



Cargille Laboratories
55 Commerce Rd - Cedar Grove, NJ 07009-1289
Phone : 973-239-6633 - Fax : 973-239-6096 - Web : www.cargille.com

Catalog # 1812

Typical Characteristics

Refractive Index Liquid **Series B**
Refractive Index **1.68400** 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 1.68638
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 1.641 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 42 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 1.641686E+00 B 1.1691E+04 C 1.0432562E+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	1.788	96	64	1	0
406.0	1.7510	97	73	4	0
473.0	1.7148	99	92	45	0
532.0	1.6960	100	99	93	51
589.3	1.6840	100	100	95	63
632.8	1.6774	100	100	97	72
656.3	1.6745	100	100	97	77
790.0	1.6631	100	100	98	84
828.0	1.6610	100	100	99	89
981.0	1.655	100	100	99	90
1310.0	1.649	100	100	97	73
1550.0	1.647	100	99	93	50
2500.0	-	-	-	-	-
3700.0	-	-	-	-	-

($n_F - n_C$) 0.0354

Abbe v_D 19.3

Temp. Coefficient -0.000476 dn_D/dt (15 - 35 °C)

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