

Reaclean

REACLEAN is a compound consisting of a binary mixture of solvents and surfactants. Intended to remove residues of oil- and synthetic-based muds from the walls of wells and downhole equipment by effectively diluting, dissolving and dispersing the remains of the mud and solid phase while simultaneously changing the wettability of surfaces to water-wet. A REACLEAN-based washing compound meets all the requirements to washing buffer compounds in replacement of OBM with water-based muds.

Typical Physical Properties

Physical appearance	Mobile colourless clear liquid
Solubility in water	Dispersible
Specific gravity	0.85 +/- 0.02 SG @ 20C
Kinematic Viscosity cSt @ 20C.....	0.97
Freezing Point.....	-50C

Applications

REACLEAN is used as a component of the washing buffer at the stage of replacement OBM with completion fluid in the well. The recommended concentration of REACLEAN in the basic washing buffer based on completion fluid brine is 5-20% of volume. The completion technology after OBM consists in pumping a washing buffer through the well in a volume that provides contact with the surface for 7-10 minutes in a larger annular space at a given well flushing mode. In the contact with the OBM residues in the well (it increases in the turbulent flow mode), the emulsion is destroyed and the OBM solid phase is dispersed, and the surface is wetted with water. Then the viscous water-based displacement buffer displaces the reaction products and prevents OBM and washing buffer from mixing with the clean completion fluid.

The reagent can be used in both fresh and mineralized water. The washing buffer should be prepared right before loading into the well. In case of partial layering after extended storage, pre-mixing is required. For better cleaning of the borehole from heavy solid phase residues, some viscous buffers can be used before or after the washing buffer. The exact composition, volume, and well flushing conditions are determined by the M-I SWACO Drilling Mud Engineer.

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Advantages

- High stability of the compound at different temperatures
- Fully compatible with sodium and potassium chloride brines
- Efficient well cleaning with a single reagent
- Less buffer used
- Effective cleaning from OBM and changing the wettability of surfaces

Limitations

- Flammable liquid (Hazardous cargo. Hazard Class: 3).

Toxicity and Handling

Moderately hazardous substance in terms of health effects; wear PPE; provide storage and handling rooms with supply and exhaust ventilation; read the Safety Data Sheet carefully before use. Biological analysis data can be provided upon request.

Packaging and Storage

The product is supplied in 200 L plastic drums and 1000 L tote tanks. Store in a dry, well ventilated place. Keep container closed. Keep away from heat, sparkles or fire sources. Observe the rules for storing materials regarding packaging, attachment, and warehousing.

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