



Cargille Laboratories
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Catalog # 1812

Typical Characteristics

Refractive Index Liquid **Series B**
Refractive Index **1.65800** 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 1.66035
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 1.498 g / cc at 25 °C
Density Temp Coef -0.0009 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 6 cP at 25 °C
Surface Tension 43 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 1.618837E+00 B 1.0903E+04 C 9.3685529E+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	-	-	-	-	-
365.0	1.753	98	86	21	0
406.0	1.7195	99	93	47	0
473.0	1.6863	100	98	82	15
532.0	1.6691	100	100	97	72
589.3	1.6580	100	100	98	80
632.8	1.6519	100	100	98	81
656.3	1.6492	100	100	98	81
790.0	1.6387	100	100	98	82
828.0	1.6367	100	100	99	86
981.0	1.631	100	100	99	90
1310.0	1.626	100	100	95	61
1550.0	1.624	100	99	93	49
2500.0	-	-	-	-	-
3700.0	-	-	-	-	-

($n_F - n_C$) 0.0326

Abbe v_D 20.2

Temp. Coefficient -0.000470 dn_D/dt (15 - 35 °C)

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