

Castrol Brayco Micronic 814

Perfluorinated Polyether Lubricating Oil

Description

Castrol Brayco™ Micronic 814 is a clear white perfluoroether fluid. It is essentially chemically inert, nonflammable, compatible with most commonly used oxidizers and is virtually unaffected by gamma radiation doses. It has an exceptionally high viscosity index, relatively low volatility and little tendency to form deposits. It exhibits excellent lubrication properties, good dielectric properties, excellent shear stability and low toxicity. Castrol Fluoroclean™ X100 or Castrol Fluoroclean™ HE can be used to remove this lubricant. Refer to the data sheets for information regarding these products.

Application

Brayco Micronic 814 is practically insoluble in current fuels and oxidizers, as well as in most organic solvents. It is particularly suited for applications where wide temperature variations are routine. Perfluorinated fluids, in general, exhibit excellent shelf lives due to their intrinsic inertness.

Typical Characteristics

| TEST METHOD | DESCRIPTION | RESULT |
|-------------|--|--------------------|
| D 287 | Specific Gravity @ 16/16°C (60/60°F) | 1.8354 |
| | Pounds per Gallon @ 16°C (60°F) | 15.290 |
| D 445 | Kinematic Viscosity, cSt | |
| | @ 99°C (210°F) | 5.75 |
| | @ 38°C (100°F) | 18.5 |
| | @ -40°C (-104°F) | 595 |
| | @ -54°C (-65°F) | 2121 |
| D 2270 | Viscosity Index | 311 |
| D 97 | Pour Point, °C (°F) | <-70 (<-100) |
| D 972 | Evaporation Loss, % wt 22 hrs @ 149°C (300°F) | 6.0 |
| D 664 | Acid Number | 0.0 |
| D 1331 | Surface Tension, 20°C (68°F) dynes/cm | 19.5 |
| Knudsen | Vapor Pressure, torr | |
| | @ 20°C (68°F), cSt | 6×10^{-5} |
| | @ 100°C (212°F), cSt | 3×10^{-2} |

Additional Information

Temperature Range

-87°C to above 149°C (-125°F to above 300°F)

Limitations

Brayco Micronic 814 is compatible with all commonly utilized materials, plastics, and elastomers. It may be adversely affected by Lewis Acid Catalysts such as AlCl₃ at elevated temperatures. Newly exposed rubbing surfaces of aluminum, magnesium, or titanium may react with Brayco 814 under certain conditions. Such systems should be thoroughly evaluated. Surfaces must be well cleaned of organic rust inhibitors prior to oil application to insure proper lubrication.

Packaging

Brayco Micronic 814 is packaged in one pound containers.

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