



Cargille Laboratories
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Catalog # 1812

Typical Characteristics

Refractive Index Liquid **Series B**
Refractive Index **1.69200** 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 1.69439
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 1.685 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 1.648716E+00 B 1.1933E+04 C 1.0759949E+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	1.799	95	59	0	0
406.0	1.7607	96	68	2	0
473.0	1.7235	99	91	37	0
532.0	1.7043	100	99	92	46
589.3	1.6920	100	99	95	58
632.8	1.6852	100	100	96	69
656.3	1.6822	100	100	97	75
790.0	1.6706	100	100	98	85
828.0	1.6684	100	100	99	90
981.0	1.662	100	100	99	90
1310.0	1.656	100	100	97	77
1550.0	1.654	100	99	93	51
2500.0	-	-	-	-	-
3700.0	-	-	-	-	-

($n_F - n_C$) 0.0363

Abbe v_D 19.1

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