

## INFORMATION

# KLEEN-SWEEP

DISPLACEMENT ADDITIVE/BRINE CLARIFIER

### DESCRIPTION

KLEEN-SWEEP is a displacement fluid additive that flocculates solids, carries them away from surfaces, and prevents their redeposition.

### APPLICATION

KLEEN-SWEEP removes drilling mud, pipe dope, sand, oil, polymer, and other solids from drill pipe, tubing, casing and surface equipment and carries them away from metallic surfaces. When used as a sweep or spacer before solids-free completion fluids, the product prevents the brine from becoming contaminated thus reducing formation damage due to fine solids plugging of the formation or perforations. KLEEN-SWEEP can be mixed in either fresh, sea water, or brine and cleans up both water-based and oil-based mud deposits.

KLEEN-SWEEP can also be added to completion fluids ranging in density from KCl water to heavy zinc and calcium bromide brines to flocculate dispersed solids. The purest plant-made solids free brine can become contaminated in shipping and at the well site. KLEEN-SWEEP allows these fine solids to drop out or float off the brine (depending on their density) so that they can be skimmed off the top or the clean brine can be decanted from them.

### RECOMMENDED TREATMENT

To remove solids from a prepared brine, add 1% KLEEN-SWEEP (by volume) to the completion fluid (1 drum per 130 barrels).

Agitate vigorously until the product is well dispersed. Then allow the fluid to rest in a quiescent state until the soft flocculated mass settles or floats. Skim off the top or decant the fluid from above the bottom sludge or both. The resultant brine is substantially free of particle sizes greater than 5 microns.

To prepare a displacement fluid, add 1% KLEEN-SWEEP (by volume) to 250 to 1000 bbls of seawater or other clean water.

Displace drilling fluid at maximum circulating rate with one or two hole volumes of seawater or until water appears clear. Pump KLEEN-SWEEP treated fluid throughout entire surface system (pumps, hopper, lines, valves and solids control equipment), down the drillpipe and up the annulus. Dispose of system after treatment by displacing with clean water. Displace with completion fluid. For information on treating high pressure wells, wells where water is scarce or where oil-based muds have been used, consult the "Special Treatment Instructions" below.

### **HANDLING**

Goggles and rubber gloves should be worn while handling. In case of contact with skin, thoroughly wash the affected area with soap and water. In case of eye contact, flush with water for 15 minutes and obtain medical attention.

### **SPECIAL TREATMENT INSTRUCTIONS**

For normal completion fluid preparation and displacement techniques, recommended treatment as shown above applies.

In locations where clean water is scarce, it is impractical to use large volumes of water as a preflush. In wells that show an excessive pressure differential or have a top liner that may not be properly set, a large volume water preflush could actually be dangerous due to the lighter hydrostatic head. In these cases, a series of spacer fluids is recommended. These fluids should be premixed and pumped continuously. The following procedures are recommended:

#### **TO DISPLACE WATER-BASE MUD**

1. Clean all pits, lines, troughs and surface equipment that may come in contact with the completion fluid.
2. Add 1 to 2% KLEEN-SWEEP to the maximum amount of water possible (100 - 200 bbls recommended) Agitate vigorously.
3. Circulate KLEEN-SWEEP displacement fluid through pits, lines, pumps, etc. of surface system.
4. Circulate KLEEN-SWEEP displacement fluid in turbulent flow down the drillpipe and up the annulus. (Reverse circulation is also possible.) Reciprocate drillpipe 30 feet or more, rotating occasionally, while circulating. Note: Do not stop circulating after treatment has started.
5. Displace with clean completion fluid. (If completion fluid is solids-contaminated, see page one of this Product Data for fluid preparation instructions.) Dispose of displacement fluid as required.

## TO DISPLACE OIL-BASE MUD

1. Clean all pits, lines troughs, and surface equipment that may come in contact with completion fluid.
2. Mix a concentrated oil mud flush. Add 2 drums KLEEN-SWEEP to 20 bbls water. Agitate vigorously.
3. Add 1 to 2% KLEEN-SWEEP to the maximum amount of water possible (100-200 bbls recommended). Agitate vigorously.
4. Circulate this displacement fluid through pits, lines, pumps, etc. of the surface system.
5. Pump the concentrated oil mud flush down the drillpipe followed immediately by the KLEEN-SWEEP displacement fluid.
6. Circulate continuously in turbulent flow down the drillpipe and up the annulus.
7. Displace with clean completion fluid. (If completion fluid is solids contaminated, see KLEEN-SWEEP Product Data sheet for fluid preparation instructions.) Dispose of oil mud flush and displacement fluid as required.

For further information, consult your Messina representative.

## PACKAGING

KLEEN-SWEEP is available in 55-gallon steel drums, containing 420 pounds of product.

KLEEN-SWEEP is a Messina trademark