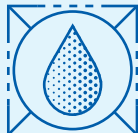




CITGO® Sentry® Oils

OVERVIEW



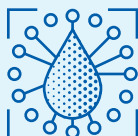
- A complete line of highly refined, non-additive mineral oils for bearings and other general purpose lubrication.

FEATURES & BENEFITS



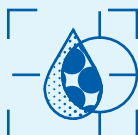
- Made with high viscosity index base stocks that have high thermal stability.
- Have the necessary characteristics to permit their use in many applications.
- Provide good lubrication with low maintenance costs.

APPLICATIONS



- Recommended for general lubrication of industrial machinery, machine tools, engine bearings, and other plant equipment where a non-additive mineral oil is desired.
- Grades 19 through 68 are recommended for heat transfer applications and in hydraulic systems where pressures or temperatures are moderate. Can be used in many applications where high oil loss makes the use of a lower-cost product desirable.
- Can be used as diluents for cutting oil bases, flushing oils, form oils for brick presses and steel concrete forms, lubricants for small electric motors, and other applications where a non-additive mineral oil is desired.

PROPERTIES



Typical Properties for CITGO Sentry Oils:

| Grade | 15 | 19 | 32 | 68 | 129 | 460 |
|-------------------------------------|-----------|-----------|-----------|-----------|-----------|-----------|
| Material Code | 637001001 | 637019001 | 637004001 | 637006001 | 637099001 | 637015001 |
| Gravity, ASTM D4052, °API | 33.1 | 32.9 | 31.0 | 29.9 | 30.5 | 26.5 |
| Density, lb/gal at 60°F | 7.16 | 7.17 | 7.25 | 7.30 | 7.28 | 7.46 |
| Flash Point, COC, ASTM D92, °F (°C) | 380 (193) | 388 (198) | 424 (218) | 465 (241) | 516 (269) | 581 (305) |
| Viscosity | | | | | | |
| ASTM D445, cSt at 40°C | 14.5 | 22.5 | 31.1 | 65.3 | 108 | 448 |
| ASTM D2161, SUS at 100°F | 77 | 110 | 145 | 310 | 500 | 2100 |
| Viscosity Index, ASTM D2270 | 92 | 103 | 115 | 103 | 103 | 95 |
| Pour Point, ASTM D97, °F (°C) | -6 (-21) | 5 (-15) | 5 (-15) | 10 (-12) | 10 (-12) | 16 (-9) |
| Color, ASTM D1500 | L0.5 | L0.5 | L1.0 | L1.0 | L1.0 | L5.0 |
| ISO VG No. | 15 | 22 | 32 | 68 | — | 460 |

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