



Cargille Laboratories
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Catalog # 1812

Typical Characteristics

Refractive Index Liquid **Series B**
Refractive Index **1.66400** 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 1.66636
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 1.531 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 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 1.624110E+00 B 1.1084E+04 C 9.6140934E+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	1.761	98	80	11	0
406.0	1.7267	99	88	27	0
473.0	1.6929	100	97	72	4
532.0	1.6753	100	100	96	66
589.3	1.6640	100	100	97	76
632.8	1.6578	100	100	98	79
656.3	1.6550	100	100	98	80
790.0	1.6443	100	100	98	82
828.0	1.6423	100	100	99	87
981.0	1.637	100	100	99	90
1310.0	1.631	100	100	96	63
1550.0	1.629	100	99	93	49
2500.0	-	-	-	-	-
3700.0	-	-	-	-	-

($n_F - n_C$) 0.0332

Abbe v_D 20.0

Temp. Coefficient -0.000471 dn_D/dt (15 - 35 °C)

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