

POTASSIUM CHLORIDE™

Clay & Shale Stabilisers

IMDEX™

Description

POTASSIUM CHLORIDE (KCl) is a soluble salt that is an efficient clay & shale stabiliser. It reduces problems associated with drilling water sensitive clays and shales by inhibiting the ability of clays and shales to interact with water.

Application

KCl can be added directly to a drilling fluid system to enhance its inhibitive quality, which helps to stabilise water sensitive clay and shales. It can also be used as a weighting agent and can increase fluid density up to 1.16sg.

Recommended Treatment

Typical dosages range from 1.0 – 8.0% (10 – 80kg/m³). Polymers such as AMC EZEE PAC™, AMC CR 650® and AMC LIQUI POL™ can all be used in conjunction with KCl, although their viscosity yield and time to fully yield when mixing will be impacted so higher concentrations and longer mix times may be required. It is recommended that viscosifying polymers be added to the system prior to KCl wherever possible. Bentonite based products are not recommended for use where KCl use is required.

% KCL	Density SG	K ⁺ (mg / l)	Cl ⁻ (mg / l)
1	1.005	5,244	4,756
2	1.011	10,594	9,606
3	1.017	15,996	14,504
4	1.024	21,502	19,498
5	1.030	27,009	24,491
6	1.037	32,621	29,579
7	1.043	38,285	34,715
8	1.050	44,053	39,947

NOTE: Environmental sensitivities may exclude the use of KCl in certain areas, please contact your local AMC representative to discuss alternative, more environmentally acceptable clay inhibitor options.

Please Note: Several factors will dictate the most appropriate concentration rate. Please contact your nearest AMC representative for optimum results.

Advantages

- Lowcost clay inhibitor
- Compatible with most drilling fluid additives
- Prevents issues resulting for clay & shale instability
- Increases drilling fluid density

Typical Physical Properties

Appearance: White crystals or powder

pH (1% solution): 7.0 – 8.5

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