Typical Characteristics

Refractive Index Liquid

<table>
<thead>
<tr>
<th>Series A</th>
<th>Refractive Index at 589.3 nm and 25 °C</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1.47000</td>
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</tbody>
</table>

Composition
Aliphatic / Alicyclic Hydrocarbons and Hydrogenated Terphenyl

Appearance
Colorless to light yellow liquid

Odor
Slight

Color Stability
In Direct Sun: may slightly darken after 1 day, more after 4 months, dark after 6 years

Index Change Rate by Evaporation
Low: -0.00002 to +0.00005

Expected after 32 days with exposed surface area to volume ratio of 0.2 cm²/cc @ 25 °C

Index at 20°C
1.47196

Pour Point
< -7 °C

Boiling Point
> 262 °C (760 mm Hg)

Flash Point
> 138 °C (COC)

Brix Value (Per ICUMSA)
72.6 at 20°C

Density
0.848 g/cc at 25 °C

Density Temp Coef
-0.0007 g/cc/°C

Coef of Thermal Expansion
0.0008 cc/cc/°C

Thermal Conductivity
n/a cal/sec/cm²/°C - 1 cm thickness

Viscosity
20 cSt at 25 °C

Surface Tension
29 dynes/cm at 25 °C

Soluble
Carbon Tetrachloride, Ethyl Ether, Heptane, Methylene Chloride, Naphtha, Toluene, Turpentine, Xylene

Partly Soluble
Acetone, Ethanol

Insoluble
Water

Compatible
10 Month Immersion at 25 °C: Acrylic, Cellulose Acetate, Epoxy, Mylar, Nylon, Polycarbonate, Polyester, Polyethylene, Polypropylene, Polyurethane, Polyvinyl Chloride, Phenolic, Teflon, Silicone (Sylgard 184) and Fluorosilicone (730 RTV) Rubbers, Tygon F-4040-A, Tygothane; Aluminum, Brass, Copper, Steel

Incompatible
Polystyrene, Latex, Neoprene, Silicone (3140 RTV) Rubber, Tygon S-50-HL, R-3603, B-44-3
Refractive Index Liquid

**Series A**

Refractive Index: **1.47000** at 589.3 nm and 25 °C

Cauchy Coefficients

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<th>B</th>
<th>C</th>
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<td>4.4023E+03</td>
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Cauchy Equation at 25°C

\[ A + \frac{B}{\lambda^2} + \frac{C}{\lambda^4} \]

(\( \lambda \) = Wavelength in nm)

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<th>Wavelength (nm)</th>
<th>Refractive Index</th>
<th>Transmittance (0.1 mm)</th>
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| (n_F - n_C) | 0.0092 |
| Temp. Coefficient | -0.000392 dn_d/dt | (15 - 35 °C) |

Abbe v_D: 50.9

Shelf Life:

5 Years from Date of Manufacture for Unopened Bottles, Half the Remaining Time after Opening

The above values are typical for this liquid and are calculated from values typical of its components