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To Today's Competitive Oil & Gas Industry*



**DRILLING/COMPLETIONS &  
STIMULATION**

# Drilling/Completions & Stimulation



Product Name	Product Type	Dosage Rate GPT	Technical Specifications	Product Usage
CLAY-SHIELD C-XC	Permanent Clay Stabilizer	0.5-2	pH (5% in Water): 3.0 – 4.0 Flash Point: 150° F Pour Point: 40° F Specific Gravity: 1.08 Density: 9.0 ppg Color: Dark brown to black Odor: Aromatic Solubility: Water	Provides permanent stabilization to prevent clays from swelling and migrating in water sensitive formations. The product is resistant to shear degradation and is compatible with a wide range of commonly used oilfield chemicals.
CLAY-SHIELD CQ2-V1	Semi Permanent Clay Stabilizer	0.5-2	pH: 4 - 9 Flash Point: >200°F Pour Point: ~20°F Specific Gravity: 1.05 Density: 8.75 ppg Color: Water white-slightly yellow Odor: Slight amine	CLAY-SHIELD C-Q2V1 provides stabilization to prevent clays and shales from swelling in water sensitive formations, while providing an element of persistence to the treatment process.
SURF-SHIELD S-ML	Surfactant/Flowback Aid	2	Flash Point: 97°F Pour Point: ~1°F Specific Gravity: 0.88 Density: 7.33 ppg Color: Water white-slightly amber Odor: Alcohol Surface Tension (2 gpt): ~28 mN/m Contact Angle (2 gpt): >80°	Flowback surfactants are used to increase the amount and rate of water returned after a frac job. When added to the injected fluids at concentrations of 1 to 2 gpt (1000 to 2000 ppm), the surface tension of the water is lowered, thereby requiring less pressure to produce the fluids during well clean up.
SURF-SHIELD S-DN	Surfactant/NE	0.5-2	pH: 4.5 - 6.5 Flash Point: >200°F Pour Point: ~25°F Specific Gravity: 1.02 Density: 8.75 ppg Color: Water white-slightly hazy Odor: Slight sweet alcohol Solubility: Water Surface Tension (2 gpt): 28 mN/m Contact Angle (2 gpt): >80°	Flowback surfactants are used to increase the amount and rate of water returned after a frac job. When added to the injected fluids at concentrations of 1 to 2 gpt (1,000 to 2,000 ppm), the surface tension of the water is lowered, thereby requiring less reservoir pressure to produce the fluids during well clean up. The presence of the non-emulsifier prevents negative interactions between the produced water and hydrocarbons.
SURF-SHIELD S-NE	Non Emulsifier	0.5-2	pH: 7 - 9 Flash Point: 80°F Pour Point: -10°F Specific Gravity: 0.951 Density: 7.93 ppg Color: Opaque white Odor: Slight alcohol	SURF-SHIELD S-NE functions by reducing the interfacial tension between brines or acid and crude oils. SURF-SHIELD S-NE may also be used in the spearhead of acidizing and fracturing treatments to lower the break down pressures and minimize the possibility of forming water or acid/oil emulsions.
SCALE-SHIELD SS-744	Scale Inhibitor	50 ppm	pH: 0.5 Flash Point: >200°F Pour Point: ~25°F Specific Gravity: 1.07 Density: 8.87 ppg Color: Dark amber liquid Odor: Sharp, acidic odor	A highly effective scale inhibitor for the prevention of the common oilfield scales, including calcium carbonate, calcium sulfate and barium sulfate.
WEAR-SHIELD W-HD	Drilling Lubricant	3%	pH: 7 - 9 (5% in IPA/water) Flash Point: 72°F Pour Point: <-40°F Specific Gravity: 0.88 Density: 7.33 ppg Color: Dark brown liquid	WEAR-SHIELD W-HD is a mud additive used to reduce torque and drag in oil and water based drilling fluids. Torque is the rotary friction between the drilling bit and the wellbore. Drag is the friction force between the bit and pipe as it moves into the wellbore.
WEAR-SHIELD W-HDC	Enhanced Drilling Lubricant	3%	pH: 4-6 (5% in IPA/water) Flash Point: 65°F Pour Point: <-20°F Specific Gravity: 0.91 Density: 7.58 ppg Color: Dark brown liquid	WEAR-SHIELD W-HDC is a concentrated mud additive used to reduce torque and drag in oil and water based drilling fluids. The product can be used neat, but is generally diluted 1:1 or 2:1 with diesel.