

**ACID COMPOSITION OF BRAND KR-1  
FOR WELL TREATMENT IN CARBONATE RESERVOIRS  
TU – 2458-001-79640352-2009**

**KR-10C MODIFICATION**

**Function**

Concentrate for acid composition preparation in field and steady-state conditions.

**KR-10C** composition used for simple hydrochloric acid treatment(HAT), as well as for high-tech bottom-hole treatment (BHT) with different layer stimulation technologies of wells with the collector, composed mainly of carbonates (with a minimum of clays and other aluminum silicates), with average resin content oil and surfactants - asphaltenes which contribute to the formation and stabilization of stable acid-oil emulsions and finely dispersed sediments of insoluble salts of metals (Fe<sup>3+</sup> +, Ba<sup>2+</sup> +, Ca<sup>2+</sup> +, Mg<sup>2+</sup> +, Al<sup>3+</sup> +)

**Range of application**

Stimulation of oil and gas producing wells in carbonate reservoirs with the temperature up to +90°C which dropped in productivity due to formation of inorganic colmatants in bottom-hole areas, complex organic nature colmatants, stabilized oil-water emulsions.

Acid composition of the **KR-10C** has the following advantages:

- prevents the formation of resistant high-viscosity oil emulsions and secondary sediments;
- Slows the reaction of the acid with the reservoir rock in 5-12 times, providing a deep penetration of the agent into the layer;

- effectively washes the pores of the filter cake from asphalt, resin, and paraffin deposits;
- collector perforation walls get hydrophobized, resulting in deeper penetration of acid in a layer while increasing its permeability to oil;
- Stabilizes the iron ions in solution by dissolving the iron-containing rocks and sediments.
- Provides a low corrosivity.

**Production and delivery**

**KR-10C** acid composition is produced in the form of concentrate for acid compositions preparation in the field and steady-state conditions.

Shipment of acid composition made from production facilities in cities of UFA and Buzuluk:

1. In bulk – in rail tank cars, fiberglass, gummed, plastic lined tank car;
2. Packaging – in 1 m3 IBC-containers; in 227l of plastic barrels.

**Usage**

Preparation of working solution of **KR-10C** composition is made by diluting fresh water to the desired concentration.

The visiting specialists on "Krezol" solutions service will provide you with the selection of optimal consumption rates and acid composition **KR-10C** injection technologies on specific fields of the Customer.

**Basic properties of the composition**

Appearance	Liquid from yellow to reddish colour
Mass fraction of hydrogen chloride,%, in the range of	15,0-34,0
Density at 20 °C, g/cm <sup>3</sup>	1,08-1,17
Mass fraction of iron,%, no more than	0,001

**Certifications**

