CEMENTING
& STIMULATION

POTASH

INHIBIT SHALE SWELLING

Potash is commonly known as potassium chloride (KCl) or Muriate of Potash.

CEMENTING

When salt is blended into cement it is referred to as "salt cement". Although sodium chloride is the more common salt, potassium chloride can be used to protect a particular sensitive clay sensitive formation. The effects of KCl and NaCl upon cement slurries' performance are essentially the same; however, KCl may impart slightly higher slurry viscosity at higher concentrations.

Some of the other effects include: reduced thickening time, higher fluid loss rate, higher early compressive strength at low temperatures, slight dispersing effect and an increased tendency for slurry foaming. Salt cements can be used to modify the behavior of cement systems or applied when placing cement across massive salt formations or when cementing water-sensitive zones.

HYDRAULIC FRACTURING

Potash is a commonly used as an additive in aqueous based fracturing fluids. The use of KCl prevents the potential damage caused by the swelling or migrating of clay platelets within the formation matrix. Potash is normally applied between 10-30 kg/m^3 of water.

PARTICLE SIZE DISTRIBUTION

Mesh Size	#30	#40	#50	#70	#100	#150	Pan
Microns	600	425	300	212	150	106	↓100
% Retained	1	14	25	30	15	9	6

MIXING & HANDLING

Potash mixes readily with water and can be mixed directly into the water. The presence of salt depresses the ability of bentonite to extend a cement slurry. For this reason pre-hydration of the bentonite is necessary when combining salt in a bentonite/cement blend. Avoid breathing dust while mixing.

WHMIS: Not controlled
TDG: Not regulated
Packaging: 25kg bag

PHYSICAL PROPERTIES:

Appearance: White pellet
Bulk Density: 112 kg/m^3
Specific Gravity: 1.94 gm/cm^3

CHEMICAL PROPERTIES:

Potassium Chloride: 99.47%
Chloride: 47.58%
Sodium: 0.177%
Sodium Chloride: 0.45%
Moisture: 400 ppm
Water Insolubles: 50 ppm