



PRODUCT DATA

EnerFrac™ X-Link 160

Zirconium Cross-Linker

Description:

EnerFrac™ X-Link 160 is a delayed zirconium cross-linker formulated for use in low pH EnerFrac™ G-30 (CMHPG) systems. EnerFrac™ X-Link 160 will provide a delayed cross-link upon contact with the gel. The delay time varies depending on fluid pH, gel concentration and bottom hole temperature.

Physical Properties:

Form: Liquid	Chemical Family: Zirconium Salt
Color: Clear to Light Yellow	Solubility: Water
Odor: Slight Ammonia Odor	Wt. per Gal: 9.97 lbs.
Charge: Cationic	Flash Point: NA

Application:

It is strongly recommended that a cross-link test be performed prior to field application using the water and all other chemical additives that will be employed in the actual job. EnerFrac™ X-Link 160 was designed for use with batch mixed gels and should be added on the fly to the pre-buffered gel. EnerFrac™ X-Link 160 can be used at temperature up to 300°F. Normal use rate is expected to range from 1.0 - 2.0 gal/Mgal in a 25 - 40 lb/Mgal EnerFrac™ G-30 gel.

Compatibility:

EnerFrac™ X-Link 160 is compatible with all commonly used additives. Care should be taken with strongly anionic materials. Gels made with EnerFrac™ X-Link 160 can be broken using EnerFrac™ LEB, EnerFrac™ DEB, EnerFrac™ Gelbreak 120, and EnerFrac™ Gelbreak 121.

Handling and Storage:

Keep container tightly sealed when not in use. Store away from heat, sparks and open flame. Avoid contact with eyes, skin and clothing. Avoid breathing vapors. Wear rubber gloves, apron, and chemical splash goggles. Provide adequate ventilation to prevent build up of odors/vapors. Refer to Material Safety Data Sheet (MSDS) for handling and hazard data.

Packaging:

EnerFrac™ X-Link 160 is packaged in 55 gallon drums and 330 gallon totes.

1424 S. Hugh Wallis Road | Lafayette, LA 70508 • Tel: 337.291.2778 | Fax: 337.291.2781

Recommendations given in this bulletin are based on tests believed to be reliable. However, the use of the information is beyond the control of Rapid Energy Services, LLC and no guarantee, expressed or implied is made to the results obtained if not used in accordance with directions or established safe practice. The buyer must assume all responsibility, including injury or damage from the misuse of the product as such, or in combination with other materials. This bulletin is not to be taken as a license to operate under or recommendation to infringe any patent.