

# DirectDrill™ Lubricant



DirectDrill™ Lubricant is designed to impart extended lubricity for the demanding environment faced in vertical and horizontal wellbores. This unique lubricant utilizes a fully synthetic base oil coupled with a proprietary surfactant technology that has been engineered specifically for the DirectDrill™ drilling fluids system.

## Advantages

- Imparts improved lubricity to the fluid (COF)
- Compatible with direct emulsion fluids utilizing field brine
- Tolerant of high calcium drilling environments
- Monovalent and divalent salt compatibility
- Conventional treatments typically only require one to four percent of this liquid product
- Can be applied in sweeps
- Minimal impact to fluid rheology
- High affinity for metal and wellbore surfaces

### Mud Types

DirectDrill™ Direct Emulsion Fluids System

### Mixing Requirements

DirectDrill Lubricant can be mixed through a mud hopper or may be added directly into a well agitated circulating system after emulsion has been formed

### Handling

For specific instruction on handling, refer to the SDS

### Packaging

DirectDrill™ Lubricant is packaged in 275 gallon non-returnable totes and 55 gallon drums.

**DirectDrill™ - Fluid Torque measurements with EP Lube Meter**

Applied Force lb/in2	150 lb/in <sup>2</sup>	200 lb/in <sup>2</sup>	250 lb/in <sup>2</sup>	300 lb/in <sup>2</sup>	350 lb/in <sup>2</sup>	400 lb/in <sup>2</sup>	450 lb/in <sup>2</sup>	500 lb/in <sup>2</sup>	550 lb/in <sup>2</sup>
DirectDrill™ Base Fluid	21.3	28.4	35.9	42.4	51.6	61.3	74.7	Overload	
Base Fluid + 3% DirectDrill™ Lubricant	17.3	20.3	23.6	30	34.6	44	51.6	58.6	63.1

Before using this product, the user is advised and cautioned to make its own determination and assessment of the safety and suitability of the product for the specific use in question and is further advised against relying on the information contained herein as it may relate to any specific use or application. It is the ultimate responsibility of the user to ensure that the product is suited and the information is applicable to the user's specific application. Drilling Specialties Company does not make, and expressly disclaims, all warranties, including warranties of merchantability or fitness for a particular purpose, regardless of whether oral or written, express or implied, or allegedly arising from any usage of any trade or from any course of dealing in connection with the use of the information contained herein or the product itself. The user expressly assumes all risk and liability, whether based in contract, tort or otherwise, in connection with the use of the information contained herein or the product itself. Further, information contained herein is given without reference to any intellectual property issues, as well as federal, state or local laws which may be encountered in the use thereof. Such questions should be investigated by the user.