FUNCTIONAL PRODUCTS INC.

Innovative Chemistry for Lubricants

Technical Data Sheet

FUNCTIONAL MD-9000

Dispersant Methacrylate-based Viscosity Index Improver for ATF and Hydraulic Fluids

APPLICATION:

FUNCTIONAL MD-9000 is a liquid-form dispersant polyalkylmethacrylate viscosity modifier that offers high thickening efficiency and dispersancy for ATF formulations. **FUNCTIONAL MD-9000** has been specifically formulated to provide additional VI improvement, demulsibility, and dispersancy. It is best suited for use in track hydraulic fluid applications.

FUNCTIONAL MD-9000 is recommended as a dispersant polymethacrylate for automatic transmission fluid (ATF) formulation.

COMPOSITION:

FUNCTIONAL MD-9000 is a functionalized polyalkylmethacrylate blend in highly refined mineral oil.

Typical Properties	
Lbs per Gallon (ASTM D1475)	7.6
Specific Gravity	0.91
Typical Viscosity (ASTM D445)	2150 cSt at 100˚C
Thickening Efficiency (10% in ISO 32)	20.0 cSt at 100 ˚C
PSSI (5% in 150N, ASTM D6278)	52%
Sonic Shear (ASTM D5621, 3.0% in 150N)	81%
Flash Point (ASTM D92)	150˚C
Color (ASTM D1500)	≤ 3.0

TREATMENT LEVEL:

Typical treatment level for methacrylate-based viscosity modifiers ranges from 5 to 10% for hydraulic fluids.

3.0wt% **FUNCTIONAL MD-9000** will increase an ISO 32 oil to ISO 46.

HANDLING:

FUNCTIONAL MD-9000 should be warmed to about 50°C (120°F) to facilitate pumping and handling. The base oil should be heated to 60-80˚C (140-180˚F) during blending to allow for good mixing. Mixing time will vary with equipment but is typically at least one hour. Safe handling precautions are the same as those to be taken with base oil; see the current Safety Data Sheet.

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