

BREAKSOL™ HP BREAKERS — SLICKWATER GEL BREAKER

Solugen understands the challenges faced in the oilfield, and we are committed to developing the most innovative and cost-effective chemistries to meet our clients' needs. Our Slickwater Gel Breaker is a safer, more cost-effective alternative to traditional fracturing fluids used for slickwater treatment. It outperforms industry alternatives when it comes to viscosity reduction of fracturing fluids, degrading gels, proppant placement, flowback improvement, and more.

BreakSol™ is an enhanced gel breaker oxidizer with iron control that helps extend the performance of slickwater operations in polymer hydration and polymer regain post flowback. Both phosphonium and sulfate free, which avoids the formation of barium and strontium scales. BreakSol is recommended for a wide variety of applications based on total system analysis that may include pH, temperature, flow regime, oil/water/gas ratio, process flow, and general water chemistry. BreakSol is also a safer, more cost-effective alternative to traditional fracturing fluids used during the slickwater treatment process. This easy-to-handle liquid leaves no chemical residual salts within the tubulars and formation, while still accomplishing viscosity reduction of fracturing fluids, gel breakdown, proppant placement, flowback improvement, and more.

As fracturing technology advances and the demand for innovation increases, traditional treatments continue to cause concern. For example, residual unbroken friction reducer (FR) from proppant placement into the fractures can result in reduced permeability, porosity, and conductivity, which leads to lower production after completion. Also, encapsulated breakers (ammonium persulfate) commonly used in the fracturing process require special handling and are usually expensive. BreakSol, a cheaper alternative, avoids the introduction

of sulfate into the tubulars and formation that contributes to souring, and premature FR degradation that leads to high treatment pressures. Overall, BreakSol is an industry — leading gel breaker that is safer, cost effective, and does not leave any residual effects that alternatives experience.



Founded in 2016, Solugen is a specialty chemicals manufacturer and the world's first and only producer of bio-based chemical peroxide solutions. Our team of experts applies green chemistry principles to redesign the production of common chemicals and formulate innovative, cost-efficient commercial and industrial solutions that are also environmentally friendly.