



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
Refractive Index

Series A

1.56000

at 589.3 nm and 25 ° C

Composition

Aliphatic / Alicyclic Hydrocarbons and Hydrogenated Terphenyl

Appearance

Colorless to light yellow liquid

Odor

Slight

Color Stability

In Direct Sun: may slightly darken after 1 day, more after 4 months, dark after 6 years

Index Change Rate

Low : -0.00002 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

< -7 ° C

Boiling Point

> 262 ° C (760 mm Hg)

Flash Point

> 138 ° C (COC)

Brix Value (Per ICUMSA)

>100 at 20°C

Density

0.987 g / cc at 25 ° C

Density Temp Coef

-0.0007 g / cc / ° C

Coef of Thermal Expansion

0.0007 cc / cc / ° C

Thermal Conductivity

n/a cal / sec / cm² / ° C - 1 cm thickness

Viscosity

71 cSt at 25 ° C

70 cP at 25 ° C

Surface Tension

35 dynes/cm at 25 ° C

Soluble

Carbon Tetrachloride, Ethyl Ether, Heptane, Methylene Chloride, Naphtha, Toluene, Turpentine, Xylene

Partly Soluble

Acetone, Ethanol

Insoluble

Water

Compatible

10 Month Immersion at 25 ° C : Acrylic, Cellulose Acetate, Epoxy, Mylar, Nylon, Polycarbonate, Polyester, Polyethylene, Polypropylene, Polyurethane, Polyvinyl Chloride, Phenolic, Teflon, Silicone (Sylgard 184) and Fluorosilicone (730 RTV) Rubbers, Tygon F-4040-A, Tygothane; Aluminum, Brass, Copper, Steel

Incompatible

Polystyrene, Latex, Neoprene, Silicone (3140 RTV) Rubber, Tygon S-50-HL, R-3603, B-44-3



Refractive Index Liquid **Series A**
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Cauchy Coefficients A B C
 1.5364807 7362.71 2.795409E+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	-	-	-	-	-
248.0	-	-	-	-	-
270.0	-	-	-	-	-
290.0	-	-	-	-	-
308.0	-	-	-	-	-
337.0	1.623	75	6	0	0
365.0	1.607	96	68	2	0
480.0	1.57370	99	91	41	0
486.1	1.57265	100	99	90	35
546.1	1.56431	100	100	96	69
589.3	1.56000	100	100	98	83
643.8	1.55587	100	100	99	91
656.3	1.55508	100	100	100	95
700.0	1.55267	100	100	100	98
800.0	1.549	100	100	100	99
1300.0	1.541	100	100	97	75
1550.0	1.540	100	99	90	36
1750.0	1.539	100	98	85	19
2000.0	-	-	-	-	-
3700.0	-	-	-	-	-

($n_F - n_C$) 0.0176

Abbe v_D 31.9

Temp. Coefficient -0.000418 dn_D/dt (15 - 35 ° C)

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