

SAFE-SURF EU

Casing cleaning agent

APPLICATIONS

- Water-base displacements or conventional casing cleanups where base oil is pumped ahead of the transition spacer

BENEFITS

- Improves water-wetting of solids
- Prevents emulsion formation
- Minimizes foaming while mixing or pumping
- Meets Centre for Environment Fisheries and Aquaculture Science (CEFAS) gold ranking with no substitution warning

FEATURES

- Single-drum combination of surfactant and solvent
- Compatibility with drill water, seawater, and all commonly used brines
- Cleaning efficiency that is maintained when contaminated with drilling fluid

SAFE-SURF EU* casing cleaning agent comprises surfactant lightly treated with solvent to remove drilling fluid residue and water-wet downhole surfaces and tubulars.

The agent provides cost-effective performance in water-base displacements or conventional casing cleanups in which base oil is pumped ahead of the transition spacer. With correct engineering, the product assists in reducing waste and minimizing the time required to clean up the completion fluid. With a gold CEFAS ranking, SAFE-SURF EU agent meets the strict environmental standards for the North Sea.

SAFE-SURF EU agent is recommended as a cleaning spacer between drilling fluid and clear brine for water-wet surfaces. It can be used as part of water-base drilling fluid displacements to completion brine and conventional invert-emulsion drilling fluid displacements where base oil is pumped ahead of the push-pill or transition spacer.

The product is compatible with drill water, seawater, and all commonly used brines. At the normal recommended concentration of 10% to 15% by volume, SAFE-SURF EU agent thins, dissolves, and disperses drilling fluid residue, leaving downhole tubulars in a water-wet state. The exact product concentration varies depending on mud type and wellbore conditions. Like many surfactant-base mud cleaners, SAFE-SURF EU agent is more effective when pumped at high rates with maximum contact time.

SAFE-SURF EU agent retains cleaning efficiency when contaminated with drilling fluid. The product does not generate significant foam, even when agitated using rig pumps. Proper design using the VIRTUAL COMPLETION SOLUTIONS* completion fluid modeling software package and the X-CLEAN* well cleaning software simulator is recommended to optimize performance, reduce the volume of waste fluids that require treatment or disposal, and minimize the time and expense required to filter the completion fluid to meet acceptable quality criteria.

Limitations

SAFE-SURF EU casing cleaning agent is not recommended for deepwater operations where the displacement design does not incorporate a spacer for base oils or where the pump rate is insufficient to provide turbulent flow.

Toxicity and handling

Bioassay information is available upon request. Handle as an industrial chemical. Wear protective equipment and observe the precautions described in the Material Safety Data Sheet (MSDS).

Packaging and storage

SAFE-SURF EU agent is packaged in 264-galUS [1,000-L] intermediate bulk containers. Keep containers tightly sealed to avoid contamination. Keep away from heat, sparks, and flames.

Typical Physical Properties

Physical appearance	Colorless to light-orange liquid
Solubility	Dispersible in water
pH	3.2
Relative density	0.99
Odor	Sweet