

# SPX MUD MAGIC

## PREMIUM OIL-BASED DRILLING FLUID STOCK

SPX Mud Magic is an advanced and cost effective drilling fluid for enhanced performance and better protection of drilling components. SPX Mud Magic is an improved formula utilizing the benefits of lubricating base oils when compared to regular ultra-low sulfur diesel.

### Advantages

- Reduced chemical consumption, specifically emulsifiers due to inherently high electrical stability (ES), hence emulsion stability
- Improved lubricity thus reducing drag and torque
- Protection against wear
- High aniline point which can extend life of rubber/elastomer components

### Applications

- Economical replacement for diesel as oil based drilling fluid
- High temperature, high pressure (HTHP) well sites

## TYPICAL PROPERTIES

API 13B-2 Recommended Practice <sup>1</sup>	SPX Mud Magic	ULSD Reference
Density, lb/gal, ASTM D4502	7.05	6.95
Lubricity, $\mu\text{m}$ , ASTM D6079 HFRR Wear Scar	260	540
Aniline Point, $^{\circ}\text{F}$ , ASTM D611	162	129
Flash Point, $^{\circ}\text{F}$ , ASTM D93	140	140
Electrical Stability, volts @ 150 $^{\circ}\text{C}$	254	237
Plastic Viscosity, cP	18	12
Yield Point, lb/100ft <sup>2</sup> @ 150 $^{\circ}\text{C}$	11	6
HPHT Fluid Loss @ 250 $^{\circ}\text{C}$ , mL	2.00	2.00
<b>Drilling Fluid Composition</b>		
Organoclay, ppb	4	8
Wetting Agent, ppb	1	1
Lime, ppb	5	5
Emulsifier, ppb	8	8
Gilsonite, ppb	2	2
Brine (9.8ppg), vol%	30	30



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## ADDITIONAL COMPOSITION INFORMATION

	SPX Mud Magic	ULSD Reference
Total BTEX, %, GC/MS	0.32	0.87
Total Aromatics, %, GC/MS	0.9	1.88
Total Aliphatics, %, GC/MS	97.2	97.9
C15+, %, GC/MS	61	50

<sup>1</sup>All tests except for Density, Aniline Point, and Flash Point were performed according to API 13B-2 on a fully formulated fluid using SPX Mud Magic or ULSD as the base stock. This generic fluid formulation includes 30% CaCl<sub>2</sub> brine, industry standard organoclay, primary and secondary emulsifiers, lime, gilsonite, and barite. Density, Aniline Point, and Flash Point were performed on SPX Mud Magic before the addition of additives.

Minor variations in typical properties data are to be expected in normal manufacturing.

### Health & Safety Information

For recommendations on safe handling and use of this product, please refer to the Safety Data Sheet (SDS).



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