

HiRate™ MAXX 3200G Liquid Friction Reducer



Innospec Oilfield Services (OFS) offers a variety of solutions to Slickwater fracturing systems. Slickwater stimulation depends largely on the ability to reduce pipe and perforation friction, increase pump rates and transport proppant. Slickwater treatments have evolved to be the choice completion but there is concern over potential proppant pack and formation damage, especially in areas like the Scoop and Stack plays in Oklahoma which have excessive amounts of ferric ion in the reservoir. To resolve this existing reservoir incompatibility limitation, OFS offers an affordable, high efficiency FR that defines new possibilities in slick-water fracturing.

HiRate MAXX 3200G, is our newest FR that incorporates proprietary chemistry to extend friction reduction efficiency without inducing formation damage.

OFS' HiRate MAXX 3200G is a suspension of high efficiency friction reducer particles disbursed in a carrier solvent carrier. The product is specifically designed to improve friction reduction efficiency with ultra-fast hydration in fresh, moderate brine or high TDS waters. In addition to offering excellent friction reduction, the product is also compatible with reservoir fluids such as high TDS connate water that may be incompatible with conventional friction reducers. The HiRate MAXX 3200G compatibility with these waters will alleviate potential formation or proppant pack damage reportedly caused with conventional or cationic friction reducers.

Product Application

HiRate MAXX 3200G is a high molecular weight polyacrylamide composed of the salts of a strong anionic derivative, allowing for the tolerance to both higher TDS mix waters and the down-hole reservoir fluids such as connate water. The typical loadings range from 0.25 to 1.0 gpt, creating less chemical pump rate dependency in these higher TDS water environments.

Delivering lower pumping pressures and higher pump rates without incurring proppant pack or formation damage.

Features

- Exhibits excellent reservoir fluid tolerance to prevent down-hole damage while also providing effective friction reducer performance.
- Exhibits excellent tolerance to higher divalent ions and iron in the frac water, enabling lower loadings compared to conventional emulsion-based products
- Operationally simplistic using existing chemical additive pumps and not requiring any extra equipment on location

Technical Properties

Appearance	Opaque, tan liquid
Density (lb/gal)	8.92
pH	N/A
Flash Point (Close Cup)	>200°F
Specific Gravity	1.072

Storage and Handling

Store in a dry, cool and well-ventilated area, away from incompatible materials. Available in 275 gal totes or in bulk. Always wear appropriate protective equipment. Do not get in eyes or on skin or clothing.

About Innospec Oilfield Services (OFS)

An integral part of Innospec (NASDAQ: IOSP), Innospec Oilfield Services (OFS) is headquartered in Englewood, Colorado. The company's presence in North America is a highly focused one: Delivering the best possible chemical technologies and superior efficiencies along with the superior level of service vital to support drilling, completions, and production projects in all major U.S. oil and gas basins.

Founded in 1938, Innospec Inc. has evolved into a leading international specialty chemicals company with approximately 2,000 employees operating in 24 countries. Innospec has major regional centers in the U.S., UK and Singapore, with production plants located in countries including the U.S., UK, France, Germany, Italy, Spain and the Philippines.

Innospec manufactures and supplies a wide range of specialty chemicals to markets in the Americas, Europe, the Middle East, Africa, and Asia-Pacific. In addition to designing, formulating, and producing oilfield chemicals for drilling, completions, and production applications, the company's other business segments are Fuel Specialties, Performance Chemicals and Octane Additives.

Contact Innospec Oilfield Services

For more information on how the Innospec Oilfield Services team can work for you, please contact your regional OFS sales office, or visit us online at www.innospecinc.com.