet size
  - Negative surface charge
- Extensive third-party validation

EOSPRO incorporates the patented EOS® technologies that clients have trusted for more than a decade. Domestic supply made in the USA with US farmed soybeans.

<table>
<thead>
<tr>
<th>Oil Emulsion Concentrate: EOSPRO</th>
<th>Typical</th>
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</thead>
<tbody>
<tr>
<td>Refined and Bleached US Soybean Oil (% by wt.)</td>
<td>59.8</td>
</tr>
<tr>
<td>Rapidly Biodegradable Soluble Substrate (% by wt.)</td>
<td>4</td>
</tr>
<tr>
<td>Other Organics (emulsifiers, food additives, etc.) (% by wt.)</td>
<td>10</td>
</tr>
<tr>
<td>Specific Gravity</td>
<td>0.96 - 0.98</td>
</tr>
<tr>
<td>pH (Standard Units)</td>
<td>6 - 7</td>
</tr>
<tr>
<td>Median Oil Droplet Size (microns)</td>
<td>1.0</td>
</tr>
<tr>
<td>Organic Carbon (% by wt.)</td>
<td>74</td>
</tr>
<tr>
<td>Mass of Hydrogen Produced (lbs. H₂ per lbs. EOSPRO)</td>
<td>0.25</td>
</tr>
</tbody>
</table>

EOSPRO is shipped as a ready-to-use concentrated emulsion that can be diluted with water in the field to prepare a high quality suspension for easy injection. EOSPRO has a low viscosity and can be distributed with commonly available pumps or by continuous metering with a diluter (e.g., Dosatron™). Dilution ratios for EOSPRO typically range from 4:1 to 20:1 (water: EOSPRO) depending on site conditions. EOSPRO injections should be followed with additional chase water to maximize distribution of EOSPRO into the formation.

EOSPRO can be injected with EOSQR, CoBupHMo or BAC-9. Call us for more details.

For best performance, use EOSPRO as shipped, within 60 days of delivery and store at a temperature between 40°F (4°C) to 100°F (38°C).