



Cargille Laboratories
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Catalog # 1812

Typical Characteristics

Refractive Index Liquid

Series B

Refractive Index

1.69800

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

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

1.718 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.



Refractive Index Liquid **Series B**
 Refractive Index **1.69800** at 589.3 nm and 25 ° C

Cauchy Coefficients A B C
 1.6539886 12114.9 1.100549E+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	-	-	-	-	-
248.0	-	-	-	-	-
270.0	-	-	-	-	-
290.0	-	-	-	-	-
308.0	-	-	-	-	-
337.0	-	-	-	-	-
365.0	1.807	94	55	0	0
480.0	1.72731	96	64	1	0
486.1	1.72497	99	89	33	0
546.1	1.70699	100	99	92	42
589.3	1.69800	100	99	94	55
643.8	1.68962	100	100	96	67
656.3	1.68805	100	100	97	74
700.0	1.68330	100	100	98	86
800.0	1.676	100	100	99	90
1300.0	1.662	100	100	99	90
1550.0	1.659	100	100	98	80
1750.0	1.658	100	99	93	51
2000.0	-	-	-	-	-
3700.0	-	-	-	-	-

($n_F - n_C$) 0.0369

Abbe v_D 18.9

Temp. Coefficient -0.000479 dn_D/dt (15 - 35 ° C)

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