



Certified to NSF/ANSI 60



# STAR-DRILL 2000

STAR-DRILL 2000 is a 50 % active synthetic polymer developed for use in freshwater and saltwater base drilling fluids.

STAR-DRILL 2000 is a unique dispersion grade liquid PHPA that resists freeze/thaw degradation and phase separation.

**APPLICATIONS** STAR-DRILL 2000 viscosifies rapidly and exhibits excellent hole-cleaning characteristics under low shear rates. It provides easy solids deposition in settling pits when used in core drilling.

STAR-DRILL 2000 used alone or with KCL or substitutes will stabilize active shales by encapsulating the drilled cuttings and inhibiting formation swelling.

STAR-DRILL 2000 creates thicker, stronger drill foams improving the cuttings-carrying capacity of the fluid and resisting water inflows.

- ADVANTAGES**
- Concentrated polymer content with longer shelf life than other liquid polymers
  - Stabilizes clay, shale and mudstone formations
  - Compatible with most drilling fluids additives
  - Excellent all-round lubricant
  - Can be used with foam to help stabilize loose formations and improve cuttings carrying
  - Can act as a flocculant

**TYPICAL USE**

Typical Amounts of STAR-DRILL 2000 Added to fluid system			
Drilling Application/Desired Results	qt/100 gal	pint/bbl	L/m <sup>3</sup>
Freshwater / Stabilizing water sensitive formations	0.6	0.6	1.5
Reducing torque & pump pressure / Increasing hole stability	1.0	0.75	2.25
Low-Solids, Non-Dispersed (LSND)	0.3	0.3	0.75
3% KCl drilling system	1.2	1	3
Injection liquid in air/foam application	0.3 – 0.6	0.3 – 0.6	0.75 – 1.5
Flocculant	.01 – .05 ppb (.03 – 0.14 kg/m <sup>3</sup> )		

**TYPICAL PROPERTIES**

Physical appearance	White, liquid dispersion
Viscosity	200 – 500 cP
Specific gravity	1.06 – 1.08
pH (1% solution)	6.5 – 7.5
Flash point	248°F (120°C)

**PACKAGING** STAR-DRILL 2000 is packaged in 5 gallon (18.9L) buckets