

CSM-38

CLAY CONTROL

Description

CSM-38 is an additive that provides long lasting protection against formation damage caused by clay swelling and migration. CSM-38 works by strongly attaching itself to the clay surface. This attachment protects the clay from contact with water, preventing swelling, migration and permeability damage. The low molecular weight of CSM-38 prevents plugging of tight formations by the clay stabilizer itself, which occurs with many competitive products.

Properties

Form: Liquid	Chemical Family: Polyquat. Amine
Color: Clear, colorless	Solubility: Water, brines, and acids
Odor: Ammonia	Wt. per Gal.: 8.60 lbs.
Charge: Cationic	Flash Point: None

Application

The amount of CSM-38 required for a given treatment is dependent on the percent clay present in the formation, formation porosity, and desired penetration from the well-bore. The following recommendations may serve as useful guidelines:

Any strength HCl or HCl/HF acid: 1-10 gal/Mgal

Fracturing Pre-pad: 5-15 gal/Mgal

Uncross-linked Frac Gel: 5-15 gal/Mgal

Cross-linked Frac Gel: 2-4 gal/Mgal

In fracturing treatments, best results are obtained when the CSM-38 is placed from the pre-pad fluid. When used in acid, CSM-38 should be added to the acid after the inhibitor has been thoroughly mixed, or meter continuously on the fly.

Compatibility

CSM-38 is strongly cationic. It is compatible with other cationic and nonionic additives. It is not compatible with anionic materials. If it is necessary to use with an anionic additive a good mutual solvent can be used to provide compatibility, however, testing is strongly recommended to confirm this strategy.

Handling/Storage

Keep drum tightly sealed to prevent evaporation and contamination. Use only with adequate ventilation. May cause eye, skin and respiratory tract irritation by contact. Do not breathe vapors, especially in a confined area. Recommend use of chemical splash goggles and rubber gloves during handling. Refer to the Material Safety Data Sheet (MSDS) for handling and hazard data.

Packaging

CSM-38 is available in 55 gal. poly drums, 360 gal. bulk tanks, or bulk transport loads.