



NFS-SHALECAPSULE™

Liquid KCl Substitute

Generic Description

NFS-SHALECAPSULE™ is the ammonium salt of an organic acid.

General Information

NFS-SHALECAPSULE™ is a specialized liquid product designed specifically for use as a replacement for bagged potassium chloride (KCl). NFS-SHALECAPSULE™ provided excellent shale and clay control without the logistic, handling and mixing problems associated with large volumes of bagged KCl. NFS-SHALECAPSULE™ is compatible with all gels, crosslinkers and breaker system typically utilized in well drilling, stimulation and work over operations. It will not affect fluid pH and being non surface active does not adversely affect formulation watability or create any type of a foaming problem. NFS-SHALECAPSULE™ may be used in fresh water, acid or brine system and will not hinder the performance of acid corrosion inhibitors.

While the product does not contain any potassium, NFS-SHALECAPSULE™ is composed of a sophisticated, mildly cationic complex that functions as KCl to control shale and clay hydration. Unlike KCl, NFS-SHALECAPSULE™ may be easily utilized in “on the fly systems” to eliminate pre-mixing and leftover brine disposal problems. If the product is mixed in fresh water and no salts are added, the fluid can be easily disposed of without adverse effect on the environment. A 2% KCl equivalent solution of NFS-SHALECAPSULE™ contains only 165 mg/L chloride ion. This significantly reduces the risks associated with the use of KCl fluids.

Suggested Formulation

NFS-SHALECAPSULE™ is a finished product that is ready for field application. It may be utilized as is or diluted 50:50 with fresh water, if desired.

The information in this bulletin is believed to be accurate, but all recommendations are made without warranty, since the conditions of the use are beyond the manufacturer’s control. The listed properties are illustrative only, and not product specifications. The manufacturer disclaims any liability in connection with the use of information, and does not warrant against infringement by reason of the use of any of its products in combination with other materials or in any process.

Typical Physical Properties

Form, @ 70°F	Liquid
Density, (lbs/Gal)	9.2
Flash Point, °F (TCC)	>200
Pour Point, °F	-40
Solubility	
Fresh Water	Soluble
High TDS Brine	Soluble
Hydrocarbon	Insoluble

Application Information

NFS-SHALECAPSULE™ is typically applied at a concentration of .05 to 10 gallons of fluid (gpt) depending on the percent KCl being replaced, shale and clay quantities present in the well bore and the operation being performed. A load rate of 1 gallon of NFS-SHALECAPSULE™ per 1,000 gallons of water will provide a functional equivalent concentration of 2% KCl.

Shipping and Handling

NFS-SHALECAPSULE™ is available in 55 gallon drums and bulk tank wagons. As with any individual chemical, avoid prolonged contact with skin. In case of skin or eye contact, flush exposed area with copious amounts of water. A material safety data sheet outlining proper handling of this product is available upon request, or will be forwarded upon the purchase of NFS-SHALECAPSULE™.

