



## MG3DF™

### High Efficiency Base Fluid

MG3DF™ is a synthetic drilling base fluid derived from Low Sulphur Waxy Residue (LSWR) feedstock. It delivers competitive advantage in the ever-challenging drilling environment and is safe to be used, with minimal impact on health, safety and environment.

#### Applications

MG3DF™ combines low aromaticity with a narrow boiling range as well as exceptional thermal stability and a low pour point, making it versatile for conventional, high-pressure, high-temperature (HPHT) and deep-water application.

#### Features and Benefits

- Colorless, highly paraffinic hydrocarbon mixture
- Narrow boiling range
- High flash point
- Superior low-temperature fluidity
- Optimum viscometrics for better ECD control, faster ROP and lower risk of circulation events

#### Properties

| Properties                  | Test Methods              | Units                  | Specification Value | Typical Value  |
|-----------------------------|---------------------------|------------------------|---------------------|----------------|
| Appearance                  | Visual                    | -                      | Bright & Clear      | Bright & Clear |
| Density @ 15°C              | ASTM D1298 / D4052        | kg/L                   | ≥ 0.805             | 0.82           |
| Kinematic Viscosity @ 40 °C | ASTM D445                 | mm <sup>2</sup> /s cSt | ≤ 2.4               | 2.3            |
| Distillation:<br>IBP<br>FBP | ASTM D86                  | °C<br>°C               | ≥ 200<br>≤ 320      | 210<br>305     |
| Pour Point                  | ASTM D97 / D5950          | °C                     | ≤ -30               | < -42          |
| Flash Point                 | ASTM D93                  | °C                     | ≥ 90                | 92             |
| Aniline Point               | ASTM D611                 | °C                     | ≥ 76                | 80             |
| Aromatics Content           | PETRONAS Inhouse / IP 391 | mass %                 | ≤ 0.5               | < 0.04         |
|                             | US EPA 1654A              | mg/kg                  | -                   | < 1            |
|                             | Grimmer PAH-0397          | mg/kg                  | -                   | < 0.01         |