Description

Sodium carboxymethyl cellulose, fluid loss reducing additive supplied in three grades: low viscosityhigh viscosity, and extra high viscosity. It can be used in freshwater and seawater mud systems.

Characteristic & Property

Physical Appearance	White to Off White Powder
Specific Gravity	1.59 (Density may vary based on grade and purity)
Solubility in Water	Soluble
pH	7 - 10
Temperature Stability	Stable to 250°F (120°C) in field use

Applications

Sodium carboxymethyl cellulose is used as a fluid loss reducing additive in freshwater and seawater muds. It is less effective in brines and saltwater and is not generally recommended to be used if the salinity exceeds 50,000 ppm. Sodium carboxymethyl cellulose is used in high viscosity, high solids or heavily weighted fluids and produces only slight increases in viscosity. Sodium carboxymethyl cellulose are used in low viscosity or low solids fluids and increase viscosity in addition to controlling fluid loss.

Recommended Treatments
1. In freshwater: 0.5 to 1.5 lb/bbl (1.4 to 4.3 kg/m3)
2. In seawater: 2.0 to 3.0 lb/bbl (5.7 to 8.6 kg/m3)
3. Add slowly through a mixing hopper at a rate of 10 to 20 min/sack

Advantages

Widely available and an economic source of polymer fluid loss control.
Concentrated chemical, very effective at small treatment levels.
Can be used in most water base drilling fluids.

Limitations

Subject to bacterial degradation, a biocide should be used to prevent fermentation.
Not utilized in high salinity fluids that exceed 50,000 ppm.
Not tolerant of high pH and high calcium ion conditions in combination.
Sodium carboxymethyl cellulose should be pretreated with either sodium bicarbonate or possibly citric acid prior to drilling cement.

Toxicity & Handling

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

Packing & Storage

Sodium carboxymethyl cellulose is packaged in 25 kg (55 lb), heavy duty, multi wall, waterproof sacks. Store in a dry location away from sources of heat or ignition, and minimize dust.