



Cargille Laboratories
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Catalog # 1809

Typical Characteristics

Refractive Index Liquid	Series A					
Refractive Index	1.54600	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	1.54807	
Pour Point	< -7 °C	
Boiling Point	> 262 °C (760 mm Hg)	
Flash Point	> 138 °C (COC)	
Brix Value (Per ICUMSA)	>100 at 20°C	
Density	0.965 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	59 cSt at 25 °C	57 cP at 25 °C
Surface Tension	34 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 **1.54600** at 589.3 nm and 25 ° C

Cauchy Coefficients A B C
 1.524083E+00 6.9022E+03 2.4623434E+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	1.594	78	8	0	0
365.0	1.590	97	72	3	0
406.0	1.5750	99	93	46	0
473.0	1.5599	100	99	91	40
532.0	1.5515	100	100	97	72
589.3	1.5460	100	100	98	85
632.8	1.5429	100	100	99	91
656.3	1.5414	100	100	100	95
790.0	1.5358	100	100	100	98
828.0	1.5347	100	100	100	98
981.0	1.532	100	100	97	72
1310.0	1.528	100	99	90	35
1550.0	1.527	100	98	84	18
2500.0	-	-	-	-	-
3700.0	-	-	-	-	-

($n_F - n_C$) 0.0163

Abbe v_D 33.6

Temp. Coefficient -0.000414 dn_D/dt (15 - 35 °C)

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