

## HiRate™ MAXX 1250 Liquid Friction Reducer



Delivering lower pumping pressures, higher pump rates with shorter pump times with far less product.

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 include higher viscosity, non-guar fluids to assist with the more aggressive proppant ramps. A key component of slick-water fracturing, the traditional emulsion-based friction reducers have reached the limits of their performance and affordability. To resolve the existing FR limitations, OFS offers an affordable, high efficiency FR that defines new possibilities in slick-water fracturing.

**HiRate MAXX 1250, is our newest ultra-fast hydrating FR series that incorporate proprietary chemistry to extend friction reduction efficiency**

OFS' HiRate MAXX 1250 is a suspension of high efficiency friction reducer particles disbursed in a carrier solvent carrier. The product is specifically designed to improved friction reduction efficiency with ultra-fast inversion. Easy to mix and meter, the HiRate MAXX system— unlike conventional emulsion-based FRs—is based on a higher polymer activity that allows less product per stage; thereby saving operators time, money, and crucial well-site space. HiRate MAXX has a better pressure to rate ratio than the conventional FR's, allowing higher treating rates, with more aggressive sand ramps, to save both time and water.

### Product Application

HiRate MAXX 1250 is an anionic, high molecular weight polyacrylamide performing optimally in fresh water but can be used in some moderate TDS waters to provide cost efficient friction reduction. The high performance, allows lower typical loadings of 0.15-0.75 gpt, creating less chemical pump rate dependency. In a hybrid approach, HiRate MAXX can be used to enhance viscosity, without having to rely on guar-based fluids. Typical hybrid system loadings are 1.0-4.0 gpt in fresh water.

### Features

- Exhibits less pressure at lower loadings compared to conventional emulsion-based friction reducers
- Operationally simplistic using existing chemical additive pumps and not requiring any extra equipment on location
- In a hybrid process, enhances fluid viscosity with zero reliance on guar-based fluids, providing a simple and safe means of proppant transport

### Technical Properties

<b>Appearance</b>	Beige liquid
<b>Density (lb/gal)</b>	8.22
<b>pH</b>	7.2
<b>Flash Point (Close Cup)</b>	>199.9°F
<b>Specific Gravity</b>	1.13
<b>Pour Point</b>	5°F

### Storage and Handling

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

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## About Innospec Oilfield Services (IOFS)

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 1,900 employees operating in 23 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, 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](http://www.innospecinc.com).