

ORCA 4

Filter Cake Breaker Microemulsifying Surfactant

Description

ORCA™ 4 is a component of the ORCA for OBM system. It is a blend of concentrated liquid surfactants and co-surfactants used for solubilizing hydrocarbon from oil-based mud filter cake damage.

Benefits

- Enables safe transportation and handling as a low hazard surfactant blend.
- Eliminates the need to pump multiple spacer fluids to remove filter cake, acid-soluble weighing agents, solubilize oil, water-wet and disperse solids.
- Restores production and injection within reservoirs blocked with OBM filter cakes

Application

ORCA™ 4 used in conjunction with an organic acid precursor can be utilized in a wide range of downhole stimulation and completion applications in oil and gas production wells and water and gas injection wells. For treating drilling mud damage within the reservoir arising from drilling with oil-based muds including invert emulsions, synthetic oil based and ester-based drilling or drill-in fluids.

Common base fluids for ORCA for OBM include fresh water, sea water, monovalent and divalent completion brines.

Typically used in wells with a bottom hole static temperature in the range of 20°C to 130°C. ORCA™ 4 is particularly useful for treating oil-based mud damage in new wells and for workover treatments on underperforming producing wells where residual OBM is suspected to be impairing production.

Treatment Recommendation

Prior to utilizing ORCA™ 4 or other components of the ORCA for OBM system, lab testing is required to test for compatibility and effectiveness against the specific type of damage anticipated downhole. Concentration of ORCA 4 is typically in the range of 5-20% v/v in completion brine.

Cleansorb™ acid precursors can also be incorporated into ORCA for OBM formulations to deliver simultaneous downhole acidizing and oil solubilization treatments.

Typical Physical Properties

Appearance.....Clear, solids-free colorless to medium yellow liquid

Solubility.....Fully miscible in water and most oilfield brines

Specific Gravity..... 1.01 - 1.03

Handling and Storage

ORCA™ 4 is stable for at least 36 months at ambient temperature if stored in the sealed containers as supplied and out of direct sunlight to avoid product being heated for prolonged periods. Avoid contact with skin and eyes. Use appropriate hygiene, clothing, and personal protective equipment suitable for work being done. Review the SDS thoroughly before using this product.

Packaging

ORCA 4 is available in: 200-kilogram (200-liter) plastic drums and 1,000-kilogram (1,000-liter) IBCs as required.

