



Cargille Laboratories
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Catalog # 1809

Typical Characteristics

Refractive Index Liquid	Series A					
Refractive Index	1.52600	at	589.3 nm	and	25	° C

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 cm ² /cc @ 25 °C

Index at 20°C	1.52804	
Pour Point	< -7 °C	
Boiling Point	> 262 °C (760 mm Hg)	
Flash Point	> 138 °C (COC)	
Brix Value (Per ICUMSA)	93.7 at 20°C	
Density	0.934 g / cc at 25 °C	
Density Temp Coef	-0.0007 g / cc / °C	
Coef of Thermal Expansion	0.0007 cc / cc / °C	
Thermal Conductivity	n/a cal / sec / cm ² / °C - 1 cm thickness	
Viscosity	44 cSt at 25 °C	41 cP at 25 °C
Surface Tension	32 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 **1.52600** at 589.3 nm and 25 ° C

Cauchy Coefficients A B C
 1.506372E+00 6.2443E+03 1.9865355E+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	1.568	82	15	0	0
365.0	1.564	97	77	7	0
406.0	1.5516	99	94	55	0
473.0	1.5383	100	99	93	48
532.0	1.5309	100	100	97	77
589.3	1.5260	100	100	99	87
632.8	1.5232	100	100	99	92
656.3	1.5219	100	100	100	95
790.0	1.5169	100	100	100	98
828.0	1.5159	100	100	100	98
981.0	1.513	100	100	96	68
1310.0	1.510	100	99	89	33
1550.0	1.509	100	98	83	16
2500.0	-	-	-	-	-
3700.0	-	-	-	-	-

($n_F - n_C$) 0.0144

Abbe v_D 36.5

Temp. Coefficient -0.000408 dn_D/dt (15 - 35 °C)

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