



Cargille Laboratories
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Catalog # 1815

Typical Characteristics

Refractive Index Liquid **Series M**
Refractive Index **1.72000** at 589.3 nm and 25 ° C

Composition	Hydrogenated Terphenyl and Diiodomethane
Appearance	Light Yellow Liquid
Odor	Slight: unpleasant
Color Stability	In Direct Sun: may slightly darken after 1 day, quite dark after 1 month
Index Change Rate by Evaporation	High : -0.00028 to -0.00043 expected after 32 days with exposed surface area to volume ratio of 0.2 cm ² /cc @ 25 °C

Index at 20°C	1.72347	
Pour Point	< 6 °C	
Boiling Point	> 180 °C (760 mm Hg)	
Flash Point	> 110 °C (COC)	
Brix Value (Per ICUMSA)	>100 at 20°C	
Density	3.060 g / cc at 25 °C	
Density Temp Coef	-0.0025 g / cc / °C	
Coef of Thermal Expansion	0.0008 cc / cc / °C	
Thermal Conductivity	n/a cal / sec / cm ² / °C - 1 cm thickness	
Viscosity	4 cSt at 25 °C	11 cP at 25 °C
Surface Tension	37 dynes/cm at 25 °C	

Soluble Acetone, Carbon Tetrachloride, Ethyl Ether, Methylene Chloride, Toluene, Xylene

Partly Soluble Ethanol, Heptane, Naphtha, Turpentine

Insoluble Water

Compatible 9 Month Immersion at 25 °C : Mylar, Nylon, Polyester, Polyethylene, Polypropylene, Phenolic, Teflon, Neoprene, Silicone and Fluorosilicone Rubbers, Tygon F-4040-A

Incompatible Acrylic, Cellulose Acetate, Epoxy, Polycarbonate, Polystyrene, Polyurethane, Polyvinyl Chloride, Latex; Tygon except F-4040-A; Aluminum (scratched in liquid), Steel, Copper and Brass



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Cauchy Coefficients
 A 1.679152E+00 B 1.0970E+04 C 1.1164905E+09

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	-	-	-	-	-
406.0	1.7868	78	8	0	0
473.0	1.7505	100	100	96	65
532.0	1.7319	100	100	98	80
589.3	1.7200	100	100	98	84
632.8	1.7135	100	100	99	90
656.3	1.7106	100	100	99	91
790.0	1.6996	100	100	99	93
828.0	1.6975	100	100	99	93
981.0	1.692	100	100	96	68
1310.0	1.686	100	100	98	84
1550.0	1.684	100	99	93	51
2500.0	-	-	-	-	-
3700.0	-	-	-	-	-

($n_F - n_C$) 0.0349

Abbe v_D 20.6

Temp. Coefficient -0.000695 dn_D/dt (15 - 35 °C)

Shelf Life: 18 Months from Date of Manufacture for Unopened Bottles; Half the Remaining Time after Opening