


EOS XR	PRODUCT INFORMATION SHEET Emulsified Oils Family																				
<p>Description</p> 	<p>EOS XR is a premium, food-grade oil/water emulsion designed to overcome the challenges of matrix diffusion. EOS XR gradually releases electron donors over decades to treat chlorinated solvents and other persistent contaminants that slowly diffuse out of clays, fractured rock and other low permeability zones (back-diffusion). Its time-released, three-stage formulation offers:</p> <ul style="list-style-type: none"> • An initial pulse of rapidly biodegradable substrate to “jump start” bacterial growth. • A 5 year supply of steady substrate to degrade the majority of contaminants. • A 10 to 20 year gradual release of substrate to degrade slow back-diffusing contaminants. <p>EOS XR benefits:</p> <ul style="list-style-type: none"> • The only extended time-released option for matrix diffusion • High carbon, pH neutral • Small oil droplet size • Negative surface charge <p>EOS XR incorporates the same patented EOS® technologies that clients have trusted for more than a decade. Made in the USA with US farmed soybean oil.</p>																				
<p>Chemical & Physical Properties</p>	<table> <tr> <th>Oil Emulsion Concentrate: EOS XR</th><th>Typical</th></tr> <tr> <td>Refined and Bleached US Soybean Oil (% by wt.)</td><td>45</td></tr> <tr> <td>Rapidly Biodegradable Soluble Substrate (% by wt.)</td><td>8</td></tr> <tr> <td>Slowly Biodegradable Organic Substrate (% by wt.)</td><td>10</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>7.0 - 8.0</td></tr> <tr> <td>Median Oil Droplet Size (microns)</td><td>1.0</td></tr> <tr> <td>Organic Carbon (% by wt.)</td><td>73</td></tr> <tr> <td>Mass of Hydrogen Produced (lbs. H₂ per lb.EOS XR)</td><td>0.23</td></tr> </table>	Oil Emulsion Concentrate: EOS XR	Typical	Refined and Bleached US Soybean Oil (% by wt.)	45	Rapidly Biodegradable Soluble Substrate (% by wt.)	8	Slowly Biodegradable Organic Substrate (% by wt.)	10	Other Organics (emulsifiers, food additives, etc.) (% by wt.)	10	Specific Gravity	0.96 - 0.98	pH (Standard Units)	7.0 - 8.0	Median Oil Droplet Size (microns)	1.0	Organic Carbon (% by wt.)	73	Mass of Hydrogen Produced (lbs. H ₂ per lb.EOS XR)	0.23
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<p>Packaging</p>	<p>Shipped in 55-gallon drums, 275-gallon IBC totes or bulk tankers (40,000 lbs.)</p>																				
<p>Handling & Storage</p>	<p>EOS XR 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 XR has a low viscosity and can be distributed with commonly available pumps or continuous metering with a diluter (e.g., Dosatron™). Dilution ratios for EOS XR commonly range from 4:1 to 20:1 (water: EOS XR) depending on site conditions. EOS XR injections should be followed with additional chase water to maximize distribution of EOS XR into the formation.</p> <p>For best performance, use EOS XR within 60 days of delivery and store at a temperature between 40°F (4°C) to 100°F (38°C).</p>																				