

### FUNCTIONAL MD-8004

#### Dispersant Methacrylate-based Viscosity Index Improver

##### APPLICATION:

**FUNCTIONAL MD-8004** is a liquid-form dispersant polyalkylmethacrylate viscosity modifier that offers high thickening efficiency and dispersancy for heavy duty formulations. **FUNCTIONAL MD-8004** has been specifically formulated to provide additional VI improvement, demulsibility, and dispersancy. It is best suited for use in tractor hydraulic fluid applications.

**FUNCTIONAL MD-8004** has the same high thickening efficiency and dispersancy as **FUNCTIONAL MD-8000** but has handling viscosity and low temperature fluidity.

##### COMPOSITION:

**FUNCTIONAL MD-8004** is a functionalized polyalkylmethacrylate blend in highly refined mineral oil.

Typical Properties	
Lbs per Gallon (ASTM D1475)	7.7
Specific Gravity	0.92
Typical Viscosity (ASTM D445)	1000 cSt at 100°C
Thickening Efficiency (10% in ISO 32)	16.9 cSt at 100 °C
PSSI (5% in 150N, ASTM D6278)	40%
Flash Point (ASTM D92)	150°C
Color (ASTM D1500)	≤ 3.0

##### TREATMENT LEVEL:

Typical treatment level for methacrylate-based viscosity modifiers ranges from 5-10% for hydraulic fluids and 5-20% for gear oils.

##### FUNCTIONAL MD-8004 Treat Rates in 6 cSt Group II

	3.0 wt%	5.0 wt%	10.0 wt%
<b>KV40, cSt</b>	57.2	69.8	106.5
<b>KV100, cSt</b>	9.65	12.0	19.0
<b>Viscosity Index</b>	153	170	200

##### HANDLING:

**FUNCTIONAL MD-8004** 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.