



Cargille Laboratories
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Catalog # 1812

Typical Characteristics

Refractive Index Liquid **Series B**
 Refractive Index **1.69400** at 589.3 nm and 25 ° C

Composition 1-Bromonaphthalene and 1-Iodonaphthalene
 Appearance Light yellow brown liquid
 Odor Slight: unpleasant
 Color Stability In Direct Sun: may become very dark after 1 day
 Index Change Rate Low : +0.00001 to +0.00005
 by Evaporation expected after 32 days with exposed surface area to volume ratio of 0.2 cm²/cc @ 25 °C

Index at 20°C 1.69639
 Pour Point < 6 °C
 Boiling Point > 279 °C (760 mm Hg)
 Flash Point > 93 °C (COC)
 Brix Value (Per ICUMSA) >100 at 20°C
 Density 1.696 g / cc at 25 °C
 Density Temp Coef -0.0010 g / cc / °C
 Coef of Thermal Expansion 0.0006 cc / cc / °C
 Thermal Conductivity n/a cal / sec / cm² / °C - 1 cm thickness
 Viscosity 4 cSt at 25 °C 7 cP at 25 °C
 Surface Tension 41 dynes/cm at 25 °C

Soluble Acetone, Carbon Tetrachloride, Ethyl Ether, Heptane, Methylene Chloride, Naphtha, Toluene, Turpentine, Xylene
 Partly Soluble Ethanol
 Insoluble Water

Compatible 1 Month Immersion at 25 °C : Acrylic, Mylar, Nylon, Polyester, Polyethylene, Polypropylene, Polyurethane, Phenolic, Teflon, Silicone (Sylgard 184, 3140 RTV) and Fluorosilicone (730 RTV) Rubbers, Aluminum
 Incompatible Cellulose Acetate, Epoxy, Polycarbonate, Polystyrene, Polyvinyl Chloride, Latex, Neoprene, Tygon (all types), may corrode Brass and Steel, may tarnish Copper.



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Cauchy Coefficients
 A 1.650473E+00 B 1.1994E+04 C 1.0841796E+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	1.802	95	57	0	0
406.0	1.7631	96	67	2	0
473.0	1.7257	99	90	36	0
532.0	1.7064	100	99	92	45
589.3	1.6940	100	99	95	57
632.8	1.6872	100	100	96	68
656.3	1.6842	100	100	97	75
790.0	1.6725	100	100	98	85
828.0	1.6703	100	100	99	90
981.0	1.664	100	100	99	90
1310.0	1.658	100	100	98	78
1550.0	1.656	100	99	93	51
2500.0	-	-	-	-	-
3700.0	-	-	-	-	-

($n_F - n_C$) 0.0365

Abbe v_D 19.0

Temp. Coefficient -0.000478 dn_D/dt (15 - 35 °C)

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