



Cargille Laboratories
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Catalog # 1812

Typical Characteristics

Refractive Index Liquid	Series B					
Refractive Index	1.64600	at	589.3 nm	and	25	° C

Composition	Hydrogenated Terphenyl and 1-Bromonaphthalene
Appearance	Light Yellow Liquid
Odor	Slight: unpleasant
Color Stability	In Direct Sun: may slightly darken after 1 day, very dark after 4 months, dark with precipitate after 6 yrs
Index Change Rate by Evaporation	Low : -0.00003 to +0.00003 expected after 32 days with exposed surface area to volume ratio of 0.2 cm ² /cc @ 25 °C

Index at 20°C	1.64832	
Pour Point	< 6 °C	
Boiling Point	> 279 °C (760 mm Hg)	
Flash Point	> 113 °C (COC)	
Brix Value (Per ICUMSA)	>100 at 20°C	
Density	1.429 g / cc at 25 °C	
Density Temp Coef	-0.0009 g / cc / °C	
Coef of Thermal Expansion	0.0006 cc / cc / °C	
Thermal Conductivity	n/a cal / sec / cm ² / °C - 1 cm thickness	
Viscosity	6 cSt at 25 °C	8 cP at 25 °C
Surface Tension	42 dynes/cm at 25 °C	

Soluble	Acetone, Carbon Tetrachloride, Ethyl Ether, Heptane, Methylene Chloride, Naphtha, Toluene, Turpentine, Xylene
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Partly Soluble	Ethanol
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Insoluble	Water
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Compatible	9 Month Immersion at 25 °C : Acrylic, Cellulose Acetate, Epoxy, Mylar, Nylon, Polyester, Polyethylene, Polypropylene, Polyurethane, Polyvinyl Chloride, Phenolic, Teflon, Silicone (Sylgard 184, 3140 RTV) and Fluorosilicone (Siliastic 730 RTV) Rubbers ; Tygothane, Aluminum, Steel
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Incompatible	Polycarbonate, Polystyrene, Latex, Neoprene, Tygon (all types except Tygothane), (Acrylic at 55 °C), may tarnish Brass and Copper.
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Refractive Index Liquid **Series B**
 Refractive Index **1.64600** at 589.3 nm and 25 ° C

Cauchy Coefficients A B C
 1.608739E+00 1.0476E+04 8.5553159E+08

Cauchy Equation at 25°C $A + B / \lambda^2 + C / \lambda^4$ (λ = Wavelength in nm)

Wavelength (nm)	Refractive Index	Transmittance			
		0.1 mm	1 mm	1 cm	10 cm
225.0	-	-	-	-	-
240.0	-	-	-	-	-
250.0	-	-	-	-	-
270.0	-	-	-	-	-
290.0	-	-	-	-	-
308.0	-	-	-	-	-
355.0	-	-	-	-	-
365.0	1.736	98	85	19	0
406.0	1.7038	99	94	55	0
473.0	1.6727	100	99	87	26
532.0	1.6564	100	100	97	73
589.3	1.6460	100	100	98	82
632.8	1.6402	100	100	98	83
656.3	1.6377	100	100	98	83
790.0	1.6277	100	100	98	83
828.0	1.6258	100	100	99	87
981.0	1.621	100	100	99	89
1310.0	1.615	100	99	94	57
1550.0	1.613	100	99	92	44
2500.0	-	-	-	-	-
3700.0	-	-	-	-	-

($n_F - n_C$) 0.0307

Abbe v_D 21.0

Temp. Coefficient -0.000464 dn_D/dt (15 - 35 °C)

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