

EOS_{LS}

PRODUCT INFORMATION SHEET

Emulsified Oils Family

Description



EOS_{LS} is a low salt emulsion, formulated to minimize the dramatic spike of dissolved sodium (Na) in the aquifer that is caused by many other injectable remediation products. **EOS_{LS}** is designed to enhance anaerobic bioremediation of chlorinated solvents, nitrates, perchlorate, energetics, acid mine drainage and other recalcitrant chemicals in contaminated groundwater. **EOS_{LS}** also reduces redox sensitive metals and radionuclides.

EOS_{LS} benefits:

- A food grade emulsified vegetable oil (EVO) formulation without sodium; ideal for salt-sensitive aquifers
- High concentration of 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
- Neutral pH

EOS_{LS} incorporates the proven patented **EOS[®]** technologies that clients have trusted for more than a decade.

Chemical & Physical Properties

<u>Oil Emulsion Concentrate: EOS_{LS}</u>	<u>Typical</u>
Refined and Bleached US Soybean Oil (% by wt.)	55
Rapidly Biodegradable Soluble Substrate (% by wt.)	8
Specific Gravity	0.96 - 0.98
pH (Standard Units)	6.5 - 7.5
Median Oil Droplet Size (microns)	1.0
Organic Carbon (% by wt.)	73
Mass of Hydrogen Produced (lbs. H ₂ per lb. EOS_{LS})	0.24

Packaging

Shipped in 55-gallon drums, 275-gallon IBC totes or bulk tankers (40,000 lbs.)

Handling

EOS_{LS} 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. **EOS_{LS}** 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 **EOS_{LS}** typically range from 4:1 to 20:1 (water: **EOS_{LS}**) depending on site conditions. **EOS_{LS}** injections should be followed with additional chase water to maximize distribution of **EOS_{LS}** into the formation.

Storage

For best performance, use **EOS_{LS}** within 60 days of delivery and store at a temperature between 4°C to 38°C.