

SPECIAL REAGENTS - COMPLEX COMPOUNDS OF BRAND KR-3

FOR BOTTOM-HOLE TREATMENT AND HIGH-TECH BOTTOM-HOLE TREATMENT, WATER SUPPRESSION, NON-DAMAGING WELL CONTROL

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KR-3E MODIFICATION

Function

Complex structure for hydrophobic invert emulsions obtaining for high-tech bottom-hole treatment and non-damaging well killing.

Range of application

Concentrate is a complex structure of surfactants: emulsifiers, water repellents, dispersant and high molecular weight surfactant - an emulsion stabilizer. It is used to produce hydrophobic invert emulsions with adjustable parameters for the selective hydrochloric acid emulsion treatments of bottom-hole areas and non-damaging well killing.

Benefits if using

KR-3E complex compound is used:

- To preserve the reservoir properties,lost circulation and permeability inversion control in the process of non-damaging well kill.
- To slow the rate of hydrochloric acid neutralization, the selective treatment of oil-saturated sections with low permeability, the redistribution of process liquids during initial opening and selectively treatment of bottom-hole formation zone in order to improve oil recovery of wells with geological complications such as a low-permeability and / or untapped zones and zones of high absorption.

Use as a flow diverter of invert hydrophobic emulsions.

Invert emulsion "works" in two ways:

- As flow diverters: without having a high viscosity like gel systems, invert hydrophobic emulsions have function of selective redistribution flows of acid-oil compound to oil zones.
- As retarded acid: hydrophobicity of invert emulsion KR-3E causes "sealing" of water streaks (due to the high surface tension between the phases of the hydrocarbon: water) with simultaneous penetration of combined emulsified acid in lowpermeability areas of oil zones. With the following prolonged exposure of the released acid on the rock. An acid composition restores or generates new "needlelike" porous filter after the process of disintegration in invert emulsion capillaries into hydrocarbon and acid composition. Whereas hydrocarbon wets the newly formed capillary structure, directing it to the oil filtration.

The composition of the KR-3E invert emulsion allows to eliminate the hazard of secondary sedimentation due to interaction of the oil active components with the acid composition, and also stabilize asphalt, resin, and paraffin deposits.

Production and delivery

Licensed production and delivery of **KR-3E** emulsion concentrate is fulfilled from production sites in the cities of Ufa and Buzuluk.

Packaging of 227 liter steel barrels.

<u>Usage</u>

When necessary the visiting specialists on "Krezol" service will provide you with the selection of optimal consumption rates and **KR-3E** emulsion concentrate use technologies.

Certification

KR-3E emulsion concentrate certificated to use in the process of oil extraction and transplantation.



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