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

Catalog # 1809

Typical Characteristics						
Refractive Index Liquid	**Series A**					
Refractive Index	**1.62200**	at	589.3 nm	and	25	° C

Compostition	Hydrogenated Terphenyl and 1-Bromonaphthalene
Appearance	Light Yellow Liquid
Odor	Slight: unpleasant
Color Stability	In Direct Sun: may slightly darken after 1 day, very dark after 4 months, dark with precipitate after 6 yrs
Index Change Rate by Evaporation	Low : -0.00003 to +0.00003 expected after 32 days with exposed surface area to volume ratio of 0.2 cm^2/cc @ 25 °C

Index at 20°C	1.62425			
Pour Point	< 6	°C		
Boiling Point	> 279	°C (760 mm Hg)		
Flash Point	> 113	°C (COC)		
Brix Value (Per ICUMSA)	>100	at 20°C		
Density	1.292	g / cc at 25 °C		
Density Temp Coef	-0.0008	g / cc / °C		
Coef of Thermal Expansion	0.0007	cc / cc / °C		
Thermal Conductivity	n/a	cal / sec / cm^2 / °C - 1 cm thickness		
Viscosity	14	cSt at 25 °C	18	cP at 25 °C
Surface Tension	39	dynes/cm at 25 °C		

Soluble	Acetone, Carbon Tetrachloride, Ethyl Ether, Heptane, Methylene Chloride, Naphtha, Toluene, Turpentine, Xylene
Partly Soluble	Ethanol
Insoluble	Water

Compatible	9 Month Immersion at 25 °C : Acrylic, Cellulose Acetate, Epoxy, Mylar, Nylon, Polyester, Polyethylene, Polypropylene, Polyurethane, Polyvinyl Chloride, Phenolic, Teflon, Silicone (Sylgard 184, 3140 RTV) and Fluorosilicone (Siliastic 730 RTV) Rubbers ; Tygothane, Aluminum, Steel
Incompatible	Polycarbonate, Polystyrene, Latex, Neoprene, Tygon (all types except Tygothane), (Acrylic at 55 °C), may tarnish Brass and Copper.

The above values are typical for this liquid and are calculated from values typical of its components

9/12/2018

Refractive Index Liquid **Series A**
Refractive Index **1.62200** at 589.3 nm and 25 ° C

Cauchy Coefficients	A	B	C
	1.588754E+00	9.5943E+03	6.7765900E+08

Cauchy Equation at 25°C $A + B / \lambda^2 + C / \lambda^4$ (λ = Wavelength in nm)

		Transmittance			
Wavelength (nm)	Refractive Index	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	1.699	97	78	8	0
406.0	1.6719	99	93	48	0
473.0	1.6452	100	99	88	27
532.0	1.6311	100	100	97	71
589.3	1.6220	100	100	98	82
632.8	1.6169	100	100	98	85
656.3	1.6147	100	100	99	87
790.0	1.6059	100	100	99	88
828.0	1.6042	100	100	99	91
981.0	1.599	100	100	98	85
1310.0	1.595	100	99	93	49
1550.0	1.593	100	99	90	34
2500.0	-	-	-	-	-
3700.0	-	-	-	-	-

$(n_F - n_C)$	0.0268	
Abbe v_D	23.2	
Temp. Coefficient	-0.000450	dn_D/dt (15 - 35 °C)

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

The above values are typical for this liquid and are calculated from values typical of its components