

**PETROSTEP® SC-1**  
*SPACER CLEANING BLEND*



Wells drilled with oil-based/invert-emulsion drilling fluids need to be cleaned before cementing. Cleaning these types of drilling fluids and creating a water-wet surface on the well bore typically requires multiple solvent and solution pills. This process is not only costly but also hazardous to the environment.

Aiming to provide a more efficient solution for well bore cleaning, Stepan Oilfield Solutions has developed PETROSTEP SC-1, a surfactant blend that cleans drilling fluid residue and leaves the well bore surface in a water-wet state. As the following figures show, even in low concentrations, PETROSTEP SC-1 shows excellent cleaning performance in a range of total dissolved solids, from fresh water to heavy brine.

When it comes to cleaning and preparing the well bore, PETROSTEP SC-1 may help address the needs of producers looking to create efficiencies and cost savings.

## FIGURE 1

Invert Drilling Fluid 1

Cleaning Procedure: Fann 35 at 600 rpm for 3 minutes

*Brine:  
20% Sodium Chloride  
(NaCl)*



*Brine Only*



*20 wt% Xylene*



*3 wt% PETROSTEP SC-1*

*Brine:  
15% Calcium Chloride  
(CaCl<sub>2</sub>)*



## FIGURE 2

Invert Drilling Fluid 2

Cleaning Procedure: Fann 35 at 600 rpm for 3 minutes

*Brine: 20% NaCl*



*Brine Only*



*20 wt% Xylene*



*3 wt% PETROSTEP SC-1*

*Brine: 15% CaCl<sub>2</sub>*



## TYPICAL PROPERTIES

- Appearance at 25°C: Clear liquid
- Density at 25°C, g/mL: 1.02
- Moisture, %: 30
- pH (1% in DI H<sub>2</sub>O): 6 - 8
- Viscosity at 25°C, cps: 115
- Flash Point (SETA), °C: >94
- Pour Point, °C: 0
- DOT Classification: Not Regulated as a Dangerous Good

*To learn more about PETROSTEP SC-1 and other PETROSTEP products, email [oilfield@stepan.com](mailto:oilfield@stepan.com) or call 713.955.8100. For commercial ordering information, email [order.placement@stepan.com](mailto:order.placement@stepan.com).*

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